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**COMPUTER BASED MONITORING IN U.K. SERVICE
ORGANIZATIONS**
A comparative study

KIRSTIE SARAH BALL
Doctor of Philosophy

THE UNIVERSITY OF ASTON IN BIRMINGHAM
November 1996

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The University of Aston in Birmingham

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Thesis Summary

This thesis examines the phenomenon of computer based monitoring (CBM) in four UK service sector organizations. CBM can be defined as 'the on line real time monitoring of employees using information technology.' It is commonly found in the service sector and has become more prevalent of late with the rise of such products as telephone banking and direct insurance, resulting in the 'call centre', as well as in the more 'traditional' processing areas such as data input, cheque processing and so on.

The majority of the literature about CBM is American in origin, and (*inter alia*) notes that there were differing uses of similar technology, indicating that context has an important role to play in the use of CBM. The literature maps the psychological effects of CBM in considerable detail, but only two published studies examine the context of CBM. These grounded results provide scant support for any systematic, quantitative, large scale analysis of computer based monitoring in the UK context. This thesis thus aims to systematically examine the context of CBM using discourse analysis.

Forty four interviewees were theoretically sampled using a structured sample technique in four organizations. All were national or multinational enterprises. The interviews were semi structured in nature and divided into three sections. The first addressed the respondents' thoughts and perceptions about CBM, the second elicited talk about the departmental context (focusing the management - worker relationship), and the final section addressed the organizational context.

The cases demonstrated variation in the use of CBM, measured according to the criteria of Westin (1987, 1988) and according to the interpretive repertoires used by the respondents in each case. Seven analytical categories of talk emerged from the data: three at the organizational level and four at the departmental level of analysis. Discourse analysis revealed two discrete interpretive repertoires - the procedural and the substantive repertoires - in respondents' talk whose main variation occurred at the departmental level of analysis. Furthermore, patterns were found in the use of these repertoires within cases and between categories. Between the cases, variation in the use of the repertoires matched the between case variation according to the criteria of Westin. It would thus appear that the source of variation in the use of CBM lies in its context, more specifically in the relative emphasis of humanistic, interpersonal and idiosyncratic values within the management worker relationship.

This thesis also applies the concept of interpretive repertoires in organization studies, and goes some way to further this methodology. Conclusions are drawn which not only address the use of CBM, but also the nature and study of organization culture, critical methodology in organization studies and discourse analysis in general.

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Chapter One

Introduction

We're adult women. We're law abiding citizens.
This is America. We don't have to live like this
Electronically monitored airlines reservations clerk, Texas.

Nothing is new about monitoring and surveillance in the workplace. Employers have always watched over their employees, but computer based technology presents a whole new range of opportunities for data collection and opportunities for direct surveillance. Computer based monitoring has been seen by some as electronic spying: not only does it monitor work, it monitors the worker. It has been described as 'the technological whip of the electronic age' (Fodness and Kinsella, 1990). In America, Nine to Five, the National Association of Working Women opened the 'Computer Spying Hotline', a freephone number for workers to describe the monitoring regimes under which they worked, and to receive counselling, such was the perceived extent of the problem.

However, computer based monitoring is also a logical way of generating large scale performance information about remote terminals to ensure that work is being done. But what, amidst the endless seas of terminals and telephones are the immediate issues affecting those who are subject to this monitoring every day of their working lives?

America was the birthplace of concern for the stress and health effects of computer based monitoring. Interest began with the work of Westin, whose book 'Privacy and Freedom' (1967) addressed global issues concerning the rights of certain organizations to know about our personal lives. Even America's constitution contains caveats about such issues:

...The makers of our constitution undertook to secure conditions favourable to the pursuit of happiness...They sought to protect Americans in their beliefs, their thoughts, their emotions and their sensations. They conferred, as against the Government, the right to be let alone - the most comprehensive of rights and the most valued by civilised men. (Louis D. Brandeis 1928)

Interest in the USA was at its height in the mid eighties, but is currently enjoying something of a revival. This is due to a number of factors. First the National Association of Working Women (9 - 5) produced a book entitled 'Computer Monitoring and Other Dirty Tricks' which was based on a national survey in women's magazines, and thus had a high public profile. Second, at the time the Electronic Communications Privacy Act (1986), now the Privacy for Consumers and Workers Act (1993) was being debated in Congress. This act prohibits phone and data line taps except in respect of the aforementioned. The U.S. Congress Office of Technology Assessment report of 1987 'The Electronic Supervisor. New Technology: New Tensions' specifically considers the lack of legislation governing CBM at work, whilst at the same time demonstrating its potentially harmful effects on workers, increased stress and its physiological and psychological side effects being a prime example. Although the 1993 bill renewed interest in the debate, it is still being considered by congress. Cases about electronic privacy have been heard at state level, however (notably in California). The bill itself enquired as to the meaning of fair and appropriate monitoring and contains sections which require:

- Advance warning of workplace monitoring during recruitment.
- Advance warning of monitoring process during the working day.
- Prohibition of secret, periodic or random monitoring.

The extent of concern in America also reflects the extent of the use of computer based monitoring. In 1987, OTA estimated that 4 - 6 million office workers were being affected by CBM. Unsurprisingly, a number of other estimates have been made by various groups: 9-5 (1984) in the national survey on women and stress revealed that 20% of clerical staff, 15% of managers and professionals and 13% of technical workers questioned were subject to CBM. Some didn't even know they were being monitored. Furthermore, Nussbaum and duRivage (1985) in their anecdotal summary of the aforementioned estimated that by the 1990's 40 million people would be monitored at work. These writers are vociferously anti CBM, not only because of its stressful consequences but also because they claim to reveal that women and ethnic minorities were more likely to be monitored because of the jobs that they do.

NIOSH (National Institute of Occupational Safety and Health) estimated that two thirds of VDT (Visual Display Terminal) users were monitored: it will be demonstrated later that this is an easy accomplishment on LAN'd (Local Area Networked) machines. Westin (1986), upon the completion of a longitudinal study in the New York area, concluded that 25 - 30% were being monitored. A survey conducted by Piller (1993) for Macworld magazine refuted the ambitious claim of Nussbaum and duRivage (1985) by estimating that 20 million people were now affected by CBM.

Anecdotal reports of the harmful stress effects of which result from associated changes in work and task organization are also quite alarming. It should be acknowledged that these cases are probably the most severe reports of adverse reactions to CBM; however, considering the estimated number of people in the US who work with it everyday, concern should be expressed for the frequency of such reactions to these regimes.

Archer (1986) wrote in the World Press review of the Bell Canada's 'TOPS' (Traffic Operator Position System):

If an operator's TOPS statistics start to fluctuate, it is a signal to the supervisor - usually in the operator's phone manner. That is where monitoring calls...comes in handy. Bell defends such eavesdropping as a teaching tool, 'not a club'. With the touch of a key, Bell can examine seventy six measurements of an operator's performance (pp36 - 37).

This apparent neutrality of the technology is deeply embedded in managerial rhetoric. Another pertinent example of this practice is cited by Archer:

Reservations clerks in the Winnipeg office of Pacific Western Airlines Ltd (PWA) arrived at work one day to discover a poster that urged, ' Compare yourself to your friends. Compare yourself to ones who are not your friends...When the monthly statistics are published, ensure that you are not dragging down your team and your office (p37).

The more sinister end of this competitive approach to monitoring was reported by Nussbaum and duRivage(1985). They recount an incident from United Airlines and Equitable Life Assurance Society, where a time limit of twelve minutes a day was allowed for toilet breaks:

One worker spent thirteen minutes over her allotted time and was threatened with firing. 'She (the supervisor) told me that while I was in the bathroom my co-workers were taking extra calls to make up for my "abusive" work habits.' This worker subsequently suffered a nervous breakdown which she blames on 'bathroom break harassment.' But employers are quick to defend management by remote control. A manager at United argued that employers are 'not spying on workers but trying to enhance their competitive position (p19).

Managers are, however, all too quick to refer to the massive productivity gains from CBM. For example, Herschman and Rozen (1984) again refer to Equitable Life Assurance Society who managed to cut staff by 25 - 30% whilst increasing productivity by 20%. The problem of work intensification and its adverse effects upon people is more than implicit here. Herschmann and Rozen also cite monitoring as a source of error: the particular error they refer to may have had a devastating effect:

Nuclear plant operators, for instance, can be monitored to determine what valves they push and in what order they push them. But while the Nuclear Regulatory Commission requires nuclear plants to keep records of every operation in case of a shutdown, its expert witness at the Three Mile Island hearings testified against monitoring individual performance as likely to make operators even more nervous in an emergency (p38).

Until very recently in the U.K., use of CBM was confined to extraction industries and manufacturing, with a small emphasis on the service sector. Work at Bradford University concentrated on coal, clothing and mail order industries, and Cardiff University looked at JIT / TQM systems. However, with the rise of the 'call centre' in the wider service sector, such as direct banking and insurance, hotlines and so on, computer based monitoring is now seen as one of the few ways in which service and productivity can accurately be monitored with such large scale operations. Monitoring is as prevalent as the systems which allow it - the only way to effectively manage call centres is with an Automatic Call Distribution (ACD) system, productivity monitoring and listening in. So will they really be 'waiting' for your call? No. With the aid of this technology staffing levels are able to be 'optimised' according to call traffic. Anybody sitting at a terminal 'waiting' will automatically be questioned as to why.

So what of all this supposed 'omniscient' technology? Its surveillance aspect is not novel in itself, but what does it mean for the future of work? Lyon (1994) poses an

interesting question: What will happen when workers, with all their new responsibilities for quality, ask why management is needed at all? Holding on to the means of surveillance is the only remaining basis of power that management have over their workers

The converse of this is that computer based monitoring to office work, like zips to the jeans manufacturer and telephones to pony express, will merely become a latent and accepted aspect of work and principles of good 'people' management will still apply. It is precisely the latter issue which is of interest in this thesis.

A great deal of the published research on computer based monitoring avoids the management issues attached to computer based monitoring. Academics note that computer based monitoring has the potential for stress, dissatisfaction and other negative consequences on the operator and the supervisor but 'this depends on how the technology is used'. So, as Nine to Five suggests, is computer based monitoring inherently bad? It is the contention of this thesis that it is not, and thus the potential for stress could be determined not by the presence of the technology but by the context wherein it is applied. Lyon's question (1994), above, may well be too deterministic and unreflective of context. The main objective of this thesis is thus to identify differences in how the same technology is used in different organizations, and whether the variation in context can account for variations in the applied characteristics of the technology. The thesis, therefore, widens the analytical lens on CBM to include managers, the managed and the organization.

1.1 The study

The current work took place over a period of three years beginning in September 1993 at Bradford Management Centre and ending in September 1996 at Aston Business School. The move from Bradford to Aston occurred due to a change in personal circumstances. However, with the move came a change in academic tradition and philosophical perspective - from industrial relations to organization studies and from structuralist to post structuralist.

The location of the case studies also reflects the move. Data were gathered in four organizations, one in Lancashire, one in Yorkshire and two in Birmingham. Case one was a large building society's collections department, case two a tour operator's reservations department, case three a bank's data inputting areas and case four a credit card company's customer services department. The latter two cases were located in Birmingham.

Each case was operating with a team based departmental structure but the number, size and shape of the teams varied enormously. Accordingly within each case a structured sample of respondents was taken, the main requirement being that each respondent was working with computer based monitoring. The way in which the sample was structured ensured a representation of views: half of the teams were sampled from each organization, and people from each level of the team were interviewed.

The interview itself was semi structured to ensure that respondents could speak freely without the talk being too unfocused. Each interview lasted from forty five minutes to an hour with some vastly different views expressed between individuals and organizations. The analysis revealed that the departmental context of the monitoring as examined through the talk and interpretive repertoires of the respondents was a significant contributor to the way in which computer based monitoring technology was received by the work force.

The findings not only contribute to the growing body of knowledge about computer based monitoring, but also to the development of the 'interpretive repertoire' as an analytical tool, and to our understanding of organizational context and culture. Furthermore, the work highlights many areas for future research into the dynamics and effects of the monitoring process. As such, the structure of the thesis is as follows.

1.2 Thesis structure

The thesis begins addressing the issue of computer based monitoring in detail in chapter two, wherein the literature directly relating to monitoring in use is reviewed. The literature is mainly American and Canadian in origin, and is split up into a number of sections. The first section gives an overview, and then literature concerning systems

design, effects on the employee, effects on the supervisor and management issues are reviewed. Categories to guide the first stage of analysis are then drawn up, based on this research. There is also a section on the legal situation surrounding CBM, before the conclusions are drawn.

Chapter three examines the theoretical issues which (a) surround the topic of surveillance and (b) surround the study of surveillance in organizations. It also introduces the methodological basis of this work by highlighting the recent emergence of the interpretive process as a significant factor in other areas of business studies, and binds it all together with a critique of current models of CBM. A research question is also developed based on chapters two and three.

Chapter four contains the study's methodology, which is drawn from the Yin (1994) case study method. Details of case and sample selection are described. It also expands upon the work of Potter and Wetherell (1987) on interpretive repertoires in detail, and justifies their application to this work. The interview schedule is developed which concentrates on three levels of analysis derived from the research question: the task and technology; the department and the organization. The analytical framework is then completed with a three stage analysis which proceeds as follows. Stage one analyses the responses in terms of categories derived from previous research which were developed in chapter two which generally address the data collected about the task and technology. Stage two determines the frame of reference for the study by interpretive repertoire. This is done by analysing the responses about the organization, and shows that the departmental frame of reference contains the most contextual variation. Stage three applies interpretive repertoires to the departmental data and the majority of the contextual reading occurs in this section.

Chapter five then describes in detail stage one of the analysis. This analysis also formed the basis of the reports given to organizations who participated in the study. All of the research findings were validated, although the response frequency for the more appraisal based categories varied, and as such pointed to the management - worker relationship (the departmental frame of reference) as being the main source of variation between cases. It was also noted that whether the research findings were valid or not also

depended on a preliminary reading of the departmental context as to whether monitoring was accepted by the staff on the whole or not.

Chapter six is split into two sections. The first contains the second stage of analysis, and the second section the third stage of analysis. The analysis of data concerning the organizational frame of reference reveals that the main source of variation in talk between cases is indeed the management worker relationship. This is supported by three categories of data and two interpretive repertoires emerge: the procedural and substantive repertoires. The repertoires are used via three separate mechanisms which justify a focus on talk surrounding the management worker relationship. Furthermore, distinct patterns of responses in the categories form within the cases thereby validating the analysis. The second stage of analysis shows the same repertoires at work again, this time through different mechanisms as the respondents describe the nature of the management worker relationship. As with stage two of the analysis, the response categories in stage three also exhibit within case patterns, and highlight the between case variation.

Chapter seven begins by comparing the results of the discourse analysis with the results of the response categories in chapter five. Extremely clear patterns emerge. In the two cases where the management - worker relationship is more dysfunctionally identified in the talk of the respondents, monitoring is reported to be more Tayloristic. In the two cases where the management - worker relationship is described as good, monitoring is reported to be more fair. This is despite the basic nature of the technology being identical in each organization. The results are then discussed in detail in relation to previous work on monitoring, and points are also made in relation to work on organizational context. In each case the work is shown to go beyond the current state of knowledge in the field. Finally an agenda for future research is developed from the shortcomings of the current work.

Chapter Two

Computer Based Monitoring in Practice

2.1: Introduction

Few, if any, studies have been published in the U.K. which directly concern Computer Based Monitoring (CBM) and its various consequences which were examined briefly in chapter one. It was noted that in a number of sociological examinations of JIT / TQM systems (Sewell and Wilkinson 1992, Debridge et al 1990) the concept of 'visibility' produced psychological conditions akin to the American accounts of CBM in automated offices. Whilst these studies are UK based, they do not explicitly purport to (a) systematically investigate CBM as a phenomenon or (b) project the findings of their research into a generic model. Thus, despite being useful accounts of different forms of work organization they are of limited use in the exploration of CBM in this country, particularly in relation to published works from America.

The literature considered here is the result of a broader literature survey which took this piece of research to the University of Tampa library. This work, in the author's opinion, represents the current state of knowledge as to the effects and implications of CBM in the American workplace. The aim of this research, therefore, is not only to examine CBM as a new phenomenon in work organization, but also to identify any similarities or differences in relation to other work published to date.

Chapter one noted that studies appear to be clustered around certain dates. The literature examined can be summarised as depicted in Table 2.1. It is possible to divide the literature into three categories: laboratory or theoretical work; case studies and anecdotal accounts. Numerous anecdotal accounts follow large scale studies and publications and thus promote increased awareness of CBM in general. Although varying in their degree of research rigour, anecdotal accounts are a useful tool for identifying key issues and concerns.

	Laboratory	Case Study	Anecdotal
Supervisory Behaviour	Fenner, Lurch and Kulik(1990)	Irving, Higgins, Safayeni(1986) Eisenmann(1986) Wilk and Redmon(1990)	Herschman and Rozen (1984) Henriques (1986a &b)
Operator Behaviour	Smith and Amick (1989) Rudd and Geller(1989) Schliefer(1986) Pan(1991) Nebeker(1987)	Sewell & Wilkinson(1992) Debridge et al(1990) Chalykoff & Kochan(1989) Meizio, Smith & Carayon(1987) 9 - 5(1986) Chalykoff(1987, 1988)	Nussbaum & duRivage(1986) Herschman and Rozen (1984) Koepp(1986) Sheridan(1986)
Power		Howard(1985) Zuboff(1989)	Nussbaum & duRivage(1986) Herschman & Rozen(1984)
Software / systems		Higgins & Grant (1989) Piller (1993) Woolcot and Moeller (1994)	
Implementation		Higgins & Grant(1989)	
Context		Attewell(1987) Westin(1984) Deutsch(1986) Allbrecht(1986) Binns(1989) Lyon(1994)	
US Policy		OTA(1985,1986,1987) Westin(1984) Piller(1993) Marx & Sherizen(1986)	Archer(1986) Sheriden(1986)
International Policy		Westin & Pipe(1986)	

Table 2.1: Issues considered by the American CBM literature.

The laboratory or theoretical studies examined constitute behavioural psychology experiments in controlled environments, and can generally be used to supplement case study findings. Results from these studies also purport to contribute to the design of CBM systems. This thesis will, *inter alia* consider the question of system redesign.

Finally, case studies involve qualitative organization specific investigations from which it should be possible to make inferences as to the nature of CBM in general. It will be noted that the case study work argues that context of CBM is fundamental to its success, acceptance and general positivity, or vice versa. The case studies go some way to identifying the contextual factors which are significant in this respect. Therefore, this research adopts a case study approach as an integral part of its data collection methods.

2.2: Behavioural effects of CBM

McCosh et al (1981) noted that the primary concern of Operational Control Systems (OCS's) is economic efficiency. It was also noted at this early stage that a poorly designed system would have adverse effects on the motivation and satisfaction of employees. A further point made in this context is the fact that operational control will always be mechanistic, since predetermined rules and procedures are easily identifiable by the computer. The idea of predetermined rules for task execution is one of the fundamentals of Taylorism and Weberian bureaucratic organization.

It has been demonstrated since the 1920's that this Taylorian model is incomplete. Psychological factors are also related to productivity (as demonstrated in the Hawthorne studies), and Golembiewski (1962) highlights the inadequacy of Taylorism:

...in the Taylorian system, when reality did not fit the mechanisms of the stop watch, scale and tape, the attempt was made to change the reality rather than to accommodate the mechanisms into it (p165).

The control aspect of Taylorism is also highlighted by this quote. Similarly, it is also noted by McCosh et al (1981) that before an OCS is designed, work must be subdivided into its smallest units, and in most OCS's a mechanistic model of man is adopted, alongside the following theoretical assumptions:

- High productivity depends upon the existence of authority as a formal one way relation (i.e. worker anonymity).

- Authority can be most effectively exercised through close supervision (i.e. machine pacing).
- The facts that man is psychological (i.e. no need for skill) and physiological (i.e. experiences fatigue upon work intensification) are not considered.
- Specialisation and routinisation are the keys to increased efficiency (i.e. method and tools are predetermined).

It follows, therefore, that if the nature of OCS (and hence CBM) is Tayloristic, the work organization within which it is implemented must take adequate steps to combat its demonstrated adverse effects (which are described by Smith and Amick(1989) as the removal of cognitive complexity, thinking and decision making from the task, and replacing them with repetitive physical activity). McCosh et al suggest that job satisfaction can be increased if the system allows the operators to set their own goals (i.e. there is some degree of autonomy), and by giving them positive feedback based on information derived from the OCS. It is acknowledged that system designers face the social as well as the operational constraints when designing the OCS.

The concern surrounding the issues and questions raised by the application of computer based monitoring technology upon people in organizations is succinctly expressed by Smith and Amick (1989):

...The application of modern electronic technologies to monitor individual performance raises important issues about the accuracy of the surveillance system and how well it represents worker contributions to the employer's success, the invasion of worker privacy, worker versus technology control over job tasks, and the health and motivation implications of management styles that use monitored information to direct worker behaviour on the job (p275).

As such there are three discernable variables, the nature of which would affect the application of CBM technology in an organization: the organization (or management), the individual (or workforce) and the system (or technology). The argument is that the prevalent organizational context and hence the norms and values adopted by individuals therein will influence how the information is used. Moreover, the degree of trust between

labour and capital and the state of industrial relations in the workplace will have a large effect on this process.

A key factor which is omitted from this model is the role of the supervisor. More often than not, it is the supervisor who is in direct contact with both the system's output and the operators. It is for the supervisor to decide the part that CBM has to play in the overall evaluation of the employee. It thus follows that the supervisor is the mediating factor between labour and capital, and a key issue must therefore be the extent to which the supervisor's role has changed as a result of CBM. Since it has already been established that context is an important factor in the use of a CBM system, Leman's (1990) findings based upon the coal industry may have limited application here. Nevertheless, they established that British coal's Face Information Digested On-Line (FIDO) system had the effect of distancing supervisors from the operatives since they were no longer adopting a mediating role. The unequivocal machine generation of performance statistics bypassed the supervisor and went straight to the control room. Hence the supervisor was left to maintain physical control and adopt a surveillance role that was fundamentally contrary to the interests of the operatives, whereas prior to FIDO the supervisor had absolute control over which performance data were used to assess pay.

Changes in supervisory behaviour have been a theme in the US CBM literature, and drawing upon the work of Leman it may well be that the laboratory and case study work will reveal important changes in behaviour as a result of CBM. On a more general level, it must be emphasised that the feedback / appraisal process is invariably an interactive one. In terms of the behaviour of organizational actors, the nature of the feedback process will change according to the very nature of the supervisors, operatives and, as we shall see, the CBM system itself. Therefore the feedback / appraisal process is central to the current analysis, and is impinged upon by a number of factors.

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2.3: Feedback and appraisal

The rise of the appraisal and performance management was examined by Smith, Carayon and Meizio (1986). They state that the role of feedback has significant effects at both sensory and attitudinal levels, and that ‘...people want to know about their performance and in fact will endeavour to seek out such knowledge when it is absent’ (p 14). They also claim that if the feedback is more immediate, more control can be exerted by the employee over the skilled action being undertaken. Ashford and Cummings (1985) stated further that employees experiencing uncertainty in their environment will seek more feedback therefrom.

According to Smith, Carayon and Miezio (1986) there are three feedback levels: sensory, knowledge of results and job performance (or higher order feedback). The second and third levels are similar in that they both reinforce or change behaviours and result in an evaluation of the employee's performance against some external standard. The authors suggest seven tenets for applying knowledge of results drawn from the literature:

- The more specific the knowledge of results (KOR), the more rapid the improvement and the higher the level of performance.
- The longer the delay in giving the KOR the less effective it is in affecting performance.
- When KOR is decreased, performance will drop.
- KOR influences motivation, typically by increasing motivation to perform, but sometimes causing the opposite effect.
- For practical purposes, the employee always has some knowledge of their performance, and KOR either reinforces that belief or demonstrates where the belief is wrong.
- KOR provides cues for proper behaviour.
- Supervisory instructions can alter the employees response to the feedback received.

They then argue that there are further considerations when using higher order feedback due to the complex relationship between the feedback and worker reactions

thereto (such as stress, etc.). Ilgen et al (1979) elaborated upon this point. They maintain that 'the employee's perception of the source of feedback will influence the acceptance of the feedback, the behavioural and performance responses, and whether the feedback is stressful or not' (Smith et al 1986: 17). They further maintain that the accuracy and fairness of the feedback medium will also have an influence, as will employee predispositions such as 'job tenure, frame of mind, current mood and health status' (Smith et al 1986:17)

The role played by feedback as an organizational variable is described by Nadler (1977) as a source of information for decision support, a lever for change and so on. Therefore, feedback, alongside being a positive reinforcer of correct behaviours, may also be perceived as a source of stress if the error correction function of such systems is overemphasised. Laboratory studies address the timing and content of feedback in the CBM environment, and these are demonstrated to be important determinants of how people respond. In fact, for the best performance, the feedback should be 'frequent, positive and valued by the recipient' (Smith et al 1986: 21). The role of monitoring in the feedback process is also outlined thus:

Monitoring provides for structured, consistent feedback that is equivalent for all employees. Without monitoring ...only the most astute employees would be *able* (their emphasis) to estimate their own performance...But monitoring must be established within the framework of providing the most appropriate and effective feedback to the employee...Such feedback has to be given to the employee but not necessarily to supervision for good performance. In fact, to protect employees from supervisory intimidation and to ensure positive use of individual feedback, it may be appropriate to aggregate individual monitoring results together to be fed back to management (Smith et al (1986:21)).

It is then argued that KOR alone does not guarantee good performance: goal setting also has a role to play, as long as it is linked to performance feedback (Latham and Yukl, 1975). In this respect, monitoring has three uses. First, it provides the data upon which performance standards are based, second, it tells managers how successful the employees are in meeting the prescribed standards, and finally it sets the goals which motivate employees to perform.

Therefore, for the purpose of this research the feedback and appraisal process can be defined as the process by which employees are evaluated, both quantitatively and qualitatively: the process involves goal setting and feedback at various time intervals (depending on the context and what is being measured) and the dissemination of the data to various factions of the organization. It is proposed that CBM will change the fundamental nature of this process, due to the objectivity of the data and its power to control the employee in real time. It is thus possible that supervisors will change their evaluation strategies, employees will feel exposed and the data will be far reaching.

The components of the feedback / appraisal process have been previously defined as the operator, the supervisor, the computer system and the organization. It is pertinent, therefore, to examine each of these variables individually, and then assess their effects upon each other.

2.4: The computer system

The monitoring capability of the mass LAN's which are found in organizations today (particularly service organizations where the majority of the work is VDU based) was highlighted by Piller (1993). In a survey which examined twenty five widespread network management, integrated groupware and E - mail products, and their ability to duplicate or enter employees' personal or work related files, an ominous conclusion was drawn:

...If your office runs on a full featured network operating system...and is run by a technically astute manager, then your Macintosh and all data transferred from it is an open book...Working from an office across the room or across the country, a network manager...can eavesdrop on virtually every aspect of your networked computing environment with or without your approval or even your knowledge (p118).

Furthermore, Woellecot and Moeller (1994) examine the recent marketing of software packages which are specifically designed to access employees' systems without them knowing, thereby indicating (a) there is a market for such products and (b) there is no further need for a technically astute manager to accomplish such activities. They note,

however, that ‘...many vendors defend the sly nature of their product by saying they are designed for training purposes, the monitoring of resources, and, ultimately to aid employees’(p27). Examples of such systems include: *PC Sentry*, which works at desktop and LAN level. It logs all files opened, deleted, created and copied, together with all directories created and deleted, time changes and commands issued for the DOS prompt; *Microcom LANlord*, which is supposed to ‘proactively manage’ remote PC's and LAN's across multiple locations, when used in conjunction with a package called *Carbon Copy*, the employer can duplicate an employee's screen without them knowing and see exactly what the employee is working on in real time. A less than discrete marketing rhetoric is used to advertise the capabilities of a package entitled *Closeup*: ‘...hot key again and off you go on the rounds of the company. Viewing one screen after another...helping someone...watching others. All from the comfort of your own chair’ (Woolacot and Moeller (1994: 27).

It is apparent therefore that software innovations allow organizations to monitor not only the work of the employees, but also the employees themselves. Since such systems are ethically dubious, it is a matter of some debate whether they are likely to be used oppressively by managers. In some cases, as in the one examined by Attewell (1987) employers may see the detrimental effects of such monitoring and refrain from such practices. It has already been established that acceptability of feedback is essential for its motivating qualities to be released; but how can employers tell when a certain type of employee monitoring will be acceptable to employees or not? The answer to this question lies partly in the domain of context, culture and climate, and partly in the work of Grant and Higgins (1989). The latter successfully demonstrates the role played by the CBM system in the appraisal process, as well as the idea that system characteristics can indeed have an independent effect upon the evaluation process itself.

Their contribution to this debate (*inter alia*) comprises a model of ‘system pervasiveness’. They see the CBM technology as a neutral tool and describe its three main attributes thus:

- ‘...a monitor is nothing more or less than a set of computer programs and a sensor that detects the performance to be measured. It will handle activities according to its programs, regardless of the source or frequency of those activities’ (p103)
- ‘...[CBM systems] are capable of executing a variety of tasks. Some systems merely collect statistics about performance. Others evaluate those statistics, while still others actually direct work to the employees’ (p103)
- ‘...[CBM systems] address computer mediated activity. This is work done directly on a computer, or work that produces information that is then used by a computer’ (p103)

They maintain that published studies on the effect of CBM upon workers define CBM inadequately (i.e. monitored vs non monitored) and that dimensions of the system are all important in evaluating its effects. This may well be an explanation for contradictory findings in studies with such a design (eg Eisenmann (1986) vs Irving, Higgins and Safayeni (1986)). They propose that a system should be evaluated as to its ‘pervasiveness’ along four dimensions, which are shown in Table 2.2.

Grant and Higgins argue that technology is a neutral and independent force within an organization, and to ensure its optimal use they issue a number of implementation guidelines to managers. Their recommendations surround



Table 2.2: Higgins and Grant’s (1989) model of monitoring ‘pervasiveness’

the consideration of four questions: (1) how directly does the system measure individual performance? (2) how immediate and interactive is the data reporting? (3) how wide is the audience for monitor output? and (4) which tasks will be monitored? The validity of these four determinants of pervasiveness appear not to have been tested. Nevertheless a

number of interesting conclusions are drawn, and some insightful ideas about CBM are developed.

In relation to the first question, Grant and Higgins warn that CBM shifts the balance of power in favour of the supervisor, because ‘...they make the process of measuring performance less visible while making employees feel more visible. Workers can no longer look over and see if the supervisor is watching. Instead, there is a sense that the monitor is *always* watching (their emphasis)’ (p110). To redress this they suggest that managers must demonstrate that the CBM system helps them to see the good side of performance as well as the bad side. They also suggest that the acceptability of the system is inextricably linked to performance related pay or salary increases. It is maintained that if this is not done, there is no reason for the CBM to be there in the first place, or at least there is no need for it to be referred to by supervisors in the discussion of results with employees.

In relation to the second question, it is alleged that the more frequent and relevant the feedback, the more acceptable the system is. Problems arise when employees don't believe the system is measuring important tasks. It is suggested that the tasks to be monitored should be selected carefully to redress a feeling that ‘Big Brother is watching’, as well as preventing information overload and misuse by supervisors.

Third, they suggest that if results are widely published, high performers may slow down for fear of being ostracized and low performers may be completely demoralized because ‘...monitor data [seems] more accurate and complete than other productivity measures’ (p111). So if CBM is going to be used for motivation purposes, information should be displayed discretely to the employee and should bypass the supervisor completely.

Finally, the range of tasks monitored sends messages to employees about performance criteria, and what constitutes good performance. Therefore they suggest that CBM should be used to measure purely quantitative forms of work, alongside other systems carefully designed to measure the work's qualitative features. They conclude by

saying that if companies do not pay attention to these aspects of CBM, they will have no improvements in either productivity or customer service

Laboratory studies conducted in the US also guide our understanding of the characteristics of CBM systems and their acceptability to employees. Work by Rudd and Geller (1989) and Nebeker (1987) addresses the manipulation of feedback, goal setting and incentive parameters, and its resulting stress outcomes under CBM conditions. The former acknowledge that the timing of the feedback is vital to optimal performance, but in this scenario refrain from investigating the nature of the feedback itself. They postulate that if feedback is too frequent when difficult goals are set then a feeling of 'learned helplessness' develops which leads to performance decrements. Therefore their research model hypothesised an inverted 'U' function, with more frequent feedback improving performance until an optimal level is reached. Furthermore they hypothesised that '...goal difficulty will moderate the effects of feedback frequency, such that frequent feedback will facilitate the attainment of easy and medium difficulty goals, but inhibit the achievement of difficult goals'(Rudd and Geller 1989: 803). Two significant results were found: first, that under difficult goals, frequent feedback (KOR type) was beneficial to the subjects; and second, that when goals are within the capabilities of the subject (i.e. of medium or easy difficulty) frequent feedback becomes disruptive.

The study by Nebeker (1987) recognises the idea that some systems will be more acceptable than others, and concludes that if this is so, then we should be able to find some empirical evidence to that effect. Nebeker sees a CBM system as acceptable when it does not induce stress reactions and dissatisfaction amongst workers. The variables manipulated were performance standards and incentives, with a control condition of no incentive and a 'baseline' performance measurement. Levels of satisfaction and stress were also measured. Unsurprisingly, the greatest performance improvements were observed in subjects of high ability, under the low performance standard and high incentive pay condition. It was also found that the introduction of standards and incentives significantly improved performance for all but the low ability, easy standard

and small incentive condition. Moreover the imposition of a larger incentive in the low ability group did not significantly increase performance, and for the high ability group this incentive condition actually decreased performance, under difficult conditions. From the data on satisfaction, the reason for the latter was attributed to frustration.

From these two studies, a number of conclusions can be drawn for system design. First, to improve performance under varying task conditions, the system should take account of (a) the ability of the operator and (b) the difficulty of the task. Furthermore the system should also allow for any permanent improvements in performance ability on the part of the operator. Few conclusions can be drawn from the actual levels of incentive offered to the subjects in both these studies since they are highly context specific: suffice it to say that they must be perceived as fair by both parties. In particular Nebeker noted that the stress levels are lowest when subjects have little to lose or gain from the incentive levels.

System response time as a variable was investigated by Schliefer (1986) and Schliefer and Amick (1989), in conjunction with variables such as incentives stress, and somatic discomfort. In the former study, Schliefer classifies slow response time as a 'daily hassle' (see Lazarus et al 1982) which may have implications for worker health. Furthermore, the negative health effects of CBM and its link to payment systems are acknowledged. It was thus hypothesised that slow computer response time would generate higher levels of mood disturbance than rapid computer response time. A further objective was to evaluate the effects of incentive pay on mood disturbances and somatic discomfort. Results were consistent with the former hypothesis, and it was also found that ratings of rush and tension were higher under incentive pay conditions. This finding is consistent with that of Nebeker (1987) in that he noted a reason for higher frustration levels under incentive conditions was the feeling of having more to lose or gain from the incentives

The work of Schliefer and Amick (1989) is virtually a replication of the latter study in every respect, since the experimental conditions are identical. Schliefer and Amick conclude thus:

In sum, computer systems that contain ergonomic features such as rapid response times have favourable implications for both system productivity and worker health...With respect to method of pay, the results of this study indicate that the productivity advantages of computer-based payment regimens may not be realised without some cost to the worker. In this regard, it should be noted that certain types of computer-based payment regimens may be more stressful than others...Additional stress factors...include electronic performance monitoring / feedback and the use of performance standards (Amick and Smith 1988). Further investigation of these factors is needed to establish a balanced computer-based pay system that enhances productivity without excessive stress effects

(Schliefer and Amick 1989: 37)

It is clear from the literature on CBM system design that the current knowledge base recognises (a) the need for CBM, (b) the need for good CBM system design, (c) the harmful effects of bad CBM system design and (d) the need for further research into CBM systems and their effects upon operators. Moreover the literature acknowledges that even in the laboratory environment it would be foolish to overlook the stress and behavioural effects of system interaction as insignificant (unlike the production literature) since these are often the predeterminants of the ubiquitous worker productivity and motivation.

2.5: Employee reactions to CBM

The effects of CBM upon the immediate environment of those working therewith were reviewed by Smith and Amick (1989). Job design literature was used to determine the effects CBM would have on certain job characteristics. This piece was the culmination of a number of years' work by Smith (1981 to the present) on monitoring and stress; earlier versions of the same are reviewed later on since they address the feedback process more closely than this latest version. However, four factors were identified from the job design literature which provoke worker stress reactions: Control (Beehr and Bagat, 1984); job demands (Cooper and Marshall, 1976); job content (Karasek, 1979) and social relations (WHO, 1984).

Control, according to Smith and Amick (1989) can be examined at three levels: instrumental control which provides the worker with opportunities to change the immediate environment; discretionary control, which refers to the amount of autonomy the individual has over how tasks are carried out and how work is scheduled; and participatory control, which implies that the subordinate will have some say in higher level managerial decisions.

Job demands can be defined in terms of either 'over' or 'under' stimulation (Frankenhaeuser and Gardell 1976). Its applicability to the CBM issue is related to the issues of OCS and Taylorism. We have already seen that OCS's and Taylorism both dictate that work has to be simplified and output standards are imposed. It is acknowledged that '...these standards may not always be based on scientific grounds, but on the extent of production that can be squeezed out of employees' (Smith and Amick 1989, p280). A CBM system may establish unfair production standards, and due to the constant monitoring and intense work pace, employees may find it difficult, if not impossible to exercise counter control measures as described by Roy (1969). If, on the other hand, a predominantly scientific basis (presumably with a subjective effort rating) was used to set the production standard, CBM could actually be stress reducing, since decisions are made about the workload in a rational way.

The Taylorisation of job content is the most significant aspect of CBM in terms of stress and operator well being, as already discussed. Indeed, Smith and Amick observe that even organizations claiming to be 'humanistic' in their job designs have CBM. They maintain that '...often the monitoring system directly influences the design of many clerical and blue collar jobs in a way consistent with 'scientific management' without corporations really understanding that they are perpetuating this influence' (p282).

Factors such as work role and career development are cited as also being influenced by CBM. For instance, occupational stress has sometimes been associated with role ambiguity (Caplan et al, 1975), and the CBM system may reduce role ambiguity by directing behaviour towards desired organizational goals in terms of performance. CBM may also provide information to recommend promotion for an individual, if

promotion is performance related. However, if the organization is looking to cut jobs, then this may be very threatening, and thus stressful to employees. In fact, this was one of the main fears of CBM suggested by subjects in a study by Smith, Carayon and Miezio, 1986.

Social support at work was one of the variables in French, Caplan and van Harrison's (1982) Person - Environment Fit model of job stress and strain. It was concluded that this variable primarily influenced (in both directions) the general effects of stress listed as irritation, depression and anxiety. For example, an individual may perceive adequate attention and support from their colleagues, and as a result their stress symptoms would decrease. However, if the individual perceived that they were being neglected in a time of need, then general stress symptoms would increase.

Amick and Celentano (1988) showed how technology could influence coworker support, but not supervisory support, yet the latter was perceived as more important. Smith, Carayon and Miezio (1986) and Smith, Cohen and Stammerjohn (1981) observed that CBM produced a more coercive supervisory style, rather than the preferred helpful approach. To combat this effect, it is argued that CBM data should be used in a non evaluative way, the individual being left to decide how to correct their behaviour.

The work by Smith and Amick (1989) will be used in the next chapter to develop a framework for analysis in the current work. Presently the taxonomy developed by Smith and Amick (1989) only represents a review of the relevant literature and there has been no evidence of its operationalisation as a research tool.

However, Chalykoff and Kochan (1989) developed and tested an employee centred model of reactions to CBM. They comment upon the literature previously reviewed here (e.g. Nussbaum and duRivage, 1986; Jacobson, 1984; OTA, 1987) as being seemingly unrelated to job satisfaction and turnover potential which are, after all, the 'standard employee level job outcomes' (p808). They continue to argue that '...this focus is needed to uncover the actual role that monitoring plays in the employment relationship and the extent to which its potentially negative effects are inherent or can be mitigated by attention to feedback processes' (p808). The study by Chalykoff and Kochan addresses

these issues by examining the role played by satisfaction with CBM in '...mediating the relationships between its antecedents and employee job satisfaction and turnover propensity' (p808).

Chalykoff and Kochan (1989) interviewed both managers, supervisors and employees to identify variables for their model, and they contend that the attitudes of each group *per se* were represented. In sum, these attitudes were as follows:

- *Managers* primarily considered the monitoring as a vital tool in ensuring that the employees were doing their job properly, but acknowledged that the information had to be used carefully in the feedback situation. Others recognised that if much negative feedback was given, an atmosphere of distrust would be created.
- *Supervisors* recognised the potential for developing employees with CBM data, however they found the reality of dealing with the data much more difficult. Evidently, the amount of time which had to be spent monitoring was overwhelming. The big attraction for supervisors was the control it gave them over their subordinates, but some thought it to be a purely negative process and altogether insignificant.
- *Employees*, surprisingly, concurred with the management's recognition of the need for monitoring and some even liked it. However, the objectivity of the supervisors in their use of the data was questionable and it was noted by several employees that the feedback was mainly negative. Chalykoff and Kochan (1989: 812) argue

...[CBM] is a central activity that permeates work in these automated offices; second, the effective use of [CBM] and employees' attitudinal responses depends largely on the characteristics of the performance - monitoring feedback process; and third, there is the potential for control...or feedback to dominate the monitoring process' (p812)

Chalykoff and Kochan's (1989) underlying rationale is that the employees' evaluation of CBM will vary according to whether the values of control or feedback dominate the monitoring process. Each factor in the model has a number of different contributory variables which are sourced from the interviews and performance appraisal / feedback literature, the basic tenets of which were discussed earlier. Previous

unpublished work (e.g. Chalykoff 1987; Chalykoff 1988) also made a large contribution to their research model as did work by Cotton and Tuttle (1986) in determining turnover potential. Thus the focus of the hypotheses is '...the centrality to the work situation of [CBM] both as a direct determinant of job satisfaction and turnover propensity and as a mediator of other managerial practices that are expected to influence job satisfaction and turnover propensity through employees affective responses to monitoring' (Chalykoff and Kochan (1989: 815).

Chalykoff and Kochan's data supported their hypothesis, and thus for the notion that CBM significantly affects workers' general attitudes and behaviours. More importantly, the idea that managerial attention to the quality of feedback and appraisal processes is vital if the productive and motivating potential of CBM systems is to be realised was supported also.

Further examinations of employee reactions to CBM have been completed by Pan (1991), Smith, Carayon and Meizio (1986, 1987, 1988), Meizio, Smith and Carayon (1987) Grant and Higgins (1989) and Grant, Higgins and Irving (1988). The main concerns of M.J. Smith et al are the implications CBM has for job design and stress. The work of the latter revolves around a contract report produced for the OTA (1986) entitled 'Motivational, Behavioural and Psychological Issues of the Electronic Monitoring of Worker Performance' and the various spin off publications thereof. Grant et al's work spans from system design, through to employee perceptions of service and quality and supervisory behaviour. The findings themselves are based on the PhD research of R. Grant.

Smith et al (1986) argue that new legislation is needed to regulate emergent organizational structures which are largely predetermined by technology. They identify two trends which are a concern for ourselves and have been previously discussed in the work of Chalykoff and Kochan (1989): the blurring of responsibility between labour and management, and the changing role of the supervisor. They argue that CBM is at the heart of this trend. The crux of this problem, and, according to Smith et al (1987), what should be the subject of legislation is as follows:

...A major concern...is the potential for more stressful working conditions because of monitoring which management readily accepts as a cost of production improvement. This position states that management gets all the benefits while workers pay with diminished health. However, there is reason to believe that proper application of job design principles can develop monitoring systems that can provide benefits to labour and management (p34).

The idea of CBM being potentially stressful was first proposed by Westin (1987) in his model of fairness (primarily associated with production standards). He noted that the problems of stress can lead to 'undesired behaviour' such as absenteeism and sabotage. In this instance Smith et al (1987) postulate that a number of aspects of a job can be adversely affected by CBM and may be stressful to employees. They warn against the potentially damaging effects CBM can have on employee self esteem and self worth due to a 'fear of evaluation'. However, despite the neutrality of the technology '...both the type of the technology and the context of the monitoring determine its influences on stress, not the monitoring process itself' (p36).

They then identify two major organizational variables which have been shown to have a significant effect on job stress and worker health (see Caplan et al 1975). These are (1) job involvement or participation, and (2) organizational support. In respect of (1) they suggest that the constant tracking of employees to eradicate 'undesirable behaviour' will result in lower participation and involvement. In respect of (2) they cite close supervision and negative feedback as being detrimental to the employees perceptions of whether the feedback process is based upon 'control' or 'development', and hence their feelings of organizational support. It is noted by Smith that the former is by far the most prevalent form of feedback process (and hence use of CBM) in the US. Table 2.3 lists other factors which are seen by Smith et al (1987) as significant in terms of stress and which may be adversely affected by CBM. It is clear from this synthesis by Smith et al (1987) that CBM has the ability to substantially change job design

In Smith et al (1986) it was confirmed that overall, CBM was perceived as a source of stress, even though it was seen as necessary by employees and most perceived

the feedback to be accurate. Despite overall levels of job satisfaction the employees' views were thus:

...the monitoring system as presently established did not motivate them nor help them to improve their performance. Many indicated that they would prefer more feedback and more frequent feedback. They felt that improved feedback would help them perform better...Finally the workers felt that monitoring cannot be helpful unless it includes more than quantity of output information (p53).

This view was echoed by Higgins and Grant (1989). It is noteworthy that leading job design theorists such as Taylor (1911) and Hackman and Oldham (1975) recognised the need for information in their theories but differ significantly on the use of information and hence we can conclude that stressful work situations following the introduction of CBM can in theory be avoided.

This question was also partly examined by Pan (1991) in an unpublished doctoral thesis. The research objectives were to investigate whether performance



Table 2.3: Factors affected by CBM which are significant for stress (based on Smith et al 1987)

variability in a standard data entry task was indicative of boredom and fatigue, and also to determine whether CBM work management made performance less variable. Furthermore since boredom and fatigue are closely related to stress (O'Hanlon ,1980) we may be able to infer several stress related consequences of CBM. Pan is, however, unable to enlighten us as to the contextual factors outlined by Smith et al (above) since the research was laboratory based.

However, the results were significant: fatigue and boredom increased significantly as a function of the amount of time performing the task, and performance variability decreased in the CBM condition. Since the boredom and fatigue measurements displayed similar trends to performance variability overall, the latter would be a good indicator of mood disturbances. An alarming conclusion was also drawn from the data. The CBM condition showed a reduction in performance speed variability which was explained thus: '...this may be caused by the timely performance feedback from the CBM work management. CBM can track performance on an individual basis and enforce compliance with a performance goal'(p111). As has been previously discussed, the timeliness of the feedback is entirely context specific, and since this study was laboratory based, i.e., taken out of context, such a sweeping statement is unfounded. Furthermore the nature of the feedback itself was not a variable in this study. Pan's use of the word 'enforcing' is ambiguous. The decline in performance variability is perhaps more indicative of the lack of control caused by working under CBM rather than the inferred 'stress free' situation in which the subjects found themselves. It is arguable that the decline in performance variability does not indicate fewer mood disturbances primarily because of the intimidating nature of the instructions and feedback given to the subjects during the experiment:

...[The performance standard] was established by an industrial engineer. It is based on scientific principles of work measurement...This work pace is one at which the average, well trained employee can work over the course of a day while producing the acceptable quality of work. It is a normal pace (p48).

Moreover, the negative feedback messages were even more frightening:

...You have not met the minimum work standard, your performance for this work period is unsatisfactory (p49).

It should be noted that in every other laboratory experiment on mood disturbances, feedback, incentives and CBM, the subjects were allowed to set their own average baseline work pace before having standards manipulated, and completing other experimental conditions. We must therefore treat these research findings as rather singular, and conclude that CBM may affect the variability of quantitative and qualitative performance due to fatigue and boredom. Pan also noted that CBM can stabilise speed variability but increase error variability.

The question of error variability or proneness was partly considered by Grant, Higgins and Irving (1988) and Grant and Higgins (1989) in their work upon attitudes to quality and service under CBM conditions. Several prominent attitudes were revealed which concerned the qualitative aspects of jobs that cannot be measured by computer. Employees did not consider the CBM system as 'fair' if it did not measure the more interactive aspects of the job. Accordingly, those employees who saw their jobs as primarily routine and quantitative in nature had fewer problems with the monitoring system. Overall, there was not an overwhelming opposition to the use of CBM *per se*.

However, a later report of a similar study by Grant, Higgins and Irving (1989) claims that the tasks which the employer decides to monitor send messages to the employee about what is more important to the firm. Therefore, if the firm chooses to monitor only quantitative tasks, then the employee will pay more attention to these tasks and less which involve 'service' and 'quality'. This is not always the message which the employer will chose to convey to the employees. Grant, Higgins and Irving explain the above phenomenon in terms of the following model of motivation. They claim that job motivation consists of the following three factors: (1) Perceived employers performance expectations; (2) personal characteristics; and (3) perceived job characteristics. They elaborate thus:

...[CBM systems] are objective evaluation systems that provide feedback primarily about the quantitative aspects of the work. Supervisors, co-workers, and customers all contribute to the subjective evaluation system. They may give

feedback about work quality as well as about quantity, and add their own interpretations to the message while doing so. The employees interpretation of both types of feedback will be influenced by her personality and perceptions of the job (p40).

Upon investigating the perceived importance of quality amongst monitored workers they found that not only did they place more emphasis on production, but they formally rejected customer service as part of their job description. This was not the case with non monitored employees. The monitored and non monitored employees were doing identical tasks. However, productivity only increased for those monitored workers who considered productivity important anyway.

In terms of supervisory evaluations of employees under CBM, other factors, such as attendance and accuracy mediated the ratings of employees with good productivity records. This elaborates on research which will be examined later, which suggests an over reliance by supervisors on performance data once CBM is introduced. According to this research, it is more likely that messages from senior hierarchical levels in the organization determine the emphasis employees place upon quantity vs. quality. It was observed that difficult tasks were being avoided by employees so they could maximise their 'count' and thus their pay packet. Therefore Grant, Higgins and Irving conclude that CBM systems which do not measure the appropriate parts of the task have three effects: (1) more importance is placed on quantity and less upon interaction with customers; (2) work requiring special attention declines in importance; and (3) operators become suspicious of co-workers trying to relieve a heavy workload.

A priori reasoning would predict that computer based supervision and machine pacing may well result in the Blauner (1964) style alienation of the individual worker. CBM has the potential to motivate employees as well as being an environmental stressor. It certainly implies changes in job design and work organization that may not be desirable, but it also represents the fundamentals of good job design since it has the capabilities to provide feedback, set goals, evaluate performance, and reward employees based on their performance. Smith and Amick (1989: 285) summarise this position:

...[the problem] lies not only in the actual monitoring of performance, but in the system by which performance is monitored and the way in which the monitoring is applied to control and motivate worker behaviour. Successful monitoring implies that worker performance can be quantified in a meaningful way. Simple reporting on the quantity of work output will not provide adequate performance feedback to workers for productivity gains, quality improvement or for motivating worker performance (Smith and Amick, p285).

For successful monitoring, the following conditions should be met: the CBM system should (1) have value to the worker, (2) be from a good source, (3) provide positive feedback, (4) provide necessary information in a timely way in the light of uncertainty, (5) provide cues to proper behaviour and (6) have reasonable standards based on employee input (Smith and Amick, 1989).

2.6: Supervisory responses to CBM

We now turn to the last factor in the feedback and appraisal process: the supervisor. It has been noted by a number of authors (Huber et al, 1984; Williams et al, 1985) that access to CBM data may change the supervisor's perceptions of the appraisal process in that the presence of recorded performance data will be more heavily relied upon. These data are perceived as being more 'objective'. However, Cooley (1980) suggests that despite the aforementioned data 'quality', subjectivity will always reign since data needs to be interpreted. For example, Fenner, Lurch and Kulik (1990) draw on the work of DeNisi et al (1984) to suggest that CBM will facilitate the supervisor's search for 'relevant' data, but conceptions of 'relevant' will vary between individuals. Furthermore, Chalykoff and Kochan's (1989) interviews revealed that supervisory ratings of performance had a more central tendency after CBM data, which does not necessarily reflect the data's superior objectivity.

Another potential problem, and one which was postulated by Eisenman (1986) was that supervisors experience 'information overload' since the computer collects more data than they could use. This was certainly the case in the study by Chalykoff and Kochan (1989), when some supervisors reported that over half of their working week was

concerned with monitoring employees. Therefore only a subset of employees is monitored.

Some of these questions were embodied in case study research directly concerning changes in the supervisory work process which were initiated by CBM. The two studies in question both made contributions to the general review of CBM issues and practice by the OTA (1987): these were Eisenman (1986) and Irving, Higgins and Safayeni (1986). A primary point to note is one which was raised earlier: the fact that the assessment of factors such as closeness of supervision, emphasis on performance measures and job satisfaction is difficult since they are bound up in their organizational contexts. One such contextual factor would be system design (according to Grant and Higgins) - other things bearing on the situation which are recognised by the OTA are 'cultural, job design and environmental factors'. These will be examined in detail later.

Eisenman (1986) found no significant difference between two samples of CBM'd and non-CBM'd workers. The differences that she did note were that unionised employees were better informed about the health effects of VDU's and were more opinionated in interviews than non - unionised employees. Alternatively, Irving, Higgins and Safayeni (1986) found that about half of their subjects were satisfied with the feedback / appraisal process itself. Their survey design was the same as Eisenman (1986) since they distinguished between CBM and nonCBM work sites. At the CBM work sites it was discovered that 17.3% of workers were not satisfied with their jobs whereas 34.7% were neutral. A surprising finding from monitored sites was that dissatisfaction was nearly all directed at the CBM system. At non CBM sites the dissatisfaction was directed at other factors such as supervisors, a lack of standards, unfair evaluations etc. A further, and not altogether unexpected, finding was that workers at the CBM'd site found that their evaluation overemphasised quantity and underemphasised quality. Moreover, they saw their remuneration as closely tied to their evaluations, and they thought that the supervision was too close.

The laboratory studies which cover this area help to shed some light on why employees hold such perceptions under CBM regimes. Fenner, Lurch and Kulik (1990) produced five experimental hypotheses to be tested under CBM conditions:

- Objective work performance would strongly affect supervisor rating of current work performance,
- Expectations based on past performance will also influence supervisors and bring about bias,
- When an employee performs at a level inconsistent with a supervisor's expectations, the supervisor will request more data about performance,
- When an employee performs at a level inconsistent with a supervisor's expectations, when requested, the supervisor will then rate the employee's current performance as less consistent,
- The supervisor will be less certain about her / his ratings.

Following an experiment where the subjects were asked to rate computer simulated employees on the basis of information on past performance, CBM data, and then write a report on the simulated employees, general conclusions could be drawn as follows. It was noted that subjects requested more CBM data when their expectations of performance conflicted with observed performance. One would hope that supervisors would use this positively as well as negatively when evaluating employees so improvements as well as decrements could be recognised and rewarded accordingly (this question was answered by Kulik and Ambrose, 1990.)

The point of subjectivity in data interpretation was made earlier, and was identified as an area of some concern. This concern is supported by a body of cognitive psychology which encompasses signal detection theory and is generally applied by ergonomists to industrial inspection tasks. Parallels can be intuitively drawn between industrial inspection and employee monitoring, and one would expect to find experimental outcomes which indicate differences in data interpretation from different supervisors. However, none were evident here. Any conclusions from this data should therefore be tentatively drawn.

However, the general conclusion from this research was that the CBM had a powerful effect upon supervisorial behaviour. Even though the subjects saw a relatively small sample of data they were willing to substantially revise their expectations of future performance; but their expectations still had a powerful effect.

Kulik and Ambrose (1993) investigated these phenomena in the cognitive psychology field to investigate how, if at all, information processing style changed as a result of CBM. The aim of the research was to examine how subjects processed '...information from two sources: CBM and visual observation' (p823). It is interesting how the authors refer to the behaviours displayed as 'targets' since this is also the terminology of signal detection theory (discussed above). The information processing style was defined as either (a) category based or (b) feature based and was assessed by (a) patterns of performance appraisal judgements, (b) response times and (c) recognition accuracy (the latter two indicate whether the information being accessed was category or feature based.) Kulik and Ambrose help us somewhat by translating this cognitive terminology into the language previously used to describe the problem (i.e. expectations, evaluations etc.) as follows:

...Feldman (1981) has suggested that performance appraisal ratings may result from the rater's categorisation of the ratee as either a 'good performer' or 'poor performer.'... Once the good performance category has been accessed, judgements about the employee may be biased towards the category evaluation (p822).

The above quote thus highlights the problem of supervisor 'expectations' given previous performance data (it should be recalled that the previous experiment noted that the role of expectations diminished as a result of CBM data usage). The problem of CBM data conflicting with expectations is also rephrased:

...when incoming information does not permit an initial categorisation of the target, the perceiver must engage in more effortful processing to form social judgements...Fiske's (1982) model of category-based evaluation suggests that when employees do not provide a good fit to the good performer or poor performer categories, raters must use feature based evaluations to a greater extent; that is, individual pieces of performance information must be accessed and considered in performance ratings (p 822).

A vital point surrounding this entire argument is that feature based processing enhances appraisal accuracy (Favero and Ilgen, 1989), so employees who are 'non - prototypical' will be observed more. This sinister-sounding concept can be linked with ideas put forward in chapter one (and which were demonstrated experimentally in the work of Pan, 1991) that CBM, along with JIT, TQM and Taylorism promotes greater conformity between workers. It should be recalled that the basis of the 'Quality of Working Life' movement of the seventies was based on the polar opposite of this idea, i.e. that workers skills are diverse and rich, and should be used to the full. The idea of conformity in a broader context is also explored by Lyon (1994). However, the reason why feature based processing occurs is because that such 'non prototypical' ratees cannot be categorised, 'so other, unobserved characteristics associated with the category are less likely to influence the judgement'(p823), hence the more accurate appraisal. The relative influence of visual and CBM data was also investigated in this study.

The results of the study showed that subjects who viewed positive visual data on the ratees were more likely to undertake category based processing, and took less time to do so. In just the visual condition without reference to any data, more controlled processing was undertaken by those viewing the negative condition. This implies that underperformers are more likely to be scrutinised *per se*. This is also reflected in the observation that 'subjects viewing positive performance were more likely to endorse category consistent items than were subjects viewing negative performance' (p 827). In other words, subjects were less likely to revise their expectations based on CBM data when the ratee had already been categorised as a 'good performer.' Data from the pattern recognition exercise and processing time suggested that when category consistent information was presented, feature based processing was utilised for negative performers, whereas category based processing was used for positive performers. This tends to reinforce our original fear that negative performers will be scrutinised more carefully, and it is even tentatively concluded by Kulik and Ambrose that once categorised it may be very difficult to move categories and thus have an accurate and / or fair appraisal.

As a result, Kulik and Ambrose (1993) make some suggestions for organizational policy on CBM. They contend that the appropriate rating of CBM in the feedback / appraisal process should be explicitly considered, especially in relation to how it is used by supervisors. They suggest that training in the use of CBM is necessary; however, it is argued by the author that the scarcity of research in the area prevents us from developing such programmes at present.

2.7: Management and CBM

Reported attitudes of management towards CBM are varied. Piller (1993) notes that only 20% of US companies had formed written policies concerning CBM. He is forced to conclude that proper protection in the US can only come from legislation. Piller proposes a model policy which states:

- Employees are entitled to reasonable expectations of personal privacy on the job.
- Employees know what electronic surveillance tools are used, and how management uses the collected data.
- Management uses electronic monitoring or searches of data files, network communications or e - mail to the minimum extent possible. Continuous monitoring is not permitted.
- Employees participate in decisions about how and when electronic monitoring or searches take place.
- Data is gathered and used only for clearly defined work - related purposes.
- Management will not engage in secret monitoring or searches, except when credible evidence of criminal activity or other serious wrongdoing comes to light.
- Monitoring data will not be the sole factor in evaluating employee performance.
- Employees can inspect, challenge, and correct records kept on their activities.
- Records no longer relevant to the purposes they were collected for will be destroyed.
- Monitoring data that identifies individual employees will not be released to any third party, except to comply with legal requirements.

- Employees or prospective employees cannot waive privacy rights.
- Managers who violate these principles are subject to discipline or termination.

It can be argued that the need for such legislation has arisen in the US due to the almost total lack of formal ruling over CBM. In the U.K., the Data Protection Act deals with privacy offences, but not directly with monitoring. There is some anecdotal evidence that firms have acted illegally in this respect. It is likely, therefore that the need for formal legislation is equally strong in the U.K.

In Europe, concern for privacy laws began in Sweden in the early 1971, which resulted in the first national law in 1972. By the end of the 1970's Austria, Denmark, France, Germany, Luxembourg and Norway also had laws. For example, in Germany, codes for VDT work established in 1979 stated 'It shall not be permitted to monitor the performance of workers, for the purposes of measurement, control or comparison by use of the installed VDT equipment' (OTA 1987: 123). Clauses such as this, on the whole, have found their way into collective agreements over the years. Furthermore, in the Works Constitution Act the right to codetermine the introduction of monitoring technology is enshrined in law. Another good example of a balanced approach to monitoring is a desire to avoid CBM expressed in the Swedish Work Environment Act 1978. CBM systems are generally used to measure group performance - however this has recently begun to change for the worse. Canada, on the other hand, is the opposite of Sweden, with CBM as commonplace and little legislation or collective agreements governing its use. Table 2.4 sums up the law covering privacy rights and information technology, and although it is lacking depth, asterisked information in Table 2.5 indicates the model provisions of the Scandinavian work environment legislation.

2.8: Summary: Research knowledge of CBM today

Despite being heralded as a 'refined' method of performance management by Schick (1980) we have seen that CBM is not without its problems. In a what may be

Provisions	Aus	Can	Pub Dk	Pte Dk	Fra	FRG	Ice	Isr	Lux	Nor	Swe	UK
Scope of Application:												
Central Gvt.....	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y
Provinces.....	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Private sector.....	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
Covers all info. traceable to identifiable individuals.....	Y	Y	Y	Y	Y	Y	Na	Nb	Y	Y	Y	Y
Info collected and / or processed using computers.....	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Personal Information must be collected for specified, legitimate purposes.....	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Individuals have the right of access to inspect personal info.....	Y	Y	Y	Y	Y	Ya	Y	Y	Y	Y	Y	Y
Sensitive personal details specified (collection only with data subjects knowledge and consent).....	N	N	Y	Y	Y	N	Y	N	Y	Y	Y	Y

Key: Y = Yes; N = NO. Aus = Austria; Can = Canada; Pub Dk = Public Denmark; Pte Dk = Private Denmark; Fra = France; FRG = Federal Republic of Germany
Ice = Iceland; Isr = Israel; Lux = Luxembourg; Nor = Norway; Swe = Sweden; UK = United Kingdom.

a Covers information concerning private affairs, such as the financial status of individuals

b Covers information on an individual's personal status, intimate affairs, economic position and vocational qualifications

SOURCE: Pipe, R and Westin, A *Electronic Monitoring in other industrialised democracies*. Contractor report for OTA.

Table 2.4: Main provisions of foreign personal data protection legislation relevant to CBM

Type of Monitoring	Aus	Can	Pub Dk	PteDk	Fra	FRG	Ice	Isr	Lux	Nor	Swe	UK
Employee computer - usage monitoring (ID's Passwords)	Y	Y	Y	Y	Y	Ya	Ub	Yc	Y	Ya	Y	Y
Telephone Call Accounting	Y	Y	Y	Y	Y	U	U	Yc	Y	Ya	Y	Y
Work measurement	Y	Y	Y	Y	Y	Ya	Y	Y	Y	Ya	Y	Y

Key: Y = Yes; U = Uncertain. Aus = Austria; Can = Canada; Pub Dk = Public Denmark; Pte Dk = Private Denmark; Fra = France; FRG = Federal Republic of Germany; Ice = Iceland; Isr = Israel; Lux = Luxembourg; Nor = Norway; Swe = Sweden; Uk = United Kingdom.

a Personal data covered by this law must be organised or filed so as to be retrievable automatically using identifiers that can be linked to a particular person.

b Information must be related to a person's private affairs, such as financial situation.

c An official translation states that it is an infringement of privacy to: (1) spy on or trail a person in a manner likely to harass them, or any other harassment; and (2) listen in.

SOURCE: Pipe, R and Westin, A *Electronic Monitoring in other industrialised democracies*. Contractor report for OTA.

Table 2.5: Applicability of foreign personal data protection legislation to employee monitoring

now seen as a misguided and over simplistic analysis, Henriques (1986) argues, perhaps idealistically:

...the many advantages of monitoring productivity clearly outweigh the theoretical abuses. Many organizations use monitoring to provide incentive pay for data entry operators who produce above a minimum expected output. Employees then regulate the speed at which they work to meet their desires for additional pay...The computer is fair. It shows no favouritism....managers appreciate the fact that computer monitoring allows them to spot problems early in their origin and to react by offering additional training and assistance (p17).

Existing research suggests that abuses of CBM are by no means 'theoretical', CBM work is not self paced, nor is it necessarily fair. Contrary to Henriques's assertions, CBM is not always used in a constructive way by managers, nor as a lever for change. Existing research indicates that CBM has the *potential* for stress, dissatisfaction and other negative consequences on the employee and the supervisor, but this is not simply deterministic. Therefore the question of acceptability, applicability and appropriateness of one CBM system as opposed to another is likely to be dependent upon its context and organizational environment.

Common themes emerge from existing research. They are:

- There is a rational need for CBM in some organizations.
- There is a need for good CBM system design.
- A badly designed, implemented and run CBM system can have harmful effects upon all members of the workforce.
- There is a great need for further research into CBM systems and their effects.

Computer systems employed by most organizations have an unrealised and underemphasised potential to monitor employees. However, there is now a growing software market for products whose primary design purposes are to monitor and spy on individuals. Fears for employee welfare under CBM which were founded in the job design literature were crystallised following several surveys into employee reactions to CBM. CBM was found to be a major determinant of job satisfaction and stress, and influenced employee perceptions as to quality and service, how supportive / controlling the wider organization was. According to Sheridan (1986) CBM even overrode union

concerns about ergonomic aspects of VDU terminal health and safety. He maintains that '...electronic monitoring is worse than shop piecework. With electronic monitoring you can quantify to 20 decimal places' (p51).

Examinations of supervisory behaviour also confirmed fears of CBM's negative emphasis which are overlooked by Henriques (1986). It was revealed that CBM does not necessarily reinforce or change the behaviours of supervisors or subordinates. However, disproportionate amounts of negative feedback following 'negative non prototypical behaviours' were recorded by Kulik and Ambrose (1993), under CBM conditions. A further find in this area was an overemphasis on categorisation of employees following CBM and visual data presentation. This contradicts Henriques (1986) since it implies (1) that constant reevaluation of employees in the dynamic work situation does not occur, and (2) supervisors are not always ready to revise their expectations of under performers, they merely scrutinise them more closely.

The collective result of the studies examined here has culminated in the production of guidelines for implementation and use of CBM systems by a number of writers. One interesting proposition by Kulik and Ambrose (1993) was that training courses in CBM usage should be developed. The current state of knowledge, however, does not permit this. Smith and Amick's (1989) guidelines following work for the OTA in 1986 were the first released in the area of CBM user friendliness. These guidelines were contributed to a later OTA report (1987) in which all issues concerning CBM were reviewed. This was followed by Higgins and Grant's (1989) model of system pervasiveness and some guidelines on implementation. The latest guidelines by DeTienne and Abbott (1993) suggest that the quality, acceptability etc. of a CBM system emanate from the designer's conceptual stage, through to the implementation and use of the system in question. Additional laboratory research by Nebeker (1987) and Rudd and Geller (1989) made detailed contributions as to the timing of feedback. Tables 2.6 and 2.7 summarise the main guidelines derived from the published research.

Thus far, these guidelines have not been widely disseminated to British managers, since they were generated and published in the American context. It is therefore predicted

that any CBM systems investigated by the present study will not reflect the current state of knowledge concerning the design, implementation and running of CBM systems, rather the complexity and individuality of their own particular organizational environments. It was emphasised by most American authors in this area that it was the way in which the technology was used which determined its ultimate effects. Therefore we should conclude that it is the context of CBM which is a central factor, maybe even more so in the U.K. rather than in the US. The next chapter thus examines the theoretical and contextual factors which determine whether CBM is used oppressively or constructively (ie Tayloristically or otherwise) in organizations and forms the basis for the current research model.

Technology Implementation
<ol style="list-style-type: none"> 1. Positive aspects of the system should be emphasised 2. Good reasons for implementation of CBM should be demonstrated to the staff (eg performance related pay) 3. Employees should feel that there is much to gain by having CBM
Technology Use
<ol style="list-style-type: none"> 4. Quantitative monitoring should be appropriate for the tasks being measured 5. The monitoring should not really attempt to measure non - quantitative aspects of the job 6. The system should adequately represent employee performance 7. The measuring process should be foolproof. Everybody should understand how it is done 8. Feedback should be given on a meaningful timescale to the employees 9. Feedback should be delivered personally 10. A computer which monitors the process as well as the results of work is more likely to be perceived as spying by those subject to it 11. Management should be sensitive to the fact that some employees may not want their productivity rates broadcast 12. The feedback should reinforce to employees what is considered to be good performance 13. The performance information should be readily and easily accessible to employees 14. The employees should feel able to challenge the information generated by the system 15. Standards should be flexible and allow for employee error 16. A production shortfall should lead to discussion, not discipline

Table 2.6: Summary of guidelines concerning the implementation and use of CBM derived from published research

Proposed effects of CBM on the employee

1. CBM can make the employee feel less autonomous in their immediate work situation
 2. CBM can make the job seem more demanding on the individual
 3. CBM can make the job's content seem more mechanical and routine
 4. In times of instability CBM can be seen as a threat to job security
 5. CBM can be used to promote people but only in conjunction with more qualitative evaluations of the individual
 6. Employees may become more close knit when working with a CBM system
 7. Supervisors should give as much positive feedback as they can with CBM data
 8. The system should be a source of motivation to achieve greater output
-

Table 2.7: Summary of guidelines concerning the effects of CBM on the employee derived from previous research

Chapter Three

Theoretical Context and Model Development

3.1: Introduction

This chapter is concerned with locating the question of surveillance in the theoretical frameworks of both sociologists and organization theorists. This will help locate CBM in both its practical and theoretical context. The influence of these theoretical stances will then be used to develop a research framework which will also include ideas from labour process control, strategy formulation and ideology. It is against these frameworks that the question of CBM and surveillance will be examined.

3.2: The rise of the surveillance society

In a work largely inspired by the metaphors of Bentham's Panopticon (Foucault, 1979) and Orwell's *1984* dystopia, and in an attempt to forge popular interest in the area, Lyon's (1994) *The Electronic Eye* focuses our thoughts upon the continuous and quiet creep of databases into every corner of our lives. This process, having previously gone unnoticed by the majority of us, is, according to Lyon, founded upon the ideals of modernity and rationality, and is fraught with paradox. Indeed, taking Lyon literally one would not leave one's house, go to the bank, go shopping or go to work, such is the pervasivity of surveillance in everyday life. For example, Lyon (1994: 5) argues

Surveillance expands in subtle ways, often as the result of decisions and processes intended to pursue goals such as efficiency or productivity...Most surveillance occurs out of sight, in the realm of digital signals. And it happens...not in clandestine, conspiratorial fashion, but in the commonplace transactions of shopping, voting, phoning, driving and working. This means that people seldom know that they are subjects of surveillance, or, if they do know, they are unaware of how comprehensive others' knowledge of them actually is.

It is implicit from this account that participation in every aspect of modern life is dependent upon our relationship with databases. For our personal details to be recognised, and to enable us to claim certain rights and benefits (such as unemployment and housing benefit) one must have, for example, a national insurance number. A recent experience of mine further illustrates this point. In a visit to a local job centre in search of the ubiquitous 'part time bar jobs to supplement my meagre grant', after expressing interest in one position I was required to enter my details (name, address, occupation, national insurance number) on a database 'so we can chase you up if you don't turn up for an interview.' This experience is probably typical of millions of people who have applied for jobs, who have received junk mail and who have been telephone canvassed and have wondered from whence a company with whom they have had no prior dealings has acquired such information.

Such is the extent of these databases we have to ask whether they are a genuinely new and sinister element of modern society, or whether they are simply a natural progression from less advanced or efficient means of data storage. The apparently blind acceptance by British society (despite the Data Protection Act 1989) of such advances implies the latter. Nevertheless, valuable insight can be gained into the phenomenon of surveillance when we consider the perspectives of the modernists, the Marxists and the postmodernists (Lyon 1994 : 6)

According to Dandeker (1990) the exercise of surveillance involves one or more of the following activities: '(1) the collection and storage of information about people or objects; (2) the supervision of the activities of people or objects through the issuing of instructions or the physical design of the natural or built environments; (3) the application of information gathering activities to the business of monitoring the behaviour of those under supervision and their compliance with instructions' (p 38). It is evident that CBM is but a small part of a very large set of activities associated with *inter alia* labour process control.

3.3: Marx, Weber and Foucault: a problem restated?

Lyon (1994) describes these three sociological traditions (as exemplified by Marx, Weber and Foucault) as addressing the question of surveillance in terms of the power - knowledge relationship. Each theorist can be differentiated by the preconditions and implications of their respective metaphors. Nevertheless, each theorist shares certain similarities. These are described in turn.

Karl Marx focused on his analysis of surveillance as one aspect of the struggle between labour and capital. Work monitoring is seen as a primary form of managerial control on behalf of the agents of capital. The objective of this control is to ensure the continued extraction of surplus value and the realisation of labour power. The purpose of the wage - labour relationship is therefore to serve the needs of capital. A result of this is that the actual producer of the goods (labour) has no ownership over that produce: ownership passes to capital by virtue of labour's wage based subordination thereto. A further consequence is the alienation of the worker from her / himself and from their 'species being' i.e. the basic motivations and needs which distinguish Homo Sapiens from other animals. Marxian alienation is a fundamental and unavoidable characteristic of work in a capitalist organization since one relinquishes freedom and autonomy in pursuit of better conditions of wage - based subordination. Binns (1992) highlights the ill - fated attempts of the post war 'Neo-Human Relations' theorists to combat this alienation by espousing 'self - actualisation' through work - a state of mind which is notoriously difficult to achieve unless one has complete autonomy of action and freedom from control. In the words of Marx:

[Co-operation] only begins with the labour process, but by then [workers] have ceased to belong to themselves. On entering the labour process they are incorporated into capital...the *socially* productive power of labour develops as a free gift to capital, whenever the workers are placed under these conditions, and it is capital which places them under these conditions (Marx 1976: 451)

The capitalist's distance from production can be best illustrated by the delegation of administrative tasks to managerial employees thus becoming '...disaggregated,

transformed from an individual entrepreneur of the “heroic” type into a component of the joint stock limited liability company’ (Robinson, 1966, cit. Binns 1992: 34).

Storey (1981) stipulates other key elements of the capitalist labour process as being co-operation, the division of labour, the use of machinery and large scale industry, noting that real subjection of labour occurs when workers co-operate. This co-operation, argues Storey, not only alienates the worker from the product of labour, but also from the process. Braverman (1974) mirrors this view, combining it with a better known aspect of the Marx's theory - the division of labour. This division of labour, characterised by control and the moves towards 'machinofacture' in the labour process, precipitates the intensification, fragmentation, degradation and ultimate deskilling of work under capitalism. The relative merits of this argument are not under scrutiny in this instance however, one may recall the arguments in chapter one which predict that CBM results in the fragmentation, intensification and deskilling of work.

So what contribution does Marx make to the understanding of the power - knowledge relationship as this relates to CBM. *A priori* it is possible to draw upon the axioms of the deskilling thesis - if the technological progress of capitalism deskills the labour process, then this knowledge of the labour process must pass into the hands of capital; either being incorporated into the technology itself, or being codified by management into rules and procedures - Taylorism, though limited in its original impact, is a perfect example of this. In both cases knowledge becomes the property of capital, and labour is disenfranchised. The increased interchangeability of separate units of labour power (workers) increases their subordination to capital and hence increases the power of capital over labour. The Marxist solution to this undesirable situation is its extrapolation into class struggle and eventual revolution. In essence, point of production resistance and the occasional strike is as far as it gets.

The work of Gramsci echoes Marx in that he assumes that there are a number of unique groups in society with fundamentally conflicting interests. Invariably one of these groups has hegemony, meaning that they have succeeded in persuading other classes to accept their own values. If this ruling class is successful in this endeavour, the minimum

amount of force will be used (Joll, 1977). Here we see the development of a 'consensual model' which can be successfully applied to the industrial relations arena. Gramsci does not discount the possibility of conflict, but tends to view it as an infrequent occurrence associated with 'periods of crisis' (Joll 1977: 100) whereas Marx treats conflict as the predominant undercurrent of production relations and any peacetime is a result of real subordination and enforced co-operation. Moreover Gramsci acknowledges that the factory is the perfect example of hegemony because '...the industrialists are the ruling class in a very direct sense: hegemony is born in the factory and to be exercised requires a minimal number of political and ideological intermediaries'(1971: 285). The structural implications of this phenomenon are also espoused with '...the necessity of developing a new human type in conformity with the new type of labour and the production process. The evolution of a new type of capitalist man might, on this view, delay the development of socialist man (1971: 286). Again we see parallels with Marx's alienated worker and Braverman's deskilled craftsperson in this extract.

Treating these theorists as a group it is possible to conceptualise the power - knowledge relationship in capitalist organizations as irreversibly pluralist. There is a conflict - consensus dialectic in operation which is in a constant state of flux and tension. The type of control which is experienced by the ruled class is dependent upon whether the type of power being exercised is coercive or hegemonic. Knowledge and hence power is thus accumulated in the production arena and represents the basis of the class division.

Max Weber is the next theorist to be tackled by Lyon who again describes the accumulation of power by capital but with different assumptions and a different explanation. Weber, when concentrating on the problem of bureaucratic efficiency, would likely have seen electronic surveillance as a more efficient way of storing and retrieving data. The fundamental difference between Weber and Marx in terms of the power - knowledge relationship is that Weber neither extrapolates his analysis to class, nor to society. Rather, he applies it to bureaucracies, 'of which capitalist businesses are but one type' (Lyon, 1994: 25). Another distinguishing feature of Weber's framework is that, whilst he acknowledges the existence of class antagonisms in society at large, there is no

place for conflict in his bureaucracy, since rationality is the overriding value (Dandeker 1990). This phenomenon could be termed as 'hegemony without the crisis' if we follow Lyon's interpretation:

All administration is based on written documents, processed by a hierarchy of salaried officials, and impersonal rules based on up-to-date technical knowledge. Efficiency is allegedly maximised through this system, but so is social control. *Members come to accept the rules as rational, fair and impartial.* The director of a bureaucracy can predict with certainty that orders will be implemented in a rational manner. (emphasis added; Lyon 1994: 25)

Dandeker (1990) helps us to understand this process by the use of several historical models based on the assumption that modern capitalism institutionalises rationality. It should be noted at this stage that there is a major problem with rationality as a concept. Brubaker (1984) counted sixteen different meanings of rationality in Weber's work (that which is translated into English), and the latter is unclear as to which definition he is using when¹. Nevertheless, Dandeker describes the rationalisation process in a somewhat neo Machiavellian style since he associates it with the development of scientific reason and the rational - legal state. However, as is recognised by other writers (e.g. Storey 1981) the business organization is a special case since it operates in conditions which maximise economic conduct. There is thus a strong motivation to reduce everything to numerical calculation - according to this thesis then an inefficient enterprise would still be rational if it could calculate problems in a numerical form. Thus Dandeker describes bureaucracy as being the optimal combination of knowledge and discipline. In the words of Mayer (1944):

Precision, speed, unambiguity, knowledge of the files, continuity, discretion, unity, strict subordination, reduction of friction and of material and personal cost -

¹ The most frequent / important meanings have been identified by Reitman (1991) Brubaker (1984) and Storey (1981) thus:

Instrumental Rationality: where an individual makes a choice among ends using subjective criteria

Technical Rationality: where an organization makes a choice oriented towards specific ends using objective criteria.

Subjective rationality: Where action is 'conscious and deliberate' (Brubaker, 1984)

Objective rationality: Using technically correct means in accordance with scientific knowledge which measures up to a value neutral standard

Economic action: Weighing alternative means to choose between alternative ends, applying and objective standard

Formal rationality: where there is no recourse to scientific knowledge but rather to contrived formal logical devices eg accounting (Storey, 1981)

Substantive rationality: refers to the values and interests of individuals and groups.(Storey, 1981)

these are raised to the optimum point in the strictly bureaucratic administration and especially in its bureaucratic form.

Returning then to the historical model of the rise of bureaucratic surveillance espoused by Dandeker (1990) it is apparent that we must locate the modern business enterprise and surveillance within the growth of competitive and organised capitalism. It is also noted that during this growth, the 'invisible hand of the market is supplanted by the visible hand of bureaucratic management' (p61) thus emphasising the artificial divide between a firm's internal and external environments. Drawing on the work of Weber, Foucault and Giddens, Dandeker contends that we can understand the development of different modes of surveillance in the context of the '...external relations of the nation state and the field of military power; the internal relations of nation states and the formation of police surveillance; and the business enterprise in the modern capitalist system' (p64); however the most predominant force in this process is capitalism, which he describes thus:

Its importance can be seen in the establishment of a feedback loop between military and economic power and thus the formation of modern nation states; in the undermining of patronage and personalized forms of surveillance as the principle media of societal integration and thus in providing the material basis of police surveillance; and in creating mass markets for labour and other commodities as a context in which the modern bureaucratic enterprise could flourish.(1990: 64)

Surveillance then, like capitalism, is a feature of late modernity. Indeed, the one is a function of the other. They are mutually supportive. This view is shared by a number of authors investigating CBM (e.g. Attewell, 1987; OTA 1987) who claim that work monitoring is nothing revolutionary or new. It is merely the means by which this is done that has seen change (i.e. the introduction of the computer). With the expansion of capitalism over national borders, and thus the retreat of political control over organizations bureaucratic surveillance is the only way in which control over (1) performance, (2) planning and (3) specialist functions can be maintained.

Discipline and the subject is examined by Michel Foucault, and in the first reading of *Discipline and Punish* one would be forgiven for mistaking his analysis of the power - knowledge relationship as a particular synthesis of Marx and Weber.

However, Foucault argues that it is the conception of power itself and its relationship with the subject which distinguishes the three authors. Lyon (1993: 24) expresses Foucault's contribution to our understanding of surveillance thus:

Modern societies have developed rational means of ordering society that effectively dispense with traditional methods like public punishment. Rather than relying on external controls and constraints, modern social institutions employ a range of disciplinary practices which ensure that life continues in a regularized, patterned way.

This type of categorisation was observed in supervisors working with CBM (see chapter two). We can also see parallels between Foucault and Weber since they both describe the bureaucratic phenomenon of knowledge accumulation in a rational, quasi - objective way about individuals and things, and both imply that the subject is reduced to a manipulated and compliant object. According to Foucault, this reduction, and the subsequent rise in the 'docility and utility' (1991: 218) of subjects is based upon the subject's desire to avoid punishment. Rabinow (1984) describes this social order perspective which Foucault calls 'panopticism' and the way it permeates every aspect of our lives: '..what generalises the power to punish...is not the universal consciousness of the law in each juridical subject; it is the regular extension, the infinitely minute web of panoptic techniques' (1984: 213). Foucault termed this subjection 'the political technology of the body' (1991: 26).

Foucault used the work of the nineteenth century prison reformer Jeremy Bentham to develop this metaphor. The panopticon was a unique circular prison with a tower at the centre and the cells surrounding it. The central tower had wide windows which enabled the watchperson to gaze into the cells of the prisoners. This gaze was aided by backlighting in the cells, which turned the prisoner into a shadow, and so its every movement could be watched. In the words of Foucault: '..he is seen, but he does not see; he is the object of information, never a subject in communication'(1991: 200). The use of this metaphor has been used to describe Japanese work techniques (Sewell and Wilkinson, 1992), CBM (Lyon, 1993) and appraisal (McKinlay and Taylor, 1994) For Foucault '...it is even harder in his work to discern anything but negative conclusions about surveillance and control. For him, any dreams of a democratic future seem 'foreclosed by ubiquitous power' Lyon (1994: 36)

A reference to the Criminal Justice Bill and its effects upon new age travellers more than illustrates the strength of surveillance in terms of police and state surveillance. In an analysis of the Panopticon metaphor in terms of the modern capitalist business enterprise Lyon (1993) poses the following questions: (1) Can the panoptic be generalised over different social spheres? (2) Does the panoptic do justice to the realities of social order in capitalist societies today? and (3) Does the panoptic yield a complete picture of the origins and nature of surveillance? Directly relating his answers to the use of CBM he concedes that it does exhibit panoptic qualities due to its capacity to invisibly inspect and categorise individuals, but questions whether CBM exhibits the internalising ideological control which characterises panoptic power. Furthermore, seeing the panopticon in a totalizing way deflects attention from other ways of social ordering such as kinship and peer groups. Finally he makes a philosophical point - since Foucault did not admit that there was a basis for outrage against the panopticon, a critical theory of surveillance has to come from elsewhere. CBM truly takes its place in the Modernist paradigm when Lyon asks if it really eliminates love, care and trust.

Since panoptic power permeates every micro and macro level of society, (it is not confined to just bureaucracies or class relations) members of organizations are also constrained by its gaze. The type of surveillance which Dandeker (1990) associates with the rise of bureaucracy will thus curb the minds of organizational actors to behave in a way which is accepted and 'normal'. According to this, therefore, point of production resistance and strikes will be met with coercive discipline. We have already highlighted some Foucault - Weber parallels but the subtle distinction is pointed out by Dandeker. Foucault locates the rise of surveillance as a form of discipline in an ideological transformation associated with the enlightenment, rather than with technical imperatives of the increasing size and development of the enterprise. Accordingly he is described as anarchistic and individualistic in his critique.

A further critique of CBM has its roots in *The Electronic Eye* but as yet is underdeveloped. This concerns the idea that we have moved on from the modern condition via information technology, and that the question of electronic surveillance asks

questions that sociology as it stands cannot answer (Lyon, 1994). Alongside Science's continuing struggle to explain the universe, Lyotard suggested that people now turn to computer technology to give them the certainty that they require. He claims that we collude with surveillance systems, but we are unsure why. Knights (1990) offers some explanation in terms of 'self management' and how Foucault:

...bridges the void between determinism and voluntarism by developing an analysis in which power is seen to be embedded in all inter - subjective relations, always involving actions upon the actions of others and constituting others as 'objects' of self - management. This self - management occurs not least because the exercise of power transforms individuals into subjects who secure their sense of meaning and reality from participation in the practices that it generates and sustains. Yet relations of power are simultaneously articulated through subjects who mobilise, reproduce and/or resist their disciplinary effects. In this formulation, subjects invariably stand in an ambivalent relation to organizational practices and mechanisms of power through which their everyday actions are mediated. (Knights, 1990; cit. Coombs, Knights and Willmott, 1992: 53)

It has been suggested that IT, when used for communication purposes further decentralises the subject, and we have to adopt yet another identity far removed from ourselves when we are using this technology. Lyon terms this 'loss of personhood' (p17). However, an exploration into the realms of postmodernism is not appropriate in this context. This is because we would have to take broader civil libertarian issues into account which are outside the scope of this study. Here, we are strictly limited to more narrow workplace issues. However, new conceptualisations of power were recognised, and the insight gained from the reading of Foucault will help us synthesise and develop an understanding of CBM processes in organizations.

3.4: From structuralism to post structuralism: new conceptions of power and IT

In the last section we examined the work of three major theorists and their contribution to our understanding of the power - knowledge relationship. This section attempts to synthesise their respective approaches, using power theory and labour process control theory to highlight their distinctive contributions. These are summarised in table 3.1(a). This will then form the basis of the development of the specific

theoretical stance which this study will take. This position will be substantiated with examples from other recent case studies.

To begin with, we shall summarise the relevant parts of the work of Marx, Weber and Foucault in tabular form, and continue our theoretical analysis of CBM.

Theorist	Process of knowledge accumulation
Karl Marx	Deskilling process. Knowledge of production process to capital.
Max Weber	Knowledge accumulated by rational - legal bureaucracy in the form of procedures, rules and files.
Michel Foucault	Panopticon facilitates total knowledge of subject through perfect visibility. .

Table 3.1(a) :Synthesis of power - knowledge perspectives

Tables 3.1(a) and (b) summarisethe most important aspects of the work of Marx, Weber and Foucault which may shed some light upon our understanding of the development of CBM systems. The type of power base is classified according to French and Raven's framework (1968). If first we draw on work reviewed in chapter two, we can see that CBM is symptomatic of modern developments in the progression of the capitalist

Theorist	Power base	Control dialectic?	Surveillance Located
Karl Marx	Increased interchangeability and commodification of labour. Reward and coercive power	Yes	In class relations
Max Weber	Passive acceptance of bureaucratic dominance by labour. Legitimate power	No	Historically
Michel Foucault	Subject internalises 'gaze' and 'normalises' behaviour. Expert power	Yes	Ideologically.

Table 3.1(b): Synthesis of Power - knowledge perspectives

enterprise. It is characterised by the standardisation and mechanisation of work, and the gradual accumulation of knowledge about the subject by the enterprise. Sewell and Wilkinson (1992) and McKinlay and Taylor (1996) also noted that CBM and surveillance in modern organizations bore a great resemblance to the ideological self control as espoused by Foucault. In a later section it will also be shown that models of CBM - notably Westin (1986) and Attewell (1987) bear close analogical resemblance to labour process control theory.

So far this analysis makes a number of assumptions. One is that there is some overlap, implicit or explicit, between the work of Marx, Weber and Foucault. Upon close reading of Weber and Foucault, it is possible to find references to Marxian ideas for example. However, our major assumption is that in describing and explaining power - knowledge relations, the power - knowledge relation itself remains a 'black box'; a dependent variable, so to speak. Various explanations of 'power' have been offered by both the disciplines of political science (Dahl, 1947; Bachrach and Baratz, 1962; Lukes, 1974;) and organizational theory (Hickson et al, 1971; Pfeffer, 1981; Mintzberg, 1983). The main difference between these two groups is context. The former tend to concentrate on language - based interactions (which may or may not reflect environment, depending on the theorist), whilst the latter concentrate on more bureaucratic aspects of organizational power on a more macro level, such as resource dependency, coalitions and strategy. These latter models also tend to be *post - hoc*, prescriptive and positivist in nature. This is in contrast to the former which exhibit a shift from positivism to interpretivism, and are thus more flexible. The two are transcended by a post modern, relativist and more critical approach espoused by Clegg (1989) and applied at length by UMIST School of Management theorists (Coombs, Knights and Willmott, 1992; Knights, 1990; Knights and Murray, 1990, 1992; Knights and Sturdy, 1990; Knights and Willmott, 1985, 1987, 1988 & 1989; Bloomfield and Coombs, 1992). This approach successfully interfaces ideas of individual interaction with more macro concerns such as agency and coalition.

First then, we will briefly examine the contribution of theories from political science to understand CBM and power. An overview of these theories is given by Kirkbride (1992), and an in - depth review by Clegg (1989). Conventional views of power can be classified as one, two or three dimensional, each building upon the deficiencies of the previous theory. The first labelled 'behaviouralism' by its author (Dahl) and incorporated by Weber into his theory assumes that 'A has power over B to the extent that [s]he can get B to do something he would not otherwise do.' It is assumed that A's power will have a resource base, that A's power will have a limited range or scope over B, and it is very context specific. According to this theory, the relative power of the parties can be measured by a review of decision outcomes. Needless to say this pseudo positivist approach presents us with some problems. Despite defining resources as cash, popularity, control over jobs and control over information, and resource utilisation as political skill, motivation to use power costs and opportunity costs, this list is by no means finite. Thus there may be several confounding variables, and the scope of B's responses is limited in advance. The concept of power games is thus rendered inexplicable by this theory as is '...the capacity of some persons to produce unintended and unforeseen effects on others' (Wrong, 1979: 2). As Weber (1947) suggests, this theory only deals with explicit domination as in his typology of 'traditional leadership'. In the words of Kirkbride:

This perspective ignores the fact that the 'losing party' may actually possess a substantial amount of power and thus does not discriminate between an issue where one party only just manages to 'win' and an issue where one party 'wins' easily...The one dimensional focus on identifiable decisions and visible decision makers also ignores the fact that some decisions may be withheld from the bargaining and decision making arena and that 'real' decision makers may be concealed from public view. (p 70)

Bachrach and Baratz (1962) criticise this model and create a concept of 'non - decision making' where A not only dominates, but also creates or reinforces values which limit the scope of discussion. This non - decision making can work in three ways: A may not attend to the demands of B; B anticipates A's reaction and does not raise an issue; and A can 'mobilise bias' i.e. determine whether or not the issue crosses the mind of B. Some

attempt is made, then, to link political structure with individual actions here. However, the work is not without its critics. Wolfinger (1971a) questioned the status of abstention and non participation in this theory, which may stem from people being unaware of their 'real' interests. Furthermore, routinisation may have much to answer for in terms of what actually reaches the discussion agenda.

This critique formed the building blocks of Lukes' three dimensional view of power, which attempts to incorporate the expression of 'interests' into a model as a logical extension of 'non - decisions'. This highlights the fundamental idea that one actor may also exercise ideological control - and is thus linked to Gramsci's idea of 'hegemony' and Marx's false consciousness. The main processual idea in this theory is that people are usually constrained from expressing their real interests because of more powerful others who define the agenda. According to Habermas (1978), then, these interests would be expressed in an 'ideal speech situation', given that all speech is directed towards truth. Clegg (1989) criticises this since it would be impossible to operationalise. Gaventa (1980) in her discussion of real interests criticises this third dimension since it may lead to fatalism; and since participation will increase the political 'consciousness' this consciousness may well be very badly expressed.

However, Lukes offers some useful insight into power and structure. He draws upon voluntarist, Marxist and relativist ideas. According to Clegg (1989) this is due to Lukes' acknowledgement that structure predivides power, but agents operate with relative autonomy within this structure, albeit within predefined limits. Layder (1985) also points out that when we take account of this, and combine it with the idea of agency (see later) the role of structure as a determinant of power is marginalised, but it still operates as a constraint. In conclusion, Clegg observes that the problem of the operationalisation of Lukes is problematic, yet Marxian analysis is inevitable because it is all encompassing. It is then acknowledged that the objective interests of Marxism are long

term, so 'in the short term the structural power / agency power tension has not been resolved.'

More structural views of 'organizational power' are taken by authors such as Hickson et al (1971) and Pfeffer (1981). Pfeffer (1981) and Hickson et al (1971) typically see power as 'a structural phenomenon, created by the division of labour and departmentalisation that characterise the specific organization' (Perrow, 1970; cit. Pfeffer, 1981: 4). Accordingly, power is the property of the dormant system, and politics concerns the activation of the power. In an idea which will be developed later, Pfeffer claims that politics occurs when power and control are dispersed. Indeed '...organizational politics involves those activities taken within organizations to acquire, develop and use power and other resources to obtain one's preferred outcomes in a situation in which there is uncertainty or dissensus about choices' (p7).

Moreover, Hickson et al (1971) develop a contingency model of power based on the contingent position of subunits. An organizational subunit is more powerful if (1) it can cope with uncertainty; (2) it is less substitutable; (3) its workflows are more pervasive; (4) its workflows are immediate in their effects on the other subunits. These theories are of course characterised by the total absence of the subject. This is in complete contrast with Marx, who refers us to our class, our consciousness and our 'species being' in his analysis. What Clegg is arguing is that to synthesise the two theories, and hence resolve the structure / power / agency tension, we must develop a transcendent theory of organizational agency.

A similar view is taken by Kirkbride (1992) who draws upon the work of Giddens' (1976, 1979) 'structuration theory' which argues that social life occurs at three levels: action, mediation and structure. Action is the level at which rhetoric operates, and is essentially based on an individual level of analysis; structure represents the patterns of social activity and routine elements of life. The two are linked by a mediatory level, which, on the surface at least corresponds to Clegg's notion of organizational agency. Power, according to this, refers to the ability to transform resources into outputs. However this is in turn also constrained by 'structures of economic and political

domination' (Kirkbride 1992: 75). Therefore, rather than developing a resource or structural determinist theory, the linchpin of the transformation process is the legitimising of the ideology of one party, which is usually achieved through language. He describes this in relation to the employment relationship thus:

Rhetoric can be seen as drawing upon deeper 'legitimising principles' or 'acceptable motives for action' (Armstrong et al 1981: 36) which are held by the actor (or actors) and which, in turn, are drawn from a particular world view or ideology. Thus, management may unilaterally issue certain edicts which reflect certain acceptable motives or principles (such as the 'right to manage' or 'efficiency') which are themselves drawn from a wider 'managerial ideology'. (p 75)

We shall expand upon these ideas in our discussion of labour process control and its applicability to CBM. It should be noted, however, that Kirkbride's model implicitly acknowledges resistance and elaborates upon the meaning of 'worker ideology' which features heavily in Westin's (1986) model of CBM thus:

Because managerial ideology is generally dominant, workers are reduced to using management's own principles and arguments against them (Kirkbride, 1988b) or appealing to what Armstrong et al have termed 'concensual principles of justification' (1981: 95). These include appeals to consistency of treatment or rule application, earlier precedents, fairness of treatment, natural justice and ethical standards of behaviour.(p 79)

However, disciplinary power can also be exercised by constraining the movement and freedom of workers through the assembly line, by CBM, and by rules and standardisation; and this is acknowledged by Kirkbride. However, it seems that Kirkbride has drawn a false dichotomy between disciplinary and hegemonic power if the use of such systems is 'legitimised' as he puts it. Then disciplinary power is merely a subset of the whole managerial resource base. This is where Clegg's agency theory helps us.

To Clegg, the 'agency' as a concept is founded upon the contract of employment and its deficiencies:

To consider these people as 'labour power' as well as, or in opposition to considering them as 'members' immediately invites reflection on them not only as Durkheimian dwellers in an idealised moral community but also as labourers toiling to preserve their 'species being' resisting alienation, in Marx's metaphor. (p102)

Clegg also examines the concept of resistance, its mobilisation, its language base and how it relates to systems of meaning as well as relations of production:

What is taken to be sacred and what is taken to be profane depends entirely on relations of meaning. Such relations of meaning are as resistant to total control as are the relations of production...Resistance to any attempt which seeks to freeze meaning in any specific regulation of it will always be intrinsic to the nature of language as a moral community. (p102)

Accordingly it is proposed that employers face two sorts of resistance: resistance to organizational encroachment on employees' discourse as well as their capacity to work. Needless to say, organizations feel the need to discipline both of these aspects of workers. This is acknowledged also in the labour process control debate but couched in terms of the conflict / consensus dialectic.

The need to control meaning stems from the paradoxical nature of delegation. Since an agency becomes more powerful by delegating authority, the successful delegation thereof can only proceed with the following of rules. Thus this discretion in interpretation potentially empowers delegates and as such delegates' interpretative systems need to be disciplined. It would seem that this analysis holds at any organizational level. Accordingly, power is expressed in an interpretive and ideological sense, which is taken in this thesis to transcend the gap between organizational structure and individual action:

Power is expressed in and through disciplinary practices and in and through struggles against or in resistance to such practices. Resistance to discipline is irremediable. Not because of 'human nature', 'capitalism' or any other putatively essentialist category. It is irremediable because of the power / rule constitution as a nexus of meaning and interpretation which, because of indexicality, is always open to being refixed. (Clegg 1989: 109)

So here we have a concept of power in organizations which encompasses the issues of structure, strategy and rules on one hand; and the interpretations and meanings given to them on the other. This can result in acceptance of or resistance to those rules, and a corresponding shift in their subjective meaning. All this is a function of the disciplinary nature of coercive and hegemonic power in organizations, and the extent to which rules are 'obeyed' is pivotal upon the concept of agency.

3.5: Strategy and the control of production

CBM is the latest tool in the technical control of production. A useful history of this control method is given in Edwards' *Contested Terrain*. Edwards (1979) defined a system of labour control as embodying three elements: (1) the direction of work tasks; (2) the evaluation of work tasks; (3) the rewarding and disciplining of workers. He maintained that technical control only emerged when the entire plant's production process or large parts thereof were based on technology that paced and directed the labour process. It is suggested that control systems move from being simple (personal intervention by the supervisor) to technical (controls embedded in the physical structure of the labour process) to bureaucratic (controls embedded in the social structure of the workplace). The general trend in Edwards' analysis is therefore that at time passes, and as production becomes multinational and complex, control systems will have to be more elaborate. However, Thompson (1983) has criticised this analysis on the basis that it is too deterministic and linear in nature. Indeed, Reitman (1991) demonstrated that these three types of control did not emerge in a linear fashion but were relational in nature. The dominant form of control in any one organization was also shown to be related to certain environmental imperatives of the firm. The central question for CBM therefore, is to what extent its development may be seen more as linear over time, or more as a relational construct.

The latter relationship is one which has caused much consternation amongst labour process theorists since Braverman's original analysis in 1974. The original implication of such work was, as is implied above, that as capital accumulation needs changed, so did the imperatives for managerial control. However, as Littler (1982: 34) notes '...the linkage between the logic of capital accumulation and transformation of the labour process is an indirect and varying one.' For the first time our attention is drawn to the role played by management in interpreting the environment, as Salaman (1982: 62) suggests that labour process has gone 'beyond the abstract statement of the differentiated functions and requirements of capital , to a consideration of how these are

actually achieved, in the context of concrete mechanisms mediating between economy and work designs' and 'consequently, control is less oriented to the direct labour process but to issues of product quality, equipment utilisation, inventory and markets' (Clegg, 1989: 106).

This critique of what Reed terms 'functionalism and...an evolutionary theory of control systems' (1989: 46) has prompted widespread acknowledgement of the fact that many control strategies are inherently contradictory:

Strategic choice exists, not because of the weaknesses of structural determinations, but because these determinations are themselves contradictory...For individual capitals - as for capital in general - there is no 'one best way' of managing these contradictions, only different routes to partial failure. It is on this basis that managerial strategy can best be conceptualised: as the programmatic choice among alternatives, none of which can prove satisfactory. (Hyman, 1987:30)

This uncertainty has spawned two groups of theorists who are intent on understanding the trends of control and strategy. The first, according to Reed (1989) have identified a long term trend in the direction of more integrated control systems; whilst the second are more aware of the fact that control systems are more internally differentiated.

The first group, which includes Storey (1985a) and Burawoy (1985), concentrate on the development of centralised computer based management and production control systems. Burawoy (1985: 150) states the problem in terms of domination and hegemony:

The rise of hegemonic regimes, tying the interests of the workers to the fortunes of their employers, embodying working class power in the factory rather than state apparatuses, and the reinforcement of individualism has left workers defenceless...against the recent challenges of capital...the new despotism is founded on the basis of the hegemonic regime it is replacing

This certainly bears some resemblance to the control devices used in Total Quality Management (TQM) and Just in Time (JIT), and suggests a combination of both ideological and rational control devices. It is contended that CBM increases the parameters of both of these types of control termed in other places as: soft and hard HRM (Oakland, 1988); behaviour and output control (Ouchi, 1975); direct control and responsible autonomy (Friedman 1977); and co-operation and coercion (Zeitlin, 1985), and shown to be an outcome of increased surveillance by McKinlay and

Taylor (1994). However, Bloomfield and Coombs (1992) addressed this issue of centralisation vs. decentralisation in the context of the NHS data model and note with some vigour that they are not mutually exclusive. Indeed 'for just as a manager might seek to influence doctor's behaviour through information supplied from Resource Management systems, so too doctors might demand more resources on the basis of their efficiency as constructed and made visible by those very same systems' (p 482). However, this is subject to one qualification: the extent of the decentralisation of power and autonomy via this system is located in the context of the relationship between managers and doctors. The context of the relationship between managers and high volume service operators may not facilitate this decentralisation process.

It is also important to note that Burawoy's 'hegemonic despotism' implies that middle and lower level managers closely follow strategic imperatives. As we shall soon see this is not always the case - in the words of Richard Badham 'the Luddites are always on the next level down' (HAAMHA conference, 6 - 8 July 1994).

The second group of theorists (Child (1972), Hyman (1987)) base their arguments on the greater differentiation between and within firms, and growing skill differentiations between 'core' and 'periphery'(Atkinson (1984). The casualisation of labour in the periphery has resulted in internal segmentation of control strategies, and their being subject to less 'ideological control' than the core. Furthermore, the advent of 'flexible specialisation' and market - based systems have other control implications for new technology, but this is highly context specific, and largely depends upon 'product and labour markets, corporate histories and cultures, and the distribution of bargaining powers and skills among organizational stakeholders' (Reed, 1989 :48). For an excellent example of this, see Knights and Murray (1990). Reed (1989: 49) concludes that:

We need an approach to the analysis of managerial control systems that is sensitive to the breaks and ruptures that inevitably occur between corporate strategies and their actual implementation in the organization of the labour process and at the level of work task design. The mediating role performed by middle managers, work organization designers and workers in translating general objectives and imperatives into operational systems also needs to be explored.

It was suggested earlier that control strategies may well be contradictory and differentiated. An excellent example of the piecemeal and disjointed nature of IT strategy formulation, and its corresponding organizational consequences can be found in Knights and Murray (1992). This case study also adopts the conceptualisation of power outlined earlier on in this chapter. In a strategic sense, however, it has been argued by a number of theorists that management's attempt to control labour will always be constrained by the necessity to bargain for voluntary co-operation from the workforce (Zeitlin, 1985). Accordingly, a number of dichotomies have been drawn, notably by Friedman (1977) as to the different labour control strategies which emerge as part of corporate strategy. The two strategies are labelled direct control and responsible autonomy. The former aims to minimise management's dependence on labour by reducing the skill and initiative needed to complete a task. The latter refers to the workers having a degree of discretion and influence over their labour process. Ideological indoctrination is seen as the main form of control here.

However, this theory has been criticised by Zeitlin since the two extremes are not necessarily mutually exclusive, and indeed are both enhanced by CBM. Furthermore, as was established by Child (1972) organizational strategy has 'knock on effects' (Barlow, 1994) for labour, but these are relatively indefinable. The inherent contradictions in the control debate are articulated by Edwards (1986: 80) and Hyman (1987):

'Control', need not, then, be seen as a matter of deliberate managerial policy. A system or a structure of control can contain a variety of elements which have been assembled as the result of particular responses to particular problems. Yet such a system or structure has real consequences for the way in which work is perceived and for what actions are possible. It is not simply imposed from above, for it reflects previous struggles; yet it constrains behaviour on the part of managers as well as workers.

Furthermore, Hyman's analysis parallels that of Clegg:

the function of labour control involves both the direction, surveillance and discipline of subordinates whose enthusiastic commitment to corporate objectives cannot be taken for granted; and the mobilisation of the discretion, initiative and diligence which coercive supervision, far from guaranteeing, is likely to destroy...Shifting fashions in labour management stem from this inherent contradiction: solutions to the problem of discipline aggravate the problem of consent and vice versa...Employers require workers to be both dependable and

disposable...contradictory pressures within capitalism help explain the restless but fruitless search for managerial panaceas.

Alongside this, Hyman notes that the most sensible basis upon which labour management control strategies are designed and implemented is a mixture of pragmatism, opportunism and incrementalism. For Hyman, Burawoy's hegemonic despotism is not an option, but the role of management politics is fundamental. This will be explored in relation to CBM in the next section.

3.6: Environmental Imperatives and Interpretive Schemes

The role of interpretation in organizational life and interaction is becoming more of a focus in organizational research. Subjects as diverse as strategy (see, for examples and a review of the literature, Johnson, (1988)), and labour process theory (see Knights, 1990; Clegg (1994) and Knights and Vurdubakis (1994)) are adopting subject and talk centred approaches to their study. The subject centred approach concerns itself with the internalisation of externalities by the individual, and hence addresses an individual's 'interpretive scheme'. There have also been parallel developments in social psychology. This thesis aims to apply such methods to the study of CBM, and examines similarities and differences between accounts both within and between case organizations.

In terms of the organization as a whole, Lorange, Morton and Ghoshal (1986) explain environmental imperatives as typically including technological, political, economic and social changes in the external environment, as well as internal imperatives which typically involve resource issues. As a leverage for change these imperatives are interpreted via individual meaning systems of organizational members, each of which have their own power agenda (for a good example of this, see Knights and Willmott, (1987)). A useful review of the literature in this respect can be found in Binns (1992). It is true to say that the concept of interpretive schemes explodes the myth of strategic rationality: Meyer and Scott (1983: 160) note '...organizations are special purpose collectivities

created to achieve goals, to perform work. Their meaning, their legitimacy and their potency come from *appearing* to be rational systems' (their emphasis).

Accordingly there have been a number of investigations into the phenomenon of belief configurations which are observed in response to environmental changes - several different terminologies have been used: ideology (Beyer, 1981); interpretive schemes (Bartunek, 1984); paradigms (Sheldon, 1980; Pfeffer, 1981b) and myths (Hedberg and Jonsson, 1977). It could, therefore, be assumed that such interpretive processes occur at non strategic levels of the organization, and pertain to more operational aspects of management, such as those interpretive schemes which govern the way in which Computer Based Monitoring technology is applied. This is the main concern of this thesis. McGregor's (1967) Theories X and Y are useful starting points for an examination of the likely interpretive schemes governing the management - worker relationship, which, arguably, would be most likely to affect the way in which CBM technology and its use as perceived by individual workers.

The work of McGregor (1967) is employed by Attewell (1987) in his model of CBM: he predicts that a monitoring context with a Theory X ideology (and a number of other environmental conditions) would be more likely to run the system like an 'electronic sweatshop' whereas one with a Theory Y ideology would not. The two theoretical standpoints are thus: Theory X, the traditional view of direction and control, has three assumptions: (1) The average human being has an inherent dislike of work and will avoid it if they can; (2) Because of this human characteristic of the dislike of work, most people must be coerced, controlled, directed and threatened with punishment to get them to put forth adequate effort toward the achievement of organizational objectives; (3) the average human being prefers to be directed, wishes to avoid responsibility, has relatively little ambition and wants security above all. MacGregor thinks that these assumptions underlie all management strategy, and is the thinking behind performance appraisal.

Theory Y, alternatively, has six assumptions: (1) the expenditure of physical and mental effort in work is as natural as play or rest; (2) external control or threat of punishment are not the only means for bringing about effort toward organizational

objectives. People will exercise self direction and self control in the service of objectives to which they are committed; (3) commitment to objectives is a function of rewards associated with their achievement; (4) the average human being learns, under proper conditions, not only to accept but to seek responsibility; (5) the capacity to exercise a relatively high degree of imagination, ingenuity and creativity in the solution of organizational problems is widely distributed in the population; (6) under the conditions of modern industrial life, the intellectual potentialities of the average human being are only partially utilised.

However, the way in which Attewell uses theory X and theory Y are not in the absolutist sense that they were originally described and intended. The fact that Attewell's manager does not use CBM in a pervasive way because of the way in which it would affect staff morale was interpreted as a theory Y assumption. This is despite the fact that the productivity figures generated were used for annual performance appraisal (which is theory X according to MacGregor). Accordingly, if we are to adopt the relativist stance in terms of strategy formulation, a literal interpretation of MacGregor is inappropriate. This is because certain cases of CBM are far more pervasive and draconian than their use for annual performance reviews, and as such a relativist interpretation and application of the theory is more appropriate here. Relating it to workforce feelings of 'oppression' by the system also implies that 'oppression' itself is a relative concept.

The next section examines models of CBM and reflects them against the power - control debates just described. In this way, the theoretical positioning and elements of the model used in this research can be built up, piece by piece.

3.7: Models of CBM

Four models of CBM have been developed / tested, two of which (Chalykoff and Kochan, 1989; Higgins and Grant, 1989) were examined in chapter two. To recap, Chalykoff and Kochan (1989) tested whether CBM affected job satisfaction and turnover

propensity directly or indirectly. The results were that the levels of satisfaction with CBM itself directly affected overall job satisfaction. Moreover, satisfaction with monitoring has a significant indirect effect on turnover propensity through job satisfaction. Their model is depicted in figure 3.1:

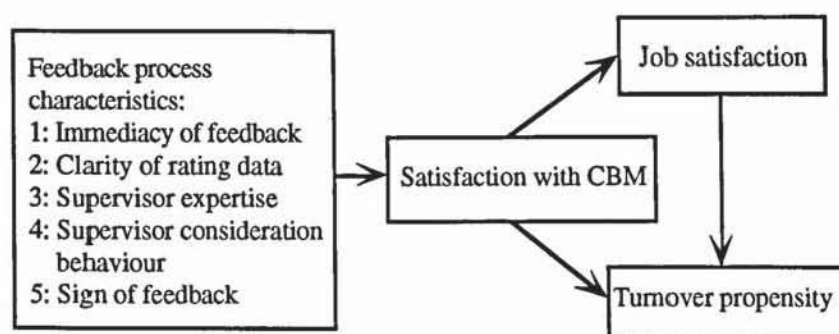


Figure 3.1: Chalykoff and Kochan's model of CBM and job satisfaction

Following their analysis, which also included several other endogenous variables which affected job satisfaction (baseline attitudes towards monitoring and additional factors influencing turnover) only these five aspects of the feedback / appraisal process were seen to have a significant effect upon satisfaction as a whole. These aspects of CBM systems and processes have been identified as significant by [^]number of other authors and have been highlighted in Tables 2.6 and 2.7 at the end of chapter two.

Aspects of the system itself were investigated by Higgins and Grant (1989) when they developed a model of CBM pervasiveness as follows:



Table 3.2: Higgins and Grant's (1989) model of monitoring 'pervasiveness'

Accordingly, the system is less likely to be accepted by employees when it observes the individual; gives feedback immediately and directly to that individual; and then broadcasts it on a wide basis; and the system paces as well as monitors the work done by individuals. However, a major and invaluable methodological note made by Grant and Higgins emanating from this work, is the caveat that when one investigates the effects of CBM, the characteristics of the computer system itself *must* be taken into account if a fair portrait of monitoring in that organization is to be painted.

Sociology has also contributed to the monitoring debate, with models locating CBM within a contextual framework. The first of these by Westin (1986) (overleaf) adopts a 'labour relations / Taylorist' dialectic according to the immediate resultant work situations surrounding the CBM system. According to this model, whether the effect of monitoring is perceived as unfair, dehumanising or unhealthy depends upon how management structures the work, what it does with the data it collects and how these actions are perceived by employees. As we can see the model is based on the 'Union' model, reflecting the ideology of fairness expounded earlier by Kirkbride, and also reflecting most of the recommendations made at the end of chapter two. The 'Taylor production model' is the bipolar opposite of this and is based on the famous approach to industrial engineering. This dichotomy is analogous to the coercion - co-operation dialectic within labour process control theory and may well correlate therewith (see Table 3.3)

On investigation, no pure examples of the union model were found, whereas the Taylor model was observed in its pure form in several US public and private sector organizations. Most organizations used a blend of both methods, with about 66% of this group tending toward the Taylor model.

It was acknowledged by the OTA (1987) that worker participation in the introduction of such systems was a major step towards assuring system acceptance. This was also acknowledged in a frequently cited literature review on new IT implementation by Mankin, Bikson and Gutek (1985). However a recently published survey by Gill and Krieger (1992) assessing the amount of participation in new IT throughout Europe,

Figure 3.2: Westin's dichotomous model of CBM

SOURCE: Alan F. Westin (1986) *Privacy and Quality of Life Issues in Employee Monitoring*. Contractor report for OTA (1987)

noted that out of the twelve European countries, UK was 5th most likely not to offer employee representatives any information during the planning stage of new technology, however, there is significantly more consultation at the implementation stage. Gill and Krieger attribute this to our more paternalistic industrial relations system, and this in itself precludes much participation at the planning stage. It would appear then, drawing on the ideas of Cooley (1981), and the more recent empirical evidence of Corbett (1994), that more managerial, capitalist ideologies may well be built into employee monitoring systems at the design stage which cannot be negotiated away by employee representatives. In a telling paragraph, Gill and Krieger also note that opportunities for involvement will be less predominant if the situation within an industrial relations system includes (1) cost reduction with little dependence on employees; (2) conflict based values; (3) multiunionism; (4) voluntarism and (5) decentralised bargaining.

Thus an individual firm's labour relations history and its interpretation of labour market and industrial relations developments is an important factor to consider when assessing the design and impact of CBM systems. This is one of the factors considered by Attewell (1987) in his theoretical analysis of whether CBM creates 'sweatshop' conditions or not. Drawing on aspects of theories from corporate culture, neo Marxist labour process theory, product and technological lifecycle theories, contingency theory and industrial sociology, Attewell takes one case study to demonstrate, through non participant observation and a few interviews that the environmental imperatives, particularly from the market had causal force as to the nature of workplace monitoring.

Deutsch (1986) notes that the wider contextual influences on the development of CBM in the US are as follows: (1) feminisation of the labour force; (2) the shift to a service - producing economy; (3) a recent growth in office automation; (4) a growth in clerical employment, resulting in disproportionate application of CBM to women; (5) a corresponding application of CBM potential to many workplaces; (6) non - unionisation of clerical employees; (7) industrial relations becoming more co-operative due to the challenge of international competition. It is probably true to estimate that these social

and economic trends are also apparent in the UK although there are obviously ethnocentric aspects of IR to some extent.

Attewell also notes that these environmental imperatives are mediated to some extent by 'corporate cultures and managerial philosophy.' This analysis refers to 'interpretive schemes' discussed earlier, which are termed 'ideology' in this research. The use of the term 'culture' is rejected in this thesis since it refers to '*shared* ideologies' (Kilman et al, 1985). Drawing on the power - control debates outlined earlier, it is evident that not everybody has identical beliefs nor does everybody have an equal chance to express those beliefs (Knights and Murray, (1990).

A more narrow set of work - related factors is listed by Westin (1988) who focuses a contextual analysis of CBM with the further exploration of various (both immediate and distant) environmental factors which would affect employee stress reactions to CBM. His model is depicted in Figure 3.2

Westin highlights not only the more 'soft issues' such as involvement, communication and autonomy, but also the 'hard' ones, such as pay, promotion, job security and ergonomics. In its current format, this model represents a complex concoction of interlinked imperatives which it is nigh on impossible to investigate in one study, especially if this is combined with other research findings. The other problem with the production of all inclusive lists in business research is that they contain many caveats as to what *could* happen, yet they do little to pinpoint what actually *does* determine organizational outcomes of computer based monitoring. That point is the focus of this study.

This research has thus to address and take account of computer based monitoring and its effects on individuals who work with it, yet at the same time understand the context within which it lies as a unique underlying and determining factor in its use. Assessment of factors such as closeness of supervision, emphasis on performance measures and job satisfaction is difficult since they are bound up in their organizational contexts. The exploration of organizational context remains problematic. How can we



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Westin, A F (1988) Electronic monitoring of clerical work on Video Display Terminals: The organisational climate factor and models of good employer practice. Page 8.

Figure 3.2: Westin's model of contextual factors which affect perceptions of computer based monitoring.

examine it in a way which will provide sufficient focus on computer based monitoring without glossing over the nuances of the context in itself?

How monitoring actually works in organizations will depend upon the meaning which is attached to it by those who interact with it on a daily basis: workers, supervisors and managers. Individual reactions will not be uniform, like some research seems to imply, and so the aim of this research is to locate monitoring in its discursive context within the organization and examine how individuals speak about it, and other related aspects of their work. The focus of this research is truly on the individual, rather than the production of a formulaic universally applicable list of 'maybes'.

This study will examine, through the talk of individuals, different organizational values which are pertinent to monitoring and their relative power in affecting the individual's interpretations of the monitoring process. Thus, analysing how employees talk about the feedback process, the relationships they have with their managers and peers and the organization itself will be most revealing in this respect.

3.8: Conclusion

It is no accident that considerable space has been devoted to examining the broader theoretical issues surrounding the surveillance debate as examined by work in the areas of philosophy, labour process theory, strategic management and political science. CBM is part of all these debates. This work also encompasses ideas and theories from the area of power, discourse analytics and interpretive repertoires / ideology. The task now is to focus the study itself onto a set of coherent research questions which the aforementioned debates will inform.

The decision is therefore to (1) amalgamate previous work to form one large case study type question or (2) to identify gaps between each study and hence investigate hitherto uncharted area in the use of CBM systems. It is suggested that option (1) would be a wholly unrealistic solution to the problem of research focus due to the sparse and poorly defined theoretical and methodological nature of previous work.. Option (2) is favoured since it not only requires us to differentiate between various theories but also requires us to identify common themes, thereby requiring a more analytical stance and thus increasing the chances of adding to the theoretical and empirical stock of knowledge.

In addressing option (2) the first thing to note is that Attewell, Westin, Grant and Higgins and Chalykoff and Kochan whilst highlighting issues and (with a degree of contortion) levels of analysis fail to focus our attention on any one set of factors which can aid an investigation of CBM. Their 'list like' conclusions are essentially the results of empirical work rather than 'theory' in the positivist sense. Accordingly the causal links they identify are weak and they do little to help the situation of this study. Nevertheless

a common theme running throughout all the work undertaken in this area is the commitment to find a reasonably finite set of factors which will determine the acceptability of CBM systems and their associated performance appraisal processes to employees. In the majority of cases the focus has been upon the relationship between 'managers' and 'workers'. When reading quotations from interviews or the more anecdotal reports of CBM systems in use in America it is therefore not surprising to discover a common conclusion being 'it's not the technology, it's how it's used'. This suggests that there is little opposition to monitoring itself, but there are a number of contextual factors which make it more or less acceptable to workers. Suggestions for candidate factors could be drawn from any one or all of the studies reviewed here.

Accordingly, close examination of the implications of the statement 'it's not the technology it's how it's used' is helpful to us in the selection of a research focus. The statement itself implies a number of further questions thus:

- Who 'uses' the technology and upon whom is it 'used'?
- Who is in the best position to evaluate the manner in which the technology is 'used'?
- Is there reason to believe that there will be inter firm differences in the way in which CBM systems are perceived to be used?
- What could be the reasons behind interfirm variations in the implementation and use of CBM which could result in varying perceptions of its 'use'?

The answers to these questions may seem short initially, however they lay the foundations for discussion of methodology in the next chapter. In a simplistic sense, it is apparent that CBM technology is used *by* 'managers' *on* 'workers', hence the best people to evaluate whether the system is 'acceptable' or not (it is noteworthy that definitions of what 'acceptable' means will vary) will be managers and workers. Accordingly the focus of this study will be on the management - worker relationship, with any reference to the wider organization being provided only by the subjects themselves in response to the null hypothesis (see later).

There is good reason to believe that there will be interfirm differences in employee perceptions of CBM system usage since this variation has been identified in US case

studies of CBM systems. This variation has also (probably) tempted the conclusion that 'it's not the technology it's how it's used'. Several lay assumptions also support this argument, one of those being the fact that no two individual managers are the same - neither are two individual workers. This also raises the possibility of within, as well as between firm variation. A further point to note is that the concept of labour management ideology exists to enable us to understand non tangible differences between organizations which typically arise in the social arena. This implies that labour management ideology may have an independent effect upon individual perceptions of CBM usage but also, necessarily will mediate the management-worker relationship. With respect to labour relations the Theory X - Theory Y dichotomy is invaluable in classifying organizations in this respect. Accordingly we can locate our source of variation in interfirm perceptions of CBM system usage either in the immediacy of the manager-worker relationship or the broader context of organizational culture.

In the above discussion we have therefore provisionally identified the focus of the study: the manager-worker relationship. By implication we have also identified two groups of interviewees: managers and workers. Most importantly, however, a series of research questions have been generated:

- What is the main source of variation in inter firm perceptions of CBM system usage?

Is it:

- (a) the nature of the management - worker relationship?
- (b) the organization's broader labour management ideology (Theory X or Y)?
- (c) neither?, or
- (d) both?

Accordingly, having developed the theoretical position the next task is to operationally define the concepts of Theory X and Theory Y, and their subsequent roles in analysis, and also to define what we mean by the manager - worker relationship. Justification for a case study approach is also required as are the case study protocol and research instruments. These, alongside the analytical framework for discourse analysis will be developed in chapter four.

Chapter Four

Methodology

4.1 Introduction

'...if Foucault is right, the very difficulties which plague the social sciences are a rich source of anomalies. The promise that these anomalies will eventually yield to their procedures justifies the grant proposals, enlarged research facilities, and government agencies by which the social sciences nourish themselves and spread. As in the case of prisons, their failure to fulfil their promises does not discredit them; in fact, the failure itself provides the argument they use for further expansion.' (Dreyfus and Rabinow 1982: 182).

The above highlights the tension felt between the theoretical and the practical in social science. On the one hand, social scientists are bound to demonstrate the tangible and practical outcomes of their work to ensure their fields' survival; yet the rich epistemological debate which has emerged in social science in the last two or three decades is almost begging for a complete disregard of (a) quantification and (b) the positivistic exploration of cause - effect relationships in the social arena.

Nowhere is this tension felt more than in management research. With the rise of the management guru, alongside the expanding role of the management consultant, the pressure upon academics to produce critical factor 'list like' solutions to managers and then pass the same off as generalisable theory has been intense. However, since the market for quick fix gurus has become saturated in recent years (except for Tom Peters who recently held a £750 a ticket sell out speech in London) recent moves in the management field have been encouraging management research to question and understand its own epistemological roots, moving away from the more positivist approaches of the sixties and seventies to more reflexive and critical theory based epistemological stances. Knights (1990) outlines these changes in relation to labour process theory, examining the problems associated with the more structuralist analyses of Braverman and Marx, and suggesting an alternative post structuralist approach which places the subject at the centre of the analysis, based on Foucault's critical analysis of power.

In the spirit of scholarly enquiry, this research will attempt to be sensitive to such theoretical and methodological issues. To recap, the study will focus on the following questions:

- What is the main source of variation in perceptions of CBM system usage in different organizations? Is it:
 - (a) the nature of the management - worker relationship?
 - (b) the organization's broader labour management ideology?
 - (c) neither ? or,
 - (d) both, in different degrees of combination?

Traditionally, organizational research has been characterised by large scale survey techniques. Since the current research question focuses on the role of relationships and ideology in the perceived use on CBM systems, it is suggested that the use of any quantitative method would be inappropriate. In examining ideology and relationships, quantification and the use of scales would not allow the rich and varied nature of the individual account of experience to be recorded, observed and analysed.

It is arguable that this viewpoint stems from the well documented idea that quantitative methods (which also can be labelled 'positivist' or 'scientific') developed out of a predominantly 'natural sciences' approach to the study of humans. It was with this question that Foucault was preoccupied, the implication of which is as follows: 'Can the social sciences, like the physical sciences, free themselves from the background of social practices that makes them possible; and if they could, what would be the significance of the scientific results they could then attain?' (Dreyfus and Rabinow, 1986: 161). This 'significance' is sought through quantification and statistics and is said to exist 'scientifically' since statistical analysis and quantification of human behaviour is presented and analysed in a way which totally ignores the context within which the data was collected. Apart from statistics being an inexact subject anyway (Foucault classifies it as a human science alongside psychology, demography and criminology) Dreyfus and Rabinow (1986) also refute this idea since unlike the natural sciences, social scientists are embedded in 'society', and have developed their skills therefrom, so it is difficult to objectify anything:

...such skills and the context of social practices they presuppose are *internal* to the human sciences, just as the laboratory skills of scientists are internal to the history and sociology of science, for *if the human sciences claim to study human activities, then the human sciences, unlike the natural sciences, must take account*

of those human activities which make possible their own disciplines. (Dreyfus and Rabinow, 1986: 163)

An interesting study which develops this idea and goes on to identify different aspects of 'scientific' discourse (meaning the discourses of scientists) is that of Gilbert and Mulkay (1984). Using discourse analysis they distinguished between the apparently rational discourse of journals, results and experiments and the more political discourse of competing theoretical stances, reputation and funding. Are these the 'laboratory skills' and 'history and sociology of science' referred to by Dreyfus and Rabinow, and is there an equivalent for us social scientists?

Linked to this, there are also further complications with the use of the natural sciences as a model for social research, which were highlighted by Hammersley (1992) as follows. First, which natural science should be taken as a model; second, which interpretation of the methods of natural science is to be adopted; and finally, which aspects of natural sciences are to be taken as generic, so we can base a social science model upon them? One answer must surely lie in a reappraisal of the assumptions we make as social scientists within the modernist paradigm.

The question of paradigm in the social sciences is a thorny one. Maybe we should concur with Bryman (1989) when he suggests that organizational research is 'pre - paradigmatic'. In fact, one which has already been mentioned - the quantitative / qualitative divide is an excellent example of a number of aspects of 'modernist' social science which are now being called into question which are (1) the use of dichotomies; (2) whether postmodernism and the use of discourse analysis represents a Kuhnian style paradigm shift or not, and (3) the implications of (1) and (2) above for epistemology, the field in general and, more importantly, this piece of work. Points (2) and (3) will be discussed later. However, it is noteworthy that in a number of places, the use of dichotomies in the social sciences has been referred to as somehow inadequate - even with some empirical evidence to this effect (see McKinlay and Taylor, 1996). Examples of such reference can be found in Hammersley (1992:39) who states that '...it is striking how prone we are to the use of dichotomies, and how these often come to represent distillations of all that is good or bad' and Gordon (1980:114) when quoting Foucault:

Neither the dialectic, as logic of contradictions, nor semiotics, as the structure of communication, can account for the intrinsic intelligibility of conflicts. 'Dialectic' is a way of evading the always open and hazardous reality of conflict by reducing

it to a Hegelian skeleton, and 'semiology' is a way of reducing it to the calm Platonic form of language and dialogue.

In true dialectical style, Brannen (1992) distinguishes the two paradigms by saying that quantitative research or enumerative induction abstracts by generalising; and qualitative research or analytic induction generalises by abstracting. It is a popular assertion that the rich diversity of social life cannot be adequately represented within two paradigms of either quantitative or qualitative research. Hammersley (1992) illustrates this well by refuting a number of arguments for an epistemological divide in social science, and raises the question of whether we have gone beyond dichotomy into the rich world of discourse. Hammersley's argument states the divide between qualitative and quantitative methods in social research as just one aspect of the argument which tends to land younger, less cynical social scientists in the epistemological quagmire. He explodes a number of dichotomous arguments and deconstructs the divide thus.

- The difference between *quantitative and qualitative research* has traditionally, according to Miles and Huberman (1984) been distinguished by a focus on words or numbers respectively, and that quantitative is more precise. Hammersley argues that precision does not necessarily mean numbers, and that accuracy is more important in both traditions. When it comes to the choice of method our decisions about what level of precision is required in relation to any particular claim should depend upon what we are trying to describe, rather than an ideological commitment to any particular paradigm.
- The epistemological divide is also supposedly characterised by a division between the subject in a *natural* (i.e. ethnographic) as opposed to an *artificial* (i.e. experimental) situation. However, it is noted that a charge of artificiality can also be levelled at the structured interview, and really what is at stake is the degree to which the data is shaped by the researcher - considering that any data collection activity can be said to 'shape' a situation. Accordingly, in designing research we should think about the degree of reactivity to the research instrument which is required for the research topic. Hammersley (1992) terms this 'ecological validity', and notes that simply choosing to investigate natural settings and keeping a low profile may not necessarily guarantee it.
- The first real support for a discourse analytic approach is found in Hammersley's explosion of the dichotomy between a *focus on meanings and a focus on behaviour*. It is noted that the qualitative researcher seeks to explain both the perspectives and

behaviour of the subject, whereas the quantitative researcher is concerned with attitudes as behaviour in response to questionnaires. Hammersley notes the link between perspectives and behaviour is often tenuous, and indeed Potter and Wetherell (1987, 1988) note that questionnaire responses can sometimes bear little relation to a respondent's true feelings on an issue, which they are unable to express on a Likert scale. An approach which is beyond this and examines utterances purely in terms of their context is implicitly called for.

- Using the *inductive / deductive distinction* to dichotomise social science is also dubious according to Hammersley since not all ethnographers reject the hypothetico deductive model. Hammersley asserts that all research involves induction and deduction to some extent and we cannot help but rely on constructing hypotheses, assessing them against experience and modifying them where necessary. Apparently, this is true whether we have a narrow or broad definition of what constitutes a hypotheses.
- The reliance on and production of generalisable laws is also seen as an invalid bipolar continuum along which to describe social science. Both the ethnographer and experimentalist seem to depend on the assumption of laws, which surely is the only sensible option if we assume that theories consist of deterministic laws that apply in all cases.

What Hammersley demonstrates through this exercise is fourfold. First, that social science is complicated and multifaceted. It varies along many continua which are not mutually exclusive, but they do not have any consistency in their application either. Second, and as a direct result of the above, social science is characterised by a variety of discourses, and third, by implication, it is as complex as the society from which it emerged. Finally, and as a general conclusion, to understand the particular aspect of social life that is being investigated in this study, we must seek to go beyond dichotomies and choose a method which emphasises and explores this variety.

The next section makes explicit the exact requirements of the research question. A review of the basic method and structure of data collection (i.e. semi structured interview and case study research) will go part way to satisfying this. Then there will be a discussion of how the whole technique of discourse analysis not only satisfies the mechanical requirements of the research question in terms of information yielded, but also helps us with the problem of the modernist epistemological paradigm and its various

inadequacies in dealing with the complex nature of social life. Finally, the philosophical tradition of this piece of work will be discussed.

4.2 The requirements of the research question

The research question can be diagrammatically represented in the form of a quasi - deterministic model, employing McGregor's (1967) theory's X and Y at three different organizational levels. The model assumes a degree of causality between organizational levels, but the chain of influence is inverted since we assume that the subject (worker, or organizational member) has internalised the influence of the management ideology or the organizational ideology and is reproducing it through their speech. This is in contrast to a 'top down' interpretation which would minimise the importance of the interpretive process described above and adopt a wholistic and deterministic, rather than a subject centred, view. The following diagram illustrates the various scenarios envisaged by the research question, concerning sources of variation in discourse surrounding the use of CBM technology.

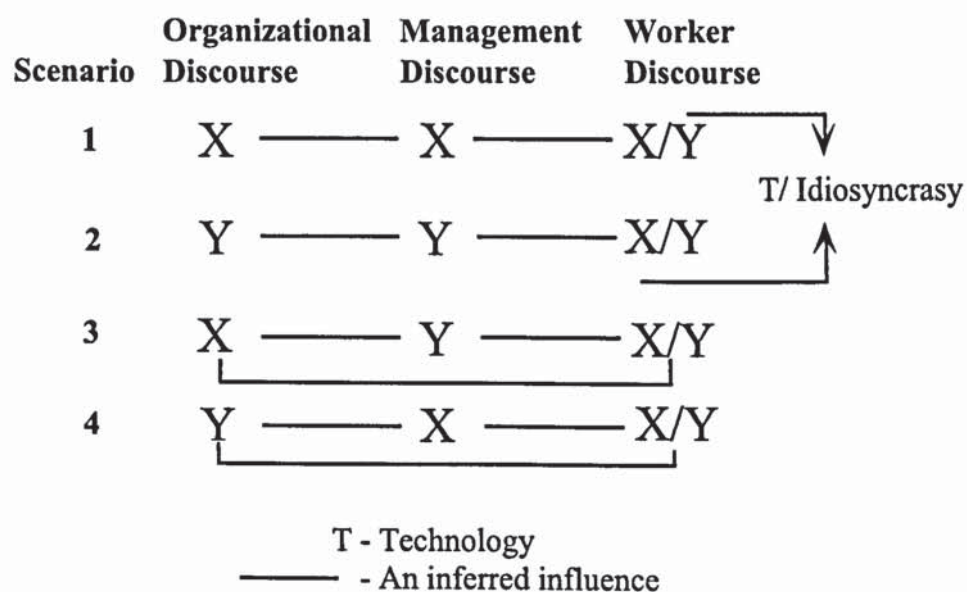


Figure 4.1: Diagrammatic representation of the research question

Scenarios one and two illustrate parity between organizational and management discourse (as reported by respondents). If respondents' discourse concerning CBM technology and its use is different to this, then we are to assume that the source of this variation is attributable to (a) the technology or (b) idiosyncrasy. If this is so, then the

results of the work will suggest that the context of computer based monitoring has little influence upon workers - the technology itself, or a worker's prior orientation to their job has a greater effect upon discourse. If the converse applies, then the overriding influence of context is confirmed and as such we are to investigate further the relative influences of the organizational and management discourses respectively. This is represented in scenarios three and four.

As such, the current research question focuses on two aspects of the social side of work: broader organizational ideology and the management - worker relationship. The aspect of organizational climate which will be focused on in this instance is the prevailing attitude towards the workforce which can generally be understood in terms of McGregor's (1967) Theory X and Theory Y dialectic. However, due to the non dialectical nature of this piece of work it is anticipated that there may be more to labour management ideology than this simple dichotomy.

A number of assumptions surround this question, which are as follows. First, that there will be some identifiable variation in the management - worker relationship between firms. Second, that there may also be some identifiable variation in labour management ideology between firms, and finally, that there is a method which can adequately facilitate the investigation of these questions.

Accordingly the method which will be used to collect and analyse these data will need to have several features. First of all it will have to be able to identify variations both between and within firms along both analytical parameters, i.e. labour management ideology and the management - worker relationship. As such it will have to be primarily interview based since richness of data is of primary importance. Second, the analytical technique used will have to allow for some interviewer manipulation of context in order that underlying aspects of variation can be revealed. Accordingly it will also have to allow for a degree of determinism during analysis but allow respondents complete freedom of expression during data collection. Finally the method of data collection will need to be one which can be applied in a uniform manner across cases.

It is anticipated that semi structured interview data will be collected and analysed using Potter and Wetherell's (1987) concept of 'interpretive repertoires' in discourse analysis. The assumption when focusing on discourse is that there will somehow be a reflection of the source of 'how the CBM system is used' in what respondents say, providing the questions are suitably phrased. The most important assumption of

discourse analysis, however, is the Foucaultian idea of the 'institution' and its values being 'internalised' and 'normalised' by the organization's members. A further assumption when focusing on discourse is that there will somehow be a reflection of that 'organizational climate' as well as the more immediate influence of the manager in the talk of respondents.

4.3 The case study research design

In this section the research design will be reviewed according to the work of Yin (1994) and it will be demonstrated that the design fits into Yin's classification of a multiple case embedded design. Issues of reliability and validity will also be addressed, as will the study procedure and mode of analysis. According to Nachmias and Nachmias (1992) a research design is a logical sequence which connects the empirical data to a study's initial research questions and its final conclusions. It:

...guides the investigator in the process of collecting, analysing and interpreting observations. It is a logical model of proof that allows the researcher to draw inferences concerning causal relations among the variables under investigation. The research design also defines the domain of generalisability, that is, whether the obtained interpretations can be generalised to a larger population or to different situations. (1992:77-78)

In other words, a good research design should define what questions should be studied, what data are relevant, what data to collect and how to analyse the results. Yin (1994) essentially defines and codifies the classic social science research strategy.

Yin begins by clarifying the role that theory has in research design. Yin states that a good theory will clarify and define the questions, propositions and units of analysis. He notes the importance of previous research in defining hypotheses. However, in the current study, there has been no previous research which directly addresses the question of labour management ideology and the management worker relationship when applied to computer based monitoring systems and their usage. Accordingly the current research question is informed by other, related areas of political science and theories of organizational power, the UMIST work on new information systems in the insurance industry, recent developments in labour process theory, work in strategic management which identifies interpretive repertoires at a strategic level, and finally from gaps in the

research so far completed in the area of CBM. According to Yin, replication and general success with a theory is achieved when two or more cases support the same theory.

Successful replication can be achieved by following simple validity and reliability tests, loosely based on the same tests in quantitative research:

- *Construct validity* concerns choosing the correct operational measures for the concepts being studied, and there are three tactics to ensure its achievement. (1) Using multiple sources of evidence to encourage convergent lines of enquiry, (2) establishing a chain of evidence to give a 'logical' impression, and (3) having a draft report reviewed by key informants.
- *Internal validity* concerns establishing causal relationships between ideas, rather than spurious ones.
- *External validity* concerns locating the study in a domain within which the findings can be generalised - in other words, following replication logic
- *Reliability* again concerning the operations of the study, and how they can be repeated to gain similar results. This will involve the generation of case study protocol, databases and a full documentation of the procedures followed.

It was stated earlier that the overall design of this piece of research in terms of Yin's classification would be a multiple case embedded design. This choice has, again, been theory driven. Yin's classificatory system is as follows:



Table 4.1: Potential case designs (Yin 1994: 39)

To clarify the terminology, a holistic case study is one with only one unit of analysis, whereas an embedded case study is one with more than one unit of analysis. The holistic design is advantageous when no logical subunits can be derived. However, it does have certain pitfalls - in that it can sometimes be too abstract, lacking detail, clear measures or data. The embedded design's drawbacks generally stem from a sub unit of analysis failing to relate back to the larger unit of analysis.

This study is a multiple case embedded design. It is multiple case because data will be collected from four different organizations. The sample organizations have been

chosen to reflect as far as possible variations in degrees of theory X and theory Y. Within these organizations there are three different units of analysis - one primary and two secondary. The primary unit can be labelled 'individual discourses concerning of CBM system usage' since this is what the research will examine. The two secondary units are 'the nature of the management - worker relationship' and the 'dominant labour management ideology'. It is anticipated that the primary unit of analysis will vary *either* as a result of the varying Theory X - ness or Theory Y - ness of the pervading organizational climate, *or* by the pervasive and immediate nature of the management worker relationship. It may also vary due to some combination of organizational climate and the management - worker relationship, and the research will highlight any cases where this occurs.

4.3.1 Case study protocol

The case study protocol is referred to by Yin as a 'major tactic in increasing the study's reliability' (p63). It is an instrument which contains procedures, general rules, interview schedules, etc. This chapter is intended to form the substance of the protocol, the individual document of which will be contained later in the thesis. Ideally the protocol should contain:

- An overview of the project (i.e. objectives, issues and readings).
- Field procedures (i.e. details of access)
- Questions (i.e. specific questions which the investigator must keep in mind when collecting data)
- Guide for the report

At this point, item three above should be expanded upon. Here, Yin is actually referring to the questions the investigator must ask during the data collection. This typically refers to theoretical sampling issues (see later) and in general regarding the information which needs collecting and why. There are five levels of questioning that need to be covered in any one piece of case study research. The levels are individual, single case, cross case, whole study and policy level. Certain guidelines should be prepared before the investigator enters the field, and these are broadly described by Yin in table 4.2. These guidelines are useful for the current purposes since they show from where in the organization data should be collected depending on the unit of analysis. Ideally all methods should be employed by this study since 'discourse', it will be

be any documentation or talk from within an organization. Furthermore, our units of analysis arguably operate at both individual and organizational level

4.4 Data collection methods

Yin (1994) notes that there are six different sources of evidence in case study research. These are documentation, archival records, interviews, direct observations, participant observation and physical artefacts. In this study, we are looking at discourse, therefore documentation and interviews are the main sources of data collection. The documentation will be used in corroborating interview data on the management - worker



Table 4.2: Sources of data in organizations (Yin, 1994: 72)

relationship and labour management ideology, so is really secondary to the interview. Yin notes that documentary evidence is 'likely to be relevant to every case study topic' (p 81) and lists the types of documents most likely to be of use:

- Letters, memoranda and other communiqués
- Agendas, announcements and minutes of meetings, and other written reports of events
- Administrative documents - proposals, progress reports, and other internal documents
- Formal studies or evaluations of the same 'site' under study
- Newspaper clippings and other articles appearing in the mass media.(p81)

It is suggested that documents will be an excellent source of 'ideological' evidence since, according to Yin:

...it is important in reviewing any document to understand that it was written for some specific purpose and some specific audience *other* than those of the case

study being done. In this sense, the case study investigator is a vicarious observer, and the documentary evidence reflects a communication among other parties attempting to achieve some other objectives. By constantly trying to identify these conditions, you are less likely to be misled by documentary evidence and more likely to be correctly critical in interpreting the contents of such evidence. (1994: 82)

Accordingly, a major justification for the use of documents is the corroboration of verbal reports, ~~but~~ not in the sense of eliminating bias, but more to provide further examples of the discursive formations of that particular company

4.4.1 Semi structured interviews

The following quotes highlight the appropriateness of the semi or unstructured interview and context based discourse analysis when investigating organizations and the people in them. The first, from Bryman (1989:149), emphasises the importance of talk and meaning as being the essence of organizational research:

...the distinctiveness of people and social reality, as against the natural order, reveals itself in the capacity of people to attribute meaning to and interpret their social environment, so that the social world is not an inert set of regularities waiting to be revealed.

The second, from Hakim (1992:130 - 131) supports the research design adopted in the study:

A study that takes organizations (or parts of them) as the unit of analysis may still collect information through interviews with individuals, but they would be asked to provide information on the organization (rather than on themselves), on its characteristics, activities, on processes and events taking place within it. As Namenwirth et al (1981) have shown, organizational representatives are well able to distinguish between themselves and the organization which may well differ in significant ways. So, for example, studies of management policy and practices towards women workers or industrial relations at workplace level, would require data about organizations as the main unit of analysis, and the best surveys interview multiple informants at each establishment.

It is anticipated that the interviews undertaken in this study will be more akin to conversations than question and answer sessions. The reason for this choice of interview type is that it is more likely to produce a context where the respondent can use all their interpretive repertoires and maximise the richness of the data produced. Semi - structured interviews are normally characterised by a series of basic questions and a list of topics

which the interviewer can probe for in the answers to them. However the respondent is free to talk about anything they perceive to be relevant (Bryman, 1989).

Foote - Whyte (1982) offers some practical guidelines when conducting semi structured interviews. First he notes that the semi structured interview is designed to provide the informant with some freedom to introduce materials which were not foreseen by the interviewer, but at the same time the informant can be encouraged by the interviewer to say what the interviewer wants to hear. However, interruptions, he warns, should be made subtly and refers to Dohrewend and Richardson's (1956) six point scale of 'directiveness' as a guideline. The scale is as follows:

1. Non verbal (i.e. gesture / body language) directiveness
2. Reflection: repeating the last phrase with a rising inflection
3. Interviewer raises some question about the last remark or makes a statement about it
4. Interviewer probes about an idea from the preceding remark.
5. Interview probes about an idea earlier in the interview
6. Interviewer introduces a new topic.

It is also noted that it is a good idea to take notes if a more directive approach is required, even if the interview is also being tape recorded. We are also warned about informant behaviours which may influence the information yielded by them, particularly if evaluative data is being pursued. Three factors are mentioned: (1) if the informant has an ulterior motive; (2) if the informant somehow has a desire to please the interviewer and (3) any other idiosyncratic factors of the informant. However, for the discourse analyst these 'flaws' may enrich the data and may even reveal different interpretive repertoires.

A further point to note is that Bryman (1989) states that when interviews are being conducted on a series of different organizational sites, contextual nuances are often sacrificed for cross case compatibility and interviews should be highly structured as a result. The current research does not subscribe to this view. As will be discussed, discourse analysis is concerned with variation, and any attempt to standardise responses would render this study pointless, since we are essentially interested in the source of inter - and intra -firm variation in the perception of CBM systems. However, Potter and Wetherell (1987) point out that semi structured type active intervention on the part of the interviewer can help consistency in responses, since consistency *is* important to the discourse analyst, but only to the extent that the researcher seeks to identify patterns in language use. Consistency suggests that informants draw on a limited number of

compatible discourses or interpretive repertoires when answering questions, so total consistency will not reveal much about the function of the respondent's constructions.

The key methodological challenge for this research is to generate interpretive contexts within the interview itself. In this way, connections between the interviewee's talk and variations within it become clear. One method of doing this is by tackling the same issue at different points in the same interview. It follows, of course, that the questions themselves will set the functional context against which the analysis and interpretations can take place.

A copy of the interview schedule used in the current research can be found in Appendix I. The questions were based on, first of all, the findings from previous research, in order that they could be validated or otherwise. Furthermore, they embodied the work of Westin (1987, 1988) which would serve as a template against which the discourse analysis could be compared. Finally, in accordance with the theories upon which this work is based, the questions about the organization and the management - worker relationship were based on the work of McGregor (1967) and Harrison (1972). In effect they were 'reflexively regrounding' the data elicited from those original pieces of work, in order that it could be applied to the new situations being investigated by the current work.

4.4.2 Sample selection

One feature of work in discourse analysis is that relatively small samples of respondents can be used. Potter and Wetherell (1987) argue that the crucial determinant of the sample size is the research question.

To base the sample size on the research question brings us into the realm of Glaser and Strauss (1967) and their concept of 'theoretical sampling'. Theoretical sampling is an area of interactive sampling (Denzin, 1970) to be contrasted with non interactive sampling. The latter typically refers to things like simple random sampling, stratified random sampling, cluster sampling, stratified cluster sampling etc. Research such as this is bound to include some non probability sampling in the selection of research sites and informants. Glaser and Strauss (1967) define theoretical sampling as:

...the process of data collection for generating theory whereby the analyst jointly collects, codes and analyses her / his data and decides what data to collect next and where to find them, in order to develop her / his theory as it emerges. (1967:45)

...the process of data collection for generating theory whereby the analyst jointly collects, codes and analyses her / his data and decides what data to collect next and where to find them, in order to develop her / his theory as it emerges. (1967:45)

Accordingly, it implies a 'snowball' type technique for collecting data. This technique is being used here since it would be very difficult to specify in terms of number and position in the organization which would be the 'best' people to talk to. In accordance with the perspective of this research, respondent choice will be entirely context driven. Burgess (1982) expands upon this idea by adding that theoretical sampling is only complete when new categories no longer appear in the data, and that the quality of the theory will be the best indicator of how well the sampling has been carried out. A further set of qualifications states that all the sampling must be theoretically directed, and the sampling frame itself must be defined in the traditional way. The sample must also be representative of the population within the sampling frame and it must continue until a theory is developed. Natural settings are what should be sampled and must involve the use of comparisons.

According to Frankfort - Nachmias and Nachmias (1992) the sampling frame itself should include all the sampling units in the population, and the sampling unit is characterised by having certain criteria which are predefined by the researcher. In terms of sampling, this study operates at a number of different levels. The criteria for sampling individual case organizations are as follows:

- To control for possible variation across business sectors the research will focus on organizations in the service sector.
- The organization must have departments which deal with high volumes of routine clerical work performed at the VDU and telephone.
- The organization must monitor the staff in these departments via the VDU and accompanying ACD phone systems.

We have already stated that the individuals interviewed will be selected in the manner outlined by Glaser and Strauss (1967), however, they will have one feature in common, namely that they will be either staff working at the VDU or managers using information therefrom.

In the next section it will become apparent that our unit of analysis (i.e. the individual perceptions of CBM within an organization) is embedded within a larger unit, i.e. the organization itself. As such we should heed Bryman's cautions as follows.

- The *aggregation problem* can arise when using individual responses to draw inferences about the organization or the job. If the degree of variability between individuals exceeds the variability between organizations we cannot claim to be representing the characteristics of organizations. A substantial minority group is enough to cast doubt upon the validity of the research findings. However, this problem has been noted in the current research, since we are not attempting to represent solely the characteristics of the organization. The research will examine the very nature of the relationship between the broader organizational climate and the individual's perceptions of their own situations, so a degree of variability is expected and required.
- The *ecological fallacy* highlights the problem of inferring relationships which exist at higher organizational levels to low organizational levels. Since the current research is only involving one organizational level, the inferral of such relationships will not be attempted. Thus the problems of these ecological effects which arise are beyond the scope of this research.
- Finally there is a danger in the realms of *sampling and the unit of analysis* , since samples sometimes include a diversity of type of organization. This can help the generalisability of findings. However, when different organizations are brought together the potential for confusion is considerable. This highlights the importance of a good fit between the level of analysis and theory. However, it should be noted at this stage that generalisability is not the main objective of this study. In other words we do not wish to assert that 'all people who work under these conditions are likely to have this perception of their situation', rather we wish to explore and understand the variety in the discourses of people who work with CBM systems.

4.4.3 Procedural notes for the aggregation of case study data

Yin (1994) outlines three principles when collecting case study data. The first is to use *multiple sources of evidence* which enables us to pursue converging lines of enquiry. The second is to create a *case study database* which will typically include the raw and codified data, and then the report of the investigator. Yin notes that this is often a major shortcoming in previous research, and can help with the reliability of the study. A further way of increasing the reliability is to, what Yin calls, *maintain a chain of*

should (1) make sufficient citations of the database, (2) the database should reveal the actual evidence and the circumstances under which it was collected, and (3) this should all be consistent with the case study protocol.

4.4 Discourse Analysis

It has been argued that discourse analysis will be the best way of treating the data collected in this study. The particular version of discourse analysis which will be used draws upon the work of Potter and Wetherell (1987), (1992) and (1994). Potter and Wetherell distinguish their unique approach from other, more positivist versions of discourse analysis which have been developed in the field of psycho - linguistics (for example, Brown and Yule, (1988)). We shall see that their approach is intended to do justice to the nature of lay explanations when they are deployed in their natural, everyday contexts. They note that there are at least four types of work which are described as discourse analysis, and these are as follows:

- Work which is concerned with the organization of conversational exchanges, typically under the heading of speech act theory, eg Coulthard and Montgomery (1981)
- Work which is concerned with the structure of the discourse and its effects on recall and understanding, e.g. vanDijk and Kintch, (1983)
- Work which concerns the sociology of scientific knowledge, demonstrating how scientists can make their actions and results seem rational and legitimate depending on the setting, e.g. Mulkay et al (1983)
- Work which shows how institutions, custom and the subject can be understood as having a set of discourses through which they express themselves, e.g. Henriques et al (1984).

Potter and Wetherell's approach is that it draws upon ideas taken from the latter two forms of discourse analysis, rather than the former. These two approaches are characterised by assumptions which are essentially sociological in style and arguably *beyond* the hermeneutics / structuralism problematic which was examined by Dreyfus and Rabinow (1982) and Parker (1988). The action / structure problematic of modernism which was examined in chapter three is also reflected in the hermeneutics / structuralism problematic.

To explain briefly, hermeneutics focuses on the ability of social actors to produce meaning and build new definitions of a situation. Social life is thus constructed by the accounts we tell. Accordingly, to research this aspect of the 'life world' (Habermas 1978) we must have an empathy with the 'hermeneutic circle of meaning'. So the formal properties of social interaction are no more than interpretations and constructions of the observer, and have no other meaning (Shotter, 1974b). Structuralism, on the other hand, concentrates on patterns of interaction. Accounts are thus used by the observer to reconstruct a social world of which each of us has fragmentary knowledge. In this respect, the observer works according to the assumptions of 'realist' science to define the formal 'properties' of the social world.

Parker (1988) notes that there may have been a paradigm shift (though not necessarily in the Kuhnian sense) in the discipline of social psychology, since prior to this, human beings and the human sciences (particularly psychology) were assumed to be part of the natural sciences' epistemological paradigm. Accordingly an over occupation with either the structure (form) or content of social interaction resulted in the fields of structuralism and hermeneutics respectively. Parker calls for a broader perspective which concentrates on the quality of social interaction, more based on power, a pervasive element in all social interactions. The power of language is something that we have to understand if we are to evaluate rhetoric.

Potter and Wetherell (1994) expand upon this idea by identifying three pertinent features of their own brand of discourse analysis. These are as follows:

- Talk and text are seen as social practices, and as such both the form and the content of the talk is examined. Accordingly, distinguishing between form and content becomes problematic, but this is resolved by the assumption that the discourse analyst is chasing answers to social or sociological issues rather than linguistic ones.
- Accordingly, it was stated in Potter and Wetherell (1987) that discourse analysis has three concerns: function, construction and variation. First, *function* is used in the sense of the analyst 'reading' the context, not in some sort of instrumental sense on the part of the subject. Therefore, a person's account will vary according to its function, since people are always using their language to build their own versions of the social world. A further assumption attaches itself to this assertion, which states that accounts of events will be drawn from a vast pool of linguistic resources by the individual. The notion of *construction* and its relative importance is thus emphasised.

Potter and Wetherell (1987) assert that construction implies active selection from resources, and thus makes differing accounts potent indicators of context. *Variation* between accounts is thus a topic of central concern to the discourse analyst, and so ways in which language is used by different people should become a central topic of study.

- Drawing on Billig (1991) the final characteristic of the Potter and Wetherell approach is that it concentrates on rhetoric. In other words, it takes the focus of the study away from questions of how an individual's language reflects some 'external reality' and instead looks at how the individual's version is designed to construct a viable alternative to socially constructed accounts of 'reality'.

It should be emphasised that the notion of construction is crucial to the operation of discourse analysis. This is because the construction metaphor emphasises the role of discourse in constructing objects and subjects. The metaphor itself notes the referential properties of language. Linguistic representation is thus seen as 'realistic' because it operates transparently, being so familiar to the informant, and as such the main assumption of discourse analysis is that texts and talk are organised in specific ways which make reality appear solid, factual and stable.

Accordingly, Potter and Wetherell's discourse analysis is context specific, concentrates on rhetoric and appears to be somehow beyond the modernist epistemological paradigm. In particular, it is noted that in traditional (modernist) social psychology variation in talk is sought to be minimised by 'experimental controls'. It is precisely this variation which is the rich source of information to discourse analysts. Potter and Wetherell note that there are three broad strategies which, hitherto have obscured variability in accounts. The first strategy is an emphasis on consistent behaviour, which, in their opinion is made particularly salient to experimental participants. A second problem is that in content analysis, arguably the most 'scientific' form of discourse analysis, two different coders may sometimes come out with completely different results. Finally, selective reading (i.e. making coding selections which reflect your own expectations) which can be overcome by using the techniques of reification (i.e. treating what the informant says as irrefutably true) and ironisation (i.e. the reverse, where language is not treated as being genuinely descriptive, but having another purpose or deception). It is generally up to the analyst to decide which technique to employ depending on what they want to achieve when analysing the data.

In addition, Potter and Wetherell (1994) note that recent studies have also reflected this shift away from the deterministic to the interpretive. This accords with Thompson's (1984) assertion that the study of ideology must involve an interpretation of the position of a story, account or version within a field of power relations. The interpretive act of the social psychologist follows description and systematic analysis of the social field in question. A particular emphasis is placed upon the Foucaultian analysis which attempts to outline 'interpretive repertoires'. In the last chapter certain evidence as to the existence of such repertoires was provided from a number of fields. In particular the work of Potter et al (1990) highlights the use of these repertoires and their role in sustaining or maintaining different social practices. The approach is illustrated thus:

'...utterances are acts, and [that] language is functional all the time - not simply on atypical special occasions. The meaning of an utterance is not a straightforward matter of external reference but depends on the local and broader discursive systems in which the utterance is embedded.' (Potter and Wetherell 1988: 169)

The nature of the interpretive repertoire itself is discussed at length by Potter and Wetherell (1987), and it will then be applied to the current theory. It is described as a 'lexicon or register of terms and metaphors...to characterise and evaluate actions and events' (p132). McNaghten as explained by Antaki (1993:127) offers a further explanation:

It's not the case that there are certain key phrases that one could identify, or even that one could count up every instance of a set of candidate words or phrases and take the biggest totals to be the most significant categories. McNaghten shows that the sense of what is being said is best understood as a constellation of terms phrases, references, metaphors and allusions that all act together. The 'argument' between the participants, then, is not so much a straight reading down from premises to inevitable conclusions, but rather a battle between one discourse and another, and knowing the context in which it all happens is an essential part of making sense of it.

This concept is contrasted with Moscovici's (1981 - 1985) 'social representations', which are cognitive level, structured mental entities which underlie attributions or causal explanations people give for events. Thus, to understand a person's account one has to understand their social representations. They can also be used to distinguish between groups of people who have shared representations.

Potter and Wetherell (1987) criticise this approach on several grounds. First, practical problems are foreseen with the delimitation of groups: the fact that

Potter and Wetherell (1987) criticise this approach on several grounds. First, practical problems are foreseen with the delimitation of groups: the fact that representations are identified by groups assumes that groups define representations. However, we cannot tell where one group begins and another ends, and there is no clear cut way of identifying a repeatable social representation. Furthermore, studies on social representation presuppose that there is consensus as to what constitutes one within the group. Accordingly, social representations are fraught with practical and methodological problems. Even though Moscovici locates them at the cognitive level, the fundamental problem with social representations is that they fail to take account of the 'performative and indexical' (Potter and Wetherell 1987: 145) nature of language, and thus its non neutral record of secondary phenomena.

Interpretive repertoires, on the other hand, attempt to look systematically at the organization of these secondary phenomena by individuals. It is not impaired by the presupposition of an individual accordance with group boundaries and what Potter and Wetherell term 'speculative cognitive psychology' which is the theoretical underpinning of social representations theory. Using Mulkay and Gilbert's (1984) study of scientists' accounts, their construction and their context, the identification of interpretive repertoires is demonstrated. Mulkay and Gilbert examined laboratory reports and interview data to conclude that scientists had two main discourses: the 'empiricist' repertoire and the 'contingent' repertoire. The use of each depended upon the situation. The repertoires themselves were revealed with the identification of recurring systems of terms used for characterising and evaluating actions, events, and other phenomena. This was constituted through a particular range of terms used in certain stylistic and grammatical constructions. Each repertoire also had a different function which, again, was context specific. As such it is beyond the typical qualitative 'analysis by category' which assumes that language is representative of some external truth. The interpretive repertoire is a purely linguistic concept which assumes prior internalisation and normalisation of the environment by the subject.

Accordingly, the advantages interpretive repertoires have over social representations are numerous. First, they are not intrinsically linked to social groups, so there is no need to identify natural group boundaries. There is also, as has been previously mentioned, a de-emphasis of consensus between accounts. Thus, the concern is with language use *itself*, the way accounts are constructed, and their different functions.

Most importantly, it is non - cognitive and thus disposes of the more positivist assumptions that accompany the subject area of cognitive psychology.

Similarly, Billig (1992) exquisitely refers to such repertoires as a 'kaleidoscope of common sense', and relates the process of interpretation to more traditional scholarly practices which are '...considered anti - methodology, in that hunches and specialist knowledge are more important than formally defined procedures' (Billig, 1992: 199). Billig argues that these values have much to offer the study of ideology, and agrees that an individual's thinking should be interpreted within its broader historical and social patterns. This perspective links well with that of Potter and Wetherell, but we must now pose the broader question of whether this return to 'traditional scholarly values' is a regressive or a progressive step towards the understanding of social interaction. Indeed, Potter and Wetherell (1988:157) note that the interpretive repertoire needs further development thus:

...we should stress that there are no grandiose claims accompanying the notion of interpretive repertoires...it cannot be isolated from other kinds of discursive phenomena. In addition, it is a preliminary step, further analyses are bound to refine this analytic unit. It may appear awfully gross in several years time and it may well be replaced by a hierarchical understanding of narrow to broad regularities in the content of discourse. We don't say that one day 'the truth will out' only that in this case, 'time may tell'.

4.4.1 How to 'do' discourse analysis

According to Potter and Wetherell (1988) there are ten stages to the completion of a discourse analysis. Nine of them are as follows (the tenth, application, is covered in a separate section):

- The purpose of the analysis must be directly related to the *research questions*. Thus the research questions themselves must relate to the construction and function of language, how discourse is put together and what is gained by this construction.
- The *sample selection* for discourse analysis need not be very large, since a successful discourse analysis does not depend upon sample size, but rather on the research question. A further practical point to note is that discourse analysis is very labour intensive, so the smaller the sample size, the easier it becomes. The method of sample selection was reviewed in section 4.4.2, above.

- *Interviews* are understood to give the researcher greater room for active intervention, with greater comparability available across responses, and greater simplicity in initial coding. The advantages of interviewing for discourse analysis were reviewed in section 4.4.1, above.
- *Transcription* is highly dependent upon what it is envisaged will be gained from the transcript. In the current research, transcription was accomplished using several individuals. The audio tapes of the interviews were literally transcribed into prose. A further point to note is that the transcription rate for one hour of interview data is about 1:10.
- *Coding* is primarily concerned with managing the data collected, and a number of formal systems (e.g. the Jeffersonian (1985b) system) have been developed. In the current work, data were coded according to past research categories (guided by the questions asked in the interview), and the remaining data were coded into categories for discourse analysis. This enabled the data to be used for two purposes: first, to inform the case organizations of past research and apply its findings to their own systems, and second, to enable the researcher to complete a discourse analysis and satisfy the requirements of the research question.
- The *analysis* proper involves reading and re - reading the passages in question. Initially one is searching for a pattern in the data, in other words, searching for similarities and variation. Once these patterns have been identified, one can hypothesise about their function and consequence, and then search for linguistic evidence. The main point to note about the analysis stage is that there is no real analytic method, but a broad theoretical framework that concentrates our attention on the constructive and functional dimensions of discourse. This assertion in itself has produced considerable debate in the field of social psychology. The interpretive repertoire is a relatively new form within the field of discourse analysis and as such the debates between its leading exponents (for example, Potter and Wetherell (1987); Gilbert and Mulkay (1985); Antaki (1993); McNaghten (1993) has resulted in some fragmented but useful guidelines for analysis. The objective of the discourse analyst employing this method is to develop a 'culturally informed reading of context' (Antaki, 1993:122), and as such other cultural artefacts from the organization should be collected. Antaki further notes that:

...discourse analysts are happy to use their cultural antennae to feel out the context in which the text appears, and read off the face of the account their respondents give, at least partly, from a knowledge of who they are and who they are talking to (1993: 122)

This also emphasises the self reflexive position of the discourse analyst. However, a caveat to this cultural reading is noted by Condor (1990) who warns against reading culturally thick messages into empirically thin slices of talk. Removing selected chunks of talk from transcripts could alter the meaning they had at the time of data collection.

- The *validation* of a discourse analysis involves four basic techniques. (1) Coherence, which refers to how well the analysis explains not only the broad functional pattern, but also the micro sequences. In particular, the analysis should be able to accommodate and explain special and unusual examples of talk as well as the main discourses in question. (2) A sound participant orientation is the sign of a good discourse analysis - in other words it is important to concentrate on what the participant sees as consistent and different, rather than the observer. (3) A concentration on unforeseen problems, their structure and number also shows how comprehensive the analysis is; and (4) the usefulness of the analysis in generating novel explanations and theory is the final confirmation of the quality of the analysis. In the current research, the analysis will be validated in this way not only by the author, but another researcher versed in discourse analysis but not in the detail of the current work. The results of this validation are described in Chapter Six.
- The *report writing* stage was described by Potter and Wetherell as being different from reports following, for example, a content analysis since they are characterised by what appears to be disproportionately large extracts of text. The following highlights the underlying rationale, which is demonstrated in Chapter Six of this thesis:

A sizeable portion of the article will be taken up with extracts from transcript or documents and the rest will be detailed interpretations which pick out patterns and organization in the materials. The way discourse is used in this kind of analysis contrasts with superficially similar work in social psychology in which extracts are presented to illustrate a causal story or model derived from participant observation...In discourse analysis the extracts are *not* characterisations or illustrations of the data, they are examples of the data itself. Or in methodological terms, they are the topic itself, not a resource from which the topic is rebuilt. (1987: 172 - 3)

4.4.2 Application of discourse analysis to this research

The need for an analytic strategy was noted by Yin (1994) since:

Too many times, investigators start case studies without having the foggiest notion about how evidence is to be analysed...Such investigations easily become stalled at the analytic stage; this author has known colleagues who have simply ignored their case study data for month after month, not knowing what to do with the evidence (p102).

Analytic strategies come in two general types: (1) relying on theoretical propositions and (2) developing a case description. It is upon the former that we will be concentrating. It is based on the idea that the theoretical propositions will have shaped the data collection, and this would have given priority to certain modes of analysis. In this instance the analysis is based on theory X and theory Y, the use of which was described in the last chapter. To recap, in order to identify whether each example of discourse is theory X or Y oriented, the discourse analysis will concentrate on the nature of the interpretive repertoires of the individual. If there appears to be a focus upon more 'oppressive' language, then a theory X orientation will be attributed to that analytic unit. It should be made clear at this stage that theory's X and Y are not going to be applied rigidly to the data. They are there as rough guidelines as to what, in theory, could be observed in different cases. The point is illustrated using examples from Attewell's study (1987) and from America's National Association of Working Women's publication 'Stories of Mistrust and Manipulation' (1990) when they set up a helpline for women who had to work with CBM and were suffering from stress. Beginning with the latter, the very title of the publication has a theory X orientation, as do the quotations from women working with CBM:

- 'The monitoring makes you feel like less than a child, less than a thinking human being. It's a shame because they have a lot of intelligent people there...'(p17)
- 'They don't trust you. It's degrading, it's demoralizing and it's hard on the nerves...'(p19)
- 'You're in the doghouse all the time...All they care about is what they can get for themselves, not the people that work for them...'(p20)
- 'As a worker, I want to be treated like a human being, not a machine...'(p24)

- 'We feel threatened and intimidated...working here is a progressively demeaning experience...' (p26)
- 'Monitoring makes me feel uncomfortable, distrusted, unappreciated, anxious and stressed...' (p36)

Alternatively, a 'pure' theory Y type discourse would focus on precisely the opposite, positive, aspects of monitoring. Two such examples can be found in Attewell (1987). The main weaknesses of this study are that its conclusions are based only on one in depth interview with a manager; a series of observations of data entry clerks; and the results of both are documented in a descriptive, not quotational nature. However, despite this dilution, Attewell outlines five reasons why managers in that organization did not use CBM in ways which they believed were likely to produce reactions similar to the ones described above:

- Pressuring one worker could spoil the good levels of morale in the office as a whole.
- Group performance measures reflected the team - based work ideology (also reflected in the technology).
- A heavy dependence on work counts for worker assessment could result in a decline in quality.
- A high employee turnover rate would lower the returns on the time and money invested in training staff to do the job.
- Constant punishment of employees is counterproductive in the long run, especially in terms of morale.

In making these points Attewell is assuming that bad use of CBM necessarily constitutes close monitoring of individuals, individual - based performance measures, an emphasis on speed, rather than quality, a punitive approach to staff relations, which would result in a high employee turnover rate.

Cross case comparison will be facilitated by using what Yin (1994) terms 'rival explanations as patterns'. In this situation, several cases may have one type of outcome, and the investigation focuses on how and why that outcome occurred. In this study, each case has two possible outcomes, i.e. a theory X or Y response from the workforce. The study then concentrates on background factors which may have resulted in this outcome: in other words, the management worker relationship, the organizational climate, the technology and any other idiosyncratic factors. Theory X and theory Y patterns will be

identified at each level of analysis, and these will be compared according to the outcomes of the discourse analysis, from whence causal links will be deduced.

4.5 Summary and Conclusions

In this chapter the main research design, data collection and data analysis methods have been outlined. The chapter began by problematising the nature of organization studies, and recommending the use of discourse analysis as a technique for overcoming the action / structure problematic and the overuse of dichotomy which pervades a number of aspects of this field. The case for this approach was supported by the work of Hammersley (1992), Potter and Wetherell (1987) and Dreyfus and Rabinow (1986). A review of methodological issues, a discussion of actual methods and justification thereof using Yin's (1994) case study research structure was then completed.

A final point to consider is the location of this piece of work within the broader epistemological debate. Discourse analysis itself grew from the work of Foucault - in the words of Potter and Wetherell (1987):

Foucault sees any knowledge, including historical knowledge, as constituted through discursive formations. The more appropriate task, from his point of view, is to suspend judgement about real meanings and examine instead the knowledge formations which lead to meaning being framed in this way. (p81)

Discourses, therefore are independent of groups and have a momentum of their own, and regulation thereof occurs when external forces work as discipline from within. Accordingly the way that power works in modern society can only be analysed through discourse, since it is very subtly pervasive:

Modern power, in Foucault's view, works through knowledge, not apart from discourse, in some other realm. The human sciences he studies do not simply establish new 'grids of intelligibility'; they are one feature of new forms of regulation and control. Modern rituals of power are in some ways less obvious rituals, less clearly repressive and coercive - in some ways less physical and more mental. (1987:83).

Accordingly, the consideration of interpretive repertoires through discourse analysis, the Foucaultian assumptions which accompany this method, the formation of a concrete theoretical framework and the more deterministic epistemological approach which accompanies the latter, are not completely incompatible. It is thus anticipated that

this study will be one which is aware of the problems of the modernist epistemological paradigm, and those of reconciling action and structure, yet is able to contribute to the existing body of knowledge and help solve some of the practical problems faced by those working with CBM systems in industry.

Chapter Five

Preliminary Results and Analysis

5.1: Introduction

This chapter contains selected extracts from the interviews across all four case studies and considers them in the light of (a) the conceptual framework of this study (see chapter three) (b) previous research and (c) mirrors the results against similar research especially by Westin (1987). The purpose of this analysis is to highlight the theoretical and methodological strengths of performing discourse analysis on certain extracts of data.

5.2: The Theoretical and Empirical Position on CBM Prior to the Current Research

To recap, the substantive conclusions drawn from published, mainly American, research into computer based monitoring broadly concern three areas of work within organizations. First, the specific implementation and practical use of the technology; second, employee health and stress effects of the technology and finally, supervisory responses to the technology. The current work chose to focus the analysis on the first two areas listed above. The reason for this is that published work on the supervision of CBM is piecemeal in nature, and did not represent a sound basis for the current work. Other areas touched upon in the literature include organizational policy aspects of monitoring and other national employment law issues.

Table 5.1(overleaf) presents a summary of the findings from research into system implementation, design and practical use. This is the result of an amalgamation of the myriad and generally unconnected research findings from America.

It should be emphasised that the above recommendations are all of equal importance. The amount of implicit contextual references in some of the recommendations (for example: 'management should be sensitive to the fact that some

employees may not want their productivity rates broadcast') indicate the importance of context and its role in this analysis.

Technology Implementation

1. Positive aspects of the system should be emphasised
 2. Good reasons for implementation of CBM should be demonstrated to the staff (e.g. performance related pay)
 3. Employees should feel that there is much to gain by having CBM
-

Technology Use

1. Quantitative monitoring should be appropriate for the tasks being measured
 2. The monitoring should not really attempt to measure non - quantitative aspects of the job
 3. The system should adequately represent employee performance
 4. The measuring process should be foolproof. Everybody should understand how it is done
 5. Feedback should be given on a meaningful timescale to the employees
 6. Feedback should be delivered personally
 7. A computer which monitors the process as well as the results of work is more likely to be perceived as spying by those subject to it
 8. Management should be sensitive to the fact that some employees may not want their productivity rates broadcast
 9. The feedback should reinforce to employees what is considered to be good performance
 10. The performance information should be readily and easily accessible to employees
 11. The employees should feel able to challenge the information generated by the system
 12. Standards should be flexible and allow for employee error
 13. A production shortfall should lead to discussion, not discipline
-

Table 5.1 Recommended system design and implementation characteristics from published research into computer based monitoring (e.g. Smith and Amick, (1989); DeTienne and Abbott, (1993); Westin (1987; 1988))

Proposed effects of CBM on the employee

1. CBM can make the employee feel less autonomous in their immediate work situation
 2. CBM can make the job seem more demanding on the individual
 3. CBM can make the job's content seem more mechanical and routine
 4. In times of instability CBM can be seen as a threat to job security
 5. CBM can be used to promote people but only in conjunction with more qualitative evaluations of the individual
 6. Employees may become more close knit when working with a CBM system
 7. Supervisors should give as much positive feedback as they can with CBM data
 8. The system should be a source of motivation to achieve greater output
-

Table 5.2 : Possible effects of CBM on the employee (based on previous research)

This is because the key to employees accepting a monitoring system largely depends upon whether they consider its conditions to be fair or not (Westin, 1987). Past work on CBM highlights various areas in the employment relationship which could be examined to this end.

In addition to this, inferences drawn from a wider literature on job design suggest that CBM has the potential to motivate employees as well as being an environmental stressor. It could equally imply changes in job design and work organization that may not be desirable, but also it represents the fundamentals of good job design since it has the capabilities to provide feedback, set goals, evaluate performance and reward employees based on their performance.

Accordingly, issues raised by previous research into the effects of computer based monitoring on the employee are as follows. In some propositions these effects are merely postulated, not empirically tested.

These summaries will be used as numerical referents for sections of analysis explored in section three of this chapter. They also represent the initial coding categories for data concerning the application of the CBM technology in each case organization of the current study, and thus form the basis of the qualitative category analysis of the data.

As such reference will be made to the above categories by the number of the table and the point therein.

5. 3: The Case Organizations

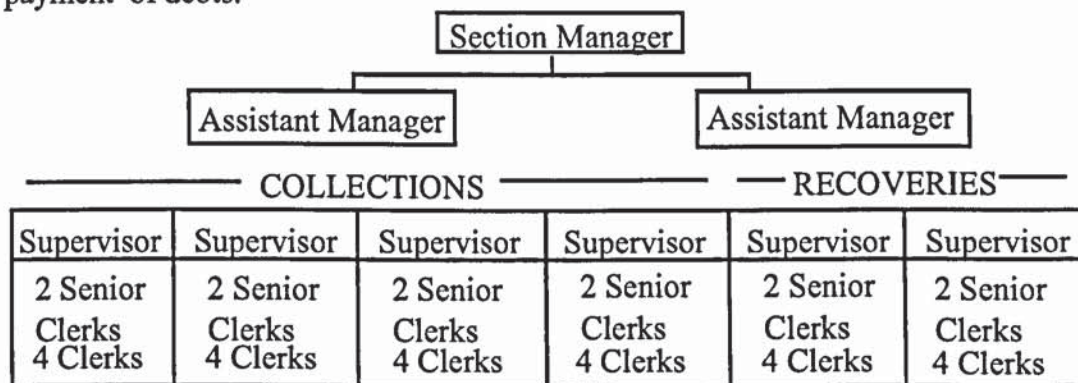
Four service sector organizations were chosen as case organizations for the purposes of this study. The data collection focused on one individual department within each organization, the criteria for their selection being that the department must be using computer based performance monitoring technology. Accordingly, each department was typically customer services based, which necessitated the fast - paced and intensive use of VDU's, and hence represented the perfect setting for a study into the use of computer based monitoring. Each organization will be described according to its overall characteristics, and then the work organization system within each department will be described in greater detail.

I: Case 1

The first case study was undertaken in a building society based in the north of England. It is one of the largest UK building societies, and at the time of the study was undergoing a major organizational change and restructuring. As such no information was available as to the proposed revised structure of the organization. The department studied was debt collection, servicing the organization's personal loans products. The department (D1) was to be relocated and merged with another area and as such would increase in size. Little or no redundancy was predicted as a result of the change at the time of the research.

The department itself came into existence with the launch of the company's personal loans product in 1990. At any one time there are six teams of six individuals at work, with two assistant managers and one manager. The structure of the department is represented in figure 5.1.

The main responsibilities of each level within the department are set out in documents which were collected from the department during the study. Clerks' and Senior Clerks' jobs involved telephoning customers in arrears and making arrangements for the payment of debts.



Total staff employed : 45

Fig 5.1: Departmental structure: Case 1

The supervisor's role involved appraising, planning and monitoring the work of their team through various feedback channels. The assistant manager's and manager's roles were mostly planning based. Two of the six teams were responsible for the collection of debts which were more than five payments in arrears (termed 'recoveries') and the remaining four were responsible for debts which were under five payments in arrears (termed 'collections'). The objective of the department was to reduce the amount of money the building society had to provide for bad debt (termed 'provision') by making quality payback arrangements with the customers, the final performance of the clerks and senior clerks being judged by the amount of money actually recovered by the building society.

The technology employed by the department had been in place for four years. Many of the staff had been there since its inception, implementation, development and change. The *Debt Collection System (DCS)* was initially a computerisation of customer records, but was developed to be used as a database of arrears, which was linked to telephone lines, enabling the department to segment and target various sectors of their customer base. Linked to this was the *Power Dialler* which was only used for specific campaigns on certain well - defined segments of the customer base, due to the intense nature of the work on the dialler. There was also an *Automatic Call Distribution (ACD)*

system for incoming calls. At the time of the study, the management were implementing a Windows - based work flow monitoring system whose purpose was to represent better the amount of work handled by the department and thus eventually function as a planning tool.

The person - technology interface resulted in a task which potentially meant significant stress for the worker. The clerks and senior clerks were required to speak to customers which were automatically dialled by the computer. As the customer answered the call, the DCS showed the customer's account to the worker who then had a matter of seconds to familiarise themselves with the account before making an arrangement. The computer monitored, via codes input by the operators, the type of arrangements made by each operator, as well as the time spent on each call and the time spent typing comments into the database after the call. The target for talk time was two minutes and one minute was allowed for typing. In addition to this the actual sums of money collected by each operator were also calculated by the DCS.

More complex accounts were dealt with manually, and a separate pool of work was developed for this. This work was typically associated with the recoveries section of the department. Furthermore, staff were only able to work a certain number of hours per month on the dialler due to its intensity, and everybody rotated jobs from collections to recoveries every three months. There was also an evening shift in operation, but this was to be abolished shortly after the study took place.

Ten people from this department were interviewed. As is outlined in Chapter Four, a theoretical sampling method was taken, and upon gaining access to the department, the manager, assistant manager, two supervisors, two senior clerks and four clerks were interviewed.

II: Case 2

The second case study was based in a tour operator also located in the North of England. This, multinational company has the second largest share of the UK package

holiday market and exhibits a considerable degree of vertical integration across the holiday industry. At the time of the study this organization employed over eight thousand people across twelve countries, with its annual turnover being £971.7 million and profit before tax at £75.8 million. This company has continued to grow every year since its inception in the late 1970's, but since the study was completed, it has been taken over by a large North American travel group.

The department studied was the reservations department at the company's head office. It had continued to grow with the company and had recently undergone some restructuring. The interviews were conducted at a time when following a management change the teams were reorganized into two discrete product groups (camping and all other holidays henceforth referred to as C and PH respectively), and computer based monitoring had recently been introduced. Changes had also been made to the appraisal system, with the annual appraisal being more 'freeform' and a quarterly appraisal being introduced for all the staff. Work in the department, however, had been VDU based for many years, although as a whole reservations was in the process of redefining itself as a 'call centre', merging with other departments in the organization. The area of the call centre focused upon in the study is represented in Figure 5.2.

As with case one, the responsibilities of the individuals in the department are outlined in documents obtained at the time of the study. The call centre agents were required to 'answer incoming calls from customers requiring holiday information, amendments to bookings, making firmed bookings and general information consistent with company policy and aims'; and the camping sales consultants were required to 'answer incoming calls from direct customers and travel agents, selling and switch selling as necessary to maximise sales; to handle pre and post departure queries quickly and effectively; to work within the company shop as required, dealing face to face with customers'. It was therefore anticipated that there would be differences between

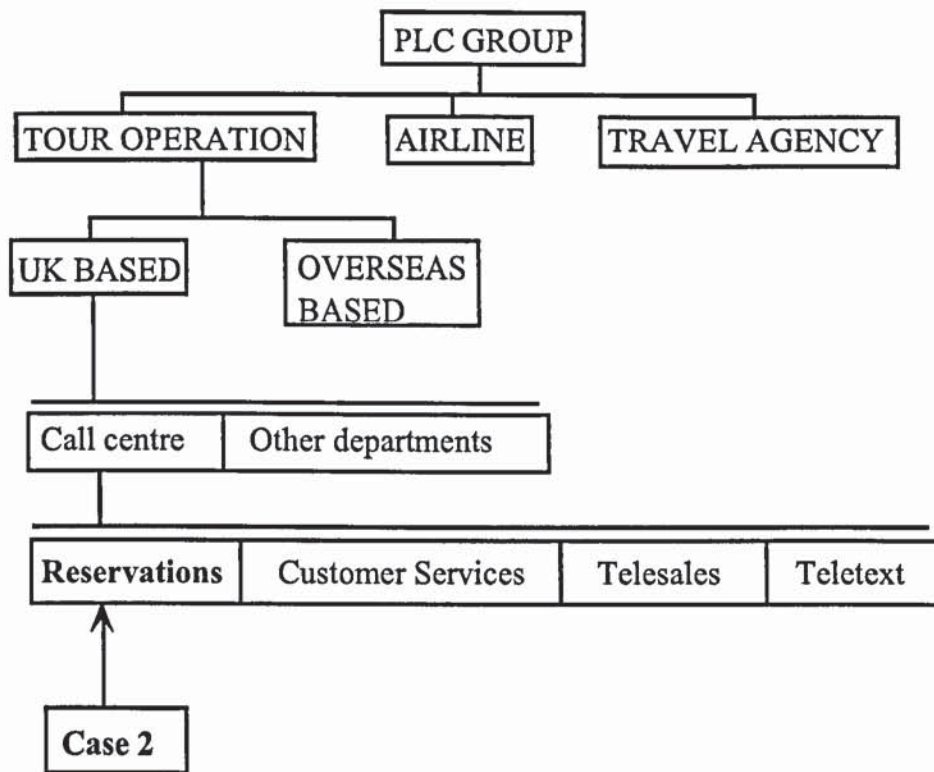


Fig 5.2: Organizational structure, case 2

responses from the call centre agents and the camping sales consultants. Team leaders and supervisors played a consultative role in relation to the agents and were promoted on the basis of product knowledge and organizational skills. The departmental manager was a recent appointment, and the main motivator for change, whilst the assistant manager had worked their way up from agent status. The management team were in the process of implementing a more planning - based approach to the call centre management, with the help of new technology. The structure of the department is shown in Figure 5.3.

The technology which facilitated the work involved three systems. Since the department only handled incoming calls, they were distributed by an *Automatic Call Distribution (ACD)* system, whose queuing system was being upgraded at the time of the study. Each agent then had a box next to their VDU which enabled them to answer the call and had several activity buttons which enabled the *monitoring system* to account for their time. Each agent also had the *Viewdata System* (the company's booking system) to enable them to deal with customer's enquiries about their holidays.

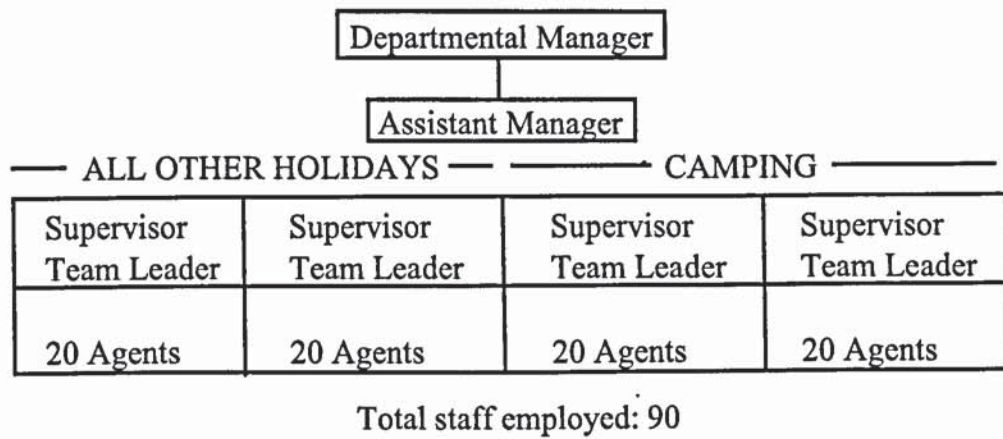


Fig 5.3: Departmental structure, case 2

The person - technology interface in this instance could also have resulted in a task which was routine for the agents. Considerable product knowledge was required, but the agents spent their entire days answering calls. Because the CBM system had been recently implemented some of the agents were having difficulty with the concept of having to account for all of their time.

The respondents represented a sample of supervisors, team leaders and agents from two out of four of the teams, one from each product area. Thirteen individuals were interviewed in all: the assistant manager, two supervisors, two team leaders and eight agents, with each team being equally represented.

III: Case 3

The third case study took place in the credit card area of one of the six major high street banks located in the West Midlands. At the time of the study the company was fighting to maintain market share against its major competitors, and some redundancies had already taken place, with more anticipated. The division researched had experienced a 70% increase in profitability but had lost some of its market share, and the actual department in which the case study was located was expected to close by the end of the millennium. The reason for this was because of changes in credit card technology which would obviate the need for paper - based transactions. This is despite the fact that this

particular department had recently gained certification under BS5750 part 2. The structure of the credit card area is shown in Figure 5.4.

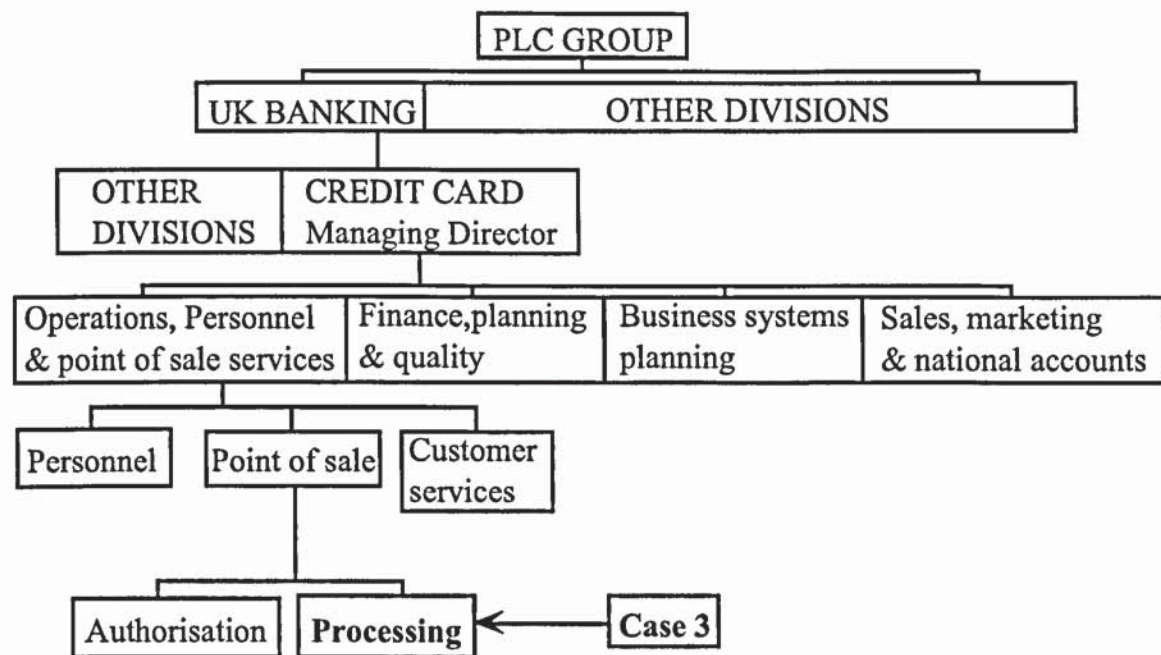


Figure 5.4: Organizational structure, case 3

The main activity of the department under investigation was the inputting of credit card sales vouchers onto the company's computer system, thereby charging the correct amounts to the customer to ensure payment of these amounts to the merchant from whom they had purchased goods / services. The departmental hierarchy was divided into 'grades', whose responsibilities were described in the lengthy 'job description questionnaires' collected from the department. Furthermore, the lower grades (1 and 2) were almost all employment agency staff, who were employed on temporary contracts, but some had worked for the company for many years. The higher grades (3 and 5) were all bank staff, and the whole department had two office managers (a grade 6 and a grade 7) and one overall manager. These are shown in figure 5.5:

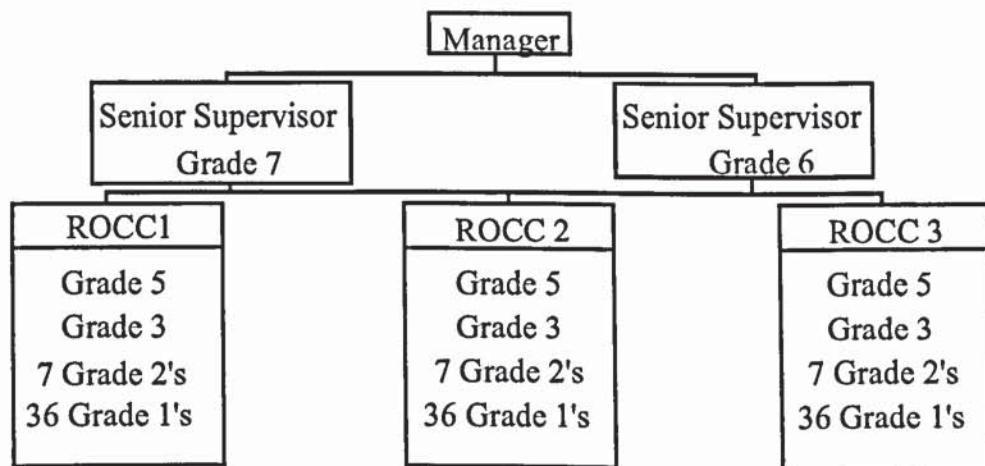
Grade 1 (Operator): To input merchant voucher summaries and sales vouchers on the VDU accurately and ensuring targets are met.

Grade 2 (Senior operator): To resolve queries from VDU operators relating to batches received from Branches and Participant Banks. To balance the days work using both system and mainframe print outs.

Grade 3 (Team leader): Responsible for controlling and deploying staff undertaking input duties and filming, boxing and despatching sales vouchers to head office. Also checks and controls the agreement of the days work with computer generated listings, signs chargeback entries and resolves any queries that arise from operators and senior VDU operators.

Grade 5 (Supervisor): To supervise staff engaged in processing sales vouchers and related documents (approx. 200,000) per day, received from branches and Participant Banks to ensure maximum productivity of the system and to ensure each operator is reaching the highest possible programme level.

The structure of the department is represented in Figure 5.5. The technology employed by the department was a five year old ROCC system. There were three large teams in the department known as ROCC's 1, 2 and 3 respectively, with ROCC 3 handling more complex issues such as foreign currency and giro transactions. Individual operators each sat at a VDU and spent their entire time inputting. The technology timed the inputting time of the individual operator from the moment they logged in to a batch to the moment they balanced the batch and it was finally entered into the system.



Total staff employed: 138

Figure 5.5: Departmental structure, case 3

The operator's performance was compared by the computer to a series of programmed 'standard times' generated by work study prior to the system's implementation five years before. Accordingly the operators received daily and monthly print outs of their

performance against two measures: 'Performance Effectiveness Index' which refers to what they achieved as a percentage of how much they should have achieved in the hours they worked; and 'Time Utilisation' which refers to the time the operators spent inputting as a percentage of the total time their contracted hours. At the time of the study these indices were 100% and 95% respectively.

Obviously this has the potential to be extremely stressful for the operators. Furthermore, because of the aforementioned wind down situation, the interviews were conducted at a time when there was considerable uncertainty over the future of the department. There had also been a recent change in the management of the department. In the case of both agency and bank staff, however, recent changes into the mode of feedback had been introduced: bank staff were allowed more input into their annual appraisal, and agency staff were being appraised, as opposed to having feedback purely from computer print outs. However, considerable variance was expected between respondents from both camps.

The respondents represented a sample of all levels of the hierarchy from two out of three of the ROCC systems. Eleven respondents were interviewed: Two grade 5's; two grade 3's and one grade 2 and 6 grade 1's. The agency staff manager and the office manager were also interviewed on an informal basis.

IV: Case 4

The fourth case study was located in a UK subsidiary of a North American finance company. The subsidiary is a bank and credit card company whose offices are located in the West Midlands. The subsidiary has been operating in the UK for over twenty years and has continued to expand over that period, despite being a relatively small player in the banking market. At the time of the study, the subsidiary reported £18.8 million in profits before tax. This was a significant increase on the previous year's performance of £9.7 million. The subsidiary employed over 1,700 people in the UK at the time of the study.

The department of the subsidiary which formed the focus of the case study was the telephone services department. This department was a call centre which dealt with incoming calls concerning both bank and credit card business. The department had been in existence in its current format since January 1993, and the majority of employees had been recruited specifically for that purpose, which was to deal solely with credit card enquiries. However, this has slowly been merged with bank - related customer service enquiries and as such the staff are gradually being cross - trained to answer both credit card and bank - related calls. The position of the call centre within the head office structure can be shown as follows:

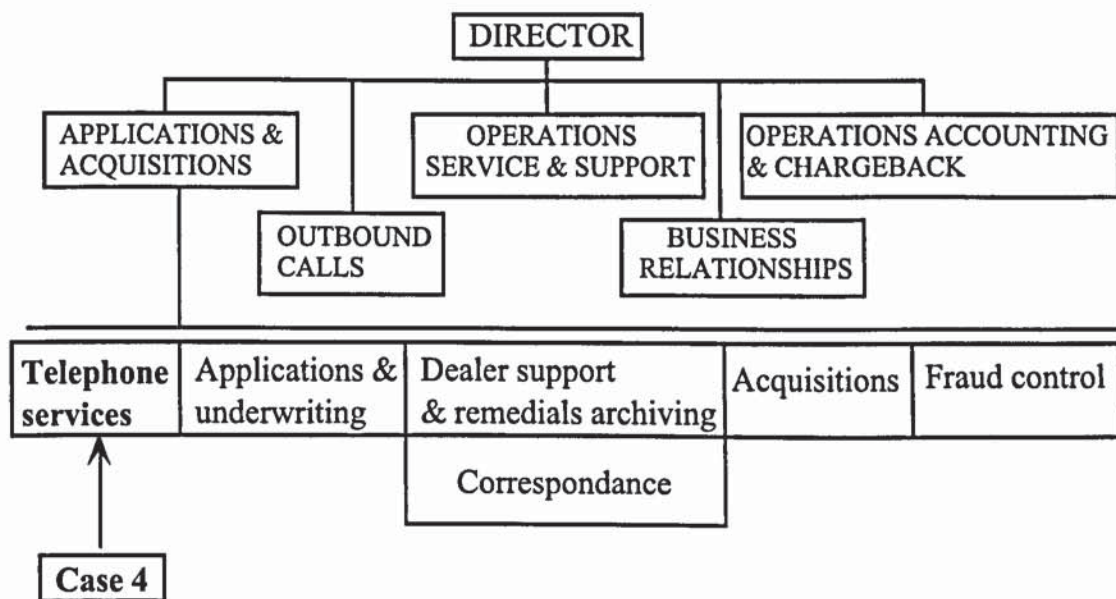
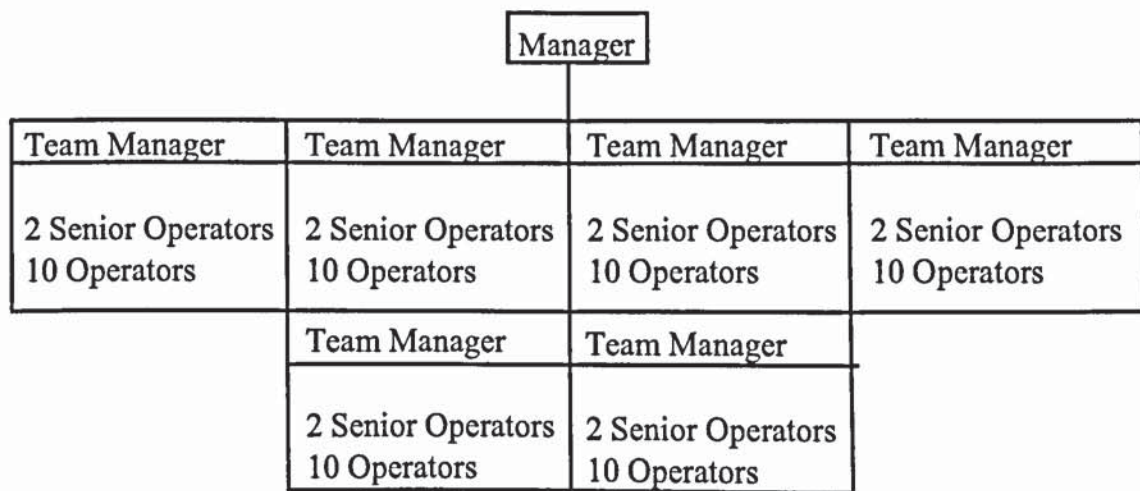


Figure 5.6: Organizational structure, case 4

The main activity within the call centre is thus the answering of calls from customers over their credit cards and bank loans. The department is organized into six teams of twelve: ten service operators and two senior service operators. In both of these cases the main task is to answer calls, however, the senior service operators (sometimes referred to as 'supervisors') also undertake call monitoring (by listening in to the operators' calls) and monitor productivity. Each team is run by a team manager, some of whom were recruited specifically for that position, and their orientation is more managerial and planning based. They are also involved in service monitoring, but their main role is concerned with HR planning and distribution. The main body of the service

monitoring was undertaken separately by a quality assurance department. The structure of the department is shown in Figure 5.7.

The technology which facilitates the work varied according to whether the operators were dealing with credit card or core bank business calls. Some dealt with both. The main difference was that the core bank business operators did not have the user - designed front - end interface to the actual customer information base, whereas the credit card operators did. This front end system was icon - driven and termed '*FREAKS*'. As with cases one and two, the incoming calls were handled by an *Automatic Call Distribution system (ACD)* and its display



Total Staff Employed: 79

Fig 5.7: Departmental structure, case 4

board (showing calls waiting, average waiting time, average handling time etc.) was the main focus of the operator's activity. This is converted into productivity information by the *Call Management System (CMS)* which is monitored by the team managers and fed back to all operators on a weekly basis. Furthermore, purely for team manager use, is the *Telecall System (TCS)* which collates information on call handling by operators, together with the volumes of calls received and enables the planning of staffing levels for any given time period. The main performance measures for the operators were based on the average call time and average time spent in performing after call work (indicated by activity buttons as in case 2). Service monitoring took place five times per operator per month,

and attendance and punctuality were also being measured within tolerances of 3% of contracted hours.

At the time of the study several changes were being implemented in the department. The most fundamental of these was the changes being made to the appraisal system which was previously considered to be unfair by the staff. Quarterly appraisals were being introduced and a more qualitative, interactive method of assessment was being developed. Other changes included the cross training of all staff to deal with both bank and credit card calls, and more stringent attendance monitoring, which was discussed above.

Ten respondents were interviewed in all, across all hierarchical levels in two teams. Two team managers were interviewed, as were two senior service operators and six operators.

5.4: Preliminary results: analysis by categories derived from previous research

I: Case 1

I: 1: Technology implementation (Table 5.1)

The first comments relate to the top section of table 5.1, wherein maxims for the uncontroversial implementation of CBM systems are described. Here we are given a coherent picture of the technology implemented in a positive way which bodes well for its proactive and productive use. Evidence to support this assertion was found in the comments made about the implementation of the technology:

- 'So everybody...got a promotion without really asking for it or doing anything to do it other than the normal job, so they were rewarded in that sense. So from going [from] a file based job onto a system, they'd been rewarded for that which went down well initially: put a stop to complaints...'
- '...it was a revolution as soon as it came in - everyone took to it straight away. Sometimes there was a little bit of opposition to the technology, but as far as this system was concerned it was so much easier than the way it was working that everybody took to it straight away.'

- '...we were thankful that something was brought in. Obviously there were the initial problems of people having done paper based jobs all their careers having to start work on new technology - most of the younger end used computers in school and took to it fairly easily.'

From the top section of table 5.1, Grant, Higgins and Irving (1988) demonstrated that a system implemented with real positive gains available to the employees will aid its acceptance. The data from the present study support such a view. In addition, the job evaluation which occurred alongside the system implementation revealed that the employees at the time were under graded - as is referred to in quote 1. The resultant upward regrading of the jobs was a timely addition to the implementation of the new technology itself.

However, there are some problems highlighted here. One, as will become more apparent later, is the problem that some of the older employees have with computer based technology. Other problems reported with the technology were split into two categories: (1) Short term breakdowns and (2) System characteristics which are obsolete or inappropriate. Problems associated with the former have been acknowledged to cause stress by the employees: this has also been found by other research. The latter represents a proactive approach to system design, and was one of the points noted by Westin (1988) to produce 'moderated and manageable stress effects' when working with technology in this way.

I: 2 Relative emphasis of speed and quality, (Table 5:1 ;1)

In responding to questions directed at these points the employees typically adopted a historical view - and also a very broad one. The relative emphasis of speed and quality and their associated pervasiveness are linked to how the work is paced. Work in D1 appears to have been always self - paced, despite the fact the almost every aspect of the work is done using computer technology. Research has shown that when work is self - paced, employees' stress levels are considerably reduced (see, for example, Salvendy and Smith, 1981). Furthermore, there is greater scope for an emphasis on quality since

employees can take their time (within reason) to complete a task to their own satisfaction. Respondents commented:

- 'You've got to try to be as quick as you can to get an account sorted, because then you can get more accounts coming up...'
- 'the calls that come through goes on how quick people are on the phone. It's not pushing them to do a call in a certain time, it depends how long they are on the phone for. Then when they've finished on that one it gives them a time to type it up then they release it and the [next] one comes through...'

The first quote illustrates how the self - pacing of the work enables employees to motivate themselves to perform quickly, and increase their performance, whilst the second illustrates that self pacing can relieve time pressure to a certain extent. The only time pressure reported by employees was the typing time.

The data elicited for this section showed an overwhelming response in favour of quality when the employees were asked which, out of speed and quality, was the most pervasive during the course of the job. The staff acknowledged that this had changed with time, and varied according to the volumes of work to be completed and the pervading management style. One respondent also cited the company's lending policy becoming more strict as contributing to the qualitative, rather than quantitative, approach. Here are some examples from respondents, beginning with more historical accounts.

- 'Quality went out of the window purely because we could cope with the amount of work that was there, and as time has gone on the emphasis in speed of quantity has disappeared and now we're into quality so that we can deal with someone once, sort them out, and they will never come back to us.'
- 'it used to be speed but definitely quality now...if you're rushing you might get a lot done, but they're going to come back so you're not getting anywhere.'
- 'In our department it used to be the speed when a different manager was here but now it's more on the quality side...'
- 'I would say now quality...once we'd shifted the volumes which took us round about nearly two years, once we'd got the dialler system in we had to tighten up with the people we lent to...get the collections side of things sorted out.'
- 'Probably the quality because they know they've got to go for arrangements, because that's what everything counts on you know, how many arrangements they get, and how many of these arrangements are maintained and broken.'
- 'Currently it's quality, quality of work with speed. It's always a trade off between the two'
- 'I think there's a lot of pressure on the work...They're putting a lot of pressure to ... [do] a lot of accounts, so it's probably speed which is being pushed forward now.'

As is illustrated on page 12, Westin's Union / Taylor production model (1987) of computer based monitoring (CBM) in America shows that an emphasis on quantity alone is insufficient for the productive use of this technology. In this case we have almost complete agreement that quality work is required and delivered. The reference to company policy makes an interesting comparison with this statement made by the departmental manager:

'We've fed them 'bigger picture'...What they used to get was 'there's a big lot of accounts to work' and they didn't understand why they were asked to work them quickly but now we feed them big picture, we feed them big picture targets that they know they've got to work quickly to get the big picture targets...'

The final quotation was given in the context of a broader organizational change, due to the higher quantity of work that would be generated thereby. Nevertheless, most of the staff found the monitoring appropriate since they realised that the job and the department wouldn't work without it, and they realised the importance of working quickly. However, most also acknowledged the importance (and predominance) of quality and finding a personal balance between quality and speed.

I: 3 The measurement of non quantitative aspects of the work (Table 5.1; 2)

In this case quality is measured by a complex and structured system which is intended to compliment the quantity measures. The system has several features: the conversion ratio (the amount of money actually collected by the organization following arrangements made in D1), the sampling pot and the appraisal. A further point worth noting is that the work is split in terms of its complexity. Simple cases are dealt with by the power dialler, whereas complex ones are dealt with manually. The fact that not every case was able to go on the dialler was acknowledged by some respondents. Quality analysis in more detail is dealt with by case sampling on the part of the supervisors and this was commented on by the staff.

In this section comments were also made about the computer system's inability to measure quality alone and the relative emphases of the quality and quantity measures. For example:

- 'We have [the manual pot], that's for cases that come off the dialler if it's to ring the branch or if it's a complicated case, if it's a dual account...it's too complicated to be on the dialler.'
- 'It can't - it doesn't measure quality, that's one thing I've noticed here... personal loans is a new product so when it first started it was just mad, and they were very very busy so they just had to concentrated on speed. It's good for that, because it could measure it and everything, but now they've realised there's ways round actioning accounts...they are now concentrating more on quality but it doesn't readily measure off quality you have to look at other things.'
- 'At the end of each day they just sample to make sure the work's there, and the arrangements we're getting, the amount of money we're collecting obviously.'
- '...we have a sampling system whereby...one in fifteen or one in twenty accounts goes into a sampling pot...the team leaders on a day to day basis have got to access and empty this sampling pot. You're supposed to do fifteen accounts each per day or until it's emptied'
- '...you can take a print of your work, and you can go through to see how many arrangements you're making, if you're doing the accounts right, the team leaders do sample pots on your incoming calls as well.'
- '...we have a number of measurements out and we don't sort of push any one in particular because we don't want to push...we're moved away from productivity now, we're moving onto quality, so we're introduced some quality measures but we still didn't want to let the productivity go, so we've carried on measuring them and we're just looking for people who are way out on the averages.'

The final extract, in particular, highlights the shifting emphasis from quantity to quality, accompanied by a decreased emphasis on individual performance statistics. As we can see, however, the monitoring system does not attempt to measure quality, and therefore the situation in this department is again in compliance with the 'Union model' of Westin (1987).

I.4: Accuracy of performance representation (Table 5.1; 3)

A number of issues were raised which affect, or are affected by, the perceived accuracy of performance statistics. At the employee level it was noted that sometimes a difference of half a minute has resulted in comment in the past - almost that the statistics are too accurate! It was also suggested that the performance statistics alone are inaccurate

as to what tasks a clerk completes in a working day. As such there are other means of evaluation. A more frequently occurring observation was the invaluable nature (and thus the accuracy) of the statistics to the running of the department. Here are two examples:

- '...they really do need to know who's doing what on a daily basis. If somebody's actioning eighty accounts and somebody's actioning fifty accounts, and...they're both on the system for the same amount of time - I wouldn't say they would ask questions, but they've got to compare quality with accounts...but I would say the management now, without the information ...they wouldn't be able to manage the department'
- '...without the daily statistics they'd have no idea of what strategies to use - they're vital - without them they wouldn't be able to work.'

It is implicit, then, from the fact that the statistics play a vital role in departmental strategy formation that they are accurate at a departmental level. If, however they were used similarly at an individual level, they would be highly inaccurate and are combined with other measures to give a better picture. The next section exemplifies the accuracy of the statistics.

1.5 System dodges (Table 5.1; 4)

In the majority of cases the individual clerk's experience with the system dictates whether they know how to beat the system. The system in place at the time of the study is not foolproof, but whether the clerk executes a dodge probably could not be predicted with any degree of accuracy. However, three 'dodges' were reported:

- 'When you're into a customer and they put the phone down because you've rang them it's still continuing as you're talking to them. So you can be typing up in that, and then you can release the line and release your record, and it comes up as opposed to your typing for a minute or two, you've spent no time typing.'
- 'I don't know if it's classed as fooling, it's a question of what you do with an account. You could just ring it, leave it ringing twice, don't get an answer out, nobody's answered and send out an automatic letter. That would only take a few minutes'
- 'I think on occasions you could maybe ...go into more accounts and put comments on that aren't really relevant and action an account when you haven't, but then that would come out on the sampling.'

When asked about the frequency of people beating the system, one respondent commented: 'Not as much as it used to because now - in say about the last six months - I've been more aware that they're now thinking quality is becoming more important ...'.

Here is evidence of a growing awareness of quality both in the latter and the above samples, with a reference to the sampling pot. A final point to note about all three system dodges is that their use is discretionary according to circumstance (i.e. it is not 'forced' upon employees).

1.6 Delivery of feedback (Table 5.1: 5,6 &9: Table 5.2: 6)

There are three sources of feedback within the department which were distinguished by the staff: monthly statistics, sampling pot feedback and appraisal. In this area particular care was taken to examine the approach of the supervisors, the role of performance statistics in the appraisal and the timeliness of feedback delivery. Each mode of feedback appears to have different effects upon the staff, and hence a different role. First, here are some comments from respondents about the monthly feedback:

- '...it's all in a monthly report...I think it's a good thing because you can look, especially at the previous months and monitor how you're doing.'
- ' Well we have a certain thing every month called the collective performance and everybody's got their name on, on what they've done basically. How many they've done, how many contacts, how many arrangements, time on the dialler, typing time, average time on a call, works out a conversion, arrangements for contacts, and everything like that is monitored, and if it's not up to scratch, it's in your appraisal...'
- '...they measure it every day and they usually compile it and give out to all the clerks figures on a monthly basis...there's kind of competitions - not competitions but league tables...because we're all in teams...so...you can compare yourself with other team members and also with other teams. '

The above illustrate the staff's acceptance of monthly statistics, and the competition that is generated between teams and individuals. Self monitoring is also present, and research has shown that this is both a result and a cause of job satisfaction. The timeliness of these statistics was reported to be an issue by one of the supervisors, since it moved from weekly to monthly as was stated:

'It's changed to monthly now...I think they felt that ...they were putting too much emphasis on it and it was having a negative effect so they've made it monthly now...if you were getting them every week and you weren't doing very well you start to panic and go on a downward spiral sort of thing because the more you panic the worse you do.'

This extract highlights the importance of timing the feedback so as to not pressure the staff. This has positive outcomes for stress and several laboratory studies have been conducted which support these findings (see Nebeker, 1987; Schliefer, 1986). Furthermore, several respondents reported that their particular supervisors gave informal feedback on various aspects of performance all the time, instead of waiting until the end of the month. It would appear that this also had beneficial effects for the staff.

Another point to note is that criticism was reported to be handled carefully in all three feedback situations. The giving of praise and criticism was noted as a vital element of the supervisor's role, and as such the following approaches were reported. For collective performance statistics to improve encouragement was necessary in cases where the clerk was experiencing difficulty. However, in appraisal, figures would not be used if they were poor. When delivering feedback from the sampling pot, feedback is depersonalised into 'things that need to be clamped down on' rather than attributing mistakes to individuals. It is intuitive that negative feedback will have a negative effect, yet this point is supported by case studies and laboratory studies alike. In this department as far as is possible, constructive feedback appears to be delivered.

There was some difference in perception between supervisors and staff as to whether collective performance statistics would be used in the appraisal. It is acknowledged that supervisors may differ, but when asked whether the statistics would be used one supervisor replied:

'...now I do use information. I've used it in the last three quarterlies and appraisals...I use it to see if they are better now than they were at this time last year. We use this information to collate statistics on how many settlements they've done, how much they've collected...if it's good information then we'll use it.'

This is in stark contrast to two employees who replied:

- 'They wouldn't really use the statistics that they've pulled off the dialler or anything - mean they would probably use that for a tiny bit to do with like analysing accuracy that's on the phone, but they'd base it a lot on how you see, perceive somebody and how you actually do. The quality of the work that they just do from sampling accounts and things that they do outside the normal duties of collecting debts...'
- 'I don't think the physical figures from the system will count. I think it's more how you work the accounts that's more important. Technical knowledge, how you

communicate - they are two skill areas - I think it's how you work in general as a member of staff, that's important rather than figures when it comes to appraisals.'

The conclusion to be drawn here suggests that collective performance statistics play an important but minor role in the appraisal process. It would appear, therefore that much development, experience and change has resulted in a multi - layered feedback system: informal, personal and (almost) constant; monthly statistics; quarterly, more informal appraisal and annual appraisal. The employees reported this process to be largely discursive in nature, constructively critical and in the case of appraisal balanced in favour of a more qualitative analysis.

1.7 Accessibility of performance information (Table 5.1:10)

There was some ambiguity in the responses to this question. As with beating the system, whether a clerk has access to all data at all times depends on the length of service to the company. Not all employees knew about the daily availability of statistics - however, the responses did not indicate a complete inaccessibility of information, which according to Westin (1987) would be detrimental. Throughout the responses, however, it does appear that employees have a choice as to whether they view their statistics or not, and in cases where the individual asserted that they could not access their data if they wanted, it did not present a problem. Some of the responses were as follows:

- 'You only find out what your typing time is at the end of the month reports and it'll come up, every clerk's name, how many hours they've spent on the dialler...and that's the only way you can find out, unless you go to the supervisor's desk and have a look.'
- 'If we would like to certain people can...if you ask then they do, but they don't ask you to ask...'
- 'Well it could work either way - you could say 'well they're not telling me', but in another way it's up to you to ask. I mean I know that from being here long enough, the new ones obviously don't, but it comes with time.'
- 'I can't access it all personally. I can look and see how many cases there are. They do take prints off every day, and they're on the wall to look at, and there are prints kept in filing cabinets which we can go look at...If you were ultra keen and you wanted to monitor everything you did, personally, I am sure you could get the information'

The first response indicates that not everybody knows about daily performance statistics. Westin (1987) notes that all data should be available to the employee. In the case of this department 'data' has been interpreted as the collective performance statistics published on a daily and monthly basis. The cynicism expressed in the second quote refers to access to the computers upon which the supervisors work, yet when addressing the same subject the third and final respondents show no such cynicism. The most important thing to note from this section is that staff have the choice as to whether they see their statistics or not. This topic is addressed by Grant, Higgins and Irving (1988) who state that widely broadcast statistics could be demotivating to employees.

1.8 The ability of employees to challenge information (Table 5.1: 11)

According to the responses there are two things that can be challenged in the department: (1) established rules and (2) statistics. A healthy view is taken of the former, where challenge is almost positively encouraged. There was some ambiguity, however, with respect to the statistics, where the responses fell into two categories. First, the employee who knows roughly what the statistics will be, will challenge them if they appear to be wrong, and will find evidence to support them. Second, the employee who accepts the figures because the computer is always 'right' and any error is their own fault. Here is an example of each:

- 'Oh yeah,...often we do to the extent that someone's just keyed in a digit less...I always know whereabouts I am, maybe to a couple of cases in a hour, or five hundred cases a month...and so if I pick up my figures at the end of the month they'll say that I've done 110 cases and I'll say no that's wrong it's one thousand one hundred...mistakes are made but that's normally people...'
- 'It's pretty hard to disagree with any of it, because a lot of the information that comes off the dialler is what you've actually keyed, so the only way you could be wrong is if you've dialled a wrong code, then again it's down to you. But I mean it's done in such a way that really it's very...you can challenge it I suppose but I don't think there's really much point.'

In each case the two views acknowledge that the computer will always report keystrokes and calculations, however, the human application of them is only

acknowledged not to be foolproof by the first. This example illustrates the importance of being able to challenge information (as described by Westin (1987)).

1.9 Flexibility of standards (Table 5.1: 12 and 13)

Standards are variable between teams and individuals, despite there being an overall departmental standard. *Prima facie* it is thus intuitive to conclude that targets are flexible within reason. Two common opinions were elicited about targets and their achievement from the interview data. First, that targets are not always taken seriously in that it is not absolutely vital that they are achieved all the time. Second, that the achievement of monetary targets and setting thereof is not always fair. This is especially if there is a reward attached to the achievement of a monetary target, since the collection of the money is very much based on luck.

In terms of error, any target which is missed is dealt with quietly, and a reason is sought for the shortfall. The notion of a disciplinary approach was expressly rejected by all respondents with a strong focus on training and discussion. Again, this factor features in Westin's 'Union' model of monitoring. Here are some examples:

- 'I don't think you'd - you wouldn't discipline them, you wouldn't go that far, you'd just try and train them, and sit with them and say 'well you've been doing it that way, do it this way and see if you can improve.'
- '..if things are slipping I will speak to them and actually find out why...they might have a few bad days which is what I'm supposed to spot on a daily basis , if someone's having a bad day or if someone's got a hangover, (laughter) it can happen, or if they are not feeling well...there're various reasons or family reasons.'
- '...they don't say 'oh you're hopeless you haven't done it' - they're very fair and try to encourage and find out why, and help you achieve it - better than other departments I've been in'
- '... a lot of it's luck, and your target's to collect 2000 short settlement s, collect 80K a month, if you don't they won't...they either why haven't you done it and you say 'take a look at my work - my work hasn't changed, I've just had those lucky phone calls'
- 'I would say more of a discussion, but to be aware that you've got to try and improve'

The next section of the report begins with the employees' comments about the job, and then broadens out to encompass certain social factors which influence the work

situation. These factors are derived from those listed in figure 4 (page 14), and one additional factor concerning 'reasonable operator discretion' taken from Westin's (1988) model entitled 'Organizational climate factors and clerical VDT work stressors'.

1.10 Mode and effect of control (Table 5.2: 1)

This category examines the issues of operator discretion and autonomy, and the predominant method employed by management to secure compliance on the part of the staff. The section manager, when asked about control, outlined the position of the department from its outset to the time of the study in terms of control method as follows:

'...once there were twenty thousand accounts on that particular day that I got here so we pushed productivity and then we used directional leadership...told them what to do and off they went. And then we moved on to things like coaching, and now we're allowing people to sort of run themselves and support it and so on.'

When asking the staff who or which group controlled what happens, the first point to note that no single group or individual attributed the most control to themselves. The responses indicate a high level of delegation in terms of decision making and the operational running of the department. One supervisor even attributed the most control to the staff themselves, whilst the other interviewed chose the assistant managers. Here are some typical responses:

- 'I would say they do [the staff] definitely...we can only advise them how to do it because at the end of the day they're the people who work the cases and how good they work them would depend upon how good or bad the provision would be'
- 'Day to day the team leaders do the running of it, between them...the outward appearance is that they help each other out'
- 'I would say the team leaders, they're the middle link between the management and the clerks. The management obviously sets the goals in the broad sense and runs the department from a high, whereas the teamleaders have to convert those goals into a daily workload. They are the people that are on the floor all the time and they answer the majority of queries, they are the people who are busying around...they break the big decisions into workable routines.'

Unfortunately there is no direct evidence as to whether the employees feel more or less autonomy when working with the technology, but what there is evidence of is

decision making at the supervisory level, and a degree of operator discretion during the course of work. Job design literature suggests that work with these features is more likely to be motivational.

1.11 The demands of the job (Table 5.2: 2)

In this and the following sections social divisions within the section will start to emerge. There is a coherent theme running through responses which divide the staff in terms of age and sex, though only in relation to the adaptation to new technology. This division is not perceived by all parties, and as such should be handled sensitively.

Nevertheless, the majority of respondents commented that there were parts of the job that were more demanding than others. It was widely acknowledged that the dialler was the most demanding. Some people thrive on it whilst others find it stressful. When discussing this issue topics associated with 'fear' and the conquering thereof were raised. However, it was apparent that work on the dialler had been structured in such a way so as to allow the employees breaks and longer periods of time where they are doing other jobs. Some examples of these issues are as follows:

- '...shall we say the younger ones such as myself and those who come in and know no different are fine. The others, well it used to be files and they preferred the files cos it was easier...maybe they're scared of the technology...'
- 'There's a lot of people that don't like going on the dialler just because the calls come through and you don't get to see any details before you're actually on the call...so it is a lot to ask of people and a lot of people who are frightened of going on it.'
- '...it's just depending on the personality of the person. If they can handle the waffle when they've got to read the screen whilst they find out what they're ringing the customer for they're alright, but it's if they haven't got the confidence to do it.'
- '...we've specifically done things like power dialling which can be a nightmare - in America it's pushed very heavily and you can have five seconds between each call, well, we've not gone that way. We've actually tried to limit it to one hour at a time; giving people breaks at the end of one hour, and so...we're able to do that because of the fact that we don't have huge volumes of accounts to get through...'

Drawing on past research we can thus conclude that whilst work on the section does have an intense and demanding dimension, it is not constant and thus could mediate the documented stress effects. It was acknowledged by one respondent that it is possible

to avoid the dialler to some extent, yet it is seen by the staff as a necessary part of the job, particularly if one is wishing to progress. We shall see in the next section the degree of perceived routinisation of the job supports the findings about working on the dialler.

1.12 Perceived routinisation of work (Table 5.2: 3)

As with the above section, a distinction was drawn between the intense, mechanistic more directed work on the dialler in collections, and the more discretionary manual - based work in recoveries. It would appear from the data that variation is available on a daily basis, as well as the more broader rotation between collections and recoveries. Again, this is a useful aspect of the job's design which features in numerous pieces of research. From the following it would appear that staff do not perceive the job as particularly mechanical or routine:

- 'It's more than likely that you'll say I wasn't on the dialler this morning...then I'd be on incoming calls, so it gives you the variation there...we used to be on the dialler all day and it used to wind people up...'
- 'We do a plan for the day and we make sure the people who have been on calls in the morning go on the dialler in the afternoon...but if they really didn't want to go on it they would swap them so they weren't obliged to go on.'
- '...everyone who's worked in recoveries, when they've come back out it's been a bit of a culture shock because even though both departments know what they have to do, recoveries is more relaxed, where collections is 'you will do this, you will go on the dialler' and it's more organised and structured, but it just has to be like that...'

1.13 The role of performance statistics in promotion (Table 5.2 5)

It is widely acknowledged on the section that to get a promotion an employee must go beyond the job description. Examples given included working late, spending more time on the dialler and doing extra jobs. A relationship was identified between the performance statistics and promotion (but not job security). It appeared that as soon as a promotion was made available or announced, individuals paid much more attention to the statistics, since they are a ready form of comparison. If the person who attained the

promotion's statistics were not at the top of the tables, some controversy arose. These findings are supported by the literature in that statistics have been found to play an insignificant role in the running of a department until there is a degree of social or career related turbulence

1.14 Monitoring as a motivator (Table 5.2: 8)

The fact that the staff are monitored is not in itself a motivator to them. However, the information which is produced is. The provision is cited as a major source of motivation to work hard and collect money: the significance of this broader corporate objective will become clear when the cases are compared. Also, the amount collected is also viewed in this way. There are some people in the department who are not competitive, and, as is suggested by Grant, Higgins and Irving (1988) they should have the choice not to participate. However, here are some of the comments:

- 'Everybody...really looks forward to seeing how well they've done and seeing how much they've collected and so on. I mean I have people asking me for the figures if we've not got them there at the end of the month - they are quite keen to see how they've done.'
- 'I feel a sense of achievement when you look at your figures and you know how much you've collected, if you've helped someone over the phone, you've overcome the problem, or you've solved whatever the problem was.'
- 'I like the atmosphere, the atmosphere's really good with it being such a stressful department we have quite a laid back approach - I mean we do a lot of social things out of work...I like the pressure that we have - like we have to try and get the provision down and stuff and working with people as well'

This concludes the preliminary results for case one, and it is apparent that the issues raised by previous research in the USA are very much issues in the modern British workplace. In summary then, responses relating to the system showed:

- A view of the technology as a 'tool' which helped the section increase its efficiency.
- A widespread acknowledgement of quality being more pervasive than speed in the course of the work.

- Acceptance of both the quality and quantity measurement systems by the staff.
- A low occurrence of figure fiddling due to quality awareness; but an acknowledgement by some parties that it is possible.
- Delivery of feedback at a number of different levels and time periods covering all aspects of work.
- A degree of sensitivity in the way in which feedback is delivered.
- Not complete awareness of the accessibility of performance statistics
- A feeling of freedom to challenge statistics and other information.
- A constructive, non disciplinary and flexible approach to the achievement of standards.

With respect to the employee related factors associated with stress mediation - also examined by Westin (1988), there were no outstandingly bad stress reactions reported by any of the respondents. This is supported by the data to some extent since the job design itself exhibits the following features:

- Work is self paced, operator discretion is acknowledged and there is deliberate delegation of control to supervisory level.
- Job rotation and flexibility in daily rotas make the more demanding parts of the job bearable.
- Working within the section itself is not perceived as mechanical or routine in the sense of 'robotic'.

The following three cases were also analysed using the same categories and as such support the assertion that the categories themselves are valid.

II: Case 2

II: 1 Technology Implementation (Table 5.1)

On first reading the interview transcripts it was clear that the department (D2) is not without problems in relation to the implementation of performance statistics and listening in. This can be summarised as follows:

- The main inertia to the implementation of such technology came from the longer serving staff.
- Supervisors were experiencing information overload and time pressure because of the new duties associated with monitoring.
- There was a marked difference in acceptance of the technology between package holiday (PH) and camping(C) staff in general. They also viewed each other by certain characteristics: PH work was seen as more complex and multi skilled by C staff, whereas C work was seen as more simple by PH staff. C staff perceived themselves to have a greater sales and team orientation than PH.
- Due to the piecemeal nature of the implementation, some staff were unaware that they were being listened to, which could present problems when they were told about it later.
- As far as the staff were concerned, the implementation of the technology was not linked to the achievement of any 'big picture' objectives, such as the collective reduction of calls waiting (i.e. the information that would be derived from an ACD board).

Comments referring to the very new monitoring technology thus referred to all of its dimensions: from the physical (ergonomic) through to the training and efficiency angles.:

- 'In that way it's not better because I mean before, a handset of course you couldn't just transfer calls you actually could speak to a person, saying I'm going to put this call through whereas now they can just transfer a call to anybody and just transfer it. It goes into your turret and you don't know who it is until you get the call. Then...it's through to the wrong department which is wasting time all the time.'

A few more of the respondents' comments are listed below. It is noteworthy that none of the respondent who were below assistant manager level appreciated the broader objectives of the system:

- '...we can find out if a certain person needs help in a certain area...they're in the room for seven and a half hours and they're only logged on the screen for five hours. We know they only have half an hour lunch break so there's a problem somewhere. What are they doing? And we can find out why. Sometimes they are on a call for too long. Is there a problem? That's when you know you've got to get someone to assist that person in that area.'
- '...you can actually train people better as well because they can plug in and listen to the way you...and like the performance of it, it picks all your calls up and you can see how the people are doing...'
- 'To probably make it more efficient I think. Running the actual department more efficiently...also to make people take more calls. Before we used to have a thing on the wall showing how many calls were actually waiting but then they've knocked that

off. I think they've actually done that on purpose because if there were no calls waiting people would go into idle or whatever, because before if there were no calls waiting they could have a chat...so that's another thing that has been done to gee up a bit.'

- 'Well to improve the standard of service that we give to the public and travel agents.'

It is apparent from the above that even though respondents appreciate the many uses and benefits of technology, the responses from agents showed that they felt little involvement in the monitoring process, in that they felt they were simply 'subjected' to it, rather than be part of it. This need for involvement is also commented on later by a supervisor. Furthermore, throughout the above and other responses, there was an emphasis on error correction and the monitoring being there purely to speed up the pace of work. This may be perceived as a benefit depending on how it is handled, but it does have rather a negative ring to it. From the top section of Table 5.1, Grant (1992) asserted that positive aspects of the system which represent real benefits to employees, with good reasons being demonstrated for the implementation of the technology will aid its acceptance.

Comments relating to technological problems stemmed from the fact that respondents were not altogether aware that, at the time of the interviews, management were trying to launch a Customer Services / Reservations call centre, and so perceived the putting through of Customer Services calls as a technological problem. Some of the comments were as follows:

- 'I think it needs to be integrated into the department. There's too many calls coming through to us that are just not...they are putting calls through and it's like being on a switchboard sometimes...'
- 'I think it would be better if each had its own phone number'
- '...it's us that seems to get the backlash of everybody else'

Other problems highlighted were the slow response time of the system at certain points in the year (for instance when brochures were being loaded on to it), which, it has been documented, can cause stress in employees if they are subject to a quantity speed standard (Schliefer, 1986).

II. 2 Relative emphasis of speed and quality (Table 5.1:1)

The relative emphasis of speed and quality and their associated pervasiveness are linked to how the work is paced (i.e. self paced or machine paced) and also what is emphasised by management. It appears that work in D2 is self paced (i.e. the employee can choose when they receive a call), despite the fact that almost every aspect of the work is computer mediated. This is a similar situation to that in case 1, but with incoming, as opposed to outgoing calls.

It is probably fair to say that quality is slowly becoming more pervasive in D2, however two thirds of the agents interviewed said speed was both emphasised more by managers and was more pervasive than quality during the course of the work. Overall, despite a management skew of the data towards a quality emphasis, the general perception was that speed was more important to the company than quality. Here are some comments, first those who *personally* favoured quality:

- 'Well I personally think quality...but sometimes I think the management just want speed
- 'Well I'd say quality. Whether the company want that or speed I don't know...I just think the quality of the call goes a long way and then the speed...'
- 'I don't really think the system is fair in assessing the average of calls because say for instance it depends on the nature of your call...one hour you might do an average of twelve, thirteen calls in an hour, and then another hour you might have a long amendment...so really in my opinion quality more than quantity of service.'

Now comments which state that it is speed that actually matters:

- '...speed is important naturally because they don't want to be on the phone a long time if they've got clients in from of them, But I also think that if you take time to check something for them, go away and come back they're quite pleased then I think. I think fifty - fifty really.'
- 'Mainly speed is coming across at the minute, they're going blah blah blah you've got ninety calls a day no matter what. They haven't really put any emphasis on the quality just speed.'
- 'They just want as many calls through as possible. I mean they tell you that when you start, you know, if you can get the booking...so they come over as quality but when you're actually doing the work it's speed.'
- 'Well you see it's the speed really I mean these things just emphasise speed, the speed and the number of calls that you're taking in a day...it doesn't tell you the conversion.'

As is illustrated on page 11, Westin's Union / Taylor production model (1987) of Computer Based Monitoring (CBM) in America shows that an emphasis on quality alone is insufficient for productive use of this technology. The model also states that problems with quantity should be acknowledged and understood by management. From the above it is apparent that speed is the message being received by the staff from management. However, comments from the assistant manager mediate this to some extent:

- 'I would much prefer for someone to do 60 calls a day, and those calls don't come back, and we've actually satisfied the client, done what they asked for, and we don't get that back'
- 'So the supervisors and team leaders should have a guide, but I'm not saying we would enforce that if we really felt there was somebody there who handled 5 calls a day less, but we knew they were doing a good job'

Furthermore, one C employee remarked about how the new incentive system could also jeopardise an emphasis on quality:

- '...just because I'm going to get money at the end of it, to buy or sell a certain ferry or campsite or whatever, wouldn't determine how I dealt with a call. I would hope that they'd answer them all as they should, and spend the same amount of time with them...and not try to get rid of them 'oh this is not going to be a booking call' and get rid of them, isn't it - let someone else deal with, no matter what it is. To me the customer loses out, and I think the quality side of it isn't emphasised enough.'

From Westin (1987) we can see that problems with achieving a quality standard are understood by the management levels, but we can also see that the message is not necessarily apparent to the staff, since the majority of perceptions of quality is purely personal.

II: 3 The measurement of non quantitative aspects of the work (Table 5.1: 2)

In this case quality is measured by a yearly appraisal, which is a traditional paper based exercise with the appraised filling in one section and, upon discussion, the appraiser filling in the objectives for the year. At the time of the study, a three monthly informal appraisal and regular call monitoring (listening in) were being implemented in a piecemeal fashion.

It was thus not surprising to find that some employees were not aware that they could be listened to. Since they also acknowledged that a statistics based performance measurement system could also not measure quality, the employees were not sure how quality was measured if at all. Here are some of the responses to the question 'how is quality measured':

- 'Nothing as far as we can see apart from the letters coming in...there's no way they can tell how we're dealing with the calls. Just how many we've taken...They could be just not dealing with the calls right, but they could be taking 200 a day.'
- 'It's on the stat sheet that you get. They jot down how many calls they take and how long they're actually talking on the phone and shows a hole where you may have gone for a brew and put on hold when you come back. They monitor it all now, all the time.'
- 'Well I don't know. I suppose [the manager] has a conversion rate of calls. I don't know how he works that out again, of how many calls are getting in and how many bookings they're doing.'

The above comments are in stark contrast to those from supervisors and team leaders who reveal how quality is actually measured:

- 'Well you can't tell that from the screen unless you're actually listening in as well'
- 'We've all got teams so we've got to go in and we can listen in and we can make notes. And we can also if we're having a problem with somebody, we can call to another area and actually dial into their turret without them knowing it'

This section illustrates the fact that the agents had not been told that they were being listened to at the time of the study. This may well result in the agents feeling 'spied upon' to some extent, which would be consistent with the findings of Higgins and Grant (1989). However, it is also acknowledged by the author that listening in was very new to the department at the time of the study. The acceptance of such monitoring depends largely upon staff feeling at ease with these new working practices, and thus agents should know when they are being listened to, so neither party has nothing to hide. In terms of Westin (1987), at the time of the study compliance with the Taylor side of the model was perceived on the part of the agents and on the part of some of the supervisors and team leaders.

II: 4 Accuracy of performance representation (Table 5.1: 3)

A number of issues were raised which affect, or are affected by the perceived accuracy of performance representation. These issues stemmed from the facts that first of all, some agents were not sure how seriously the performance information generated was taken, being very new; and second, not all agents were aware of the listening in. Until the agents were told about the listening in, there is perhaps a distorted perception of how accurately the performance was represented. The accuracy of the actual performance statistics was accepted, however, although this again was seen negatively by some in that, coupled with an emphasis on speed, it may not always allow for time out spent on admin. or faxing work as one team leader commented:

- 'I remember querying about a person where it showed up that they'd been logged on for only eight hours, seven hours and they were only doing four hours work. And I thought it was unfair because sometimes you might be doing admin. work and you know, you've got to learn about that really. You tend to generalise about who will be doing admin. work ... I mean it does fall down on that really. It could be that something is added so they press a button so it says 'It's OK I'm doing admin. work'

The above extract also highlights the way in which social judgements can mediate the interpretation of statistics, which was raised in the research of Favero and Ilgen (1989). Some of the other comments relating to accuracy were as follows:

- 'it's not a fair system but you know...I think it's quite fair but I just think the average calls per hour doesn't really...I'm not saying it's unfair, but I don't think it gives a true picture of the actual work you do'
- '...somebody looking at my calls they might think 'oh no she hasn't taken many calls' but I was on one call for half an hour and somebody could have taken twenty calls in that time. So sometimes it doesn't always actually show that you've worked.'
- 'It perhaps just shows everything - you know when they've gone to the loo and when they haven't really'
- 'I mean if you're having a lazy week and you can't be bothered doing anything then it will show on your figures, whether you like it or not. No there's no way you can actually get it to say something that isn't right, it just won't work.'
- 'Well I think it's pretty accurate really, the way it works. I mean you can't really go wrong. It's going to tell you how many calls you've answered, how much time you spend, I mean you can't argue with that.'

Accordingly, these comments illustrate the need for performance statistics to be combined with other measures (such as listening in and formal and informal appraisals) to give an accurate picture of work within the department.

II: 5 System dodges (Table 5.1: 4)

In two cases agents commented that their supervisor had told them to press the 'make busy' activity buttons to prevent abnormally high times in the 'not ready' activity. The latter activity is seen as time wasting whereas the former is seen as signifying admin. work or similar. However, the majority of agents denied that there was any way of fooling the system, as the standard response was 'the computer's right, you can't fool it'. Comments as to the infallibility of the technology were as follows:

- 'There's no way to do it unless you lie to the people on the phone, to get rid of them. There's just no other way. You couldn't, you can't do it'
- 'put yourself in make busy which means that your system's totally switched off, you're logged off that system then...but I think on the print out it doesn't show it'
- 'Just sign yourself off - there must be some way to find out anyway. I mean if you take the printout and say this person was in work that day, she should have been on the phone for 8 hours and then suddenly she's here for 2 hours and then suddenly she's not here.'

The first quote also illustrates how quality becomes an issue in terms of the accuracy of statistics, and the importance of listening in as a quality measure. As reassurance, no other individual mentioned this method of 'fooling' the system, and even the individual who made the comment in the first place expressed no desire to carry out this short cut.

II: 6 Delivery of feedback (Table 5.1: 5, 6, & 9; Table 5.2: 7)

Feedback in the Reservations department is delivered once a week, via a printed sheet of statistics, then there are three monthly appraisals and yearly appraisals. Since this study was conducted in the very early days of performance statistics, and before the

three monthly appraisals were implemented, reactions to it were mixed. Furthermore, since many of the respondents had been working in the department for less than a year, not all had received a yearly appraisal either. Therefore, these comments reflect first of all, reactions to the feedback from computer based monitoring, also the implementation process and the positive contribution that monitoring would make to the overall appraisal process. First, the comments about the relevance of statistical feedback:

- 'I'm not really bothered about the sheet I'm just bothered that people know such as supervisors that I'm doing my job properly.'
- 'The thing is they don't actually come back to you and say to you you've done so many calls yesterday. I think if there was a big time when you were in 'not ready' I think they would possibly report back to you then. Nobody's ever come back to me apart from that one time.'
- 'I wouldn't mind so much like the days when there's not many calls coming through, as long as we're taking calls I don't think stats have anything to do with it. We are clearing calls fair enough but it seems that they still want us to reach a target.'

These comments illustrated the inertia associated with the implementation of such statistics with staff who are used to verbal or informal feedback on performance. Furthermore, up to the time of the study it was noted by many of the respondents who had received feedback that it had been mainly negative. Here are some of the comments with an undeniable focus on problems, rather than achievements:

- '[the manager] asked [my supervisor] to ask me one day why my average of calls was six an hour...they never questioned my average before it must have been ten or something like that. So obviously I told the guy I was training and sometimes when I'm on the phone it's like people might come to me and I can't say no I won't help you, I go over and help them, that's why my average is down.'
- '...when we do start the monitoring and the listening in , I suppose we'll look at that and see whose not achieving the amount of calls that he wants and they're the ones we'll start with first. Or those that aren't getting the ratio, or the turnover of the bookings that he requires...'

Due to the fact that the management had left individual supervisors and team leaders to implement monitoring in their own team, the approach of the individuals concerned and their staff was often very localised, and was a matter of trial and error.

Most of the staff themselves acknowledged that this was so, and that there had been a negative emphasis so far, but they seemed to resolve to change matters:

- KB: Has that ever been used in a positive way?
- RESPT: No it hasn't but I think it should be...they should get some praise, you know, something for being good
- 'To other people they saw it as people listening in as they were going to be finding fault. But to us we looked on it as a more positive side. You know if there was something we could be helped whether it be selling or what we should be saying to help sell the insurance or whatever it be.'
- RESPT: They're actually taking the information then and filtering it through in a slightly different way. They appraise their own staff for the previous week really, and it's at that point where any problems that they didn't think they had they pick upon.
- KB: So it's a focus on problems then
- RESPT: Well it is, but it's also a focus on the good ones...We've actually got a league table...so that's good feedback. We're actually sort of saying 'your conversion rate is...'...then the positive thing will be in there to that person because we'll say 'really well done, look at your achievement last week and look what you've achieved this week

It has been noted in existing research that the giving of praise and criticism is a vital part of the supervisory role. Other research (Schliefer, 1986) also shows that staff will feel pressured by monitoring if (a) the feedback is always negative and (b) the feedback is given too frequently or in an untimely way.

The performance statistics were seen as having a vital role to play in the three monthly appraisal in particular. The three monthly appraisal was also seen as positive by the staff, and a way of generating more ongoing dialogue as regards the individual's current work situation. The statistics were also seen by some longer serving member of staff to revitalise a yearly appraisal which was perceived as outdated and irrelevant:

- ' I think appraisals in this department are a waste of time to tell you the truth...because they say "what do you want to achieve? what do you feel you have achieved in the past year?" and I put nothing because I haven't achieved anything in here. Nothing. Then they say what would you like to achieve in the next twelve months you know, they're just stupid questions I mean they don't apply to this department, at all you don't achieve anything in this department'

The same respondent then noted that statistics would make a difference to the above described situation

- '...if they keep it going it would because you know they find out more about what you're actually doing, who's doing this, who's doing that so that they can actually make out an appraisal...so yeah it would make a difference'

The ongoing nature of the quarterly appraisals is highlighted thus:

- 'that seems more sensible. I mean to me, you shouldn't have to wait for that, you should be able to go and say something if there's something bothering you.'
- 'I feel to some extent, once we've got the monitoring there shouldn't be anything that rears its ugly head in appraisal that we shouldn't actually be aware of...I would see this as re-establishing objectives... you know because it doesn't let you sit back and get complacent.'

It would appear therefore, that performance statistics have great potential to be successful a tool for motivation and training in the reservations department. Much development and constructive use of this form of feedback should overcome the inertia expressed and exposed in this analysis.

II: 7 Monitoring as 'spying' (Table 5.1: 7)

The few employees who had experienced the 'listening in', and for those who were listening, reacted in a way described by Higgins and Grant (1989). This research showed how the monitoring of both the process and the results would cause the monitoring process to be more pervasive to employees. Accordingly, this practice was perceived as 'spying' by both the agents, supervisors and team leaders. It was also seen as something that might jeopardise good interpersonal relations amongst colleagues, and indeed it was thought that one team was taking it as personal criticism.

It is noteworthy, however, that all these perceptions came from the PH staff, as C had been subjected to listening in, though not performance statistics as such, before. This reinforces the above point: they are used to this sort of monitoring. Here are some typical views:

- '...I certainly didn't like the idea of someone listening to me, checking up on me. I felt all uncomfortable. Checking up on me? Why are they checking up on me? And then sometimes like when I had [a nasty caller] I was glad the travel agent listened in because she backed me up...so it can work both ways really'

- 'I think it's good now I understand it a bit more but to be honest when I was on the phone I was thinking "I don't want people listening to me, why are they doing that? It's like being back at school"'
- 'Well it is spying really. It's actually making sure, but these days in companies this is what you've got to do. You've got to keep the level of the...calls up and the company, because you're working for that company and you're getting paid for it, so you've got to keep the quality up as well.'
- 'I don't want them to think I'm spying on them because I've got a good relationship with all of them and I would hate them to think "Oh it's here again coming to spy on us..." I would really hate that.'
- '...I don't think they're happy with it now, but it's something that they're not used to. I think that's what it is - it's what people are used to isn't it...something like the older ones, I'm thinking now about PH, not C. PH who have been here a long time might not appreciate it, you know, 'I've been here a long time, you know what I'm doing why do you start listening in now?'
- 'They know that they're being watched, and it puts you off. A lot of people feel that way...It makes them speed up, which makes them make mistakes'
- 'I think they see it more personally'
- 'They were talking about sitting in with you as well, on our phones. I think they're going to be doing that every few months as well. It's actually in use at the moment...I just don't like someone listening in'

The results in this section highlight the amount of time needed for the full benefits of monitoring technology to be realised by operators, supervisors and managers alike.

II: 8 Accessibility of performance information (Table 5.1: 10)

There was some variation in responses to this question. The responses themselves were divided into three groups as follows. (1) Those who didn't care whether the information was there or not, because they just wanted to be appreciated for doing the work; (2) Those who were quite prepared to ask about the information, and (3) Those who were resigned to the fact that it couldn't be accessed at all. The assistant manager in their response assumed that staff knew they could print off a daily report, whereas it was clear from the responses that not everybody was aware of this:

- (1) 'I could ask if I wanted to but I'm not really bothered. I'm not bothered because I know I'm doing my work right. So it doesn't bother me really say if you haven't taken enough calls'
- (2) 'I'm sure you would be able to look, I can't see any reason why you shouldn't - I mean it's not secret information is it?'

- 'I feel comfortable doing that. I'd like to know if possible what happened to me this week'
- '...if the staff feel that they've got a problem with something they can easily print off an agent report which is very detailed on that day.'
- (3) 'I did see my sheet when she was telling me the average but you're just listed on a line it's not an individual sheet it's per team, but there's no way we can actually access that system.'
- 'We haven't been asked 'do you want to come and have a look at how this works, no' There's no way of looking at it.'
- 'Personally no. It would have to be accessed through a supervisor...if you want the information they will give it to us.'

Responses under section (3) indicate that not everybody feels they have as much access as they want to their performance statistics, and also that it is up to supervisors and team leaders to offer to let them see statistics. Westin (1987) notes that all data should be available to the employee, and no secret information about individuals should be kept when referring to their personal performance. The most important thing to note is that employees should feel that they have the choice to access their statistics if they want. From the last statement under (2), which is that of a senior member of staff, there is some discrepancy along this line of analysis.

II: 9 The ability of employees to challenge information (Table 5.1:11)

In a similar vein to the responses in case 1, the responses vary along two types. First those who were resigned to the computer being 'right' and second, those who wanted to find out everything they could about something they didn't understand. Here are some examples:

- 'I would challenge it but they would say the computer's right'
- 'I mean if I didn't agree with something I'd go up to [supervisor] and say 'look ...I don't particularly agree with this, can you just explain why?' And she'd sit down or any of them would sit down and explain where the actual figure's come from or whatever...'

One thing that should be noted is the employees should feel they could challenge the information at all times, since it could easily be misinterpreted and information wrongly fed back by a supervisor or team leader. This is pointed out by Westin (1987) who

emphasises that an inability to challenge the information is likely to lead to stress in workers.

II: 10 Flexibility of standards (Table 5.1: 12 & 13)

The first thing to note about the standards of 12 calls per hour for PH, and 8 calls per hour for C, is that they are entirely quantitative. The second thing is that not everybody was aware of these targets. Even so, for those that were aware, a longitudinal view was taken of target achievement. This means that supervisors and team leaders realise that it is something that will be achieved gradually and as such will not over emphasise their achievement at first. The main problem which was acknowledged by the staff was that call lengths vary, and as such the application of standards and targets in the PH area would be difficult. C staff, being more sales oriented were more amenable to the idea of a sales' target based on team performance. Here are some examples of the comments:

- '...what we do we try to give them an average of twelve calls an hour. I mean a lot of them went wrong and don't reach that but they're getting there. I mean a lot of the good ones are taking sixteen, seventeen, eighteen calls, so if we take it down to twelve then the other ones: they're gradually going to get up there.'
- 'Well no-one's told me of any call targets...I would imagine a certain number of calls are expected of you but as I say you can't always guarantee a certain number in one hour. Sometimes you could take more, sometimes you could take three calls in one hour. They can't really have a target in here, it's, like, different. In the telesales department they have targets in there I think but they're working on commission you see.'
- 'we're still in sales we still have targets but we work as a team...it's not just one individual, you haven't got a personal target you know, if you personally reach this one you're going to get your photograph on the wall and things like this, and I like that system of a team and one target, no individual target.'

However, another way to tackle views on the flexibility of targets is to concentrate on Westin's (1987) point of exploring what happens if there is a shortfall. Westin draws the distinction between a disciplinarian or a training approach. Only one

agent referred to a production shortfall in disciplinary terms, whilst all other respondent noted that a discussion and retraining would occur. Here are some comments:

- 'he wants on average calls from PH people 12 per hour, and for C, 8 per hour, and if he's not getting that he wants to know why. But you can usually find a reason why, because on admin., or somewhere else, but I mean if he's not getting that regularly and there's one person then obviously they need retraining, they need help in some way.'
- 'You'll know who's on the phone, you'll know who maybe needs picking up and pointing in the right direction, whether it be training in telephone answering or whatever, we'll be able to do that when we're sat together.'
- 'They would tell you to book your ideas up! I don't know what they would do after that, whether it be warnings or what I don't know'
- 'Well if it's on a team obviously either the targets are not realistic...you'd have a few months and if it's still not up to the target then there's definitely something wrong with the target I'd say. I think it's good to have a target because it gives you the incentive to go after it'

These responses in themselves illustrate a compliance with Westin's Union model (1987) which represents a more fair approach to monitoring. The next few categories examine the broader job - related factors which have been predicted to have an effect on the individual's perception of CBM.

II: 11 Mode and effect of control (Table 5.2: 1)

Comments elicited from the staff at all levels show how they have reacted to the monitoring and listening in terms of control. The longer serving respondents felt less physical freedom, and newer staff reported that they had less freedom to speak to clients in the way that they wanted because of the pressure of statistics. Typical comments were:

- '...now you feel that you're actually plugged up to something...Feel like you're chained to your desk, know what I mean. You've got your headset on and you're fired up and feel like you're chained there. You can't move the calls are coming through all the time, you know, constantly.'
- 'it sort of narrows your sense of freedom - not freedom maybe that's not the word but, ease with...it just makes you feel - when I saw the results and I thought I was the one spending the most time on the phone of my own accord, I should say, I thought I could maybe cut down on the 'hello how are you?' blah blah blah, as it is but I thought 'why should I?' in some way.'

- '...they feel like they're being watched all the time...they just think if they're not on the calls somebody's watching them'
- '...over the last year or so a lot of the senior staff have left and moved over to other departments because of these working conditions and constant monitoring. That's the only thing that bugs people honestly. It's constantly being watched what you're doing.'

It is well documented in the job design literature that feelings of 'being controlled' i.e. low autonomy at work is a cause of stress (see Hackman and Oldham (1975)). This is a particular concern since the emphasis on speed has already been documented. However, we have already documented that the staff may see the positive outcomes of the monitoring process, and so this situation can be turned around.

This is helped when we look at the respondents' perceptions of who has the most control on a day to day basis. All but two of the respondents stated that supervisors had the most control over what happens. Of the two that stated that the assistant manager had the most control, one was, in fact, the assistant manager, and the other, an agent, referred to the assistant manager's power of veto over who was taking calls: in other words a more planning oriented role. Referring back to earlier in this analysis, the strong personal relationships developed between supervisor and staff was seen as something which maybe would be harmed by the monitoring. This was postulated in earlier work (see Smith and Amick, 1989).

II: 12 The demands of the job (Table 5.2: 2)

A large number of responses occurred in this category. The general consensus of the agents was that their jobs had become more demanding since the introduction of the monitoring. However, there were some exceptions to this, with those people being ones who had previously worked in situations which were far more demanding, and supervisors who were enjoying the more interaction based side of giving feedback. The former exception lends validity to the model of Chalykoff and Kochan (1989) who noted the importance of past work experience when examining the effects of CBM on job satisfaction and employee turnover. Supervisors also reported that the additional time

required to monitor people was demanding. Here are some examples of the majority view:

- 'But when they're constantly monitoring you, like seven and a half hours a day making sure you're on a call then it's a bit much. Prefer like just to have a wander, have a chat and then get back to it. We don't get any ten minute breaks or anything.'
- 'Well over the last few weeks as they start making out these stats people have been making a few comments...like they've been monitored constantly. It used to be a little more laid back and just get on with the work, But now they've put more emphasis on take twelve per hour, ninety calls a day'
- 'I think people think there's more pressure on them'
- 'I reckon we get pushed too much, because they can monitor what we're doing. Say we are busy and we've had a call and we've got something to do, we've got to write something into the screen or whatever, and we're not being allowed the time to do that. And I mean the supervisor continuously writes stuff down. Not all the time but certain times of the day and whatever, continuously watching the screen. And it makes me personally feel uneasy that I'm not doing my job properly, when I know that I am.'
- 'You're supposed to be superhuman...'
- 'it just seems that more and more is expected of you all the time'

Throughout the comments about monitoring that have been shown in this report there has been a lack of understanding as to its rationale and criteria; i.e., why it's being used and along what lines the agents are being judged. Research has shown that this is vital to the acceptance and successful running of such systems. However, again it is acknowledged by the author that significant progress may have been made in this respect since the interviews were conducted.

Examples of the minority view still refer to the pressured nature of working with the computers, but also say that this is mediated to some extent by the more social side of work, which will be explored later.

- 'I enjoy it now because I enjoy working with people, and I enjoy people asking me things and I feel quite good that I can help them...I'm not so keen on looking on the computers and doing the admin. side of it, It's only 'cos I don't know enough about it'
- 'It's not very relaxed but it is a relaxed atmosphere you don't feel pressured'

II: 13 Perceived routinisation of the job (Table 5.2: 3)

The first thing to note is that few respondents referred to the job as being purely mechanistic in nature, although three of the agents referred to their job as being very routine. This was not explicitly linked to computer based monitoring, rather to the nature of the calls that come into the call centre. Furthermore, longer serving agents were more likely to find their jobs routine than an individual who had recently joined the company and still had much to learn. However, some of these comments are from recently employed agents who were looking for careers with the company. Examples of comments are as follows:

- '...each [call] is more or less the same although they're different. They just get so monotonous during the day it's unbelievable. Honestly it really is'
- 'I feel bored with it. Don't get me wrong I've been doing my job alright, some days are better than others, do you know what I mean? It depends on what calls you are getting really. Some calls are quite interesting calls and other calls are boring calls but I mean I don't enjoy it at all...After so long you just get used to the type of call that's coming through. You know what they say before they come through'
- 'I'm not a brainbox, but it is so routine, the same thing again and again and again that you get bored with it. And you really think your brain could be doing something else in a different department...it is tedious. I feel that I personally could do something a lot better.'

For the rest of the agents interviewed (five excluding those quoted above), and the supervisors the job was not perceived as such. For those employees, these findings would indicate that this is a positive and even motivational aspect of work. This again supports the 'prior orientation' thesis of Chalykoff and Kochan (1989).

II: 14 The role of performance statistics in promotion / demotion (Table 5.2 5)

Since the use of performance statistics was very new in the department at the time of the study, there had been no practical application of them to any cases of promotion or demotion. However, it was mentioned earlier in this report that when the subject was approached with the respondents some commented that performance statistics would

inject direction and purpose into the current appraisal system and would help progress the new quarterly appraisal.

II: 15 Monitoring as a motivator (Table 5.2: 8)

When it was enquired as to whether the agents would find monitoring motivating in itself, the response was overwhelmingly positive, and the staff were eager to find out more about their performances:

- 'I think if they were showing you figures and saying 'Oh you did that' You know yourself then that you're better and doing a bit more or you're on hold for so long...You don't even get shown anything like that, and I think they maybe should, even if it's not exact figures, even if they're giving us an idea'
- '[the manager] has given the go ahead for C to go on their own or whatever, and we're split into these teams and we've got our own supervisors it's a lot better, because we've got a lot more time for each other, the supervisors have got a lot more time for us, and the atmosphere, it's just buzz.'
- 'So if you haven't been doing anything and it's really high you do feel a bit guilty and you try to do better next week. So in that way you know what you're doing and it makes you work better. It made me work better in the last couple of days even though I was training somebody.'
- 'the monitoring sometimes makes me feel uneasy, but as for the print outs and whatever, like I said it's made me work...better...'

As is illustrated by the second quote above, the monitoring was also seen as motivating in the context of the recent team reorganization. In terms of everyday work then, it would appear that on the whole the staff were enthusiastic about the concept of monitoring, but wary of its initial implications. A possible developments suggested by some of the staff was the delivery of the 'bigger picture' in terms of how many calls were waiting and how quickly they were being handled. Staff suggested two reasons for this. First, so everyone would be aware of the department's progress as a whole, and second, so peer pressure could be used as a form of motivation (examples of this can be found in the more anecdotal literature such as Nussbaum and duRivage, 1986)

This concludes the preliminary analysis for case 2; the data in this instance were particularly difficult to analyse since the technology had only been recently implemented,

and individuals were still forming their views about it. In many ways, however, the data highlight many of the fears associated with monitoring expressed in the literature. It also shows how, even if implemented with the best intentions on the part of the management, successful use of this technology (1) comes with time and (2) is very much communication and involvement dependent.

In summary, then, the data from this case revealed:

- a view of the monitoring technology which resulted in respondents seeing it as an aid to more efficient work, which incorporates views on training assessment, but with an emphasis on speeding up work and error correction.
- infrequent but considerable problems with system response time which can be stressful if there is a quantity speed standard to meet.
- staff were receiving a message of quantity being more important than quality in the course of work, but managers and supervisors believing the opposite.
- at the time of the study, no awareness amongst the staff as to how quality was measured (i.e. listening in) and most of the respondents having no feedback other than annual appraisal.
- scepticism as to how accurately the performance statistics represented the agents' activities. Performance statistics *must* be used alongside other, more qualitative measures, and everyone must understand how it is done.
- no real system short cuts in terms of figure fiddling.
- an initial focus on negative feedback from the statistics
- monitoring and feedback was seen by all the staff to have motivating potential
- the new quarterly appraisal was welcomed by the staff.
- listening in was seen as 'spying'.
- not everyone was aware that performance statistics were accessible by agents but most were prepared to ask.
- agents felt free to challenge information.
- there was a flexible view of target achievement.

As can be deduced from the above, although the monitoring process itself complies more with the 'Union' than the 'Taylor' model of Westin (1987) it has had quite a different effect on the actual design of the job itself. The data revealed:

- monitoring was seen as a threat to both physical and mental freedom at work by some, but this was mediated to some extent by social relationships with the supervisors / team leaders
- the course of the job was seen to be more demanding because of CBM but the general atmosphere was seen as relaxed.
- most perceived the job as non routine although longer serving agents did not support this view.

III: Case 3

III: 1 Technology Implementation (Table 5.1)

In examining the comments offered by the respondents in this instance, in common with other cases the implementation process of the new monitoring system was seen as controversial. The problem was identified by the respondents as being the lack of information about the new system and its standard times being given by the existing departmental management and head office staff:

- '...we came to Camden House, and all of a sudden these print outs are produced, of course like it gets all the girls worried, some ladies, to death because if they don't reach their stats they're out'
- 'I mean we didn't implement it ourselves, [head office] did, and the way that they actually implemented it in the first place was disgusting...so they came down and they started doing all these timings and they didn't say what they were timing or anything like that, so everyone was saying "are we going to lose our jobs?" and things like that, so obviously it was a cause for concern...and then the management themselves were a bit lost because they didn't understand anything about the technology or anything like that...after they'd gone they left these, everyday we just got these stats, and we didn't know really what they meant.'
- 'I mean we're all OK with it now, but I mean a couple of years ago it was horrific...[people were] frightened of it, they didn't know where it all went, and they set these targets for them'

- 'someone did come, I think he was from [head office], to tell us how the batches were going to be timed, but again, he couldn't say exactly how much you'd get for this type of work, and how much you'd get for that type of work. It was just a case of, each batch has got a different time allowance on it. And at that time when it was explained to us we were all on scanner work...whereas now it's all key to disc...I wouldn't say we've had a good explanation'

It was, however, noted by one respondent that those who always had achieved their stats did not have as many problems with the monitoring as those who found it difficult to attain the targets. Other problems noted with the technology was the slow response time which was demonstrated by Schliefer and Amick (1989) to produce stress reactions in operators. A further observation concerned the calculation of the statistics. Individual operators, despite understanding the meaning of the performance measurements, were unaware of how the measurements were calculated. It appeared that there was a discrepancy between the managers' explanations as to the calculation of the statistics, and the formula actually used. Other work study timings which were not explained to the staff were entered into the formula (such as the number of seconds taken to remove elastic bands, paper clips and so on) which resulted in the staff thinking that their performance figures had been reduced for no apparent reason.

III. 2 Relative emphasis on quantity and quality (Table 5.1:1)

A unanimous response was elicited from the data with respect to this area. Across all grades, respondents believed that quantity (hence speed) was emphasised far more than quality by management. This response was so marked that in some cases respondents commented that quality work *meant* being able to key in as fast as possible. Three out of eleven respondents, however, noted that quality was more pervasive than speed in the actual execution of the task. Another perception amongst that staff was that they believed the stats will continue to rise and that there will be no levelling out. Because of this constant speeding up of work it was further noted across all levels that the quality of work had decreased. Here are some comments - first on the speed of the work:

- 'it seems to go through phases where they'll ask for high stats like 100% and then maybe it will go to 105%. Recently there's been a lot of - another memo and talk about the utilisation needs to go higher because some - I think higher management think that a greater target can be attained.'
- 'we've got to maintain the speed because they are expected to do a certain number of documents per hour. Cos it all comes down to remaining cost efficient for the department...they did work it out and I think it was 0.2% I think inaccurate - we have a very high accuracy rate, obviously. Because I think we would have to give more feedback than we do if there was drastic things happening.'
- 'They take too much on the stats, they take too much by the stats, and then you get operator of the month, and that's by the stats'

The second comment in particular reflects the department's feedback philosophy. The next comments refer to the relationship between speed and quality. The third comment makes an interesting comparison with the use of 'big picture targets' in case one which encouraged quality work, whereas the emphasis of this corporate objective is purely quantitative.

- 'I mean I've known some ladies, they lose their jobs and yet, OK their stats aren't brilliant, but the work they produce is perfect. And yet some people are producing this mass amount and the stats are great, but every batch they do is wrong'
- 'it makes you rush as well, and it makes you make mistakes'
- 'OK we want the work accurate and to a high standard of quality, but first and foremost, please key in as fast as you possibly can, because we need to get these volumes down, and the more we get done, the more money we are bringing in to the company'
- 'usually they always emphasise the speed and utilisation time those are the main two. I suppose with quality they just take that for granted that you do it right'
- '[there is] more pressure on the staff to increase their utilisation time, perhaps the work isn't as correct as it used to be and we're finding, well perhaps correcting more batches than we were before...because they're not automatons'

There are other dysfunctional consequences noted by the respondents in relation to the fast - paced, repetitive nature of the work - in particular the extent of upper limb and back injuries amongst operators. However, the other side to this is the fact that experienced operators who can easily achieve their stats are able to adopt a more relaxed approach to the work, for example:

- 'I think the longer you've been here, it all just comes natural anyway. I think it's harder for the new starters, you know, making mistakes and things like that. I think

everything else you just do it automatically and I think there's less chance then of making mistakes'

The most prominent point about this set of responses is what they indicate in terms of previous research. From Westin's (1987) Taylor production / Union model of computer based monitoring practice we can see that these responses conform with the 'Taylor' side of the model.

III. 3 The measurement of non quantitative aspects of the work (Table 5.1:2)

From the responses it is possible to deduce that the computer system itself only measures the quantity of the work, whereas the grade 2's are there specifically to deal with queries and quality problems. Initially, two problems were identified with the maintenance of quality by the respondents. These were (1) editing work is not always completed properly so operators lose time editing their own work and (2) grade 2's are not always readily available to deal with queries so operators lose time having to suspend batches and deal with the query later after having already waited for a grade 2.

A broader idea was elicited from one respondent who stated that the grade 2's do not always monitor quality on an ongoing basis because they do not always note who is making what error, and then communicate that fact to the grade 5. Even the grade 5's perceive that they have no control over quality because once a batch is completed there is no way of going into it again. As such the responses indicate that the grade 1's are simply there to key in, and grades 2 - 5 are there to pick up errors and make it as easy for the grade 1's to key in as possible. This is implicit from the following comments:

- 'I've told them, you don't take more then five minutes in dealing with a query in a batch, because if it's in a real mess you give it to one of the ancillary workers and if they don't want to do it then tell me because that's what they're there for...they're only there to key in as fast as they can. Any queries should be dealt with by someone else basically, that's why we don't want them to be too pressured and don't want them to be messing about.'
- 'Well, if you enter a number and it's wrong the computer tells you so that's one way of measuring quality. But if the computer accepts a wrong number then someone else

after you probably has their own checking procedures to ensure that everything you have done has gone through is correct'

- 'I was told "now it's not really the quality of the work they're interested in, but the quantity". So it is speed. A mistake or error will be picked up somewhere along the line but not, I would say not by us. If we made a mistake then Grade 2's may pick it up'

Previous research has indicated that monitoring systems should not attempt to measure aspects of the job which are non quantitative. However, since the operator's job is nothing but quantitative one can conclude that computer based monitoring is an appropriate measure of performance for this job. It is also apparent from the data that more emphasis is needed on the more qualitative aspects both on the part of grade 1's whilst keying in, and grade 2's and above whilst monitoring patterns in operator error. Indeed, Grant (1992) advised that quantitative data from a monitoring system should be accompanied by data on work quality.

III: 4 Accuracy of performance information (Table 5.1:3)

Data in this category highlight the issue raised in the introduction and section 2.2 - namely the relevance and accuracy of work study figures input into the computer at its inception five years ago. Furthermore operators on ROCC 3 were curious to know how the computer timed the different types of inputting they were required to do. In connection with this, the time utilisation measurement was also seen as inaccurate, when operators perceived themselves to have worked hard and only just attaining their stats. A possible cause for this imperception was identified by the respondents - that the calculations carried out by the computer as to time utilisation had not been properly explained from the start. Illustrative comments, first concerning the explanation of the stats and then concerning their perceived accuracy include:

- '...when I first started, the person that was training me, one of the other operators said "these are your stats, this is your name, that's your time utilisation, that's it"
- 'Stats are alright but I think the stats need to be explained to the operators. I understand them and a lot of girls do but a lot of girls don't and a lot of them think that if they've worked for x amount of hours and they've keyed in x amount of

vouchers that the stats the next day should be brilliant and they're not, and they wonder why.'

Now, accuracy:

- 'Well now that's a complete mystery. We don't really know how that works. Apparently it's supposed to time you whatever batch they do. It's somehow able to read to the type of work you're doing. Because if you sit there we don't - the first error you're not supposed to move from your machine in theory. But if you - you can look up on your machine how long you've been keying in before, and it never comes up to the exact hour. You know it's usually 50 minutes or something, even though you've never left your machine.'
- 'they don't believe they're right sometimes ...they'll come to you and say "I worked really hard yesterday and look at my stats". They consider the stats aren't right. There's a lot of - they look at everyone's stats and they say "well how come she's only keyed in so and so and she's a lot higher than I am?" and you have to say "well it isn't necessarily on volume but it's the number of batches - it's all built into the number of batches that you do'
- '...the system as it stands now with the stats, it's not judging them properly with the workload. Like one day you can think you've done fantastically, and you haven't, you've just scraped in...it counts different work different ways - some take longer than others, but it doesn't seem to even out at the end of the day...the actual timing of it on the stats, it needs to be changed.'
- '...you have to make sure you're keying in all the time . So if you have any little things, any little problems you've got to deal with you've got to make sure that you're not turned off the system you're always on the screen because as far they're concerned if your utilisation time is low you're not working but it's not always like that. You can be doing something that isn't registered on the computer'

Again, these views are balanced out by an experienced operator who comments that in the case of those who have been slacking off, the stats will reveal everything:

- 'If you've done a decent day then I think well you know as I often say to people, if you're having a coffee and they see you messing about or something - not messing about or having a coffee relaxing - well I laugh and say "let the stats do the talking" because they can see the next day whether I'm entitled to five minutes or whether I have been messing about.'

However, the main problem is with the fairness of the measuring process. The US Office of Technology Assessment (1987) has shown that if employees perceive the measuring process to be inaccurate and hence unfair, stress will result. Furthermore, Grant Higgins and Irving (1988) noted that a non secretive approach to the monitoring process will render it more acceptable to employees.

III: 5 System dodges (Table 5.1:4)

According to respondents across all grades, two ways of getting round the system were reported: (1) getting someone else to key in for you and (2) doing different types of work (i.e. small batches or large batches) which will increase one's time utilisation or performance effectiveness respectively.

Not everybody was aware of these dodges - longer serving employees often referred to their futility following the now defunct practice of hiding work. In terms of the first dodge, nobody claimed to have actually done it, whereas the second was widely acknowledged to be in use and was counteracted by the fair distribution of work by the grade 5's.

III: 6 Delivery of feedback (Table 5.1: 5,6 & 9)

For bank and agency inputters feedback is delivered (1) on a daily sheet, (2) on a monthly sheet and in an annual appraisal. The appraisal for bank and agency employees is different in format, with the agency appraisal being simply a matter of ticking boxes. The bank appraisal is more instrumental in determining rises, promotions, etc. As such it is more detailed - the new 'Performance Management System', according to the respondents adopts a more developmental approach.

Comments on appraisal thus vary between bank and agency staff. One bank employee commented on their appraisal and what it involves:

'...setting your own targets, which would be fairer, because at least you know you've got more input. I mean I've been to an appraisal and he's already wrote down you know he's had it written down and gone "there you are"

This is in stark contrast to an agency employee who compares the appraisal systems of both companies:

- 'I couldn't see the point of it because bank appraisals are done on...they have things like sickness and punctuality and things like that, you know, and just how they've been with their work, and depending on their appraisal, they get rises...whereas ours

is just a chat. We don't get anything. I mean they do these award things which are a farce...we don't get any recognition for punctuality or reliability or anything like that, you know, nothing at all'

Many of the agency employees were in agreement with the above sentiment, stressing the fact that a one to one appraisal had not improved their position. The reason for this was seen to be the fact that the job itself was so routine any meaningful qualitative evaluation could not be made. In addition to this, the agency employees felt that they would like to see the comments written about them by their supervisors. For example:

- '...I think the supervisors fill in a box about your flexibility, punctuality, your dress, etc., but if you're an operator, apart from punctuality etc., flexibility different things doesn't really apply too much because all you're doing is the same job...people think "well how can you really gauge what I'm doing because that's all I'm doing?"
- Well I was pleased with what they said about me but as far as, you can't do anything else with keying in can you? You just do it to the best of your ability and that's it. You can't say I'm going to work harder because your fingers just won't go any quicker'
- 'We all asked to see them...she said "they're confidential" so everybody said "well how do we know what our bad points are if we can't " you know if something's ticked "poor" well we want to know. I think it was only fair that we should have seen them. But she just talked us through any problems that we had and I thought the appraisal was quite good, any problems we were having, any difficulties we were experiencing...bank staff get to see their appraisals'

Again, it is apparent from the last response that the idea of an appraisal was a good one, but as was stressed earlier, there should be no secrets surrounding monitoring, and perhaps this should extend to appraisal. Furthermore, from the responses, perhaps to make the appraisal more relevant, other aspects of the grade 1 task should be explored.

Moving on to stats, it has already been noted that they are the main source of unrest in the department. This represents the other main form of feedback for the operators which is just passed around the department. It is noted by the respondents that supervisors varied in their approaches to feedback and target achievement. The responses of the grade 5's interviewed indicated that they considered themselves to be fair and understanding towards the grade 1's. For example:

- 'well as you can see [the stats] show a monthly figure, a weekly figure. The majority are usually more or less the same. I've got a day here when that has dipped, I

probably wouldn't take any notice, because I would anticipate they would probably be OK the following day. If she wasn't then I'd have a word and see what was the problem. Obviously if they had dipped considerably I would expect them to come up to me the day before and say "I've had an awful lot of problems..."

- "I'm here to encourage you, right" and now I said "I can change different ways that you key in to try and make you achieve your target, I've got to sit and watch you" I said "don't worry about it, if I feel that you're doing something wrong" I said "we'll get you there, don't worry about it"
- '...the way how I use it is I can see who needs a bit more encouragement in that area, who needs...I can see who's slacking a bit...'

The perceptions of the grade ones are somewhat different to this, however. Earlier it was noted that there was a particular feedback philosophy in the department. This is highlighted with respect to the stats. Almost every respondent noted that verbal or hand-written feedback other than the ordinary passing around of the stats only occurred in the majority of cases when things were bad. One respondent commented that positive feedback may be embarrassing for operators. Positive feedback is generally given on a group, rather than a personal basis. For example:

- 'Since [supervisor's name] has been on our section we have been told a couple of times about, apart from that, they've wrote it on some days on "a good day's performance" but the individuals have never been told "oh thanks you've done 120% today"
- 'If you say "oh you had a good day" they get embarrassed in a way because they've been singled out. But I think people like to be told that they are appreciated when they have done well, so generally you go around saying "well done everyone, you've tried very...you've done very well, you know you've tried hard today" and sometimes that little bit of encouragement does make them improve.'
- 'I can usually reach the target like most people can. But if you have had a bad day you know they'll turn and say to you "what happened yesterday?". Now if it's a one off I don't think it should even be mentioned whereas if your stats are good and then for a week they're really bad then fair enough say something, but, you know, to be on your back whenever you've got a bad day, one bad day...'
- 'I think they just look at it to see who wasn't functioning properly the day before and obviously at the end of the month we get the monthly stats out so that follows if you've had a few bad days during the month then don't expect much for your monthly stats'
- KB: 'Are you actually given personal one to one feedback?'
- RESPT: 'No not really unless they're bad. They'll come and say to you your time utilisation's not very good but they won't ever come to you and say your stats were really good yesterday. A lot of negative feedback from them'
- '...the only time we actually go to see anybody is if they've done particularly bad...'
- 'They obviously tell people if their stats are down...you don't get it so much if they're good'

- 'You know if you're doing alright, and the only time that they really need to speak to you is if you're not doing alright, and they'd soon tell you anyway.'

Grant (1992) emphasises the importance of positive feedback to realise the full motivational benefits of this technology. However, because this technology only monitors the results of the process, not the process itself, only one respondent made a reference to being 'watched'. This latter point is in accordance with the 'pervasiveness' model of Higgins and Grant (1989).

III: 7 Accessibility of performance information (Table 5.1:10)

The responses noted first, that performance information, other than that available through official channels is not accessible. This is the case for agency staff both in their annual appraisals and daily statistics. However, unofficially, respondents noted that they were able to access the information under a supervisor's ID number. One longer serving operator noted that she wasn't even bothered about the statistics and had adopted a purely instrumental approach to work. In the context of this question, respondents also expressed a desire to know more clearly what is expected of them and how batches are timed, since feedback the next day is perceived as being too late. Here are some comments:

- 'I can do but I shouldn't ...but I do...to go into a supervisor's number and then you can see how you're going'
- 'I can, yes. You need a supervisor's number like which, I've got a supervisors number...there's quite a few of us do so we just check our work during the day...I know their attitude would be while you're doing that you're not keying in'
- 'I think there is but I don't know what it is...I'm not bothered. Just do what you can do and that's all you can do'
- 'Not in the way that they do. We can get it up on our screens to tell us how many we've keyed in and how long we've been logged on for...I think it would be better if we had a better view of what they're looking for, how batches are timed, or how much they want on each batch because then we could do something about it on the actual day, because the next day when you get your stats it's too late.'

These responses again conform to the Taylor model of Westin (1987), who states that all monitoring data kept on an employee should be available to them. This point is

also covered by the Data Protection Act. As such all employees should feel free to, and have immediate access to monitoring information whenever they want.

III: 8 The ability of the employee to challenge information (Table 5.1: 11)

Many of the responses in this category noted that respondents would be quite willing to challenge information, however, they reported that the print out was seen to be 'right' and as such challenge was pointless. The following quotes are examples of this:

- 'I suppose you are but I can't see how it, I mean it's all just fed through the computer, how can you, you can't really miss anything can you? It just counts all your vouchers as it goes through, how many m.v.s.'s you've done, how many vouchers.'
- 'Not really because I think we'd just be told yes it is right. So I don't think anybody's ever. A few people have gone up and said "I thought I worked well yesterday and my stats are only such and such" and they just always have an answer'
- 'There's no way of knowing, we wouldn't be able to know...I think if there was a few people who really noticed that it was low, perhaps they might think there was something wrong with the system, I think perhaps if you were the only one I don't think they'd agree with it really.'

Another point that was noted by two responses referred to the fact that operators were quite willing to complain to each other, but not together to their superiors. One 'scientific' investigation into the system and its calculations, which was to be the basis of a challenge, left one operator non - plussed:

- 'Just to test the system. 'Cos sometimes, I've heard people complain, not to the managers or anything, but to ourselves. You know, you count how many batches you've done all day or vouchers or whatever, they seem to knock a few off for some unknown reason.'

This, again, highlights the point that complete freedom of information and understanding is essential for employees' acceptance of computer based monitoring. The above scenario, according to research findings, is more likely to be perceived as unfair by staff.

III: 9 Flexibility of standards (Table 5.1: 12 & 13)

Opinion in relation to this area was mixed. However, all the respondents were unanimous that standards were seen as totally inflexible. This, however, was attributed to a number of different sources. Machine pacing was seen as the main cause of inflexibility, because supervisors saw themselves as having no control over the target the machine sets, or the targets set for them by higher management at the company's head office. Connected to the latter, broader organizational objectives requiring higher inputting targets were seen as overriding worker health issues by one respondent. Finally, many of the respondents reported increased stress from missing their targets, since, as we shall see in the next few paragraphs a persistent shortfall leads to dismissal for agency staff. For example, one grade 5 noted:

- 'Imagine that you're under this pressure to achieve this target. Now your job depends on this, your promotion depends on this, everything depends on this. Your appraisal, your appraisal rise depends on this. So you want to try and do your best, and if you know that you're not making it, you're just, you know sort of under pressure, there and then. You're actually putting yourself under that pressure. I mean I remember the girls that couldn't even sleep at night...I know that people have suffered a lot of stress with things like this because they're thinking "Oh my gosh I can't achieve my target, I've got family problems, I can't achieve this performance target - and they're going to the doctors for anti - depressants.'

The perceived inflexibility of the targets is also highlighted by the following quotes:

- 'And so there's targets that they ...there's a set target all the time so each operator has to maintain a level every day.'
- 'you have bad days and good days...this is the controversial bit well, part of it is, that some people will say 'well we're not machines, you can't do 100% every day...which it is true, it is right...but I think they tend to be quite good downstairs actually - well I personally don't have any problem - and I think if you maintain a level of about 95 - 100 then there shouldn't really be a problem. It's if you're 85 - 90 consistently then you know people would say something, but you know some people do find it quite a pressure.'
- 'people feel that the stats that are required are made by the people who haven't done the job themselves...it all sounds great on paper, life isn't like that sometimes, because you can have good batches, bad batches...there are people who will go to the supervisors and stuff but there's very little that can be done...a lot of these targets are

made by people way above their heads as well, so really, although they sympathise their hands are tied.'

Although it is acknowledged that a random shortfall does not result in disciplinary action or dismissal, and the operators are allowed to explain themselves, the prospect that operators of different ability and experience may face this if they cannot keep up will result in operator stress and a feeling of unfair treatment. This is clear from the data, and from other published research in this area. When questioned about what a shortfall actually leads to, the response was unanimous: dismissal for agency staff and a move into other areas for bank staff. Unsurprisingly, some of the agency respondents found this to be inequitable, which would be the predicted response following Westin (1987). This unanimity is illustrated thus:

- 'what tends to happen is if agency staff don't reach the right level that's required over a period of time, they're obviously asked to go...bank staff who key in, who don't reach that target they would never be asked to leave or resign, they're moved on to other duties'
- '...obviously the slow ones we'd have probably got rid of by now. Obviously the slow ones are all expected to key in by a certain standard, and if they aren't able to do it then we generally have to get rid of them or find other work to do'
- 'If you're consistent every day then you're out. I think the longest has been two weeks, since someone has been brought in, and they basically ask you and you say you've got no problems, they give you a time limit. You either buck your time up, your speed up, or you leave, basically.'
- 'well they just give you a warning, they ask you why your stats are low, you explain and they just say "try a bit harder" they can't remain low week after week. I think they give you a certain number of warnings then eventually the agency will give you a warning and then if your stats still remain then they realise that perhaps you can't achieve the standard then they let you go and find your work elsewhere. If you can't achieve the standard then I suppose it's a bit unfair to make you continue.'

It should be acknowledged that Westin (1987) cites the above situation as being 'unfair' to workers. However, these responses also highlight the intensely physical nature of work within the voucher processing, and of the high standards that are required of the workers.

III: 10 Mode and effect of control (Table 5.2: 1)

Performance statistics were seen by the respondents as the main control mechanism, since they were perceived to ensure that the staff stayed at their desks and physically did the work. One respondent commented 'you just come in, get on with it and accept what comes out the next day on the stats.' This sentiment was echoed by a grade 5 thus:

- 'it was positive in a way that you could monitor what each member was doing. It also was good for the department because you knew what you'd achieved, you knew what the system had input for each day. You had control it gave you some sort, a form of control'

The comment itself highlights both positive and negative aspects of monitoring: first, positive in the sense that it is a measure of achievement, but negative in that employees may feel more 'controlled' as a result. It was noted by another respondent that nobody had any control over the technology and that it could not be adapted.

In terms of the ROCC systems and their members it was widely acknowledged that, on the whole, the grade 5's had the most control, and they themselves admitted to being very territorial over their staff. A contentious issue arose between grades 3 and 5, and the grade 6 who was sometimes perceived to 'interfere' when the department was running smoothly. For example:

- 'I like to be left to run my system...and I don't like [grade 6] for instance, who'll want to run it for me. Well if I was the supervisor there, I don't really need him. And if you've got the conflict there all the time, it really puts you off. Because you're actually telling the girls to do one thing and he comes along and tells them something else. They're confused because they don't know who their leader is.'
- 'I would say [grade 6 and MA]...it's the supervisor's responsibility to have the control, but the control is sometimes taken away from us because he wants to say otherwise'

It has already been outlined that each supervisor perceived themselves to have their own individual management style - distinctions were drawn between more laid back grade 3's and 5's, and those which were more 'grade oriented' or 'company minded'. However, a

respondent from grade 3 level noted that it was becoming increasingly difficult to supervise staff on an interpersonal basis due to the sheer number of people. The same respondent compared the current situation to a previous one in the bank when teams were much smaller and social contact was much easier. This will be covered in more detail later in the thesis.

III: 11 The demands of the job (Table 5.2: 2)

It was acknowledged by one respondent that 'the lower you are the greater the pressure', and in general the grade 1's feel the job is becoming more and more demanding as time passes. The newer employees out of the respondents particularly noticed this in comparing their current job with recent previous jobs. Grade ones reported that they felt unable to change anything about their current positions, and the pressure was seen as having a negative effect on performance. This situation had developed to the extent that many operators were working longer hours and missing legally required breaks to attain the statistical targets. Here are some examples of comments:

- '...some worry that if they take the five minutes, that it's going to affect their stats. I think some are like - the ones who can do it just relax and the ones who are struggling are - and of course the stats go round every day - everybody sees them'
- 'The only atmosphere I've got is pressure, that's all I've got. The last job I was working at you know you could...it was fab you could just stroll off for 10 to 15 minutes and go and get a coffee, without anyone knowing. But because you're timed all the time, you know you're logged on the system all the time you can't do that, I know you shouldn't although you can...As soon as you come in here, you sit in that chair, you log on, and that's it.'
- 'I think it's a little but too high but there's nothing you can do about that it's just how it is. If it was a little bit lower I'd feel more comfortable but because they want 100% out of the work...it does put a lot of pressure we just have to find ways and means of coping with that.'
- '[it's] mainly the pressure...that can also slow you down'

Some respondents work more than their set hours, which results in better stats:

- 'I do 4 and three quarter hours but I'm timed on 4. So my utilisation is always good, always above 100. But on the odd day when I do 4 hours I can't get the time....so I just don't think the stats are as accurate as they could be'

It was postulated by Smith and Amick (1989) that computer based monitoring had the potential to make work more demanding through speed ups. According to these responses, this is the situation in voucher processing, to the extent that: (1) some are working more than they have to to keep their stats up and (2) some are not taking their five minute breaks every hour, which they are required to do by law. The other side to this is that some can achieve the required performance level fairly easily and as such do not feel the pressure as much.

III: 12 Perceived routinisation of work (Table 5.2 3)

When the respondents were asked about whether theirs and other jobs in the department were perceived as routine, everyone was unanimous about the nature of the grade one job. It was perceived as routine to the extent that it was robotic. Some respondents extended this metaphor to the point at which they felt that grade ones were not treated as individuals. Here are some examples of the latter point:

- 'I can relate to the feelings of the girls, and, you know, how they are treated I know. Look you can't treat them like that, they're human beings, they're people, they're not machines. They want to be spoken to properly they want to be treated as adults.'
- 'You are just a machine I think, here. They're not really interested in how you are as an individual, just you're there to key in and that's it'
- '...well to be quite honest I could come in and be like a robot really, you know, because you can, you just sit there and get on with it, it's so monotonous, you know. Grade 2 duties are a bit more involved, you know, and you do have to get on with them to get work and various things whereas we as operators just sit there, more or less tied to your desk.'

Other comments on the grade one are more positive in certain aspects. First it is noted in the first and second quotes that the respondent always works their best, and bank operators are highly regarded, and the final quote sees the fact that there is no responsibility attached to the job as a distinct advantage:

- 'it's boring, you don't use your brain really I think it's dead now after all these years but it's really boring and all the pressure on you, it's no good for your joints and things, no good at all...I mean if you worked for another company the girls, some girls they got rid of in the past, for their stats being low, if they worked somewhere else they'd say "God what a good worker"...I mean it always used to be known that [case 3] wanted more...[case 3] were known as the worst'
- 'You work your best. It's a very boring job so therefore it's not the type of job and say "hang on a minute, I'm concentrating" because you don't have to concentrate. So it's very easy to sit there and key in and talk and think about what you're having for your tea and the rest of it.'
- 'you're sort of brain dead really, because you're just turning vouchers over like that and you just do it. You just do it automatically'
- 'Well I suppose in a sense with this particular job there's no real responsibility. Once you've finished your work at the end of the day that's it, there's nothing left lying over, no loose ends'

Jobs ranging from grade 2 to grade 5 are seen as less boring, and, particularly the supervisory roles (grade 3 and 5) as being somehow mediating of the stress of operators. The latter two roles are also enjoyed because they are challenging, and opportunities for development are identified by both the grade 2 (quote 1) and grade 5 (quote 2).

- 'I just enjoy the flexibility of being able to do other duties at the moment...a lot of bank staff are being encouraged to look for other jobs elsewhere because I think this might be finished in a few years. So as they're going they're leaving room for temps to fit in and have opportunity to learn other things, and find that aspect quite good.'
- 'I think it's because there's a buzz to the office. I see my job really as developing others, so I'm looking at how people react in different situations and seeing whether I can put them in a different area perhaps to cross train, so basically as a supervisor, it's to keep the job, to keep the section running smoothly. The better girls I tend to put in other areas eventually, so you're looking for people who are adaptable, people who pick things up quickly'
- 'I enjoy coming to work for [case 3], and especially vouchers - I mean the girls and some of the management are really nice, and I enjoy doing the work, and especially, as I say ROCC 3 because it's challenging...you know it's going to affect other areas'

The final quote highlights the fact that camaraderie has a role to play in the running of the department, which will be expanded upon later. In terms of the current category, however, Smith and Amick (1989) also postulated that computer based monitoring could render a job more routine and mechanistic in nature. It is possible that this may be true in this instance. This is significant as it was illustrated in earlier

comments that the current computer technology being used in voucher processing made the work simpler when it was introduced.

III.13 The role of performance statistics in promotion / demotion (Table 5.2 5)

This subject was covered in section III: 9 wherein it was revealed that agency operators who consistently fell short of their inputting targets were dismissed, and bank operators were moved onto other duties. Therefore it is intuitive to conclude that computer based monitoring plays a pivotal role in this respect. Comments were also elicited from the respondents concerning promotion. The general opinion was that, due to the wind down situation, very little promotion was available, and for the few positions that were available, competition was intense. It was also acknowledged that there had been some inequity in relation to promotion in the past, and one respondent noted that sales vouchers was not a place in which one could really grow within the company anyway. Examples of those responses:

- 'there's no promotion - I mean they keep going on "there's no promotion". And every appraisal it's "yes she's ready for promotion to a 5" but there' no promotion. And yet, you get someone who jumps 2 grades'
- 'You can't grow within the department because you've got specified grades, and you only need, say, one - three grade threes in the whole of the sales vouchers department downstairs so you've got how many people chasing that job?...I mean the competition's very strong'
- 'I think in the department itself - very restrictive in that number one, this - well there's not promotion, unless you shoot [grade 6 or MA] or something like that...'
- 'I do feel that there should be more scope for promotion, I do think that we should, you know, if we're capable of doing a job you should be promoted into a job somewhere. You know not just held back, because I think there are a lot of people who are just held back'

Referring now to table 5.2, point 4 notes that when there is instability (such as the wind down situation) computer based monitoring can be seen as a threat to job security. Given the responses elicited in this instance, computer based monitoring clearly is perceived as a threat to job security. This is a point noted by Westin (1988) as a phenomenon which would intensify stress for operators.

III: 14 Monitoring as a motivator (Table 5.2: 8)

Few data were available in this category. From the first category of analysis we saw that statistics made grade ones feel under pressure, especially newer staff. However, one long serving respondent noted that there is a degree of healthy competition between staff to achieve the highest stats:

- 'it's actually quite good doing that because there's four of us and there's two of us start at eight o'clock so we'll key in and there's a bit of competition you know "I've keyed in 50 minutes but I've done 100 vouchers more than you" and it's quite good doing that because I know for a fact because the young lad that sits opposite me he really tries to catch up.'
- 'I think they are good the stats because it's got everybody's names listed on it...I suppose they're like in competition with each other. '

This concludes the analysis for case three. Certain features of the data are outstanding. First of all, responses from the grade ones showed a concurrence of opinion as to the nature of the technology and the way in which it is used. There was also concurrence across all the respondents as to (1) the existence of a divide between bank and agency staff, and (2) the stress free situation of those who can achieve their stats and the stressful situations of those that can't. There was also an overwhelming recognition on the part of all respondents that speed far outweighed quality in the course of work.

In summary then, the responses relating to the system showed the following:

- Statistics were viewed as simply being there to monitor the staff, with the technology simplifying the work. Staff reported statistics as the main source of stress at work.
- The ROCC system's implementation was perceived to be controversial due to it being surrounded by secrecy
- An overwhelming managerial emphasis on quantity was perceived, although three of the respondents reported that quality was more important during the course of the work.
- No coherent quality measurement system was in place. Quality is controlled by 'fire fighting' on the part of the grade 2's, as opposed to 'fire watching' by everyone

- Statistics were, by some, perceived to inaccurately represent performance since the actual method of calculation had been inadequately explained
- The system is not entirely foolproof but the incidence of trying to cheat it is low. Staff tended to choose specific types of work with which to manipulate their statistics rather than fool the system
- Feedback is mainly quantitative for agency staff, and they are not allowed to see their appraisal comments. Although some were happy with their appraisals, the latter were largely seen as irrelevant because of the nature of the job
- Bank staff were enthusiastic about the new Performance Management System
- Individually directed verbal and written feedback was seen as being largely negative, whereas positive feedback, where given, was delivered on a group basis.
- Performance information was accessible only to those who had the correct ID number from their supervisors
- Employees were quite willing to challenge performance information
- Standards are seen as inflexible because of the way they are set, and also because any persistent shortfall leads to dismissal.

With respect to employee related factors associated with stress mediation / intensification, also examined by Westin (1988) stress reactions were reported by respondents. This is supported by the data to some extent. The following employee related factors emerged from the data:

- Control of the employees was achieved largely through statistics, and it was recognised that more informal interpersonal control was difficult because of the number of people working in the office, and high turnover levels
- Some grade ones felt under increasing pressure because of the perceived constant threat of the stats increasing. The ones who could achieve the stats did not feel this pressure.
- Work for grade ones is perceived as routine and mechanical whereas the higher grades in the office see themselves as having an interesting, stress mediating and developmental role

- Statistics play a pivotal role in dismissals, and it is widely acknowledged amongst both bank and agency staff that there are few promotional opportunities

IV Case 4

IV : 1 Technology Implementation

The first point to note about D4 is that performance statistics were widely accepted by the respondents. This is characterised by their reference to the technology's purpose in a positive, constructive way, and one which involves the maintenance of customer service levels, long term planning and ensuring the maximisation of time and effort on the part of the staff. For example:

- 'To make our jobs easier, give a better customer service...basically it keeps you on your toes in a way. It is very easy for anybody to [inaudible] for the day and how on earth would they know? They can't listen in to our calls. If we don't if we say we don't want monitoring how on earth would they know...productivity monitoring well again, yeah, you've got to get the best you can out of your workers and it isn't a problem because they give you feedback. If they didn't I think it would be a problem. If they just took these figures away "so and so's not doing very well" then that would be a problem, but we get them distributed and if we want to have a look then we have a look'
- '...we need to be able to deal with the customers' queries on line, to have access to as much information as possible regarding the accounts and to be able to deal with the queries as they come through without having to refer to other departments'
- 'I think it's a good idea because I mean they've got to do something like that because otherwise you're just going to get people that's going to take advantage. I think it's quite a high level they expect from you...all I know is what not to do and what you shouldn't do to affect your figures. You shouldn't go into after call, you shouldn't go into auxworks unless you've got to because it affects your figures.'

It is apparent from the responses that productivity statistics are not seen as a controversial part of the job and have been accepted by the staff. According to past research (see page 12), acceptance of the technology is as much associated with its implementation being punctuated with demonstrated benefits for the staff. It is apparent from the data that staff can see both the positive and negative aspects of quality monitoring. Data drawn upon later, however, will show that quality monitoring is

slightly more controversial since it has been seen by some respondents to represent their performance unfairly. Opinion about monitoring was mixed, in that its benefits and pitfalls were acknowledged, and the planning function was only recognised by the team leaders. In the words of one operator, 'I'd prefer to have them monitor me than not, if you see what I mean'

When questioned about whether there were any specific problems with the technology, three things were mentioned: system crashes, slow system response time and problems with the log in procedure. All were seen to impinge on productivity time and to be frustrating in terms of target achievement. However, some respondents also noted that the help desk was excellent in dealing with technological problems.

IV: 2 Relative emphasis of speed and quality (Table 5.1: 1)

The relative emphasis of speed and quality and their associated pervasiveness are linked to how the work is paced (i.e. self or machine paced) and also what is emphasised by the management. As with case 1, it appears that work within telephone services is self paced (i.e. the operator can choose when they receive a call) despite that fact that almost every aspect of the work is computer mediated. Research has shown that when work is self paced, employees' stress levels are considerably reduced. Furthermore there is greater scope for an emphasis on quality since employees can take their time (within reason) to complete a task to their satisfaction.

The responses elicited from the staff in this category represent an interesting combination of corporate versus personal ideas, and several interpretations of what is meant by 'quality' and 'quantity' were also revealed. The first distinction to be drawn is the two layered interpretations of what is emphasised to them by management. Some respondents noted that quality was emphasised in terms of target achievement thus:

- 'Now obviously we're looking for people who to meet that as near as we can but if we're looking at saying OK you've got an average handling time of 145 seconds instead of 135 but the quality of your call is excellent you've got the right human level as you

go into the call you've got, the business is fine...I would say that person is 10 seconds out but because of the quality of it then I wouldn't be saying to that person you've really got to be much quicker on the telephone.'

- '...speed isn't particularly an issue for me personally. They do set speed times but I don't think they're an issue with anybody. They might vary, as long as you're not above 2 minutes something a call, which I think it would be pretty hard to do for every call, so that's not an issue. Yes, quantity. You must be on the phone for a certain amount of time a day, that's emphasised'
- 'I think generally the management or the seniors, ourselves and the managers should really judge whether the person is doing, if they're almost reaching it then you know the quality of their work anyway, the way they're handling the calls.'
- 'I don't think the time actually comes into it when they're on the phones to customers, they're just concentrating on dealing with the customers' queries. I don't think the time aspect is really there with them. It's more to answer the customer's query.'
- 'Personally I don't really worry about my figures. I'd rather know that I'm doing my job properly...'

Two things emerge from the above. First, that on a personal level, there is more of an emphasis towards the achievement of quality, and second, that quantity is perceived to be emphasised more with recent introduction of a time utilisation type measure, the call time standard being accepted. In certain respects it was perceived by some respondents that the dominant emphasis from the company is quantity purely because it was measured:

- 'Speed is perhaps emphasised more for the simple reason that it's monitored sort of more effectively more accurately and there's more immediate feedback, and certainly more feedback because I mean basically every call is covered in that respect...people do like to phone and get the human input as well but would they rather wait another three and a half minutes on the phone for the privilege'
- 'Quantity. Because we are timed. We are given figures at the end of each week to say that the productivity is and you are only allocated so many seconds per call.'

Furthermore the time utilisation aspect was perceived to have its problems because of slow response times from other elements of the business process:

- 'I suppose it's like all companies - it's getting to be quantitative not qualitative. They want as much out of you as they can to get the calls over as quick as you can. The only problem with that - are you giving the customer a good service because you're just trying to rush them off the phone...you're trying to for instance memos or ordering certain things paying - in books or whatever you're doing them on the phone while they're talking to you and while you're concentrating on doing that they're talking away and you've also got to try and concentrate on listening to them, what they're saying so it's hard to do both so generally people go in aftercare to do say the

ordering of the books. But obviously to cut corners you've got to try and do it while they're on the phone'

Another issue which was raised in this context was thus achieving the delicate balance between quality and quantity - some respondents didn't think this was possible, but it was recognised as something that had to be worked on:

- 'You can have quality and quantity you can't have both. If you want the customer to leave the phone call with the feeling that they've been well looked after you can't be abrupt and put the phone down and say your balance is. Good day to you sir. I sometimes don't think we measure quality and quantity together.'
- 'Sometimes I feel you can't have the quality and the quantity'
- 'I wouldn't say we have a tendency to lean really either way. We're looking for that balance. For example we've got targets and companion times whereby a call duration should be say 135 seconds. That doesn't mean to say that every call should be 135 seconds, that's the ideal. If you've got someone on the phone who's taking 20 seconds on there, you could say oh yes that's a lot quicker, they've really exceeded that target but it's probably to the detriment of the quality of the call.'

This perception was linked in two cases to customer diversity. In terms of Westin (1987), for a fairer system of monitoring, the emphasis should be not on speed or quality, but on the fact that problems with the achievement of quantitative standards are recognised. In terms of call time this appears to have been attained in telephone services, it is still an issue with the respect to the newer time utilisation measurement.

IV: 3 The measurement of non quantitative aspects of the work (Table 5.1:2)

In this case quality was reported to be measured using listening in techniques five times a month for each operator, which was then incorporated into the annual appraisal. A further, informal monthly appraisal was being implemented at the time of the study. Considerable concern was expressed by the respondents about the accuracy of performance representation afforded by these measurement systems. This was seen to stem from the way in which calls were sampled during service monitoring, and the way in which Key Result Areas were decided during the appraisal process. For example:

- KB: 'So how is quality looked at in the department?'

- RESPT: 'Very, very subjectively...it's a very sort of lucky pick scenario the way it's done...I think that the actual sample number should be greater'
- 'It depends on who's doing the appraisals and the uniformity is taken as well...I've always felt that I've been treated quite fairly, I don't feel it's a problem personally. I just think that what you may perceive as being good worker to what somebody else may be is too different...the appraisal really is your opinion, it's not an appraisal'
- 'Our old manager went, she done it...and if we compare like this one on another team that's not very good with her time keeping, doesn't do anything out of the ordinary and they'll get a higher grade.'
- '...they can actually monitor you from their little cubby holes around there and your team leader may occasionally listen You don't know when they're doing it... I mean if you are doing the job properly there's no problems. Sometimes I feel who monitors the people who are doing the monitoring...I've actually had a change and I know other people who have obtained a low score because the people who are monitoring know they haven't done something or said something and yet they've been perfectly right to say that because the people who are monitoring are not aware of that certain situation.'

Another point raised about the appraisals was their relevance to the actual job. This comment was made by respondents whose orientation to the job was apparently functionalist:

- '...the operators what they are looking for, they're looking for an increment, or more money...and that's all the operator's looking for and the fact that he or she isn't going to lose his job or they're not doing a bad job. And what's the manager looking for? That the team as a whole as a unit is doing well and that the manager's not going to get anybody from the top saying "your team's not achieving" and that's how a lot of people do feel you know, and I know for a fact from working in other companies that managers find the appraisals a chore.'
- 'It was supposed to have been changed but it doesn't relate to, it may as well have been designed for someone that worked in a sweatshop. It really doesn't relate to the job at all. It's quite alright if they pay our hours because they can put the productivity targets down but then as I was saying, very few people meet them on a consistent basis and also it's difficult for them to justify penalising people that don't meet them on a consistent basis because they're perhaps working in a different area of the business or they've perhaps done other things...it's really a bit of a farce'

In spite of this, team managers and other respondents saw the positive aspects of quality monitoring, particularly how an approach which was too stats oriented would be demotivating. According to the responses, then, appraisal is seen as something which works in principle but in this case requires fine tuning. Grant (1992) stated that quality monitoring is a vital and necessary supplement to quantitative performance data, and that

computer systems alone should not attempt to measure non quantitative aspects of the work.

IV: 4 Accuracy of performance representation (Table 5.1:3)

In accordance with the responses illustrated in the last section, data in this category reflect the perception that there are problems with the way in which the quality of the calls is assessed. These comments again relate to the way in which calls are sampled, in that the different types of calls are not always equally represented. For example:

- 'I think certainly the sample size would have to be increased. There's people who have off days and if you're only having, those five will perhaps be done within the space of 15 minutes, 15 minutes out of a month is not representative at all.'
- 'The actual assessment of the calls is something that has been questioned...The sort of comments that I've had is quality assurance monitor me every week but it could be that I've actually, I feel, achieved a very good call but they've five...card activation calls...they say there is no way that I'll ever be marked up on those type of calls...so that's something that we've reviewed and will now be hopefully they'll see a better understanding of a better marking really.'

Furthermore, performance statistics were not always seen to fairly represent what an individual had been doing during the day, particularly, as one respondent pointed out, that the amount of time in aftercall often depends on the time of day that one is working:

- 'The girls that gets 90 she works in the evenings so you get longer times between calls so of course she wouldn't have to go into aftercall to do work because she always gets the time anyway between calls, so hers is high. But if you work in the morning when it's really busy you'd need to do aftercall. So it can be unfair that way.'
- 'I personally don't think it's a true reflection of how it can register what average calls should be. But that's how they've set it, so I really don't know...unless the managers sit on the phone...for 9 hours and appreciate the type of calls you're taking and the problems you can have not finding administration and the problems you can have to finding the right person in the different various departments, not taking calls, until you do that you can't really work out and again it's all statistical'

Again, these comments illustrated the need for performance statistics to be combined with other measures to give an accurate picture of work within the department.

For monitoring of all kinds to be accepted it must be perceived as fair and accurate (Westin 1987) and as such these data highlight perceived problems within the process in case 4, and lend validity to previous research findings.

IV: 5 System dodges (Table 5.1:4)

The majority of respondents stated that the system couldn't be fooled into misrepresenting employee performance to their advantage. This was attributed to something which was described as a 'big brother is watching you' procedure by one respondent, and referred to the Call Management System. When asked whether there was a way of fooling the system, comments were as follows:

- 'No, because we have a procedure whereby, it's a bit like big brother is watching you, but we have a log in / log out procedure so...I get the call or if they go into large times of aftercall then they actually log it down on the sheet...so your productivity is based on sort of the time you should have been on the phone'
- 'Not really, no. The productivity there isn't because you log into [inaudible] your own ID so it can see when you're logged in, when you're not logged in. If we've got calls that are queuing the managers have got a system when they can see immediately who's on the phone, who isn't, who's supposed to be, who's not...'
- 'No, no I haven't found it. No I don't think so...because when the supervisors work the figures out they can see exactly what time you was logged in, exactly when you had any breaks, how long you was logged in for, how long you was logged out for, so there really isn't any way to diddle it I don't think'
- 'No there isn't. Not really, no. I haven't come across anything...no the facts are there, there's just no way of getting round it'

Other staff noted that there were ways of fooling the system, ranging from manipulating the human elements within it, to more crude methods:

- 'No you can't fool them but you can...you're in control...you know what feedback that's going to give to the system. So you can obviously make sure you use that to your best advantage in so much as you know that perhaps your particular manager might be strict on what time you should be logged in as opposed to what percentage you should actually be available to take calls...'
- 'It's not so much the system as the phones isn't it? There's one way some people do it I think is like they're available to take a call instead of going into aftercall to walk to the other side of the desk or whatever for some reason, they maybe just unplug the phone, you know the actual connection bit and just keep an eye on when the calls are

coming through and just quickly go and plug it back in which is not very professional but it has been done...'

- 'If you're calling a different department that's plug - in time off your figures that's showing you're in aftercall and you can only have a certain percentage in aftercall, so you just want to get off the phone. Now that's very unfair. Because if you need to refer something from the past customer [inaudible] the other departments are keeping you holding and you think "oh my god hurry up" and if you put someone on hold that's going on your aftercall time as well...but there's a way of cooking the books that way as well. There's mute button where the customer can't hear anything which isn't very pleasant but you can still hear the customer so you put them on mute...it's fine it looks like you're still on the call. So if you go on hold it looks like you're wasting time basically'

Reassurance can be gained from the following however. The following respondent highlights how diligence and responsibility are more likely than deception to govern how one works:

- 'If there is I haven't come across it. I don't think there is. I don't think people would look for that...I think it should show in your figures that you are still working on a problem...Other departments are busy and you'll ring them and I'll say just a second and they'll put the phone down on you. Hold on you're going to affect my figures and I did two minutes or three minutes and you've still got a customer at the other end so you can't let that call go.'

IV: 6 Delivery of feedback (Table 5.1:5, 6, & 9; Table 5.2: 7)

Feedback in Telephone Services is delivered via a weekly sheet, and monthly on display boards. Team meetings are held every month, and a new monthly appraisal has been proposed to ensure continuity in performance feedback. A six monthly appraisal is also in existence, which was subject to criticism, some of which has been covered already. One of the most noteworthy things to emerge from the data in this area is the apparent neutrality with which performance data is used in feedback. A predominantly positive or negative emphasis was not found in the data. For example:

- 'The seniors pull it off every day, pull the information off daily. If you want to know it you'll know it. And then they distribute a nice sheet out to you comparing you to the rest of your team. And they put it up on the boards as well, who's done what, which I suppose could be quite demoralising but nobody looks at it that way.'
- 'They use it basically to judge how well you're doing. They know if you have logged in your system or haven't logged in your system so they know if you're coming out

of it and that effects your figures and how they use it...they all have a meeting amongst themselves to see how we're all doing and on figures is you're obviously doing really bad it's going to be a disciplinary or probably be strong, but just talking to you to start with and see if you can improve from there. That's basically how it works'

- 'We look at it on a weekly basis and so we measure the amount of time available to talk the customer and the amount of time actually talking to the customer as a percentage against the overall time of their shift less their breaks etc. So we look at these sort of things and I mean everybody gets a copy of their stats on a weekly basis so they can see how they're performing, if they're doing particularly well or if anything may be wrong...'
- 'Well what we try to do is everybody gets a copy on a piece of paper of the stats produced. They then go up on a wall chart or whatever to show productivity and performance. I would say if there are people who have done well or people who haven't done quite so well then you want to just say well done or you just need to pick upon here, bit too long in words which is detrimental aspect of the figures...'

Another element of this point is that the weekly statistical feedback and the option to see them daily is not taken that seriously. Monthly team meetings are seen as the most important source of feedback, discussion and consultation. Other research also shows that staff will feel pressured by monitoring if (a) the feedback is always negative and (b) the feedback is given too frequently or in an untimely way, for example:

- 'We have figures that, how well we're done on the board per month. It used to be daily but they're just doing that once. Then every week we get a sheet in our hanging folder showing how we've done, just passed around sort of thing, don't take a lot of notice'
- 'I think if you were too bothered about it you'd be pressurised'

The personal nature of feedback was also something that was highlighted by the respondents. This essentially stemmed from the fact that each team leader was given relative autonomy over the way in which they ran the teams. Team leaders highlighted the problems with the old appraisal system, namely the central tendency of the data, and the time consuming nature of assessing each member of staff. Some difference in opinion was registered as to whether monthly appraisals would be beneficial or not. The following extracts highlight these points. First, the personal nature of the feedback:

- 'I like my manager, I trust my manager. She's very good, she'll go through it all with you. She'll ask you if you like it, she'll give you room to comment and if you don't she'll go through it with you. She'll tell you what she feels, she'll want to know how

you feel. I like it I have to say. I don't know about this one monthly business it could get a pain.'

Now, the team leaders' comments:

- 'It's a lot of preparation you know you have to spend a lot of time so you know you want to make sure that you give each of the staff you know they deserve that you give them, you respond to the results they've achieved and sort of skills and competencies that they've got in a fair and constructive manner. Not just what you've seen recently but across the 12 months so you've got a data gathering exercise really over the 12 months...it's a timely exercise. It's something you can't really rattle off in 20 minutes'

Finally some comments about the central tendency of the data:

- '...it obviously came over to most of us that that was totally unfair because you'd actually got a range of, by working out these two decimal points, the overall figure there may have been 2.51 if they were marked down a number of categories or it could have been 3.49. So if it was 3.49 and they would be marked down, if it was 3.5 or 3.51 they'd go up to a 4, you've got a big range...so we said just a minute we've got someone here that's over our expectations, that's above average, being put into the pot as a 3 with the 2.51's.'
- 'You get your score. On your assessment there is eight targets and you're given a score from 1 to 5 most people get 3 and that's the average. You have to be very good to get more than three, A three is what they expect and you don't have a lot of scope to perform above that'
- 'Like last year it seemed to be that everybody was rounded to a three so there was no difference if you were a lot better than anybody else. So then there was a lot of feeling last year that you know that this is not fair. But they are making things a bit different now and using a different rounding up process'

This is a problem which appears to have been addressed and is on the way to being resolved. Achieving the right balance in an appraisal situation is very often a matter of trial and error. However the most important thing to be revealed by this set of data is that the staff accept and, to a degree, welcome the performance information which is fed back to them, although some fine tuning is required. The strength of the current situation is the fact that greater importance is placed upon the monthly team meetings as a tried and trusted channel of communication, rather than the more impersonal paper based performance statistics, which will ensure that stress induced by the latter will remain at a minimum.

IV: 7 Accessibility of performance information (Table 5.1: 10)

Responses to this question were mixed. Responses varied from an unqualified 'yes' as to whether the performance information was accessible or not, through to a definite 'no'. The majority of responses were qualified 'yes's'. Most realised that the team managers would willingly reveal performance information if asked, which was a point made by Westin (1987). He stated that all the performance information kept on an individual should be made available to them from the start. One respondent indeed commented that new employees would not know where to go if they wanted to access any performance information informally. This is perhaps something that could be introduced to new employees as well.

Here are some examples of the comments regarding the accessibility of information:

- 'No, only the seniors and managers and one or two of the people who have taken an interest in what to know about the system...It's not a problem, we wouldn't hide it. If an operator says "God I've taken a lot of calls today is there any chance you can have a look"...you can bring it up and show them.'
- 'They'd have to refer to their team manager. The team manager would have the information on screen but because they have to be logged in for such a large majority of the time they' don't really get the chance to so that anyway.'
- 'It's not made available as such, new starters here wouldn't know that, but if I wanted to know I'd go and ask'
- 'Yes they can do a daily one if you wish, if you ask, but nobody does it, they'll wait until Monday when the figures come out. I think most people want to get on with the job'
- 'The managers normally give the file and it's on the desk and you can have a look whenever you like'

Perhaps the most salient point to be made about the above extracts is that there is no air of secrecy surrounding access to statistics. Only one such comment was made as follows:

- 'I don't think so, they do it on a weekly basis. I don't think they'd be very willing to actually...I'm not really bothered because at the end of the day I feel happy if I know I'm doing my job properly.'

In accordance with Westin and other research, from these responses it is to be concluded that everybody should know exactly how they can access performance statistics and also that they are allowed to do so

IV: 8 The ability of employees to challenge information (Table 5.1:11)

Just as in the other cases in this study, opinions in this category split two ways. The first being those who perceived the computer to be unquestionably accurate; and the second being those who felt that if they had a problem they could easily bring it up in a team meeting. For example:

- '...as long as you've got a good reason there shouldn't be a problem. People can challenge it unjustly...if you challenge it and say well look I had to go off and do, go and get something from the retriever that took half an hour of my call time, then they'd go well fair enough, and they'd be quite happy with that...'
- 'Yes definitely. We have regular team meetings anyway...they can challenge it because we have like a, it's called a friendly competition weekly to see who's achieved the best figures and things like that. It's not competitive as such'
- '...I think that if they don't think the statistics that have been produced are correct they obviously they speak to us about it and we can obviously show them where we got the information from off the system. We can print it off so they can see. We can do it hourly, daily...'
- 'I don't know if you could actually challenge it I think you could make your views known and they are listened to but I mean it's a hard and fast way of how they work the figures out. So there's no way you could alter that because all they actually get is a print out of how many times the phones been used, not used. If you have a problem you can log off and then at the end of the week you give them your log off sheet to say when you weren't on the system and they do have to calculate that amount of time into your figures.'

Other respondents seemed resigned to the information:

- 'Well it's not going to be inaccurate though, it's going to be accurate'
- 'I don't really see how it could possibly be wrong'

One thing that should be noted is, as with access to performance information, employees should feel able to freely challenge the information. This was pointed out by Westin (1987) who emphasises the fact that an inability to challenge information will lead to feelings of unfair treatment and stress in employees.

IV: 9 Flexibility of standards (Table 5.1: 12 &13)

It is clear from earlier sections of this report that standards as regards call times are not strictly enforced, and it is argued that this standard is flexible *per se*. However, one team leader outlined the new tolerances to be allowed on breaks and log in times, which was noted by some of the respondents to add pressure and dimension of inflexibility to the course of work. First, the team leader's explanation:

- '...on the call management system that all the team managers have got, we can actually check the log in and log out so effectively we can look at the actual time that they've logged into their system to be available to take calls. And obviously a lot of the Key Result Areas for the operators are geared to these types of specifics where we're giving them tolerances on time keeping and tolerances within their scheduled bank times...our schedules rely on those people taking their breaks at the right time so we can actually, with regard to the objectives that they've actually got, we will set them tolerances of 3% on going on their breaks at the right time'

Now, the response of an operator:

- 'I think it's pretty rough. I can understand why they've done it but I don't think it should be so strict as they've done it perhaps...team managers are pushing it down your throat a bit but they say, I said I cannot see one person meeting that not one, or if they are they're boxing the figures, somehow they are really cooking the books'

Since these new tolerances were only just being implemented at the time of the interviews it is difficult to elicit any common opinion, although negative comments about the new time utilisation measurements were made at other points during the interviews. Another way to tackle view on the flexibility of targets is to concentrate on Westin's (1987) point of exploring what happens if there is a shortfall. Westin draws the distinction between a disciplinarian and a discussion / training approach. In this instance, responses were firmly in favour of a discussion - based approach to problems.

One respondent noted that if there was a persistent shortfall on target achievement then it may not just be the operators' fault:

- 'I think well if I was in my position with my colleagues here and we were keeping people waiting for that amount of time then we'd have our arses kicked if we were just messing about. And even if it's not the fault of the individual operators then it's obviously the company's fault for not having enough staff members at the right time'

Given that this is a more relaxed approach to target achievement than there is in other organizations, and that this is something that is quite difficult to sustain, the management of telephone services will have to be careful in their implementation of the new tolerances on attendance.

IV: 10 How far is the data broadcast? (Table 5.1: 8)

This data category only became an issue in two cases: case 2 and case 4. In case two, operators were worried about the publication of their performance statistics. From these data, it is apparent that data is broadcast throughout the department, and again, for some, it is a sensitive issue. The reason why this could become an issue stems from the findings of Higgins and Grant (1989) who stated that monitoring would be more pervasive if the process as well as the results were monitored. Despite this process monitoring (i.e. listening in) comments were as follows:

- 'It's just put up on the board...but it doesn't always tell a true story...I think because we all know if someone has had a bad week there's probably a reason for that. I don't think it should be put up on the board I mean we aren't in competition with one another.'

In the main, however, respondents accepted the widespread broadcasting of their results because the targets are seen as flexible by the staff, and any problems can immediately be taken up with their team managers. For example:

- '...there's big white boards and you get your teams productivity...and as I say nobody really takes any notice of them anyway because we've been finding it quite hard for everybody to achieve their targets...'
- 'It's all on the board. Each team's got a blackboard kind of thing and your figures are put on there and everyone can see. The managers do keep a note of it and they look at it. I suppose if they thought it was dramatically low then you would be picked up on it.'
- 'Obviously it goes to [dept manager], I've got no problem with that. I think it's just used to see how we perform. I don't know if it goes further than that it may do just for information at the end of the unit where they also look at targets. I mean we're too busy to worry about it'

These responses again reflect the compliance with Westin's Union model relating to the consequences of a production shortfall. The next section of the report begins with employees' comments about their jobs. Again, these factors are those derived from those listed in table 5.2 from Westin's (1988) model entitled 'Organizational climate factors and clerical VDT work stressors'.

IV: 11 Mode and effect of control (Table 5.2:1)

When the respondents were asked who has the most say in the day to day running of the department, opinion was very definitely split. Responses which stated that the overall department manager had the most say equalled those who stated team managers were the ones that ran the department on a day to day basis. Another respondent also noted that during the course of the job the more experienced operators were consulted rather than team managers for advice on dealing with calls. Two statements in particular embodied ideas of empowerment on the shop floor which were by no means universally expressed but are telling:

- 'Obviously when the rebate calls come through I've got questions for them about referring: they're the ones to send the letters out to the public...and then obviously case 4 the main core business are the people who have been here the longest and they've always done the job so if you have any queries you ask them but the actual say over anything no it's up to you.'
- 'Well I mean if you're looking at reporting obviously the largest clout would come from our operations manager. But I would say in terms of the day to day running of things he very much empowers his own team managers on the floor. He really leaves it up to us to make sure that we are trying to achieve the sort of services levels the quality standards that is expected.'

The above is in stark contrast with another respondent who saw the team managers themselves as being unfulfilled within their roles:

- 'they're good at their job but when you take them out of that sort of, and put them in this sort of small, smaller environment, the role isn't as challenging and that, I think they may find it difficult to adjust...It doesn't require that sort of management skill, there's no management involved'

The responses relating to the control method in itself begins to highlight the social divisions within the department, which will be expanded upon later. In the main, the empowerment and autonomy of the team managers came to the fore in that respondents noted the differences in their individual approaches. Here are some examples:

- 'I think some managers you can obviously get a lot out of their operators or other operators through maybe strict discipline where others may use a softly softly approach and get the same results.'
- '..there is a general feeling sometimes that you've got calls queuing, you do get the odd manager that will realise and unlog you and take some calls but then you'll just get some of them that sit looking at the screen, looking at how many calls they're losing, panicking'

However it was noted in general that the overall approach was by no means strict or disciplinarian. One respondent also noted with some disdain that the disciplinarian approach was inappropriate anyway and a humanistic approach to control was simply a matter of common sense:

- '...they're not strict with things, they've got their rules they want you to adhere to, if you're taking the mickey they'll have you. If you're not and there's a reason for it carry on'
- '...so we've all sort of got together as new people and whilst we do have the titles of senior operator and managers, the managers still treat everybody as part of the teams rather than "you're not [inaudible] manager" that does come into it. I don't think you have the problems that you would have some other companies where "I am the manager you will do as I say" I don't think that's the attitude by any means'
- 'I mean they don't actually do anything, they don't put anything on the paper at the end of the day. Their job is just to make sure that everyone's arse is kept in line and those figures do remain at a certain level. So obviously they're going to find it easier to keep it running and relate to them sort of on a level or whatever rather than having to say to them "well look are you stupid or something, if you don't get this figure we'll stop you having lunch hours" or something...you don't normally have to be told, I mean you could revert to sort of carrot and stick routine I suppose, if all else failed'

The latter comment is significant in the respect that it highlights how a disciplinarian approach would be an unacceptable one in the context of telephone services. For Westin (1988) this is seen as a factor which would mediate stress when computer based monitoring is being used.

Moving on to the social division which emerged from the data, one of the older and more experienced respondents noted the lack of autonomy available to operators during

the course of the job. In general the older operators saw themselves as a distinct group in the way that they were treated by managers and motivated. This distinction is not seen as a controversial one by those concerned. First in terms of autonomy:

KB: 'do you think that, turning that round the operators as a group are tarred with a certain brush by people who are above them and feel that maybe...'

RESPT: Yeah in general I think they do. I think you're probably right, in general if you are given very low authorisation limits I think then. If you're on the phone all day and you've been told it doesn't give you very many options. You have to tow the line and not use any initiative'

Now in terms of motivation and performance statistics:

- 'If you say to a nineteen year old "oh brilliant you're hitting the target" then that's likely to be more objective than somebody who's 49 years old and knows that they come in and do their job and what's expected of them'

The system of control within telephone services appears to be one which is based on co-operative as opposed to coercive values, and which has certain features which indicate a degree of autonomy inherent in it, although this is not recognised by all concerned. Past research would predict that this would help mediate any stress effects of CBM.

IV: 12 The demands of the job (Table 5.2 2)

This category emerged from the job design literature which states that the introduction of computer based technologies may make a job seem more physically and mentally demanding, because of the possibility of work speed ups and having to get used to the nature of human computer interaction. Although this is not an issue here, respondents noted that there were aspects of the job that were becoming more demanding.

First of all, new starters were expected to find the call times demanding, however, this was seen as something that would get better in time. The same respondent also noted that the additional time dimension being introduced was the new emphasis of management in terms of quantity. The sentence in square brackets at the end of the quote shows that the statement has been paraphrased:

'...new people start and they're bound to be lower than the rest. And they say "I'm not doing very well I'm doing bad" and you say "no no no it's not like that you've got to learn"...figures were, you must get your figures, you must do this you must do this. I don't think it's like that any more. I think they've sort of lapsed on that and it's more quantity than, when I say quantity I mean...' [the amount of time logged on]

Another dimension of the job which was perceived to make it more demanding was cross training. The dynamics of the situation were outlined by one respondent:

- 'The system is such that I think a lot of people who are doing bank work, I mean they just do the same you know a lot more if you doing it more often and get paid for more, you know the usual. More work, same pay. The usual...I'm laid back, I don't worry about it too much but some people take it personally perhaps, which I can take it personally myself.'

To answer findings of previous research into computer based monitoring, the situation in telephone services appears to be that productivity monitoring has been accepted as a normal part of the job; whereas the computer based monitoring of log in and log out times (elsewhere described as 'big brother is watching you') is perceived as making the job more demanding. This also relates to the idea that aspects of monitoring which are new to staff will necessarily be perceived as being more demanding than things which are well established. To echo findings elsewhere in this report, it will take time for this new performance measurement to be fully accepted by the staff.

IV: 13. Perceived routinisation of the job (Table 5.2:3)

Most of the respondents who were operators described the job as being mechanical and routine but with a qualification. Paradoxically, despite having been described by one respondent as more demanding, core business work was also seen as breaking up the monotony of long stints of telephone work. Comments were as follows:

- 'I think you can get a routine of two year sitting there giving people a balance all day but you know with the extra skills that are going on it gives people new challenges and I think that picked upon the morale plus the additional remuneration package.'
- '...they are getting involved in more complex issues on those bank calls with settlement figures and things like that but initially their response is "oh I don't want to do that"

but now they've - the staff that have actually been trained on this they it's given them a bit of oomph, so that is really good'

- 'There's a lot of "my jobs routine" but again they're not doing badly out there, they're getting us to do the core business work'

This contrasts with other analyses of respondents who hadn't been cross trained; their jobs were perceived as monotonous and lacking opportunity:

- 'It's the nature of the job. I don't think they're particular people that end up settling in the job ad sort of do it for any length of time or get anything out of it but, it is I mean it is a job that some people find rewarding perhaps in the looser sense of the word but are quite happy to do it and that's all they want, that's their lot.'
- 'Don't use your brain. The last time I used my brain was in college I think. I'd like to think I could use my brain a bit more. Saying that you do with Agency, but I'd like to have the chance to use my brain a bit more to show that I can. There's no real growth for it in this department.'
- 'The work is dead boring'

The team managers all perceived their jobs as interesting and challenging:

- 'Although I carry the title of team manager in most instances at some time ...during the day probably be classed as a if you like a general telephone services manager because it doesn't mean that I'm purely blinkered for my team...So I find it to be very exciting environment.'
- 'I think that for my role we get a reasonable amount of variety because you've got the day to day management of the call centre plus your particular team plus there seems to be endless ongoing projects that come up so there's plenty of variety there really. I mean I've been involved in you know project managing two of the new credit cards. So there's that aspect to it as well and I don't think I've really had the opportunity to get bored'

For those employees who don't find their jobs boring, research would support the assertion that this is a positive and motivational aspect of work. This again lends validity to the work of Chalykoff and Kochan when considering the determinants of job satisfaction and stress in an environment where there is CBM.

IV: 14 The role of performance statistics in promotion / demotion (Table 5.2 5)

Although this was not a specific area addressed in the interviews, it was noted in every transcript that statistics have an important role to play in the setting of Key Result Areas which are used in appraisals and the new continuous assessments. Apart from one

used in the last section, no comments on promotion chances were specifically made by the respondents. However it should be noted that the team leaders in particular were keen to give staff opportunities to work in other areas.

This concludes the analysis for case 4: Certain features of the data are noteworthy. First of all, the respondents showed that they had a uniquely balanced view of CBM and a personal commitment to quality. Linked to this, whilst accepting in principle messages which came from higher management, some respondents displayed a sense of irony in relation to these messages and also detected a degree of tokenism on the part of team managers and the above.

In summary then, the responses relating to the system showed the following:

- A mixed opinion of monitoring with both its benefits and pitfalls being acknowledged; maintenance of service and effort was emphasised by the operators, whereas a more planning oriented approach was emphasised by team leaders.
- The speed standard in relation to call time was relaxed in favour of quality, but the new tolerances on log in and out times were seen to re-emphasise time pressure by the staff
- Some problems with the quality assessment systems in place were identified by the respondents, which were associated with accurate and fair performance representation and the subjectivity of ratings.
- There was a split in opinion as to whether the system could be fooled or not. The majority denied the technology itself could be fooled, but system dodges which involved manipulating the human and more crude technological elements were recognised by the respondents.
- Feedback is plentiful, with a balanced positive / negative emphasis perceived by the staff. Previous appraisal ratings were perceived to have a central tendency and thus be unfair
- Performance statistics, although not surrounded by an air of secrecy were not completely accessible to all of the staff.

- The majority of respondents felt that they could challenge the information produced about their performances.
- Standards in relation to call times are flexible and allow for error, but a degree of concern was expressed by respondents over the newer time utilisation measurement.
- Performance data were widely broadcast which in the main didn't present a problem to the operators.

With respect to the employee related factors associated with stress mediation and intensification, also examined by Westin (1988) few stress reactions were reported by respondents. The following employee related factors emerged from the data:

- Control was achieved through co-operative means, and the data indicates a degree of perceived autonomy on the part of team leaders and some of the staff, but this is by no means universal. There was some division along the continua of hierarchy and age.
- Newly cross trained operators found that aspect of their jobs more demanding, as was the introduction of tolerances on time and attendance.
- Operators perceive their jobs to be routine to a degree, and welcomed the opportunity to do other things. Team leaders emphasised the variety in their jobs.

In the next and final section of this chapter, the findings from each case are compared and contrasted. Linking factors will be extrapolated from the data as exhibited in the above sections, and the case will be put for the performance of a discourse analysis on the remaining data. As such, chapter six will then build upon this and a discursive picture of the context of the above analysis will begin to emerge.

5.5: Synthesis of preliminary findings

These data present a complex picture across the cases. However, key themes and patterns do emerge both within and between the cases. In order to synthesise these findings, the research needs to establish the major similarities and differences in the patterns revealed. In both cases, comparison to the characteristics identified by Westin (1987) can also be made. Chapter six then will attempt to examine the data locating it in a

wider context which goes beyond the frameworks of Westin (1987) and others (summarised in Table 5.1). For the present, each case will be presented comparatively based around the dimensions outlined in Table 5.1

Table 5.3 illustrates the differences between the departmental characteristics of each case. The similarities and differences between the cases emerge clearly. Whilst the numbers employed are vastly different, in cases one, two and four the tasks being executed are largely identical. The main similarity, however, is that each case organization monitors its employees at least by keystroke and activity rates, if not by remote listening in to telephone conversations. Furthermore, each department's computer based monitoring system generates a vast array of measures, some of which are emphasised more than others in the management of the department in general. The more pervasive

Case	No. employed in department	No. Teams/ per team	Task	What's monitored	Measurements
1	45	6/6 + supervisor	Handling outgoing and incoming calls	Keystrokes, Call connection rate	Total hours, total cases, total contacts, total promises, broken promises , connections/hour, talk time, type time, £'s collected, short settlements
2	90	4/20+ team leader + supervisor	Handling incoming calls and admin.	Keystrokes/ answer rate, listening	Total hrs, hours manned, not ready, hold time, total calls, calls/ hour, wait time, average. talk, bookings, conversion
3	138	3/36 + 7 grade2, 1 grade 3, 1 grade5	Data input	Keystrokes	Keying time, utilisation time, total. documents, docs/hour, performance index
4	79	6/12 + t/m	Handling incoming calls and admin.	Keystrokes / answer rates / listening	Total hours, hours manned, aftercall, auxworks , total calls, calls / hr, average talk, average wait.

Table 5.3: Summary of departmental characteristics, cases 1 - 4

measures are highlighted in bold. A thread which will be resumed later in the analysis begins here. There is a marked difference between the type of measures used by case one, and the other cases. In case one, emphasis is placed upon the more substantive, quality

measures such as the number of promises made and broken (hence reflecting upon the quality of the arrangement made by each clerk), and also the measures relating to the corporate objective of 'provision', i.e. money collected. This could be contrasted with case two, for example, where the emphasis is purely placed upon time usage and the speed at which the operators work, with little or no emphasis being placed upon the 'conversion' measure (i.e., how many calls are converted into firm holiday bookings), and at the time, of the study, listening in was just being implemented.

5.5.1 Analysis based on the work of Westin (1987, 1988)

To compare the findings from each case, they need anchoring to a common set of criteria. Initially this research uses the framework outlined by Westin (1987, 1988). To recap briefly, Westin (1987) completed a set of studies into CBM for the US. Office of Technology Assessment to contribute to a report entitled 'The Electronic Supervisor: New Technology, New Tensions'. This report preceded the passage of the 'Privacy for Consumers and Workers Act' through congress, which eventually became law in 1993, and specifically addressed the issue of fairness in the use of CBM in America's offices. In developing the original criteria for his model which is used in this analysis, Westin drew upon the model contract language suggested by labour unions in America. He contrasted this 'fair' model of monitoring with the 'Taylor' (or 'production') approach to work measurement. In his own empirical research, no pure examples of the 'Union' model were found, a few of the 'Taylor' model were, with the majority of cases being hybrids tending towards the Taylor model.

Westin found that the difference between employees protesting over 'Big Brother' monitoring and employees perceiving work measurement as reasonable often depends upon (1) the fairness of the standards set; (2) the fairness of the monitoring employed; and (3) the fairness of the way measurements are used in employee evaluation. In the following tables, the final clause pertaining to the flexibility of the standards is taken from Westin's work on the organizational climate of CBM in (1988).

Union Model		Taylor	Production Model
Individual performance sampling	×	×	Constant machine monitoring
All data available to employee	×		Data not readily available
Ability to challenge record	×		No procedure for challenge
Employee can pace work	×		Machine paces work
Group production quotas	×	×	Individual quotas
Quantity problem factors recognised	×		Quantity speed standard
Standard pay	×		Piecework pay or bonus
Constructive approach to shortfalls	×		Disciplinary approach
Flexible standards	×		Close monitoring of standards

Table 5.4: Compliance with Westin (1987, 1988) for case 1

Union Model		Taylor	Production Model
Individual performance sampling		×	Constant machine monitoring
All data available to employee		×	Data not readily available
Ability to challenge record	×		No procedure for challenge
Employee can pace work	×		Machine paces work
Group production quotas	×	×	Individual quotas
Quantity problem factors recognised		×	Quantity speed standard
Standard pay	×		Piecework pay or bonus
Constructive approach to shortfalls	×		Disciplinary approach
Flexible standards	×		Close monitoring of standards

Table 5.5: Compliance with Westin (1987, 1988) for case 2

Union Model		Taylor	Production Model
Individual performance sampling		×	Constant machine monitoring
All data available to employee		×	Data not readily available
Ability to challenge record	×		No procedure for challenge
Employee can pace work		×	Machine paces work
Group production quotas		×	Individual quotas
Quantity problem factors recognised		×	Quantity speed standard
Standard pay	×		Piecework pay or bonus
Constructive approach to shortfalls		×	Disciplinary approach
Flexible standards		×	Close monitoring of standards

Table 5.6: Compliance with Westin (1987, 1988) for case 3

Union Model		Taylor	Production Model
Individual performance sampling	×	×	Constant machine monitoring
All data available to employee		×	Data not readily available
Ability to challenge record	×		No procedure for challenge
Employee can pace work	×		Machine paces work
Group production quotas		×	Individual quotas
Quantity problem factors recognised	×		Quantity speed standard
Standard pay	×		Piecework pay or bonus
Constructive approach to shortfalls	×		Disciplinary approach
Flexible standards		×	Close monitoring of standards

Table 5.7: Compliance with Westin (1987, 1988) for case 4

Even at first glance considerable differences in the application of the monitoring technology between cases can be noted. Case one is in exact compliance with the Union model, yet two aspects of the system's application also concur with the Taylor model.

This duality will be covered in more depth later. Case one can be particularly contrasted with case three, whose application of the technology is almost the opposite with a majority concurrence with the Taylor model. Case two errs slightly towards the Union model, whilst case four is two thirds / one third in concurrence with the Union model.

These results are particularly useful in that they represent both the extreme and middle ground of the use of the technology according to Westin, and as such both rich and varied variation in context is expected to be found. The variation between these cases is more graphically illustrated using bar charts (see figures 5.8, 5.9, 5.10, and 5.11). Categories a - h in the charts represent the Union model and categories i - p represent the Taylor model. The bars represent the occurrence of a response in that category. Accordingly, if the majority of responses occur at the left hand side of the chart, the responses were more oriented to the Union (i.e. more fair) model, and the majority of the responses towards the right hand side of the chart indicate a concurrence with the Taylor (or engineering) model. In cases one and four, responses appear in the equivalent categories in both models. Therefore, the number of responses (n) changes accordingly. This will be explored in more detail later on.

The response categories are as follows:

Union model:	Taylor model:
a - Individual performance sampling	i - Constant machine monitoring
b - All data available to the employee	j - Data not readily available
c - Ability to challenge record	k - No procedure for challenge
d - Group production quotas	l - Machine paces work
e - Quantity problem factors recognised	m - Individual quotas
f - Standard pay	n - Piecework pay or bonus
g - Constructive approach to shortfalls	o - Disciplinary approach to shortfalls
h - Flexible standards	p - Close monitoring of standards

The responses in case one occur almost exclusively in the first nine categories of the chart, whereas cases two and four are mixed. In case three all but two of the

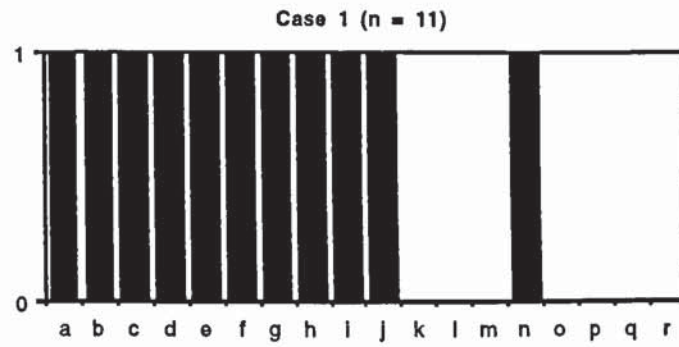


Figure 5.8: Compliance with Westin's Union / Taylor model, case 1

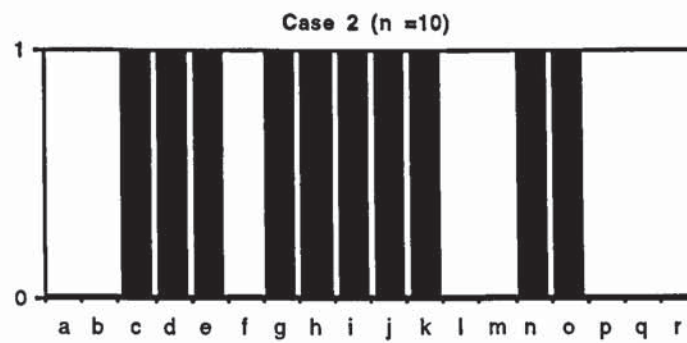


Figure 5.9: Compliance with Westin's Union / Taylor model, case 2

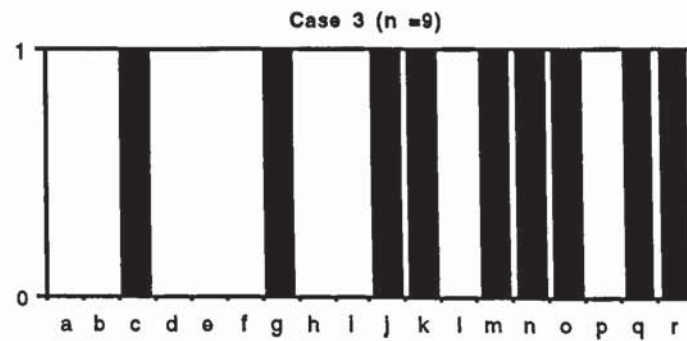


Figure 5.10 Compliance with Westin's Union / Taylor model, case 3

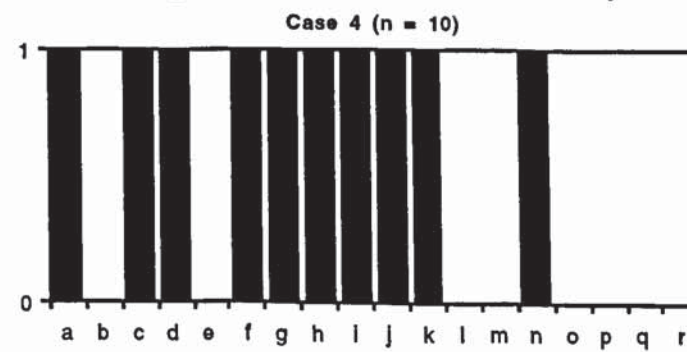


Figure 5.11: Compliance with Westin's Union / Taylor model, case 4

responses occur in the latter nine categories, making it strongly concur with the Taylor model. The above illustrations can thus serve as a referential template by which we can compare the four case organizations. They typically refer to the more systemic aspects of the technology in question, rather than their social impact. Thus the results according to the criteria developed by Westin (1987, 1988) only represent part of the findings. Typically, one would expect the technology to be more readily accepted and used more fairly in case one than in case three, and have a mixed response in cases two and four. Therefore, an examination of opinion *at the very least* would reveal, in the words of the research question, 'how the technology is used'.

Furthermore, Westin's model can be criticised on a number of grounds, the most apparent criticism being that responses occur in categories which are supposedly at opposite ends of a continuum. Examples of this occur in cases one and four, where employees are subjected to both individual performance sampling and constant machine monitoring, and in cases one and two where employees have both individual and team based targets. This shortfall in Westin's analysis could have two possible effects. One could argue that this dual occurrence of responses invalidates Westin's work as any sort of model of the use of CBM, since the fact that both ends of a continuum are satisfied by one case means the categories are not mutually exclusive, and hence the model is deprived of discriminant validity. Concurrence with this first argument, however, would result in the discounting of what, in reality, has proved to be a useful if imperfect categorisation of CBM system characteristics.

The second possible response to the above situation would be to accept Westin's (1987, 1988) imperfections, and perhaps assert that the answer to the question 'what determines how computer based monitoring technology is used in organizations?' lies beyond an analysis which relies upon the positivistic and procedural rules of categories and continua. Indeed, in the next chapter the work of Westin may well demonstrate its predictive potential in this respect. It should also be noted that even though some of the response categories in table 5.1 incorporated the work of Westin, lengthy extracts were often used to illustrate the points being made. As such, despite the fact that the

responses in any one case satisfied any one of Westin's criteria, there was considerable within case / between response variation concerning the actual aspect of the technology in question. This supports the assertion that a closer examination of the talk of the respondents would be a useful way of examining how technology is used. The limitations of a category based analysis can further be demonstrated when the social impact of monitoring technology is examined using qualitative categories derived from previous research.

5.5.2 Analysis based on categories derived from previous research.

In the preceding pages the substantive results of a case by case analysis by category were presented. As was stated above, certain aspects of this analysis reflect the work of Westin (1987, 1988), and categories derived from other research. The latter research in most cases examines the social impact of the technology associated with the implementation, feedback and job characteristics aspects of CBM, and to some extent addresses the way in which the technology is socially constructed (i.e., is it perceived in a 'Big Brother' or 'spying' sense or otherwise?). These aspects of research into the monitoring process are summarised in table 5.2, and the top section of table 5.1.

The following tables thus summarise the research findings across cases based on previous research. The relevant sections for this stage of the analysis are table 5.1: top; 5.1: points 5 - 9; table 5.2; all points. The synthesis begins by pointing out the differences in where responses occur between cases, and then examines cross case variation in common categories. This analysis will then be taken as a primary reading of the context of CBM and directions for further analysis will be explored. The tables begin overleaf.

Categories which are omitted from the tables indicate that there were no direct references to the issues in the data, or references were so infrequent that a consensus of opinion was not indicated. In case one, category 5.1: 7 (spying) and category 5.2: 4, 5, 6, and 8 were not included. The latter categories referred to the use of CBM statistics in

promotion and demotion, the closeness of co-workers under a CBM regime and the use of CBM as a motivator. In case two, categories 5.1: 5, 8 & 13 were not explicitly referred to as were categories 5.2: 4 - 7. These categories largely refer to the feeding back on a weekly and appraisal basis of CBM data. The infrequency of data in these categories can be generally explained by the fact that CBM was not fully implemented in case two at the time of the study.

Case three, in contrast, had been monitoring its staff via the computer for many years, yet omissions occurred in the same categories to case two, namely 5.1: 7, 8 & 9 and 5.2: 4, 6, & 8. The former categories refer to the perception of CBM as spying, the sensitivity with which feedback is delivered and the directive nature of the feedback. The latter refer to the threat posed by CBM in times of instability, the closeness of employees and the motivational aspects of CBM. In terms of the former, previous research would suggest that the sensitive nature of monitoring itself would have dispelled since the employees had got used to being monitored. In terms of the latter (5.2) categories, the threat posed by CBM is self evident, since the employees would be sacked if they didn't meet their targets. However, this was not explicitly linked with the wind down situation in case three. In terms of the last two categories, no consensus was expressed, although comment was made about the motivational potential of the statistics to younger members of staff.

The respondents in case four again did not refer to the fact that CBM was seen as 'spying' (category 5.1: 7) despite having the most developed process monitoring system (i.e. listening in) of all the cases. Comment was not explicitly made about the role of statistics in promotion and demotion (category 5.2: 4 & 5) despite the fact that they are included in the annual appraisal. No comments were made about the closeness of staff (5.2: 6), and like case three, performance statistics were said to be more motivating for younger members of staff (5.2: 8).

In terms of categories which were common throughout the cases, all cases except case two were able to historically comment about the implementation of their respective

Table	Finding
5.1: Top	Implementation which led to pay rises through job regrading and an ease on the workload for the staff
5.1: 1	Acceptance of both the quality and quantity measurement systems by the staff
	A widespread acknowledgement of quality being more pervasive than speed in the course of the work
5.1: 3 & 4	A low occurrence of figure fiddling due to quality awareness; but an acknowledgement by some parties that it is possible.
5.1: 5,6 & 9	Delivery of feedback at a number of different levels and time periods covering all aspects of work.
5.1: 6 & 8	A degree of sensitivity in the way in which feedback is delivered.
5.1: 10	Not complete awareness of the accessibility of performance statistics
5.1: 11	A feeling of freedom to challenge statistics and other information.
5.1: 12 & 13	A constructive, non disciplinary and flexible approach to the achievement of standards.
5.2: 1	Work is self paced, operator discretion is acknowledged and there is deliberate delegation of control to supervisory level.
5.2: 2	Job rotation and flexibility in daily rotas make the more demanding parts of the job bearable.
5.2: 3	Working within the section itself is not perceived as mechanical or routine in the sense of 'robotic'.

Table 5.8: Summary of findings, case 1

Table	Finding
5.1: 1	Staff were receiving a message of quantity being more important than quality in the course of work, but managers and supervisors believed the opposite.
5.1: 2	At the time of the study, no awareness amongst the staff as to how quality was measured (i.e. listening in) and most of the respondents having no feedback other than annual appraisal.
5.1: 3	Scepticism as to how accurately the performance statistics represented the agents' activities.
5.1: 4	No real system short cuts in terms of figure fiddling.
5.1: 6	The new quarterly appraisal was welcomed by the staff.
5.1: 7	Listening in was seen as 'spying'.
5.1: 9 & 5.2: 7	An initial focus on negative feedback from the statistics
5.1: 10	Not everyone was aware that performance statistics were accessible by agents but most were prepared to ask.
5.1: 11	Agents felt free to challenge information.
5.1: 12	There was a flexible view of target achievement.
5.1: 14	Infrequent but considerable problems with system response time which can be stressful if there is a quantity speed standard to meet.
5.2: 1	Monitoring was seen as a threat to both physical and mental freedom at work by some, but this was mediated to some extent by social relationships with the supervisors / team leaders
5.2: 2	The course of the job was seen to be more demanding because of CBM but the general atmosphere was seen as relaxed.
5.2: 3	Most perceived the job as non routine although longer serving agents did not support this view.
5.2: 8	Monitoring and feedback was seen by all the staff to have motivating potential

Table 5.9: Summary of findings, case 2

Table	Findings
5.1: Top	The ROCC system's implementation was perceived to be controversial due to it being surrounded by secrecy
5.1: 1	An overwhelming managerial emphasis on quantity was perceived, although three of the respondents reported that quality was more important during the course of the work.
5.1: 2	No coherent quality measurement system was in place. Quality is controlled by 'fire fighting' on the part of the grade 2's, as opposed to 'fire watching' by everyone
5.1: 3	Statistics were, by some, perceived to inaccurately represent performance since the actual method of calculation had been inadequately explained
5.1: 4	The system was not entirely foolproof but the incidence of trying to cheat it was low. Staff tended to choose specific types of work with which to manipulate their statistics rather than fool the system
5.1: 5, 6 & 9	Feedback was mainly quantitative for agency staff, and they were not allowed to see their appraisal comments. Although some were happy with their appraisals, the latter were largely seen as irrelevant because of the nature of the job
5.1: 6	Bank staff were enthusiastic about the new Performance Management System
5.1: 6	Individually directed verbal and written feedback was seen as being largely negative, whereas positive feedback, where given, was delivered on a group basis.
5.1: 10	Performance information was accessible only to those who had the correct ID number from their supervisors
5.1: 11	Employees were quite willing to challenge performance information
5.1: 12 & 13	Standards are seen as inflexible because of the way they are set, and also because any persistent shortfall leads to dismissal.
5.2: 1	Control of the employees was achieved largely through statistics, and it was recognised that more informal interpersonal control was difficult because of the number of people working in the office, and high turnover levels
5.2: 2	Some grade ones felt under increasing pressure because of the perceived constant threat of the stats increasing. The ones who could achieve the stats did not feel this pressure.
5.2: 3	Work for grade ones is perceived as routine and mechanical whereas the higher grades in the office see themselves as having an interesting, stress mediating and developmental role
5.2: 5	Statistics play a pivotal role in dismissals, and it is widely acknowledged amongst both bank and agency staff that there are few promotional opportunities

Table 5.10: Summary of findings, case 3

monitoring systems. This is because, in case two the monitoring system was being implemented at the time of the study. To contrast the other cases, case one associated tangible benefits for the staff with the implementation of CBM. Case one's CBM system also exhibited total compliance with the Union model of Westin. In contrast, case three's CBM system was implemented controversially, and exhibited almost total compliance with the Taylor model. Interestingly, in case four, the data yielded mixed reactions to the implementation of CBM, as well as a Union / Taylor model hybrid with tendencies towards the Union model.

This finding lends validity not only to the work of Westin, but also to the work of Higgins and Grant (1989) on the implementation of CBM systems. From categories 5.1:6

Table	Findings
5.1: top	A mixed opinion of monitoring with both its benefits and pitfalls being acknowledged and associated with its implementation.
5.1: 1	The speed standard in relation to call time was relaxed in favour of quality, but the new tolerances on log in and out times were seen to re-emphasise time pressure by the staff
5.1: 2 & 5.1: 3	Some problems with the quality assessment systems in place were identified by the respondents, which were associated with accurate and fair performance representation and the subjectivity of ratings.
5.1: 4	There was a split in opinion as to whether the system could be fooled or not. The majority denied the technology itself could be fooled, but system dodges which involved manipulating the human and more crude technological elements were recognised by the respondents.
5.1: 5,6,& 9; 5.2: 7	Feedback is plentiful, with a balanced positive / negative emphasis perceived by the staff. Previous appraisal ratings were perceived to have a central tendency and thus be unfair
5.1: 8	Performance data were widely broadcast which in the main didn't present a problem to the operators.
5.1: 10	Performance statistics, although not surrounded by an air of secrecy were not completely accessible to all of the staff.
5.1: 11	The majority of respondents felt that they could challenge the information produced about their performances.
5.1: 12 & 13	Standards in relation to call times are flexible and allow for error, but a degree of concern was expressed by respondents over the newer time utilisation measurement. Production shortfalls were dealt with in a non disciplinary way.
5.1: 14	Slow system response time reported infrequently
5.2: 1	Control was achieved through co-operative means, and the data indicates a degree of perceived autonomy on the part of team leaders and some of the staff, but this is by no means universal. There was some division along the continua of hierarchy and age.
5.2: 2	Newly cross trained operators found that aspect of their jobs more demanding, as was the introduction of tolerances on time and attendance
5.2: 3	Operators perceive their jobs to be routine to a degree, and welcomed the opportunity to do other things. Team leaders emphasised the variety in their jobs.

Table 5.11: Summary of findings, case 4

is the only category concerning feedback which is filled across the cases. This category concerns the personal delivery of feedback. Considerable variation was noted. In case one, feedback was delivered both personally and via paper, with both supervisors interviewed noting that they kept a near constant dialogue with their staff. In case two, feedback was delivered only via paper, and personally if there were problems. This was also the case in case three, however, there was no fully developed qualitative feedback (i.e. appraisal) system in place at all, as opposed to case two's (admittedly flawed) appraisal system. Similarly case four's employees received feedback from the CBM system via paper, and were in the process of upgrading their appraisal system. Again, this situation corresponds with the rough templates derived from the work of Westin (1987, 1988)

Turning now to the data yielded in terms of Table 5.2, common areas concerned the questions of worker autonomy (5.2: 1), job demands (5.2: 2) and the routine nature of the work (5.2: 3). Work in all cases was self paced, although the methods by which control was achieved differed. As with other common findings, case one exhibited the most liberal, humanistic and autonomous control methods, whereas case three controlled its staff at a distance by means of statistics and coercive methods such as restrictions on log in times. Case four exhibited similar characteristics to case one, although opinion to this effect was not universal, unlike the situation in case one. Case two, alternatively was in a state of flux as regards the restrictions put upon employees by monitoring, and the more humanistic ways in which its stressful effects could be mediated.

In accordance with the predictions of Smith and Amick (1989) CBM was perceived as making the job more demanding in case two, where it was just being introduced. This finding was partially echoed in case three, where employees who were new to CBM found it to be very demanding, whereas those who had worked with the system longer were used to it. Case four also reflected this, in that time and attendance monitoring (i.e. of log in times, breaks etc.) were seen as stressors by respondents. In case one 'official' steps of job rotation had been taken to counteract the effects of working with intensive computer based technology. Accordingly, the data support Smith and Amick's assertion that the introduction of computer based monitoring technology can make the job seem more demanding.

The third and final category all cases had in common concerned the question of whether the job was perceived as routine or not. Smith and Amick (1989) predicted in their research that CBM would make a job more routine since it had the effect of 'Taylorising' jobs, but only in case three did operator - respondents report that their job was routine and 'robotic' in nature. In all other cases, whilst longer serving operators reported that they were bored in their jobs, most respondents noted that there was sufficient variety so they did not get bored. Generally, across all cases job variety increased the higher the respondents were in the hierarchy.

5.6 Conclusion

What essentially concerns this analysis is the identification of the sources of cross case variation in responses. It is not denied that the findings exhibited in this chapter echo previous research concerning CBM. Many examples have been illustrated which neatly mirror issues which have arisen in the past. Indeed, inferences can be drawn from the data which concern the possibility of future research areas (for example, the closeness of co-workers under CBM regimes).

However, the question to be asked at this stage is *why* certain issues arise in the talk of individuals in one organization as opposed to another. An analysis by category as presented above cannot attempt to answer this question. One is forced to write off the non occurrence of data in certain categories by assuming that either (a) any given issue predefined by other academic studies does not occur in the talk of respondents, rather in some other area (such as documents) or (b) any given issue is irrelevant to the respondents anyway. The data gathered on this occasion are not forthcoming in this respect.

Furthermore, the preceding analysis invites other criticisms as follows. The first point to note is the fact that the data are entered into categories. This is an interpretive act on the part of the author and indeed may not accurately reflect the views and beliefs of the respondents in any case. This points to the examination of the respondents' comments whilst still located in the context of their talk. Second, the validity of the categories could be called into question since not every category was filled in each case. A similar point was made about the categories developed by Westin (1987, 1988) where responses from one case satisfied criteria at opposite ends of the same continuum. Furthermore, the variation observed within categories brings the whole applicability of an analysis by category into question.

These criticisms thus point to a further stage of analysis which could be performed on these data. It is pertinent to note at this point the types of categories in which the variation occurs across the cases. The main body of the variation occurs in

those categories which concern feedback both in the sense of daily / weekly feedback, and the more career oriented promotion / demotion / appraisal areas. The question now is, what links these areas, and how can we take a step back from these categories into talk, and hence identify certain discourses which might explain cross case variation in perceptions of CBM systems?

In this respect we must revisit the research question which asks, what would be the main source of between case variation in the perception of CBM systems. Would it be (a) the technology; (b) the management worker relationship or (c) the organization? In the preceding analysis we already have a clue to where the answer to this question may lie. Earlier on a tentative relationship was identified between the way in which respondents related the implementation of the technology and the way in which the technology fared under Westin's criteria. Furthermore, the categories which vary the most between cases all relate to different aspects of the management - worker relationship: feedback, promotion and technology implementation.

As such, the next stage of analysis will venture into the discourse of the respondents in relation to the nature of the relationships they have with their superiors, as distinguished from talk about the organization. This will then be set against the contextual backdrop developed in this chapter: namely the cases as they stand in relation to Westin (1987, 1988) and the common categories identified across the cases which concern job characteristics and the procedure by which feedback is delivered in each case.

Chapter Six

Interpretive Repertoires and the Context of Computer Based Monitoring

6.1 Introduction

The analysis using the framework in Chapter Five yields a distinct pattern. The greatest variation between cases hinges on the management - worker relationship. Furthermore, where common categories were found between cases, between case comparisons based on the Westin (1987, 1988) model these covaried accordingly. It is precisely this variation and its source which is of interest in this thesis. To analyse these aspects takes us beyond the frameworks and structures used up to the present. This chapter aims to explore this in more detail by using discourse analysis. Discourse analysis will shed more detailed light and perhaps reveal fresh insights into the variation described above.

First, the frame of reference (the management worker relationship) will be reinforced and refined by exploring differences in the interpretive repertoires of respondents when they talk about the organization as opposed to their department and managers. It should be recalled that the research question at the end of Chapter Three asks which organizational frame of reference (the organization or the department) will be of greatest contextual influence upon respondents' reactions to CBM. The repertoires which the respondents use when speaking about these frames are therefore of central importance in the following analysis. The results of this first analysis are compared between cases.

Once the orientation to the management - worker relationship has been established, the second aim, which is to explore the language wherein the management - worker relationship is couched, will be addressed. The purpose of this stage of analysis is to illustrate the social context within which the respondents use the technology, and how it is constructed by the respondents. The repertoires which are used by the

respondents will be compared between the cases and will (1) address the variation identified in chapter five and (2) reinforce the way in which the technology is used according to the criteria of Westin. They will also indicate the subtle differences in organizational context as constructed by the respondents, which underpin the use of monitoring technology.

Accordingly this chapter is structured as follows. The first section addresses extracts of interview discourse which concern the organization, and focuses on the most salient issues for the respondents. Two interpretive repertoires also emerge from this analysis. The second section then examines the discourses surrounding the management - worker relationship, and further explores the nature of the interpretive repertoires identified in the first section.

6.2 The organization - department distinction

The discourse drawn upon to address this part of the hypothesis is extracted from responses to the final section of the interview schedule. Across all the cases, several themed categories containing discourse emerged. These were (1) discourse containing references to how the organization treats the staff; (2) discourse about what the organization would look for in a 'good' staff member; (3) discourse about what the organization would look for in a 'good' manager (4) discourse about the criteria whereby people are promoted and (5) discourse about the uniqueness of the department from the rest of the organization.

However, when selecting categories for analysis it became apparent that when between case response rates were compared across the categories, two of the categories had uneven response rates and thus did not represent a sound basis for comparison. These were categories (3) and (4) as listed above and as such they were omitted from the final analysis. Furthermore, the remaining categories were found to be mutually supportive, with the main assertions being found in category one, support for these in category two, and further elaboration found in category five. Accordingly, the next

section will examine each category on a case by case basis, and build a picture of the interpretive repertoires used by the respondents in their talk.

6.3 A note on interpretive repertoires

This analysis identifies two repertoires used by respondents in all the cases, which govern the way they explain and justify their ideas in response to the questions. The first repertoire (T1) indicates a significance in the frame of reference in the talk of the respondents. Normally this constitutes:

- an automatic orientation in the talk of the respondent to the department when they are asked to talk about the organization;
- a change in the orientation of the talk from the organizational to the departmental frame of reference accompanied by a change in the substantive nature of the talk;
- generalisations about the organization made using examples of departmental experience.

The second (T2) indicates the significance in the talk of the respondents as to whether they are making substantive or merely procedural assertions within the frame of reference. An orientation to the management - worker relationship is confirmed in two circumstances either (1) when there is an automatic focus in the talk on the management - worker relationship regardless of the question or (2) where the talk about the organization is more procedural or vague in nature compared to more substantive talk about the management worker relationship.

6.4 Category one: How the organization treats its staff

These responses were taken largely from the first question of section three of the interview schedule (see appendix 1) which asked the respondents how, in their opinion, the organization treated its staff. The purpose of this question was twofold. First to represent a contrast with the previous section of the interview which concerned the job

related issues surrounding CBM, and second, to examine which were the most salient factors to the employees in their perception of how they were treated and the organizational context wherein they were located. The findings for each case are as follows:

I: Case 1

In this case the orientation to the department, as opposed to the organization was striking, even when the organizational frame of reference was made explicit to the respondents. Respondent two (a clerk) provided a good example of this:

- 'As an organization it's just, like [company name]: it's more the department and you think more of the department'

Not every respondent was this specific, however, and the following extracts highlight how the respondents' frames of reference change when they really focus on what determines how they are treated. Beginning with respondent four (a supervisor):

- KB: So how does the organization treat its staff in your opinion?
R4: I would say it treats them really well
KB: Would you like to expand on that, in that sense?
R4: Especially in our department they look after you

The salient aspect of this quote is the change in the respondents talk about the organization to the department, when they were pressed on how they were treated. Later on in the interview however this respondent noted certain benefits from the organization which, when compared with other responses are substantive in nature:

- '...they're good towards helping you with your mortgage and stuff and I'd say they were good with the counselling side of it as well if you got into trouble with it with your debts and stuff. I think there's a special section in head office personnel that actually would help staff members, whereas most banks would say "right, on yer bike"'

This response was the only one out of two responses elicited which acknowledged some level of personal care on the part of the organization (i.e. head office personnel) towards the staff (the other response being in case four). The next extract

from respondent five also highlights the point made in the last but one quote: that of the salience of the department, rather than the organization in the perceptions of the respondent:

- 'I mean it's a little bit difficult to compare totally but it seems very well organized, but it is the scale of the thing it's such a large...you've got organizations within organizations because it's so large...Erm, depending on your management within your department, you could just become a number in such a large organization. It's not like a small place where you know the boss and his wife comes in to meet you it's not like that as much. But it can be like that within your department so you're like working within an organization within an organization.'

Here again the respondent notes in a change of the frame of reference from the organization to the department, the importance of the management worker relationship. Also, a device emerges whereby respondents not only distinguish their department from the organization but also from other departments. This is also seen in respondent seven's (a supervisor) answer, which again notes the personal relationship as a driving force behind work motivation:

- 'I think now as a department we are very very lucky. We have a very very good set of managers, erm, not just assistant manager, but right up to control level. We've just had a change there as well. Erm and I think we're very very lucky. We are talked about in other departments...I know other departments within the [company] where I would not work for toffee, because their structure...I know the people. Once you go up a level you actually learn things about people in other areas and there are certain people I would never work for.'

Thus, for the responses selected from case one, there seems to be an undoubted emphasis on (1) the department as the frame of reference which contains the most important cues to the respondents as to how they are treated (i.e. T1) and (2) the nature of the interpersonal relationships rather than any job related perks which is the mediator of this (i.e. T2 substantive). The following cases, as we examine them will reveal that there is indeed this departmental frame of reference. Furthermore there is rich variation in the substance of the management worker relationships which will be examined in more detail in the last half of this chapter, and related back to technology use.

II: Case 2.

In case two the responses were more varied and exhibited more ambiguity than in case one. This could be associated with two factors: the size of the second case organization, having fewer divisions than case one; or the respondents, as the department investigated was one of the oldest in the organization and some respondents had been there from the start, whereas some were very new. However, on close inspection the same two interpretive repertoires are used (1) to distinguish between the respondents' departmental and organizational contexts and (2) to emphasise the importance of the departmental context. Often respondents contextualised their talk with a non specific 'they'. However, in this instance the occurrence of more 'procedural' language within an organizational frame of reference can be illustrated, as well as more negative comments about the distance between 'the organization' and the people who work for it.

The first respondent, a team leader, notes how treating people as individuals helps. Two linguistic devices can be illustrated here. First, the way the respondent contrasts her own department with another where people were described as 'resources'; and second, the emphasis on her own frame of reference (i.e. the department) as being more acceptable because of the manager becoming more of a 'people person'.

- '...well it was something I heard, I can remember a while back that somebody...I can't remember how he said now..."bring in your resources" he said. It was somebody from another department actually "what resources have you got?". "What do you mean by resources?" I said, "equipment?". I knew very well what he meant: people. Why didn't he just say people? Referring to people like that. To me people don't want to be treated like that, like a machine or a number. You get more respect and more loyalty if you treat them as an individual, and I don't think at the moment...I think [manager] is going more that way...Yeah I think he's becoming a people person, erm, but a lot of them, not just in here but in other departments I know'

Another example of the organization appearing to be distant and tokenist is found in respondents two, a supervisor's, talk. Unlike respondents in case one, this respondent notes that there is a relationship between the individual and the organization which was becoming dysfunctional:

- 'I mean [case two] gave us a bonus one year and I think that was the worst thing they could have done because everybody expected it the year after...but the company that I worked for that gave bonuses didn't just stop it and say "right we haven't made enough money or profit" they would say "profits are not as much this year, but you still get our bonus, but it will be reduced" but you still got something. [This company] gave it to us one year and we've never had it since and people expected it the year after.'

Again, this shows the device of comparison which the respondent uses to illustrate the example of the poor nature of the relationship between the individual and the organization. It thus shows what the respondent perceives to be the empty, procedural nature of the relationship. As was discussed in section 6.3, here is illustrated an organizational frame of reference (T1org.) punctuated with language which has negative and procedural characteristics (i.e. T2 proc.) and this one would expect the more immediate interpersonal departmental situation to be more salient for this respondent. Another comment from respondent nine, an agent, also noted this distance:

- 'This sounds like I want money all the time but the wages aren't particularly high. At Christmas you don't get any kind of bonus where I go to most of my friends and they've had some kind of bonus, whether it's just a small present or money. You know, then you feel better about, you think you are really appreciated. I don't think you are appreciated here and because it's so big they can't come in and say to each person "thanks for coming to work". You don't feel appreciated. But there's some benefits, like you get your concessions and your medical or whatever...your pensions...they're quite good in that way.'

This statement echoed the sentiments of many of the longer serving respondents who note the progressive distancing of the organization from its staff and the corresponding increase in feelings of disaffectedness amongst the staff.

For respondent three, an agent, the use of a non specific 'they' eventually refers to the department although this is not clear at first:

- 'I mean some people say that you come to a big organization you're just a nobody, because you're one of the hundreds...I've been in places where they've like messed my wages about, and I just feel that everything here's organized. They're doing everything right...if there's a problem they'll look into it. You just have to tell your supervisor and it will happen.'

Here again we can see the respondent refer in the organizational frame to the superior procedures, but the supervisorial relationship, within the departmental frame is the mediator, and hence the most relevant thing for this respondent. Also note that in the

last sentence when substantive 'action' is required, the frame of reference shifts from that of the organization to that of the department.

Several other respondents also note the basic provisions on behalf of the staff by the organization, but also noted that much improvement was needed. In the words of respondent thirteen, the assistant manager:

- 'I mean I have to say that personnel a few years ago was like a joke really, you know I mean it wasn't personnel, they weren't really bothered as such, but I really genuinely believe they are now. And if you really have got a problem or...I think they are genuinely trying to look after the staff, you know, bringing things on. I think there's a long way to go, and I think in...if...I think the company only realised that just little things go such a long way with the staff.'

The latter half of this chapter will show how the management worker relationship in case two is far more salient than the organization to the respondents therein. In the case of talk about the organization, the repertoires used indicate that (1) the respondents readily distinguish between the departmental and organizational frames of reference; (2) in doing so, they recognise the organization's progressive distancing from the staff, as well as its mere procedural intervention in their organizational lives (i.e. a T1 organizational reference accompanied by a T2 procedural one).

III: Case 3

In respect of discourse about the organization case three is unique because it should be recalled that half of the respondents worked for an agency within the organization, and half of them worked for the actual organization. Furthermore, case organization employees were occupied assistant supervisory and supervisory positions in the hierarchy, whereas agency staff were mere operators (i.e. grade ones) in all but one instance. Accordingly, one would expect that there were differences in the way agency and bank staff talk about the organization. However, we shall see that first of all, agency staff echo the views of bank staff in some respects, and second, because of this difference, 'the organization' for agency staff becomes synonymous with the departmental

management, hence reinforcing the salience of the management - worker relationship over the organization in relation to the practice of computer based monitoring.

Therefore, first we shall examine the discourse of the bank staff when they were speaking about the organization. Like case two, elements of tokenism are reported, or more procedural based talk in the organizational frame of reference (i.e. T1org. with T2proc.) of the talk of this supervisor (respondent two):

- 'Well the bank as a whole like to think it's a caring company but then [inaudible] because of the situation we're in, with the wind down situation, and the fact that there doesn't seem to be any local jobs in the area. OK they're saying they are concerned for us and we have all these job adverts coming through every week, but there's nothing in the Birmingham area, it doesn't seem to be worthwhile. OK it's stressed that we should remain cost effective, and erm, we hear it from the horses mouth that this building is too expensive so they will not bring work into it, so I mean, it's not our decision to have moved into the premises initially.'

Another supervisor (respondent five) also exhibited these repertoires in interaction: a T2 procedural reference at T1 organizational level when she was describing the way the organization treated its staff:

- 'they have been doing a lot for their staff - they've been - they've said there's a lot of courses, you can go to conferences, making staff aware of business style and how it will help you. Not that it helps everyone, it helps certain people. But I think they could do a lot more for their staff, I really do because to me...I know that profits are the most important part of a business, you want to make profits. But I think you can make better profits if you look after your staff in a better way.'

It is argued that both of the above extracts exhibit the same discursive characteristics. Both pertain to the distance of the organization from its staff, and how the relationship between the two is governed by impersonal, procedurally - based characteristics such as 'profits' or 'cost effectiveness' (i.e. T1 org. with T2 proc.). In both cases distinction is drawn between what the organization 'says' it is going to do, and what it actually does given the aforementioned procedural constraints. The first extract in particular notes a certain degree of 'powerlessness' experienced by the staff as a result of organizational level decision making. Like case two, then, from these extracts we can also see a distant, dysfunctional and tokenistic relationship between the organization and its staff as shown in the discourse of these respondents.

In contrast, for the agency staff the 'organization' is not just distant, it is almost non-existent. Like some of the respondents in case one, the following case three respondents automatically focus their talk at departmental level when asked about the organization, whereas others echo the sentiments of bank staff as well.

The following three respondents, all agency staff and operators, display the same characteristics in their talk:

- 'Mmm, responsibility that you get is not very good. The job you do, I mean you can't have that much responsibility if you're sitting down keying in vouchers, but I don't know, they treat you a little bit like children for some unknown reason, they don't treat you as adults, and you know some of us are at college you know, but they just treat you like children. Like you're there to do this job for seven hours, you'll just have to sit there and do it.'
- 'In general they're not bothered about you, all they're concerned with at the end is the figures at the bottom of the stats sheet and that's all they're bothered about. they're not bothered about whether you're enjoying your job, whether you're happy....'
- 'Well I'd say you're treated as a number quite a lot of the time. Again it depends what you do I mean there's so many VDU operators and there's so many leaving and starting and you can't expect everybody to know everybody else's name so unless you do another type of job like into a batcher than I think you are treated as a number.'

Notwithstanding the derisory comments made by these respondents about the management - worker relationship, the automatic focus of the discourses on the department, as opposed to the organization is very marked. Furthermore, one other agency employee notes that bank staff hold similar views:

- 'Yeah I mean sometimes I don't know the ins and outs because I don't get involved in all the [bank] stuff, but there have been people who do moan often downstairs saying that there is no loyalty regardless of the services what you do - you're just treated like a number like when you've finished or moved there is no regard for your commitment or service.'

Thus, in case three, it has been shown that for the operators whose discourse we have explored here, the organization becomes anonymous, and the frame of reference for their analysis is that of the department (it T2dept.). This contrasts with bank staff whose perception of the organization is one which is distant, and thus distinct from their departmental context, and whose influence merely stretched to the more procedural aspects of work in a tokenistic way.

IV: Case 4

In common with all but case one, the discourse of the respondents in this case varied between two combinations of the identified interpretive repertoires. In some instances, respondents referred to the organization but in a distant way, and in others an automatic focus on the departmental situation occurred when a question about the organization was asked. However, in general respondents distinguished the organization from the department, and unlike cases two and three, were positive about the nonetheless distant, procedurally based relationship between the organization and its staff.

The following extract from respondent two, an operator, perfectly illustrates the last point. It also illustrates the device of comparison used by respondents in other cases. In response to 'how does the organization treat its staff', this respondent (an operator) notes:

- R2: Quite good actually. Not too bad. I've been in companies that are worse
K: In what sense worse?
R2: I don't know. I'm trying to think of an instance now. You work all the hours God sends so to speak, and then they'll say "Oh we're going to cut the hours" not just cut the wages, they'd just come back and say it. There's not discussion or anything and you feel you've put all into that company and they're going to stop the night allowance or something. But generally I think that has happened here but I think there's been people complain about it because they weren't notified and they don't think it's fair, and they've had it given back or whatever. So they do I think look into trying to keep the employees happy without bending backwards, you know what I mean?

Here we can see several features of the organization which affect this respondent. First, the fact that it is reportedly more democratic than another company the respondent has worked for is significant, yet the final sentence still contains elements of the distanced tokenism reported in other cases. Furthermore, it is noteworthy that this respondent chooses an example of the organization affecting a procedural (i.e. hours and wages) aspect of work, rather than a substantive (for example counselling, as in case one, respondent four) aspect. As such, in this instance we have a T1 organizational reference accompanied by a T2 procedural one in the case of talk about the organization.

A further discursive feature of the extracts from this case is that respondents made generalisations about their employer based on examples taken from the departmental frame of reference. The following examples (from respondents five, a senior service operator and eight, a team manager) illustrate this.

- 'Very good, very good. I don't know sort of what goes on in the other building but generally from what I've seen I can only take it from a personal point of view how they treat people on the floor next door and I think it's very good. They seem to as I say communicate well and in terms of benefits, there's a lot of benefits attached to the salaries. Discipline isn't as strong as it is in other companies so they are quite flexible in a lot of things. And generally they are not only just seen but they do appear to help people that need help. Other companies seem to be helping but they don't. And they're very good in that respect. It's possibly the best company I've worked for whereby they do listen to you and take note.'
- '...sometimes it depends on who you work for as well...I mean some people are more people orientated than others. If you are working for a people orientated manager then I believe the staff are treated better. If you're working for someone that is not a person, you know, is really just looking at the figures and the facts then you're probably going to say no it doesn't. But I think on the whole I would say yes [case four] treats its staff quite well.'

Again this can be seen to match the patterns of findings across the cases which demonstrate the idea that 'the organization' is a peripheral concept in the interpretive repertoires used by the respondents, and its 'actions' are mediated by the respondent's departmental environments. In both of the above extracts the initial focus of the talk is on departmental experience (i.e. T1dept.) drawing upon examples which are substantive in nature, yet the talk becomes more 'vague' when the frame of reference broadens to that of the organization. The first extract in particular can be contrasted with extracts in case three from respondents two and five, who note that their organization appears to be helping the staff but in fact is not. There is thus some interesting substantive variation between these two organizations which will be examined further in the next two sections.

Acknowledgement of the distant but positive nature of the relationship between case four and its staff featured in the discourse of respondent ten, an operator. He again used a comparative technique to make the point:

- 'If you're realistic, I mean like our ex CEO, I mean he'd like buy and sell everyone that works in this building [inaudible] I mean the guy doesn't really care whether I've got like pride in my work or anything as long as the company's doing well because he's like a majority shareholder or whatever. But if that was the case, like at [old

employer] if that is still the case and there are still these like big bods on the board, but they didn't even pretend to care, they didn't even take the time to sort of put their signature at the bottom of the pieces of paper bring photocopied, it was almost like "well we can't be seen to be associated with the minions"

By inference this respondent notes a difference in the distance between an old employer who 'didn't even pretend to care' and the old CEO who presumably appeared to care even if they were only pretending. It is thus possible to conclude that in this case, at the T1org. level, although distance and tokenism appears in the discourse of the respondents (i.e. a T2proc) here and in case one, it is not seen in a negative light by the respondents, unlike cases two and three. The questions to be posed for the proceeding sections is thus: 'Given these patterns, is there anything else in extracts of discourse about the organization which support this?'. Furthermore, for the second half of this chapter the question is whether there is a similar pattern in the substance of the management worker relationships as expounded by the extracts of discourse, and which, out of the discourse on the organization and that on the management worker relationship, affects the between case variation in the use of computer based monitoring technology the most.

6.5 Category two: A 'good member of staff'

This category emerged from a question posed to the respondents of similar wording. The question's purpose was to again, invite the respondents to distinguish between themselves, their managers and the organization. The question was phrased thus: 'What, in the organization's view, would you say was a good staff member?' However, in certain interviews, respondents had already noted the existence of a hypothetical 'company person', in which case they were asked to describe their characteristics of the individual.

In terms of the objective of determining the frame of reference for this study what is of interest in the responses in this category is whether the respondents describe the 'ideal staff member' in terms of the department's and job's characteristics (i.e. T1dept. and T2subst.) or in terms of the broader organizational 'rule following' type characteristics

(i.e. T1org. and T2proc.) In relation to repertoires the area of interest lies in the way the respondents justify the differences between the organization and the department, if indeed they make this distinction. This will support the findings outlined in the last section, and thus reinforce the assertion that the source of inter firm differences in the way in which computer based monitoring is used lies in the realm of the departmental context, in other words, the management - worker relationship.

I: Case 1

The responses in this category support the assertion that for this case, the relevant frame of reference is the department. Two of the respondents were very specific about this: respondent ten (the manager) and respondent eight (a senior clerk). Beginning with respondent ten, who will be revealed later as being the orchestrator of change within the department being investigated:

- 'Well the organization will want somebody who erm is probably very bland - who doesn't deviate from their basic description of the job. What happened was a few years ago the lot from control from head office and everything is written down so people work like robots.'

The manager then continued to describe the decidedly 'un - robotic' qualities he would look for in his ideal staff member. Similarly respondent eight noted at the beginning of their response:

- 'I would say we're not typical building society employees'

There is initially an automatic focus on the department, and an explicit distinction between the department and the organization (i.e. a T1dept.). When some of the other respondents' comments are examined, the basis for this distinction becomes clear, with their emphasis on more substantive aspects of the work process. Respondent three (a senior clerk) and respondent nine (a clerk) note these characteristics:

- 'It depends on the section you're in I think, but certainly where I've worked it's very much the team orientation, er working for each other, getting the trust of your staff and your colleagues and they'll help you when you help them'

- 'I don't think they're trying to make everyone into a computer but they're looking for someone who's well presentable, well mannered, outgoing. Somebody who'll, I don't know, someone who fits into a team, not an individual, somebody who can work in a team (right OK) and somebody who can basically enjoy themselves, enjoy what he does, who's not doing it just for the sake of doing it'

The first extract in particular again highlights the departmental orientation in the first section. Furthermore, within that frame of reference, issues such as 'trust' and 'co-operation' arise. Whilst the second quote is unspecific about the frame of reference, these human values of teamwork, and in the last sentence, a hint of commitment are suggested. This is echoed by respondent four (a supervisor), who also notes the mutuality of the relationship between management and workers, which will be covered in more detail later in this chapter:

- 'So long as you're committed to them, erm you know, do a good customer service and come in every day and put your best into it, they're happy with you I think'

Again, there is no specific frame of reference indicated in this extract, however, in common with the talk of respondent nine, above, the characteristics of a 'good member of staff' are job specific, and are arguably within the realm of the departmental, rather than the organizational frame of reference (T1dept and T2subst as opposed to T1org. and T2proc.) Finally this frame of reference is further illustrated in the talk of the first respondent, the assistant manager:

- 'Obviously the ideal person's going to collect the most money per month, make the most arrangements and deal with the most accounts per hour as possible'

The 'quantity' as opposed to 'interpersonal interaction' based discourse in this extract will be explored later, however. Nevertheless, the above extracts establish how the respondents in this case define a 'good member of staff' in terms of (1) the departmental, as opposed to organizational frame of reference and (2) substantive interaction - based themes within the talk.

II Case 2

Likewise for case two, in category two there is significant similarity between those responses elicited with category one responses. Responses in the discourse varied between 'unquestioning loyalty', a characteristic of the procedural repertoire, through to 'personal development and knowledge acquisition', characteristics of the substantive repertoire. All responses, however, reinforce the focal point of this study as the department, particularly in view of the fact that it represents the main source of between case variation.

In a similar vein to case one, more procedural themes within the talk of respondents occurred when the talk related to the organizational frame of reference, for example, respondent one, a team leader noted:

- 'I feel as though I am loyal to the company even though I might not always agree with what they are doing I'm loyal to the company, to the fact that they pay my wages and I know that shouldn't be the be all and end all at the end of it, erm, but it wouldn't bother me, you know, if I've got to get a job done I'll stay and do it.'

Even this extract of talk which begins in the organizational frame of reference (T1org.) with a distinct emphasis on (1) unquestioning loyalty and (2) remuneration (i.e. T2 proc), the final phrase represents a referential shift to the department (T1dept.). Interestingly, however, unlike case one, the thematic content of the language changes very little in the statement 'if I've got to get a job done I'll stay and do it'. This is an interesting contrast with case one, respondent nine who notes that an ideal staff member would be someone who 'enjoys what he does, who's not just doing it for the sake of doing it'.

This sentiment is echoed by respondent five, an agent, who uses the procedural repertoire when speaking about the management - worker relationship as well. In describing the characteristics of a 'good staff member' this respondent, whilst reinforcing the study's focus, also highlights the degree of between case variation in the departmental situations. More importantly however, note how the respondent's talk automatically focuses on the characteristics of the job rather than any organizational reference.

- 'Someone who knows what they're doing of course, who will do the job efficiently without asking too many questions. Um...er...somebody who doesn't crawl around the management...'

Again we can contrast this with case one, respondent ten, whose ideal 'organizational employee' would be someone with robot - like qualities, which was sharply contrasted with the department's ideal. Respondent twelve, an agent, reinforces the use of a procedural repertoire in relation to this question since, whilst focusing on the immediate job situation, they question the amount of commitment required to be competent:

- 'Well I don't know really, what they want from us. I wouldn't say you have to be dedicated, I'd be lying really. I believe that some people really are and some people really aren't any more. Either they've been here to long or they haven't been here long enough.'

Respondent six, an agent, also uses the procedural repertoire when describing the work context:

- 'Just hitting the deadline that they give you for the phones, in this department anyway because that's all that matters. The call ratio. As long as they're seen answering 90 calls a day it doesn't matter what else you're doing as long as you're telling the travel agents and clients the correct information and they're not getting any sort of travel agents ringing back and bad mouthing that member of staff. Apart from at the minute doing this pay scheme whereby people who are starting now won't be paid as much as the people who've been here a few more years. So knowledge of the company and of the systems comes into it a bit'

The most important thing to note is that again, within the departmental reference (T1dept) the procedural repertoire is used automatically when the respondent is speaking about the 'good staff member'. A further point to note is that, for this respondent, the use of the substantive repertoire in relation to of work such as 'knowledge of the company and of the systems' is underpinned by the procedural feature of wages. The only respondent not to use the procedural repertoire when asked this question was respondent eleven (an agent) who commented thus:

- 'If they like you and if they think you are going to be good at the job they will take you on. If they don't feel you're going to come up to scratch they won't. But I think it's more personal wise - the way you act, the way you dress, your willingness to learn and listen to what people are saying to you is what actually people do look for here.'

As such, the responses in case two for category two support the situation which was revealed by category one: that the departmental frame of reference is more salient as regards respondents' accounts of their work experiences, and that the procedural repertoire also translates as a viable interpretive mechanism to the departmental frame of reference for some. The ambiguity reported in category one is also thus reinforced.

III: Case 3

For responses in category one the discourse of the respondents in case three contained themes which suggested the organization was either (1) distant and tokenistic or (2) non-existent to them, depending on whether the respondent worked for the case organization or the agency. The responses in this category mirror this to some extent, but like case two, the procedural repertoire is used at departmental level as well, with one exception. More importantly, however, is the point which also began the analysis in this category for case two, and that is the theme of 'unquestioning loyalty to the organization' which occurred in three instances in this case. In answering the question of what the organization would look for in a good staff member respondents two (a supervisor), four (agency operator) and five (a supervisor) all commented as follows:

- 'Well it has to be loyalty doesn't it - loyalty to the company, conscientious. I think people think, like to think, every day they do a good job and they would like some recognition that they do a good job, so basically that's part of my job isn't it, to tell people'
- 'Well eats and lives company like [employee name]. He is, he'll do anything, anything he's asked to, and he won't moan about it. Now I'm the opposite: if there's something I don't like doing or I've got a problem with it I'll open my mouth about it. But erm it's difficult to say...'
- 'I think they'd look for a degree of loyalty, and someone who's got the business's interests at heart'

Despite the common theme of loyalty i.e. (T1org.; T2proc.) within the organizational frame of reference, the first two quotes, in common with the responses for case four in category one select examples from the departmental frame of reference to make generalisations to the organizational one. Furthermore, the second quote in

particular notes the 'unquestioning' nature of the loyalty of the individual being described, and this aspect of the procedural repertoire is linked to the other following themes which arise in the responses. First, respondent seven, an agency operator notes:

- 'Bottom line, stats, that's all they want. You see since I've been here and then they go, good few months, six months now, got to up your stats, they've got to go up. I mean they expect you to do over 100%, well surely 100% is good enough but you've got to do over. That's all, keying in, stats.'

Not only does this extract show a procedural focus in the discourse at departmental level, it also demonstrates that there is, for this agency employee, no perception of 'organization'. The management - worker relationship was the first focus of the talk when this respondent was describing the 'ideal employee'. More humanistic themes arose in the talk of two other respondents, but were used to illustrate different points. The first respondent (six - an agency operator) noted that a 'good staff member' would be someone who:

- '...warmed as they worked efficiently. [inaudible] if you've got to work with someone all day long, all week long then you have to be able to get along with them. So if they're friendly as well as efficient that helps things a lot'

The next respondent notes that there is a lack of understanding in the management - worker relationship:

- 'Somebody you can talk to, somebody who's not [inaudible] somebody that makes allowances when you have a bad day because managers can have a bad day too. They're bound to have a bad day but nobody says to them 'what happened yesterday?' you know. So I just think they should lay off when somebody has a bad day, maybe one bad day out of one week. Why bother bringing it up? They know themselves they've had a bad day why not just let it go and think well there's something wrong'

Although these points will be covered in more detail later, the main thing to note from all these responses is, as with the other cases, that the focus for this category, despite being derived from a question which forced the organizational frame of reference on the respondents, is the department, and hence reinforces the findings in category one.

IV: Case 4

As in category one, references to the organization in the responses elicited for case four were positive, and made use of the substantive repertoire. Similarly, in responding to a question wherein the organizational frame of reference was forced some of the respondents appeared to distinguish between the organization and department in their talk, however most oriented their talk to the department automatically.

For the respondents who began talking about the organization, an interesting contrast arose with cases two and three. Whilst the respondents in the latter spoke of 'loyalty', respondents in this case spoke exclusively of 'commitment'. This, incidentally, is a culturally significant distinction also drawn by Harrison (1972). A further point to note about the following extracts is that the respondents all draw upon their departmental experiences to make a generalisation about the organization, as with the other cases. Respondent one (an operator) speaks thus:

- 'I think people who work for the company are committed to the company although we do tend to have a quick row of youngsters leaving I think they do want to perform for the company'

Respondent three (a team manager) extends this idea by referring to himself as the 'good staff member':

- KB: So what would you say in the organization's view was a good member of staff?
R3: Me
KB: You. And how would you say, how would you break that down?
R3: Total commitment, flexibility I think particularly in the last twelve months that's really what the company is looking for. They're not looking for people to stay in their own little comfort zones. So the flexibility, with the flexibility must come multi skilling and that really is something from a job satisfaction point of view that I think the operators are looking for as well.

A similar response was given by respondent eight (a team manager), whose talk contained mixed references to the department and the organization:

- 'I think there are a number of characteristics that you look for: flexibility, I think you need to have the ability to pick things up relatively quickly. It's a fast changing business and you've got to go with that so you're looking for people that are not afraid of change. I think that there are a few characteristics there that people look for. Yes I think you need to be personable, you need to get on well with your colleagues and

that sort of thing. Perhaps if you look at someone and think "well I don't think this person would fit in" you know they might have all the certificates in the world but if you really don't think they're going to fit in there's a lot of time and money to invest in training them up and taking them on board etc.'

The only respondent (ten, an operator) throughout the entire study whose response to this category exclusively remained within the organizational frame of reference also echoed the 'commitment' theme described above:

- 'Someone who's committed to the company first and foremost, I mean a lot of people sing [case four's] praises when they're at a dinner party and someone else is going "oh yeh [case four]" they want someone who's going to stick up for them in that situation. They like that sort of, they like the standard bearers for their products and the market sort of share, the quality of the service, that's like the key issue throughout the whole bank world-wide.'

Of those responses which automatically oriented themselves to the departmental frame of reference, all of them employed the substantive repertoire (T1dept. and T2subst.) pertaining to more humanistic sides of work. First, respondent four (an operator) notes that a 'good staff member' is:

- 'Someone that cares, it's got to be friendliness because we're so friendly to each other and you've got to be friendly with your customers, so that must be it. Someone with a bit of grin about them. Someone with a smile is what they look for and then the rest will follow on. They train you to do what they want you to do. The training's very good without being "ram it down your throat this is what you must do". You can express yourselves in your own way with doing what they want you to do. It is very good.'

Similarly respondent six (a senior service operator) also notes the 'creative' side of work within the department:

- 'They look for somebody that comes in and gets on with the job that they're paid to do but also use their initiative to do other things that's not asked of them'

Thus in case four, there are sufficient grounds in the discourse examined to support the assertion made in category one that the focus of the study should be the departmental, as opposed to the organizational context. Responses examined either (1) drew upon departmental experiences to draw inferences about the organization or (2) automatically focused on the departmental frame of reference.

Overall for this category a similar conclusion can be drawn to that of category one: the focus of the study should be on the departmental context (or, in the words of the

hypothesis, the management - worker relationship). Discourse analysis has revealed that the interpretive repertoires used by the respondents result in a focusing of the talk either automatically or by inference on the department, thus confirming the salience of that frame of reference over and above that of the organization when the respondents are talking about their work experiences. It is also notable that when respondents talk about the organization, they do so via the context of the department. In virtually all cases, both are described rather than solely the organization.

6.6 Category three: The uniqueness of the department from the rest of the organization

At this point the analysis begins to narrow its focus onto the departmental frame of reference, and as such this category of responses serves two purposes. Its first aim is to refine the conclusions drawn from the past two categories, thus emphasising the organization - department distinction and its discursive basis. The second aim is to provide a platform for the second phase of analysis in this chapter: it will hint at the nature of discursive bases of the management - worker relationships across the four case organizations.

The question from which the category was derived asked the respondents about the basis on which they would say their department was unique from the rest of the organization. It thus explicitly forced the respondents to distinguish between their department and the organization and as such the following analysis describes the parameters along which the respondents believed their department to differ. However, it is interesting that in common with other categories, some case three respondents perceived there to be no difference, and the basis for this will also be explained.

I: Case 1

Respondents in case one almost exclusively attributed the perceived uniqueness of their department to substantive factors associated with the management - worker relationship, and with management style in particular. This had a number of facets. First those respondents who simply stated 'management style'; second, those who noted the motivational approach of the management in particular, and those who noted the relaxed and happy atmosphere within the department as compared to others in the organization as created / engendered by the manager. The manager himself also pointed out that he had made a conscious decision to run the department in a different way from others in the organization. This involved, amongst other things him encouraging his staff to challenge rules rather than simply follow them. This is highlighted by the next extract.

Beginning with the departmental manager (respondent ten) when speaking about the new CEO of the whole organization:

- 'I'm hoping that he actually works in a similar way to we do in that you empower people, people start throwing out ideas and actually managing themselves and that's worked, we think very well in our area but I don't see that in other areas in the building society; but erm, if I'm saying to somebody "why aren't you doing this?" and they'll say "well that's the rule" whereas every rule we seem to come across which is wrong we question it, er, it gets kicked out.'

As in category one this substantive, department oriented discourse focuses on the more 'creative' and 'substantive' aspects of work, rather than the 'procedural' ones. The following two extracts (respondent one, the assistant manager, and respondent five a clerk) also note this uniqueness of management style:

- 'You know you'd hear people purposefully walking through the floor because it would give them a lift, just the environment, which, well you could attribute it all to [the manager]. I think a lot of it has to do with him in that he promotes having fun but he also promotes working hard as well.'
- 'Erm I wonder what it is that does it. The atmosphere, but I don't know what causes it. It's just a happy work hard play hard atmosphere (right) As long as you pull your weight and work hard, they'll stick up for you if needs be - do you know what I mean? I don't know how that's created - it must be the management style'

It is significant that despite their hierarchical distance each of these respondents' discourse contains the same thematic ideas which are part of the T2subst. repertoire: the

idea of mutuality ('work hard / play hard') and the 'atmosphere' or 'environment' being positive. This also features in the discourse of respondent six (a senior clerk) thus:

- 'I think it's a happy department. [The manager] is bubbly, he's outgoing, he joins in, all the team leaders are bubbly, outgoing and join in with everything. The staff that are coming through and getting on are all of a similar temperament and I think it filters through to the staff and as a result I think that everybody on the department from new starters starting, feel relaxed in that sort of atmosphere. I think you've got to do so really because it could be fairly tense.'

Furthermore, respondent eight (a senior clerk) notes that in comparison to other departments:

- 'I can't speak from experience because I've only been in this department, but I just, sort of get the impression from other departments that they're all fairly stern, boring'

It seems clear from these responses that the linguistic basis of the difference between case one department and its parent organization is the 'happy atmosphere' and a value of 'work hard play hard' which is reported to essentially emanate from management. Accordingly, it has been established that the management - worker relationship is the vital to the context of work in this case. This will be explored in more detail in the latter half of this chapter.

II: Case 2

Unlike case one, in response to this question respondents distinguished their department on much more 'rational' grounds than the atmospherically related discourses of the former. In many extracts the respondents justified the difference purely on grounds of function and work content (in other words they used the procedural repertoire). Another difference noted was the comradeship levels (they were reported as being much higher) and this was related to the 'atmosphere' as being 'less formal' and more 'vital' than the rest of the organization. First of all however, note in this lengthy extract how, despite probing for statements about 'atmosphere' the respondent (five, an agent) emphasises that the only difference is noise levels and function:

- KB: What makes it different from the rest of [the company] and other departments?

R5: As far as customer services is concerned it's not different to them because we're all doing the same job more or less. It makes a lot of difference if you asked me what accounts were like compared to reservations

KB: Yeah it's a different function. There's a lot of difference

R5: Yeah, yeah.

KB: Atmospherically is there any difference?

R5: Well I mean the thing is as I say I mean people like me, know what I mean [inaudible] deathly silence like, know what I mean? So you can't like talk to them. You get that anywhere don't you really like?

KB: Pretty much

R5: Everywhere. You know you get on with your job and not get involved.

Furthermore, two of the respondents distinguished the department from the organization on negative grounds, one even mentioning monitoring as a contributing factor. The first, however, (respondent one, a team leader) notes the unique personal characteristics needed to tolerate working in the department, whilst the second notes the more stringent management style (respondent six, an agent)

- 'I think you've got to be unique to work in there, as you get a lot of carache. You've got to be a certain type of person'
- 'Yeah I'd say so. There's got to be something because everybody that's experienced in other departments have said that Res. are the worst, well, Res. with Customer Services whether that's the sitting down or the constant monitoring, I don't know. But the jobs involved set targets and they're given a time in which to do that. There's no one looking over their shoulder every five minutes to see what they're doing.'

The responses listed so far indicate that the respondents have grounds to distinguish their department from the organization, but so far only by using a negatively focused procedural repertoire. In common with responses in other categories, however, two of the respondents noted positive substantive grounds for discriminating their situation from those in other departments. Respondent three, an agent noted the 'informality', and again, the noise levels as being different:

- 'A lot less formal than the rest of the organization. It's more easy going - just the atmosphere. I know I walk through some departments and you think "Oh God it's so quiet"...it's so noisy in here it's a lot less formal.'

Unlike those in case one, this respondent appears to refer to the 'physical' atmosphere, rather than the 'happy' psychological atmosphere described in the former. This is reinforced by respondent seven:

- 'I don't know about unique. When I go through some of them. and there's no vitality, no...there's more going on here. Some of the areas you go through they look like they're all falling asleep. Erm but I don't know what makes it unique. The people in it I suppose, they're a real mixed bunch. They definitely are that.'

In the last quote there is the first reference to a person - based (i.e. substantive) distinction. Another example of this arose, but only as a peripheral comment following one on function, and even then it was linked in to a comment about the job process. Respondent four (an agent) noted:

- 'I think according to the mission statement you know, that's what I've said this is the nerve centre according to that, what the company's aims are and the service it provides. I would also say that what sets this department apart is like the comradeship. You've always got somebody there to ask'

Despite the mixed responses to this category, responses on the whole tend to err towards a procedural repertoire, although the respondents do see differences between their department and others in the organization. For the purposes of the next stage of analysis, however, the pertinent question is this: 'Is there anything uniquely procedural about the management - worker relationship and social context within the department which makes the respondents automatically focus their attention on the more physical, procedural aspects of work rather than the humanistic, interactive ones?'

III: Case 3

The responses in this category for this case were more pointedly procedural in the departmental context than case two. Distinctions drawn by the operators were entirely based on functional, procedural aspects of the work, and even an element of the 'ask no questions' idea identified in category two occurred in the responses of one of the agency employees. Of the following three responses the last two are bank staff, and the first an agency grade 2. Of the bank staff, the first comment was made by a supervisor, and the second by an assistant supervisor. Beginning with respondent one (grade 2, agency) it is apparent that these respondents only see their department being distinct on procedural grounds, unlike case one.

- KB: Any unique characteristic of the department that you wouldn't get elsewhere in the company?
R1: Not as far as I know
- 'We're the only processing area, and the only area in a wind down situation'
- 'I just suppose the volume of work we put through on a daily basis'

In common with respondent six in case two, one response (six - an operator) noted, again in a functional, negative sense, that the one thing which set the department aside from the rest of the organization was the stringency of the monitoring. Likewise this respondent also contrasted monitoring statistics with less stringent sales targets:

- 'I don't know, probably the stats again. I don't know if other departments in the organization have stats. They probably have targets, sales targets but I don't think they have stats.'

According to one of the agency staff (respondent four), both the bank and agency staff are equally non-plussed as to their department's function as regards the rest of the organization, and the response seems to indicate an overall procedural emphasis in the department emanating from the management:

- 'All I know is that it's [case three company name] and we're processing the public's vouchers. That's as far as I know. You see I asked people and they don't seem to know themselves - the [case three] staff so unless I ask one of the managers - and he'd think I was a bit weird asking him questions like that. You know "you're only a temp, why are you asking these questions?"'

Despite this procedural emphasis, which one supervisor acknowledged as a problem, it was also suggested that relating to external issues there was a spiritual cohesion between the staff. Distance in the management - worker relationship was also noted by this supervisor, which suggests that in case three, the closest point of contact for operators is the supervisors. This sentiment is echoed in the previous extract. As respondent five (a supervisor) notes:

- 'Anything we do when we get together we do it well. You know sometimes we just forget about what's going on and we get on with it. So if there's something we've got to do, anything, it could be raising funds or something like that, we just get together, we really all have got a very good spirit, so sometimes you have to really overlook all your problems that you are having and just get together. They're all very good team members, I would say the majority of the staff are all very good team members and I don't realise....I don't think management realise what they've really got here.'

It may well be that socially, humanistic aspects of work are a strong undercurrent in what discursively appears to be a totally functionally oriented work situation. The use of the procedural repertoire at departmental as well as the organizational frame of reference is the significant feature of the responses in this category.

IV: Case 4

The responses elicited for this category in this case fall between those of case one and case two: three respondents noted a uniqueness based on function and job content, whereas the remainder noted a difference based upon the social 'atmosphere' and management style. Of the procedural repertoire, three different distinguishing aspects were outlined: the difference in pay because of the shift allowance; the department's function and the work content itself. These were the responses of respondent one (an operator); respondent six (a senior operator) and respondent eight (a team manager) respectively. Beginning then with the shift allowance, which this respondent perceived to be inequitable because permanent shift workers lose their shift allowance:

- 'It's 10% extra on top of your wages because of shifts and obviously because of the shifts working until 10, some girls work from 3 - 11. They choose to do that permanently and that's what I'm saying, they chose to do that as a permanent basis so they have their shift allowance taken off them but because they're working after hours anyway why should they have it taken off?'
- 'I don't think so. I think quite a lot of the departments work pretty much in the same way. The same sort of attitude as it is across the company. So I think whichever department you go to, it depends on the type of work that you do, that's the only real difference.'
- 'I know it's the fact that you've got a live environment. You've got the customer on the other end of the phone for the whole duration you operate shifts and really they could be asking you anything, you're not just looking at fraud or you're not just looking at applications, they could be asking you absolutely anything and you're expected to know the answer.'

The last extract in particular appears to be more positive about the varied job content than other respondents in other cases. An interesting point to note however, is that raised in the second quote above, that of a similar management style throughout the company, with the actual work being the only variance. This point cannot be

substantiated, due to having no other department against which to compare the current case, however, it would represent a useful point for future research.

The occurrence of 'social motivation' and 'good atmosphere' indicated the use of the substantive repertoire by three other respondents in their analysis of what distinguishes their department from the rest of the organization. In one extract this was attributed to the management style, and another noted that the work would be more boring if it wasn't for its social aspects. Beginning with respondent four (an operator) and then respondent five (a senior service operator):

- '...I would say that we are very close, swapping shifts, everything, we're very good to each other. Whereas other departments don't have the same shifts, we see different people every day because of our shifts. We sit next to different people or you talk to different people because the shifts you swap around whereas other departments they sit with the same people day in day out and I think that would be quite boring and I think you would get very fed up with your work.'
- 'The people, they're very good. They've changed so much it's hard, I mean when I started it was like 100 operators but there isn't an individual there who you could say hey...it's such a friendly atmosphere anyway generally. Various managers, management, I think [manager's name] makes the department very socially motivated so if it wasn't for that you'd get a lot of people leave.'

Thus, in common with responses in other categories, the responses for case four are varied, with respondents at all points of the hierarchy drawing upon both substantive and procedural repertoires to distinguish their department from the rest of the organization. However since the management - worker relationship is implicated as one of the social orchestrators, as well as the social situation within the department as a whole, the social dynamics of the department as embedded in the discourse of its respondents merits further investigation.

6.7 Summary of findings about the organization - department distinction

This section of analysis set out to demonstrate that the greatest amount of between case variation occurred at the departmental frame of reference. Hence, it would be seen to be the area of greatest interest on examining between firm differences in the use of computer based monitoring technologies. The analysis achieved this aim by taking

extracts of discourse from the final sections of the interviews conducted in the case organizations which concerned the organizational frame of reference.

The discourse fell into three thematic categories that would withstand cross case analysis: (1) how the organization treats its staff; (2) what would be the 'good staff member' in the organization's view and (3) what made the department unique from the rest of the organization. This was designed to make the respondents distinguish between their department and the organization, and the analysis strove to identify any changes in the interpretive repertoires when the respondents changed the frame of reference of their talk.

The analysis revealed that several linguistic devices were being employed by the respondents in this respect, and two distinct interpretive repertoires were revealed. The repertoires were:

- *the substantive repertoire* which employs concepts associated with the more humanistic side of work, for example, trust, creativity, personal development, knowledge acquisition, mutuality and so on; and
- *the procedural repertoire* which refers to the more functional aspects of work such as job process, pay, terms and conditions, physical environment and so on.

A more comprehensive list of the characteristics of these repertoires appears at the end of this chapter.

The respondents used the above repertoires to explain differences between the department and the organization using several mechanisms. These were:

- an automatic orientation in the talk of the respondent to the department when they are asked to talk about the organization;
- a change in the orientation of the talk from the organizational to the departmental frame of reference accompanied by a change in the substantive nature of the talk;

- generalizations about the organization made using examples of departmental experience.

For each category of data, significant patterns began to emerge across the cases, the departmental frame of reference indeed produced the greatest amount of variation between the cases. The following tables summarise the findings, with the main mechanisms and repertoires compared.

Category one		
How the organization treats its staff		
Case	Frame of reference	Repertoire
1	Automatic orientation to the department	Almost exclusively substantive
2	Acknowledgement of org./person relationship	Procedural
	Automatic orientation to the department	Substantive
3	Acknowledgement of org./person relationship	Procedural
	Automatic orientation to the department	Procedural
4	Acknowledgement of org./person relationship	Procedural
	Automatic orientation to the department	Substantive

Table 6.1: Cross case comparison of results for discourse analysis category one: 'how the organization treats its staff'

Category two		
A 'good member of staff' in the view of the organization		
Case	Frame of reference	Repertoire
1	Automatic orientation to the department	Almost exclusively substantive
2	Acknowledgement of organization	Procedural
	Significant focus on department	Almost exclusively procedural
3	Acknowledgement of organization	Procedural
	Significant focus on department	Procedural
4	Automatic focus on department	Substantive
	Departmental experience basis of organizational generalization	Substantive

Table 6.2: Cross case results for discourse analysis category two: 'What is a good member of staff in the organization's view?'

Category three	Uniqueness of the department from the	organization
Case	Frame of reference	Repertoire
1	Unique, positive	Substantive
2	Unique, negative	Procedural
3	Unique, negative	Procedural
4	Unique, positive but acknowledged broader, unifying organizational factors	Procedural and substantive

Table 6.3: Cross case comparison of discourse analysis category three: 'Uniqueness of the department from the organization'

These results demonstrate that there are differences in the way respondents talk about their organization and their department. Across all the cases, references to the organization are made using the procedural repertoire. Furthermore, there are certain patterns of repertoire usage between the categories: case one exhibits an automatic departmental orientation in categories one and two, and a positive (i.e. on good grounds) description of their department's uniqueness in category three. In case two, when automatically orienting their talk to the departmental frame of reference respondents use the substantive repertoire in category one when they are asked to speak about what makes their department unique, and when they focus on the department in describing a 'good member of staff' the procedural repertoire is used. In case three, all the discourse is procedural and with a negative slant, whereas in case four, foci on the department are positive, with an almost exclusive use of the substantive repertoire in categories one and two, but with a mixed usage of procedural and substantive repertoires in category three.

As such, not only is there a majority focus on the department, but the departmental frame of reference also contains the most between case variation. In all of the cases, references to the organization alone are all made using the procedural repertoire. In category two, case four, it is noteworthy that when respondents referred to the organization *but through their department* they used the substantive repertoire. Therefore in the next stage of analysis, wherein the discourse surrounding the management worker relationship will be examined, the following questions will be addressed:

- Are there similar patterns and devices in the talk that would reveal evidence about how computer based monitoring is used, or the context of computer based monitoring;
- How do these relate to the interpretive repertoires already revealed?

6.8 The management - worker relationship

This stage represents an important stage of analysis. In the following sections discourse about the management worker relationship will be examined, drawing on extracts of talk taken from the middle section of the interviews conducted. Responses were coded into four useable categories: (1) communication; (2) trust; (3) mutuality and respect and (4) general thoughts on the monitoring process. As a word of explanation, category three, 'mutuality and respect' refers to statements concerning the extent to which each respondent appreciates the position of their colleagues and super / sub ordinates.

The analysis aims to establish further and explore the use and nature of the two interpretive repertoires identified in the previous sections, and as such the analysis itself is focusing purely on the content of the repertoires, not the frame of reference in which they are used. This will then lead to the final chapter which will formally aggregate findings from this and chapter five, to build a picture of differing contexts and use of computer based monitoring between the cases. Accordingly, the cases will be examined within the response categories and then compared.

6.9 Category four: Communication

Comments about the nature and levels of communication appeared in all of the responses about the management worker relationship, and there was significant between case variation. Beginning with case one:

I: Case one

When speaking about communication at work, themes of 'approachability', 'openness' and 'relaxation' were constantly occurring in the talk, with more peripheral themes being the importance of consensus, dialogue and socialising, with an express denial of 'computer - like' management styles by one respondent. This is the language of the substantive repertoire, which, it should be recalled, was used almost exclusively by the respondents in case one in the previous sections. First, here are some comments by non-managers about openness and approachability in relation to communication:

- 'They're approachable as well...if you had something - a problem, you could go and speak to them'
- 'The management are more approachable...he has a lot more to do with the staff. And fortunately he has a lot more to do with the blokes as well because he plays football with them. We play football every Wednesday so that is looked at in a different light by other members of staff...the ones he talks to the ones he gets on with it's the same everywhere. He has a laugh and a joke cos he doesn't know how other people will take him as well because he's been taken the wrong way previously.'
- 'I'd say this sort of management's really open...like all the things that were happening with [a major organizational change]...they told us at the front what was happening without any rumours goinground'
- 'I would say in general the managers are happy with the staff. They must be because of the communication they have between them...they are always happy to talk to you, the door's always open...there's never any problems, never been any disciplinary procedure having to take place so we're happy with them...I think we've got a good understanding at the moment'

A further point to note is that one operator used the negative side of the substantive repertoire to indicate the strong nature of interpersonal communication in the department:

- '...there's no bitchiness really, no backstabbing and if there were it'd come out. It would rather be face to face than behind someone's back'

Now some comments from managers: the first two are from the manager himself, the third from the assistant manager and the final one from a supervisor:

- 'I mean I'm a bit more open than most managers, I mean the people who - let's say the people who are below me, and most of them are six and seven grades below me, and I wouldn't dream of talking to someone six or seven grades above me the way that some of them talk to me sometimes'

- 'So I tend to as they do things say this is happening - we've got all the measurements: this is how the provision's going, if it's going wrong I might dabble in there and do a few things, tell them how they're doing, basically saying "you're doing that wrong" or whatever, basically a constant dialogue'
- 'I mean people do know that [the manager] has got an open door, as with both myself and [the other assistant manager] and if they've got a problem they'll air it'
- 'I mean I think I've been successful in what I've done because I'm down to earth with people...I'm not like a computer streaming out garbage to people...it's probably because of the relaxed atmosphere, but I've enjoyed it so much'

The second extract in the first batch of quotes above highlights a nuance of working relationships: 'formalised' communication directly relating to organizational and work issues is perceived to be second to none by these respondents, and highlights the use of the substantive repertoire in relation to the management worker relationship. However, informal, social, extra - work activities (for example the football referred to in the first batch of extracts) may well have a bearing on the management worker relationship for some individuals who are excluded (on the grounds of their gender, which was noted by the respondent). This division will be highlighted in later categories, and may reflect the type of control exercised by the manager over his staff in this instance.

II: Case two

In the analysis for case one it was noted that work related communication was free flowing between all levels of the hierarchy. In this case there is a hint of constraint from (1) the organizational hierarchy and (2) communications technology. This is acknowledged by both managers and non managers. Furthermore, a mixture of the procedural and substantive repertoires are used in this context. First some comments about the hierarchical barriers from supervisors (the first two) and the assistant manager:

- 'I think managers of a higher rank, you know, higher than myself, actually talk to the staff more than, not only when they've got a problem, but they look about and say, you know, "how are you enjoying your job" and I think that's what our managers are lacking'
- 'You know, some staff, I think, hold back even when they have something to say. They just wouldn't go on and say it whereas if the management did come out that way and say "do you have any problems?" I know we have appraisals but there again, it's not always done through the eye of the management so they don't know'

- 'I think all call centres have some problems with communication just on the size...I mean we've had [the e-mail system] taken away from us now...I mean we've gone back three steps which was a bit of a blow, because people who've been off for a week or two weeks...we were back to the old manual, and there's going to be mistakes, and there's some people who are going to be missed no matter how hard you try. Now each team has got certain procedures in place, and I really feel that the team structure does lead to make sure we pass things on'

Several features of the above discourse need to be noted. First of all, the latter quote notes a problem with communication technology. More importantly, however, all three of the quotes perfectly illustrate the nature of the procedural and substantive repertoires. The first extract notes a lack of interpersonal (i.e. substantive) contact with the staff by managers, and this is reflected to some extent by the second extract. This respondent notes the same lack of concern shown by the management, which is compounded by the fact that they are not party to appraisals, which, as was noted by the respondents in chapter five, are in need of review in this organization.

This use of the substantive repertoire in a negative way mirrors the use of the substantive repertoire in case one. The difference between these cases is that the repertoires are used to different ends. In case two it indicates that the management - worker relationship in this case relies less on managers actually coming to terms with the idiosyncrasies of each individual, rather they tend to rely on more latent procedural mechanisms through which to manage - such as the hierarchy. This hierarchical effect is also noted by some agents:

- 'Hardly anything to do with them, being managers. They go through the supervisors, and then it comes to us. I mean I think I've maybe spoken to [the manager] at the drinks machine twice. We don't really have anything to do with [the manager]. It's our supervisors we have contact with, we don't ever get involved with the managers or anything.'
- 'With the supervisors we get on well we talk to them a lot. We don't have many dealings with the managers or anything.'
- '...if they've got anything to say to any of the team, they never say it directly, it's just like the supervisors that come in, and they get briefed, and the supervisors come and tell us and say "you know we have to" or whatever and it's obviously their roles anyway between [the management] and us'

In contrast to the above, three of the agents note that for them, communication is free flowing, as is the use of the substantive repertoire. The question, however, is, that given the above hierarchical constraint, have these respondents taken account of this in their talk or not. The final respondent apparently has:

- '...there's no real formal identification, you know who your boss is and you know this but there's not sort of talking down it's all interactive and it's all working together'
- 'I don't think there are any barriers for communication at all you know, everybody is pretty wide open...'
- 'I guess we all have a voice...there's always an ear that will listen to them, and say "well I'm not happy with the new timing you've given and the new system of targets is never going to work"...I'm not saying it's going to change anything'

In all but two extracts, we have the substantive repertoire being used negatively and the procedural repertoire being used emphatically to illustrate the structurally governed nature of the communications aspect of the management worker relationship. This contrasts strongly with case one, whose respondents use the substantive repertoire's positive and negative sides to illustrate the healthy nature of communication in their department.

III: Case three

In common with case two and in contrast with case one, respondents in case three use the procedural repertoire and the negative side of the substantive repertoire to explain how communication works in their department. Like case two and unlike case one, communication is governed by structure, and the negative side of the substantive repertoire can be illustrated thus using examples of talk from grade ones and fives. There is a greater emphasis on the negative aspects than in case two:

- 'I think that communication, well see it doesn't really affect me so much because I'm an operator. I've had dealings with [office manager and manager's assistant] and I've always found them to be helpful and alright'
- 'I think most people moan to individuals beside them, they can't do anything about it...it just gets to a big resentment and you start reading into things that aren't there when you forget originally what was the problem'

- 'I used to enjoy seeing people and saying "look, you know, you've done really well this month" because it makes them feel better, and obviously then you've got people who aren't doing too well, at least if you're talking one to one, you get to know if they have got a particular problem, and they will probably tell you. But they're not going to just come up to you, you know, for no reason on their own. But if you called them up, like we used to, and speak to them, that's when they tell you. A lot of people won't make the first approach.'

Although these extracts *prima facie* seem totally different, they all exhibit similar discursive characteristics. Each respondent notes the advantages of one to one (i.e. substantive) communication, but in each quote there is one procedural factor which obstructs it: hierarchy. The first notes that they will not communicate because they are 'only an operator', and according to the second quote, they 'moan to each other'. Finally the third (a supervisor) notes the procedure of 'calling them up' as being a barrier to communication. The following extracts also highlight the use of the procedural repertoire in relation to communication, the first from a grade one about the work process, the second from a grade three and the third from a grade one:

- '...you don't really know what actually happens to it, you know, they don't explain it to you. You know, you're just there, you've got some vouchers and an account number and you key it in and that's it. You don't actually know exactly what happens. Not even some of the [bank] staff know, which I thought was amazing'
- 'If they want to tell us something they usually send round a memo, something like that, and usually with these memo's you've got to read between the lines. So I think, because you know our jobs are in jeopardy a bit, we need to know how secure we are. Of course we want to know don't we, lots of us having young families and we need to know where we are going in a years time...If you're asking why, we've had managers come down from [head office] and they've given us the talk about half an hour about nothing and then somebody, you know, have you got any questions, and you ask them a question and you still get another half hour about nothing.'
- 'Well for a start they have the authority haven't they, so you know that for a start...you have like a couple of seconds, a little chat, like when [grade three] walks round or [grade five] walks round. But it's just polite, it's not an interest really. It's just you're here to do your work, they're here to do theirs, and that's about it.'

The latter quote in particular notes that the actual content of the communication is lacking in substance, and dominated by procedure. This is echoed in the first quote as this respondent reports there to be no full explanation of the job process, even, for new recruits. The procedural repertoire is also noted in the final quote which notes that any

communication from grade threes and fives to the operators is 'not an interest really', with a resounding procedural statement to finish with.

The substantive repertoire does occur when one of the respondents contrasted their situation with that at head office, when concepts such as 'freedom' and 'creativity' arose in contrast, and were seen to have been transported from there by the new departmental manager:

- '...they run a different system in [head office], I mean...I think the staff have got such a lot of freedom there, to actually plan things, and create things and create their own environment, he's brought that with him and he sees communication itself as a very important thing, and he also encourages us supervisors and managers to communicate a lot better than we are.'

As such, the picture that is painted by this discourse is a set of disillusioned office managers, and a group of supervisors and assistant supervisors who are striving to keep a reluctant, malinformed cohort of grade ones buoyant and productive. The almost total pervasiveness of the procedural repertoire when the respondents addressed all forms of communication goes to reinforce this bleak landscape. It thus indicates that the communication side of the management worker relationship is constrained by procedural aspects of work, such as hierarchy, and negative aspects of the substantive repertoire such as cynicism (the last but one quote) and apathy (the second quote for this case).

IV: Case four

In a similar way to case one the realm of 'unofficial' and social communication in the form of the 'grapevine' arises in this case. Unlike the other cases, however, the 'grapevine' in case four was acknowledged as an acceptable supplement to official communications, whereas in the other cases the idea of 'rumour' was more likely to be seen as counterproductive and something which had to be prevented. On the whole the respondents note that official communications between them and their managers are free flowing, but quite often do not cover the whole subject matter, i.e. is substantively lacking

some of the time. According to the respondents this requires them to be pro active and take positive action to supplement their awareness. This is very different to cases two and three, who despite noting the lack of information in communications by using the negative side of the substantive repertoire, appear to have little redress for the situation. Accordingly, the talk draws between the 'officialdom' of meetings and paper communications, and the interpersonal interaction needed to supplement the discrepancy.

The following extracts highlight the fact that the respondents are 'told what is happening' and that they can 'bring anything up' but still they feel they are missing 'what actually goes on'. As a result the following responses reveal that there is in effect a multi layered web of formal and informal communication at work, in a variety of media:

- 'We have team meetings generally once a month when we can bring anything that we want discussed. It's attended by all of your team plus your manager as well and then that's the opportunity for them to let us know anything really that's happening in the business that affects us...that's quite a good way of communication but I still think there's quite a big gap between what we are told and what actually goes on'
- 'I do know our managers and [departmental manager] do tend to have a lot of meetings and we don't always get a lot of feedback from these meetings. And I know that some people on the floor get the impression that managers play a part...on a one to one communication they're fine, you don't tend to know what they're discussing. We don't ever find out.'
- 'It's very sporadic. Sometimes they can't wait you know you're told everything you have your meetings to tell you things and other times when you ask something you say yes I'll come back to you I'll come back to you and you don't hear anything'
- 'It goes through phases where you know you don't get told anything and sort of people are saying there's no communication but our manager does tend to try. We have regular team meetings across the floor, and operators talk amongst themselves so you have the odd thing where you know it doesn't filter down and you're not told but like generally communication is pretty good.'

All of these extracts note how a procedural communication mechanism (i.e. meetings) can be lacking. As such these respondents, as in case one are using a negative aspect of the procedural repertoire to highlight the varied and substantive nature of communication within the department. The substantive repertoire is also at work in these extracts since in both the first, second and fourth quotes one to one communication is

emphasised as important. It is made more explicit in the following extracts - the first comment by a team manager and the second comment from an operator:

- 'Communication is always an issue. Always, and I was having a team meeting about a week or so ago and talking about that and trying to find out if people had had enough or too much or how they would like it and what sort of format and things like that. We've got electronic mail and a lot of communication goes through on that but not all of our operators have access to it...so we try and print off as much as is relevant to the operators as is possible and then it's got a front sheet which people just sign to say they've read it. So that side of things I think that the management style of walking about and you know spend quite a bit of time talking to the staff. I think that's very important.'
- 'I think a lot of the time an announcement is made, we've generally got an idea that it's coming anyway, we kind of hear through the grapevine first. So it's not always a big surprise when they tell us things anyway.'

Like case one, despite being couched in a more procedural repertoire concerning 'meetings', 'memo's' and the like, the spontaneity of human communication is emphasised and appears to be acknowledged by all parties as a vital supplement to information and the management worker relationship. As such, in this case both procedural and substantive repertoires are used to positively emphasise the 'pretty good' level of communication in this case.

6.10: Category five: Trust

Despite there being fewer comments about trust overall, the discourse was able to be compared in some detail across the cases. Like category four, the operation of the substantive and procedural repertoires reveals much about the management worker relationship, and patterns begin to emerge between the firms.

I: Case one

In this case, all the comments made about trust were positive, featuring themes such as delegation of responsibility and the appreciation of certain people's

idiosyncrasies. First, it is noted by the following respondents that allowance is made for people's personal differences. Both comments are from operators:

- 'I think they know who they can trust and who they know can get the work done and then they know the people that mess about and that are going to get on and those who are not bothered'
- 'I feel I could go to any of them with a problem, any comment. I really like them all and I trust them all, but there again I do feel that there are some who are more sceptical but that's different people's nature, different people's way of looking at things really'

These comments both exhibit the substantive repertoire since both speakers show understanding of the idiosyncrasies of the individuals being spoken about. The following extracts also extend the substantive repertoire and illustrate how idiosyncratic factors govern the way work is completed. The first comment is from the assistant manager, the second from a senior clerk, and the last from a clerk:

- '...I trust very much the people who are in there. They are all relatively experienced collectors and I know that most of them do a very good job all of the time, I wouldn't just say part of the time but all of the time. From a trust point of view I'm happy that people are working and they'll do a good job for you.'
- 'Yeah, without doubt there's a lot of trust I think. A lot of jobs get delegated deliberately not just to get rid of the work, but they'll give clerks work that they might not normally do...and you'll think "oh that's good" whereas other managers will just keep all their work to themselves...I think that's a very good way of running it'
- 'I think the trust is there between us who are working the accounts and the supervisors and the management who oversee what we're doing, the trust is there to allow us to do what we think is best on the accounts...I don't know, sometimes some people work them by one way and another person would have got exactly the same results by doing it another way.'

In a similar vein, the source of mistrust is also described using the substantive repertoire - inconsistency in the content of communication:

- 'I think the managers trust the staff, there's certain team leaders who don't trust their staff as much as the managers...people don't tend to trust - staff don't tend to trust the team leaders and [one of the assistant managers] and [the manager] ...because they've got a tendency to say things then it changes'

This statement is somewhat misleading since if we were to omit the last sentence, one would assume the procedural repertoire was being used, since mistrust is being

delineated by hierarchical characteristics, as opposed to personal ones. However, the actual root of the mistrust is described as misinformation, rather than structure. This is very different from the situations outlined in later cases.

The repertoires used in this instance were substantive in relation to trust, which was seen as good overall. The question now for later cases is, because of the nature of trust itself, will the substantive repertoire inevitably be used when it is being spoken about, or will the procedural repertoire help to reveal what this side of the management worker relationship is like?

II: Case two

In this case the respondents' talk is based on a negative, substantive supposition, in other words, 'who one wouldn't trust' or 'who mistrusts'. Furthermore, the basis of this mistrust was again characterised by the negative side of the substantive repertoire. Examples of such characteristics are: (1) imperfect distribution of knowledge about the task, (2) those who broke confidence and (3) backstabbing. Extracts are as follows:

- 'I think they trust [X supervisor] I do. I feel comfortable asking her questions because I know she's going to give me the right answer...you might get one or two of the older people who think that they might know as much as X and they won't ask X something but they know that if they did ask X she would give them the correct answer.'
- 'They could trust me in that way and I wouldn't say "if they've got a problem, it's on the wall" something like that...if they confided in me they could trust me and I think the same probably if they came to [the manager and assistant manager]...I think I know some of the staff you couldn't trust even I know, they'd stab you in the back.'
- 'I trusted the supervisor you can trust them, you can rest assured that if ever you want to tell them something confidentially it won't go any further unless it's necessary to take it any further...but trust as in comradeship I'd say it's fine'

It is true that there is a persistent negative emphasis when the respondents speak about trust, leaving us to draw inferences about the latent trust in the department. Like in category one, there is also a structural limitation on this talk - for the operators (extracts one and three) they speak about their supervisors and their colleagues, but not any higher.

The supervisor reinforces this by saying that the staff could 'probably' trust the manager and assistant manager. This supports the findings in category one which suggested that communication was also structurally limited.

The procedural repertoire is used by one respondent in relation to trust and communication together. This respondent notes the hierarchically dominated and impersonal nature of working in the department:

- KB: What about communication and trust?

R: There's no emphasis on that at all. All you have is more senior members of staff. They have to do the training of people who are just starting. That's as far as it goes as regards trust and how much knowledge you have.

Again, this reinforces category one responses, employing the procedural repertoire. Accordingly, the characteristics of the trust aspect of the management - worker relationship are different from case one. They employ the negative aspect of the substantive repertoire more, and there is an emphasis on who is not to be trusted rather than who is positively trusted, unlike in case one. The substantive repertoire is being used, however, because there is much distinction based on personal characteristics rather than hierarchy, since the hierarchical limitation has to be taken as read before the speech in this category can be analysed.

III: Case three

Like case two, where there are structurally related issues appearing in areas such as communication and trust, respondents in case three report that there is a complete breakdown in trust. Both the negative sides of both the procedural and substantive repertoires are used to achieve this in the talk. Of the procedural repertoire, the departmental closure and unpredictable statistics were named as the main factors, and of the substantive repertoire, lies, hypocrisy, non - autonomy and inconfidentiality all featured in the talk.

There was some variability in this respect, however, since substantive factors causing mistrust were, on occasion, related to the negative procedural ones, thus showing how the two can work in tandem. First, two examples of the procedural repertoire, the first from a grade two, the second from a grade five and then from a grade one:

- 'I think there's mistrust on the whole. I suppose individuals feel different, but on the whole there tends to be I think mistrust because I think things have been said in the past. For instance "that's as high as the stats are going to go" because they've sort of crept up a bit saying they were 95, and then another memo come through, it's 100, then it's 105...'
- '...because we're in a wind down situation the people are a bit wary at the moment. It's very difficult to say things are going to be alright because we don't know you see. We're just taking every day as it comes before they make a final decision.'

The procedural repertoire in these two extracts is being used since the respondents refer to how mistrust is caused by structural factors which prevent the development of a healthy, trusting idiosyncratically based management - worker relationship. The following extracts show how the more interpersonal factors associated with the substantive repertoire also illustrate the dysfunctional trust levels within this case:

- 'Now [one of the managers] he's alright, sometimes, he comes out to have a cigarette with you.. you still couldn't trust him, you couldn't say something to him without it getting back to someone. He wanted smoking banned every hour just a break - he nips out twice an hour. So I think it's terrible you know. If you're a manager you've got to set an example.'
- 'I've been left on my own to run the systems, with the problems, you know. I've been moved around, I've had that many different supervisors you wouldn't believe...the supervisor I've got now, she's brilliant, she really is. When she's not there...I'm standing in for her. But this person won't let me get on with it...I've been doing it for three years...and he's just constantly interfering and, you know, it really gets on my nerves...he knows I can do the job so why doesn't he let me get on with it?'
- 'I don't think many people would go to supervisors with problems, because a lot of the supervisors I have heard talk about to other people and their problems, when people have gone to see them, I've heard them speak to other people about them. So a problem that somebody probably went up with and said "please help with" didn't want it to be passed round, some supervisors do. You know, sit and chat with other people, which is all wrong, you know.'

The second comment in particular should be contrasted with the dearth of comments in case one which concerned delegation of responsibility. This, and the

comments concerning hypocrisy and inconfidentiality show how the substantive repertoire can be used to illustrate a dysfunctional situation within an organization.

IV: Case four

In this case some interesting contrasts are drawn which help to understand (1) the difference between the substantive and procedural repertoires in relation to this category and (2) how trust works purely on an individual basis. The first set of responses show how the substantive repertoire essentially relies on the appreciation of people's idiosyncrasies by parties to the management - worker relationship. All of the responses are from operators talking about their team managers:

- 'There's one [manager] out there that you don't want to know, there's two actually that are, you just wouldn't go to if there were other managers on the floor...I trust my manager. Again there are some managers you wouldn't trust but you learn to know that...everybody feels the same about a couple of people'
- 'There are certain managers that people will always go to and same managers that people won't, if they were the only manager on the floor they won't go to them, things like this...they're all quite individual characters and I don't think you could actually group them together, they're all quite different.'
- 'I don't know that depends on individuals. I mean you know as I say the managers I have, they were always there if I needed to speak to them. If you are going on trust I think the one thing that gets me down is the fact that you are given guidelines where you can do something or you have to either ask the senior or the manager if you can do it first...it's an obvious situation, an obvious course of action but you can't do it until you have permission to do it.'
- 'Depends on your manager. I wouldn't have a problem with my manager, the new one or the last one but I think it does depend on your manager. I've experienced that across the floor as well. A certain manager you daren't say anything.'

The third extract in particular notes how procedural aspects of work can hamper the development of the type of delegation of responsibility observed in the discourse of case one respondents. This procedural impairment represents the use of the procedural repertoire to contrast with what is otherwise a trusting management worker relationship. This is identified by the acknowledgement of idiosyncrasies in the responses, i.e. the

substantive repertoire. A manager also made this contrast when describing the relationship with his team:

- 'Well I think trust, respect and that sort of thing is earned and I think that you know you get that sort of thing from give and take and other times getting around and talking to people and that sort of thing, and not just being a dictator sitting at the end of the desk and saying "what are you going to do?" etc. Everybody's different and you've got to learn what makes people tick and you know you're going to get to find that out by getting to know everyone better.'

The procedural repertoire comes into play with the contrast drawn between a personable management style and a dictatorial style at the end of the first sentence. This also serves to reinforce the substantive repertoires used by the other respondents. One respondent, however, used the procedural repertoire to describe the nature of her personal lack of trust of her manager, using the concept of loyalty, elsewhere being identified as part of the procedural repertoire. Interestingly, however, she attributes her lack of trust to her own personal shortcomings:

- '...I wouldn't trust any, because I'm not a very trusting person anyway but that's me...I think they look out for you. I do agree that they are very loyal to the team they all are.'

Thus it has been established that in this case, there is a degree of trust in the management worker relationship, which has been slightly hampered by procedural matters. This case also shows that the substantive repertoire is dominated by the thematic reliance upon individual's idiosyncrasies in the discourse surrounding the subject of trust.

6.11 Category six: Mutuality

This category emerged from the data, and has been referred to in section 6.8 as the extent to which each respondent appreciates the position of their colleagues. This was also colloquially referred to by a team manager in case four as 'give and take', and many responses were generated to this effect in the interviews. Again, respondents used

different aspects of the procedural and substantive repertoires to achieve their explanatory objectives.

I: Case one

A number of themes arose in this case which highlighted the interplay of the substantive and procedural repertoires, and the value of 'proactivity' arose in many of the responses. The mutuality theme was reflected in the respondents who noted the dominant value of 'work hard - play hard', itself an interplay of procedure and substance, and mutual help and knowledge exchange also being high on the agenda. There was, however, a negative side reported to the management - worker relationship associated with the social side of departmental life. This is something that was hinted at in category one and points to the method of control being developed by the management team. This will be covered towards the end of the section. To begin with, here are some examples of the 'work hard, play hard' theme, which come from all hierarchical levels:

- '...probably one of the best if not the best working environment in as much as everybody's friendly...if you work hard, that's fine and if you do that then we've no problem with you having a laugh at the same time'
- '...the people that came in they actually, because they were prepared to let you have a laugh and you felt as if you really wanted to work hard for them which people did which is why we've performed really well.'
- 'In here...it's encouraged basically to have fun as long as you're not messing your work about'

The above assertions are based on a concept of 'fairness' (as is, incidentally the 'Union' model of computer based monitoring by Westin (1987)), wherein the substantive repertoire, dominated by the appreciation of idiosyncrasy remains contingent upon the completion of the task at hand. It is interesting, however, that the first respondent (the assistant manager) places the emphasis on the work *first* and then the fun afterwards, whereas the second two respondents (both operators) place the emphasis on the fun and *then* the work in the structure of their talk. This is the mutual basis of the management - worker relationship, reflecting the interests of both parties.

The theme of proactivity also reflects this mutuality and fairness, and is shown by the following two responses, both from non managers:

- 'So some people say "I don't trust him, he's promised me this" but they won't go and see him about it and in effect it's their own problem, it's their own fault they should take it on yourselves, to do something, but that kind of thing won't develop, they're too scared to approach him. Which I find difficult anyway.'
- 'If you show your knowledge, and if you let other people give you knowledge of what they know, because obviously there's people that will know more than you'

The first extract brings the analysis onto the final point, which highlights those who are unhappy with their management - worker relationship. The use of the word 'scared' indicates the use of the negative side of the substantive repertoire. This also raises the question of control method, which in this case is emphatically ideological.

- 'You can tell the ones [the manager] doesn't like'
- 'I think there used to be a 'sense of us and them' when there used to be a different set of managers here. It used to be "they're the team leaders, they're the managers, they're the clerks"...But now I'd say that he's gone it's actually more integrated...[the manager] is so easy to get on with that people actually do get on with him, but then there's a lot of people who don't like his management style'
- 'Because he treats in his own way everybody equally, but he's got his own way of running things, and his way of running things is that he's one of the lads...the people who don't like going out don't think they're getting a fair crack of the whip.'

The second extract above highlights the difference between a procedurally dominated managerial discourse and the current substantive one. However, since the substantive management style is by its very nature more idiosyncratic, it will inevitably result in some employees not 'getting on' with their manager. The assistant manager mediates this to some extent, as he describes his management style using both substantive and procedural repertoires with 'the way they do the job' being the more salient factor in employee evaluation, as well as interpersonal factors:

- 'They are treated with respect in as much as I've known most of probably three or four years now and I feel as if I know them really well...work wise I would think they would tend to feel happy coming to me and complaining or airing their views. I would respect them for doing that if they had a problem, coming to me direct. But I don't....there's sort of individuals, I would look upon them as a whole, I mean some people are better at their job than others. However, that wouldn't affect the way I look at them, they might be good at another part of the job for example'

As such, the use of the substantive repertoire in relation to the management - worker relationship shows that there is a degree of mutuality and respect based on positive, individual characteristics rather than hierarchically based generalisations. Problems with this are, however, acknowledged by the respondents, and seen as inevitable but not insurmountable.

II: Case two

Like case one a degree of mutuality and respect is felt amongst the respondents about their management - worker relationship. However, unlike case one, these respondents use the procedural repertoire in their discourse, and as such it could be concluded that the management - worker relationship is more distant and formal than in case one, and based less on idiosyncrasies and individual difference. Like in case one, the discourse of the respondents (mainly operators) is dominated by assumptions associated with positional power and hierarchy. However, as with case one there were exceptions who used the substantive repertoire to emphasise the positive and individualistic nature of the management - worker relationship. This was confined to (1) new recruits and (2) supervisors speaking about the assistant manager and manager.

First, here are some examples of operators who use the procedural repertoire. The first two extracts relates to the new manager, and then comments relate to management in general:

- '...people said things without knowing what they were talking about. You know, we've all done it. We say "Oh they don't know what they're doing. How can they come to this department when they don't know what they're talking about?" and I think people don't like the feeling that someone has got more power than they do. Perhaps that is it'
- '...he's bringing all this new stuff in...I can see his point of view because he's working for the company as well as I am and it's on his shoulders and head if things are not being run right'
- 'I think they like to think they are, they're definitely management and they're probably a bit better than you and I don't think they should look at it like that. At the end of the day we all work for [case two].'

- 'I think it's good with the supervisors because as well as being a supervisor you've still got the respect for them, in that they are superior to you, but they're really easy to get on with and you can just talk to them about things and you can ask them things, and you don't feel like you are really bothering them. I think it's really good now because it's easy going - you can have a laugh with them but at the same time you know that they're like, there.'
- 'I'd say it's their job to make sure that as call centre manager he wants to get all the calls taken...we are seen as just people sitting there taking calls all day, yeah.'

The first extract above shows use of the procedural repertoire by the respondent. A lack of mutuality is felt between this operator and their new manager because of (1) his position and (2) his lack of knowledge about the job. The two parties' mutual positions are reported as being antagonistic because of a lack of substantive knowledge underpinned by procedural distance. This is also illustrative of the contingency of the substantive repertoire upon the procedural one. The second extract also uses the procedural repertoire, but this time to show grounds for mutuality. This mutuality is based on an understanding of responsibility emanating from hierarchical position, again. The third and fourth quotes show a classic instance of the procedural repertoire to demonstrate a lack of mutuality between these respondents and their manager. In the last extract the respondents notes how the supervisor mediates the management worker relationship. However, again in this case the substantive repertoire ('they're really easy to get on with') is contingent upon the procedural ('they are superior to you').

This mixture of opinion is reflected in other extracts which as they are taken from the talk of supervisors, positively reflect the management worker relationship, since the organizational hierarchy facilitates closeness between supervisors and managers and hence they will account more for idiosyncrasies.

- 'He [the manager] would see people differently and your capabilities and your downfalls or whatever, and give one of us a certain job to do knowing that you do it better than someone else, a different type of job'
- 'She [the assistant manager] used to fight tooth and nail for things for us, and stick her neck out for us. Er, but don't they say like she's not a "people person". She's brilliant at her job, and [old manager] would never have done without her...she is so hard working. She expects everybody to be the same and they're not quite are they?'

New recruits also note a more individualistic approach by their superiors:

- '...you're not like a turret number on your forms you're all treated as an individual. Nobody's singled out at all...everybody's treated fairly as an individual, there's no favouritism and there's not a lot of bureaucracy either'
- '...It's just - I wouldn't say laid back, but it's quite a good department to work for. I mean [the manager] is the manager. He's our manager yeah but if you had a problem and you needed it sorting he would be there to help you. You just take it. You know if he come across as how he wanted to come across, that's how we took him.'

In case two, mirroring the findings in other categories, the content of the discourse, whether it be the substantive or the procedural repertoire, is dominated by talk of the structure, and its limitations. Accordingly, the management worker relationship is distant, and mediated by supervisors, who achieve the type of closeness with the staff which is a universal characteristic of the department in case one. Mutuality is thus governed by the structure and it is not surprising that operators on a grand scale use the procedural repertoire to explain their views, with the substantive repertoire coming into play only contingently.

III : Case three

In a similar way to case two, responses in this category for case three are entirely delineated by the hierarchy. All the respondents below grade five used the negative sides of both the procedural and substantive repertoires to in explaining the levels of mutuality in their management worker relationship. The grade fives, however, noted, using the positive side of the substantive repertoire, that they had a degree of respect for the positions of the grade ones.

Beginning then with non supervisory staff, comments had three orientations. Those which addressed the general differences between staff who worked for the bank and those who worked for the agency, and comments which concerned the distance between agency staff and the bank managers. There were also some comments from bank staff towards their managers.

Evidence was strong for a split between bank and agency staff, and the basis of this split was justified in all cases by using the procedural repertoire. The following

extracts demonstrate that the perceived reasons for the rift are (1) pay differentials; (2) job allocation; (3) discipline in the event of a performance discrepancy; (4) power / knowledge; (5) rewards for achievement and (6) terms and conditions of employment. The first two comments are from bank assistant supervisors, the rest from agency operators. The negative orientation of all the comments will be self evident.

- '...when the operators...are operating and they stand in for a grade two, some of the agency staff they get paid twice as much as bank staff would...so at the moment you try to use your bank staff. But of course if you keep using your bank staff and you never use your agency staff, you're going to get them turn round and say "well?"
- 'Mainly because you've got your bank staff and obviously they're treated differently. Just with the case with the stats they're - if they're not achieving the stats, they're taken off and put onto another job and nothing is said. Whereas an agency staff wouldn't get that benefit. They're just told if you can't do it, then you'll have to go.'
- '...there are some that have got the experience and won't pass it on...that's mainly their staff. It's as though the little bit of power they've got they want to keep, and if they dare give it to anyone else you know they won't be better than anyone else. That comes across straight off.'
- 'We do a lot of the work, but we don't get any recognition apart from this award scheme which they're in as well. But any time agency staff do anything, bank staff are always included - that is a real bit of tension about that. Because like at Christmas they get sort of hundreds profit share and we don't even get "thank you for all your hard work"'
- 'The problem with [the bank] is that we're all been...long term temps and so you feel like you should be ...if we'd have been in another job as a permanent member of staff for nine years you'd be treated pretty well. Whereas if you've been here for nine years and they could turn up and say to us next week "well thank you girls but that's it"'

All of the above extract highlight the institutionalised procedural differentials between bank and agency staff. There is also a hint at the substantive repertoire in the third extract which also notes a power / knowledge differential amongst a group of people who appeared to have little power and self determination in their workplace, itself a procedural limitation.

Comments from agency staff about the bank managers are dominated by the negative sides of the procedural and substantive repertoires which highlights a total lack of respect between the two parties. Operators note 'fear' and 'annoyance' as being features of their side of the management - worker relationship, and their analysis of a

managers viewpoint is dominated by the fact that they feel 'anonymous' in the view of the managers (managers being grade six and above). The first comment is from a supervisor who notes what the operators would probably think of the managers:

- 'They would more or less say, oh gosh, they're just a load of crap really. They don't understand because...the way how they come over, they don't really understand the job, the operator knows the job anyway, and they're saying "well how can they direct us when they don't even know anything about it?" and they'll just say that "they're a load of old crap", "they get on my nerves" and things like that.'
- 'It's just a feeling you get inside. It's just fear of the managers, and you can't talk to them...about the work you know "you sit there you do your work" - they're not very easy going, should I say. They try to be, which is quite funny.'
- 'people tend to see people and managers as folk who do less - and the workers - the lower you are the greater the pressure.'
- 'There seem to be some people who don't like some of the managers, it's probably a personal thing. But I mean I don't have any personal dealings with the managers so I get out of having a problem there.'
- 'You can hear them, you can hear them because I sit right by them, where I sit I'm right by the managers anyway, and sometimes they will utter things to you...really they don't have much to do with us - I don't think whether it's because we're operators, or because we work for an agency, they seem to have more to do with their own staff'

The above extracts outline the apparent lack of mutuality between bank managers and agency operators. There is little personal contact which would negate the appreciation of individual idiosyncrasies (the basis of the substantive repertoire) and this is particularly highlighted by extracts one, two four and five, above. The third extract also highlights the procedural classification of the management level by operators. The following extracts also highlight this rift, this time by contrast: grades three and five comment on their personal interface with the operators using the procedural and substantive repertoires in a positive way:

- 'I was an inputter, and I've done grade two and now I'm a grade three, I know, from scratch, so it's easier for me so I can relate to the grade ones and the grade twos, because I've been there and I've done it, so I'm in a good position I would say.'
- 'Well a lot stems from people requiring things of people, who perhaps haven't done the job themselves...if you're sitting under pressure, keying in all the time and you glance up and you see somebody maybe what you perceive as doing nothing, then it causes a lot of friction and also as I say because as people say "how can you say -

we've got to reach this target and have you ever tried to key in yourself?" Obviously people haven't and they say that'

The first comment highlights the importance of substantive experience in completing the job from a supervision point of view but again the substantive repertoire is contingent upon the procedural, since the understanding is based on job experience, rather than personal. The second notes how management are lacking this experience, and hence are distanced from the staff, resulting in a lack of mutuality. This mechanical management style is commented on again by a supervisor, who also found herself stifled by it:

- 'I mean I always said I would never work in a factory...but this is a factory environment, the only thing they haven't got is cards to clock in with...and I think the way how the management tend to run it, as a factory, you know they don't give you the leeway as to say "right I want to develop my own style here, I want to do this, I want to change this"...and I think change is good, if you look at it in a positive way...well that's what I like anyway but they just sort of say "no"'

This comment contrasts sharply with earlier comments from cases one, two and four. In cases one and four the importance of challenging the rules and flexibility were positively emphasised in category two (a good member of staff) in particular. Even in case two, with its hierarchical preoccupation, respondent thirteen in category four (communication) noted the importance of the individual communication styles of each supervisor. As such with case three it could be concluded that there is a lack of mutuality in the management - worker relationship emanating from both parties, with the grade fives and grade threes struggling to manage and improve the situation. This is highlighted by the use of the impersonal, negative side of the procedural repertoire in all comments, and with the substantive repertoire used as a means of contrast. The procedural repertoire is also used to highlight the rift between bank and agency staff, and the lack of mutuality between them.

IV: Case four

Responses in this case were more akin to those in case one. They represent more evidence as to the interaction of the procedural and substantive repertoires. Idiosyncratic factors are acknowledged in the majority of the discourse, but, as with case one's 'work hard, play hard' philosophy a positive substantive repertoire is contingent upon a positive procedural one in the management worker relationship. When talk is focused outside the immediate task domain the substantive repertoire becomes more prevalent.

To begin with, comments from team managers show that hierarchically based discrimination is kept to a minimum, unlike case three. Also note how the first extract uses the substantive repertoire in relation to staff development, and that the speaker has also some experience of the operator's task and hence has a greater understanding of the daily pressures of the job:

- 'We try to be, we work very hard as a management group we acknowledge that it's very difficult for people to be on the phone constantly. It's very easy to say "that's your job" but I've don't it for a few hours and it's something that I think we're very mindful of the fact that it can be mind - blowing to expect someone to take day in day out 250 calls or whatever a day...and yet we're always trying to look at opportunities that they're not purely telephone operators and that we can develop them.'
- 'I don't think we tend to pigeon hole staff in that way because there's too many of them...I think in any organization you perceive some people slightly stronger than others and that sort of thing. But I don't tend to think we lump them all together in one staff pot.'

The idea that it is important for the managers to have done the job themselves first before they can manage it effectively is again indicative of the contingency of the substantive repertoire on the procedural one. Apart from being reminiscent of Herzberg's hygiene and motivator factors, it is also recognised by the staff as being a significant factor in the management - worker relationship, and is directly linked to mutuality and respect, as the following staff comments show:

- 'My oldest theory is that the senior manager, supervisor, anybody, for them to appreciate what the person underneath them and to justify them, they should really

sit on the floor for a week and do it themselves. Until anybody ever does that they cannot say they know what it's like.'

- 'I think a lot of them appreciate how difficult the job is, they understand the pressures that we're under. But they're quite restricted as to what they can do for us to improve things as well. At the end of the day we know we've got to take the calls that we take and we've got to get on with it basically.'

In a similar vein to case one, these extracts document the idea that managers cannot substantively relate to their staff until they have experienced the job procedure. In case one, the assistant managers were in similar positions, as were the supervisors. The next comment addresses this contingency from the inverse viewpoint:

'...when I started in January when the launch of the card happened, we were all at the same stage, nobody was better than anyone else, not even the seniors, the managers, we were all still learning and we became very friendly by asking each other advice and we're very lucky that it's carried on. There isn't any backbiting, there's the odd person obviously that your personality doesn't get on with...but you still communicate with them and it isn't a problem.'

This extract illustrates the roots of mutuality in the department, and also the overriding nature of the procedural repertoire in the domain of the task.

Furthermore, a similar degree of mutuality is shown with a denial of any degree of 'proceduralism' on the part of this team manager. Also note the contingent nature of the substantive repertoire 'if the staff take the mickey with their timekeeping':

- 'I think the main thing is that we will be very very fair to them as long as they are fair to us. If we see issues where they're starting to take the mickey a little bit with regards to their timekeeping or you know, but I really think there's no sort of set pattern to us saying "that is an operator and those are your restrictions, you are only here not to give any input to the business but all you're here to do is answer the phone'

Despite this, two of the comments note a hierarchical restriction on the social side of work, which hampers the development of a personally based management - worker relationship:

- 'Managers are managers aren't they? You get on with them they're all very nice but when it comes down to it they're there to do a job to get you to work. Whatever way they do it whether they're nice and friendly to get you to do something or they're going to rant and rave to get you to do something basically at the end of the day you're here to work and obviously if you're the manager here you're not going to tell

things that you tell your friend. So even though it's a very friendly basis it's not quite as personal with the managers as with your colleagues.'

- 'Sometimes you tend to think that they don't really need all these meetings and people do tend to think that they are slightly aloof. That's as a group and I can only speak as me and on a one to one basis I get on well with them'

The responses for this case show that in relation to the topic of mutuality and respect, the substantive repertoire is contingent upon the procedural one. However, this is something which has occurred in this case, unlike the distance between managers and operators noted in case three. Idiosyncratic factors do, therefore, enter the management - worker relationship, although in this case some hierarchical interventions are noted, delineated by the interpretive repertoires used in the speech. The recognition of the problem of 'having done the job' by respondents from different levels of the hierarchy also denotes mutuality in the management worker relationship by the very fact that the same topics arose in completely unconnected circumstances.

6.12 Category seven: Respondents views on computer based monitoring

This last category of data serves as a final focus point for the discourse. In this category the analysis focuses on the substantive or procedural repertoires, and whether the respondents speak about the monitoring positively or negatively. The applicability of the previously developed repertoires to technological, rather than social issue is justified by the following: the technology is being treated as the dependent variable in this study with 'context' being the independent variable. This stems directly from the research question 'is it the technology or how it's used?'. Therefore, rather than explore variation in talk about the technology itself, we are exploring variation in talk about how it's used (i.e. the organizational context, or the management - worker relationship). Talk about the latter is expected to vary according to (1) whether talk about monitoring is procedural or substantive (in other words, whether monitoring focuses on the task or the person, and whether this has a positive or negative focus) and (2) the results of chapter five which draw upon the work of Westin (1987, 1988). As such, before comparing these data with

those elicited in the last chapter, computer based monitoring is also located within its discursive context and the following analysis serves as a linking section between category and discourse analysis. The following analysis thus exposes talk about monitoring itself, which was extracted from the filter question of the first section of the interview where respondents were asked to describe the purpose of the monitoring.

I: Case one

In speaking about monitoring, respondents noted a change in the nature of monitoring in their department since the inception of the technology five years previously. At first it was seen as 'a Big Brother system' which was strictly managed to tackle a mounting backlog of work. Now it is widely seen as a tool which has an enabling effect, whose use has gradually been refined, alongside the increased acceptance of the technology by the staff. Accordingly, talk about monitoring features positive talk from all levels of the hierarchy.

The majority of the talk features positive interpretations of monitoring technology which highlight its advantages. The following extracts highlight how respondents see the technology as an 'enabling tool', and, unlike some of the other cases, also note how the technology is now seen as politically neutral by the respondents:

- 'We're using it as - the technology we use as a tool, things like the debt collection system, the power dialler, they're just computers, bits of hardware, if you like, software, to help us do our job.'
- 'Initially it was to get through more accounts quickly. Which it did...erm, no where near the volume now and then so you can...they're not strict on it anyway, so you should be talking, typing, etc. We've all got more used to it so become quicker anyway.'
- 'The first thing that comes to mind is speed. You can get rid of a lot of quickies or cases quickly because of the computer. In other departments I've worked in, we had trouble finding files, which just slowed everything down, so everything's just there on computer all the time, which is brilliant.'
- 'Initially we used it to crunch numbers ...you can use it now to specify areas you want to target whereas before it was a number crunching exercise'

- '...it's good from a customer service point of view so we're not keeping people waiting.'

Above we can see the procedural advantages of the technology outlined by the respondents, such as better productivity, customer service and strategic planning. Furthermore, the second comment notes how the management approach to monitoring has become less strict, supporting the focus on the management worker relationship. Another important aspect of the above talk is that it focuses more on monitoring the task, rather than the people executing the task. This is fundamental to a monitoring regime which is not to be perceived as 'Big Brother - like', and is a contrast which will be highlighted by the later cases. Chapter five also noted the positive way in which the technology was implemented in this case. Accordingly it has been shown that staff in this case see the advantages as opposed to the disadvantages of monitoring technology, and indeed this is the most kind monitoring regime observed in this study.

II: Case two

Case two represents a different picture. At the time the data were being collected, case two was implementing its monitoring system. Some of the responses are similar to those in case one, in as much as individuals at all levels of the hierarchy can see the overall advantages of monitoring calls. The following comments highlight this idea:

- 'Well it's a lot easier for us, and I think as the system's gone on, with the technology, you don't make as many mistakes as you used to. It's got to something that is a great help really because we can all make mistakes'
- '...you can actually train people better as well because they can plug in and listen to the way you...and like the performance of it, it picks all your calls up and you can see how the people are doing'
- 'Well to improve the standard of service that we give to the public and travel agents'
- 'The purpose is a management tool. One that actually assesses traffic coming in to the centre, so that we can see what volumes of calls are coming in, how we're handling them, which areas possibly need assistance, and hopefully, instead of having to react we can soon see patterns and have actually things put in place'

Here we can see the same issues arising as in case one: acknowledgement of the positive procedural aspects of computer based monitoring. However, a more sinister side of the technology is also acknowledged by the supervisors and managers: the disciplinary monitoring of people, rather than simply the task - in other words, the negative substantive effects. Here are some examples of comments - the first is from the assistant manager, the second from a supervisor and the third from an operator.

- '...if we actually felt that someone was abusing the system, they were making out calls to family, friends or anybody, catalogue companies or whatever, we can actually get the telephone numbers, and also because they have lots of friends within the company, if they were actually abusing it by ringing each other, and spending far too much time doing that instead of taking calls that they're paid to do, so there's lots really, and we can certainly monitor performance, but I would look at it at the moment as a tool to training'
- '...we can find out if a person needs help in a certain area...they're in the room for seven and a half hours and they're only logged on the screen for five hours. We know they only have half an hour lunch break so there's a problem somewhere. What are they doing? And we can find out why. Sometimes they are on a call for too long. Is there a problem? That's when you know you've got to get someone to assist that person in that area.'
- 'To probably make it more efficient I think. Running the actual department more efficiently...also to make people take more calls. Before we used to have a thing in the wall showing how many calls were actually waiting but then they've knocked that off. I think they've actually done that on purpose because if there were no calls waiting people would go into idle or whatever, because before there were no calls waiting they could have a chat...so that's another thing that has been done to gee up a bit.'

The first two comments reflect the findings of Higgins and Grant (1989) who note that monitoring of the process is likely to be more pervasive than simply monitoring the output. However, the actual outcomes in terms of staff experiences, according to the current hypothesis, depend upon how this is framed by the management. In this case, comments from the assistant manager and supervisors have a definite negative slant. It should, however, be noted that since this case was just implementing its monitoring system at the time of the study, opinions were still being formed and as such large variations between respondents were expected in this category. Findings from the other

categories of this analysis further assist our understanding of this and will be presented in more detail in the final chapter.

III: Case three

In a similar vein to cases one and two, some respondents in case three also acknowledged the positive procedural aspects of statistics (namely efficiency and simplicity), although the majority of the respondents from all hierarchical levels immediately focused on the negative substantive effects - already referred to as the disciplinary monitoring of people. First, the procedural comments (the first of which is rather glib):

- 'I think for greater efficiency, obviously time as well, it saves a lot of time as well, so obviously for greater efficiency'
- 'It's a very simple system to work and also the erm, vouchers there's nothing really complex - too complex about working downstairs so really we should be able to get and with the stats quite a high volume through so...I mean I personally find it better'
- '...it's more efficient - you do less, if you know what I mean, to actually do the work. Whereas with the old system, if you made an error and you had to go back you had to press a lot more keys if you like, to go back, whereas this one you press two keys and you go back. So that way it's more efficient.'

The overwhelming response, however, was of the pressure generated by the monitoring and the fear of under achievement, as opposed to any advantage. From the first quote we can see this negative focus is presumed to apply at managerial level as well as that of operator, and the second quote is from a supervisor:

- 'They'll be able to see it - the managers - at a glance, somebody who has say been here for seven hours, but they've only been on the machine five hours, so why is that? You know there's been a problem; maybe someone got stuck in a batch or something's happened and also they can gauge their speed..."they've only got 85%" you know, "what happened?"'
- 'It's a way of monitoring staff to ensure that we remain cost effective by remaining within our existing departmental standards'
- 'I would prefer the stats were a bit lower...they want you to achieve 100% performance. I would prefer if the stats were, say, in the low 90's I'd be able to cope

very well but because they want you to achieve 100% I would push myself and that would be harder so it's a bit difficult to maintain that speed every day.'

- 'I think you're under such great pressure, it's too much really. From my point of view, I mean I can do the stats but I mean if some days you have a bad day you are put under such a lot of pressure to keep those stats up.'
- '...there's the stress and the fact that you get problems: joints coming out of place, you know, rheumatism, arthritis, aching shoulders because you're just constantly keying in all the time. We do have five minutes an hour off'
- '.. you're under pressure all the time...I mean you're at it all the time. You're actually timed how long you're in your machine, and at the end of the day, how much you've done over the day...you have days where you just feel as though you don't - you know you don't really want to have to do it...but you can never really slack off'

This automatic focus on the negative substantive side of monitoring by these respondents echoes findings in other categories. It will be demonstrated that case three represents the worst monitoring regime observed in this study.

IV Case four

Like case one, case four responses emphasise on the enabling nature of the technology, using the procedural repertoire in a positive way. However a few comments arose concerning the disciplinary monitoring of people. This case more than any other contained comments where respondents were able to see both the advantages and disadvantages of computer based monitoring and still find it to be beneficial overall. The following comments, which come from all points in the hierarchy, illustrate this:

- 'The main objective every day is to ensure that we're providing the correct customer service and to the correct quality and we are achieving our service levels. With regards to, and that's where the call management system comes into play very heavily because it does need constant supervision and management. It can be fatal really just to concentrate on your busy period say from half eight till ten, eleven o'clock and then think to yourself, "Right, I'll move away from that"...and then to totally ignore the wallboards and the state that you are because although you may have gone into a quieter period that can be fatal if you've got staff who are just not doing what they should be doing'
- 'To make our jobs easier, to give a better customer service...basically it keeps you on your toes in a way. It is very easy for anybody to [inaudible] for the day and how on earth would they know? They can't listen in to our calls. If we don't if we say we don't want monitoring how on earth would they know? Productivity monitoring well

again, yeah, you've got to get the best you can out of your workers and it isn't a problem because they give you feedback. If they didn't I think it would be a problem. If they just took these figures away "so and so's not doing very well" then that would be a problem, but we get them distributed and if we want to have a look then we have a look.'

- 'I think it's a good idea because I mean they've got to do something like that because otherwise you're just going to get people that's going to take advantage. I think it's quite a high level they expect from you...all I know is what not to do and what you shouldn't do to affect your figures. You shouldn't go into aftercall, you shouldn't go into auxworks unless you've got to because it affects your figures.'

As in Westin, these respondents see the monitoring process as necessary but fair. Other respondents note the procedural advantages as being better customer service, better efficiency and strategic planning for staffing levels and so on, as in cases one and two, and to a lesser extent in case three. Only one respondent concentrated automatically on the negative substantive effect of monitoring, particularly listening in:

- 'Personally I don't like it it makes you very nervous. You want to do it right and you have the beeps on the phones so you know when you're being monitored and we requested that to be taken off and eventually they did. And that's a lot better because you don't know you're being monitored so you're just yourself which is a true reflection of how you are all day.'

Another respondent commented thus:

- 'Sometimes it's a bit of a bind thinking you know they're more interested in what your figures are than you know what you can actually do, it's figures oriented, you got to get this you got to get that rather than what's right for the customer. They do take a long time sometimes when you need to do things whatever but I think they're more interested in figures rather than you doing it wrong'

The latter respondent notes how successful monitoring must thus be about striking a balance between management, worker and customer requirements, and how sometimes the qualities of the worker and work can be overlooked. This is a negative use of the procedural repertoire. The balance struck in this case by the management and workers in relation to monitoring represents the more acceptable face of this technology, particularly when these comments are compared to those in case three.

The overall situation in each case will now be compared, and the final section of this chapter will endeavour to summarise the content of the interpretive repertoires which form the context of computer based monitoring in each case.

6.13 Summary of findings about the management - worker relationship

This section of analysis set out to explore the between case variation in the management - worker relationship. The analysis achieved this by mapping the types and use of the interpretive repertoires, originally revealed in the first part of the chapter. Not only were the same repertoires used, but mechanisms through which the respondents achieved the explanatory objectives were also identified.

The discourse examined was extracted from the first (for one category) and second sections of the interview texts. The discourse fell into four thematic categories which would withstand cross case analysis. These categories were (1) communication; (2) trust; (3) mutuality and (4) general thoughts on computer based monitoring (from the first section). The final section of this chapter sets out to describe in full the characteristics of the interpretive repertoires at this, and the organizational frame of reference.

Accordingly, the linguistic mechanisms and repertoires used were as follows. Beginning with the repertoires:

- *the substantive repertoire* at the departmental frame of reference described the above aspects of the management - worker relationship based on concepts of human interaction and the subsequent appreciation of individuals' idiosyncrasies;
- *the procedural repertoire* at the departmental frame of reference described the above aspects of the management - worker relationship based on job process, hierarchy, positional power and so on.

The respondents used the above repertoires to explain the nature of each of the categories, communication, trust, mutuality and their thoughts on monitoring using several mechanisms:

- an automatic, positive use of either repertoire in relation to a particular category
- an automatic, negative use of either repertoire in relation to a particular category (in other words, what something is *not* rather than what it *is*)
- making one repertoire contingent upon the dominance of another.

For each category of data, significant patterns began to emerge across the cases. The following tables (overleaf) summarise the findings, with the main mechanisms and repertoires compared.

Whilst successfully illustrating the amount of cross case variation in levels of communication, trust and mutuality, the tables also show how respondents in each case used the substantive and procedural repertoires to achieve their explanatory aims. In case one, the substantive repertoire is used automatically to describe idiosyncratic and personally based nature of the communication, trust and mutuality levels within the management - worker relationship. Similarly, computer based monitoring, though stringent in this organization was accepted by the staff and they described it purely in terms of its procedural advantages.

Case two, in contrast exhibited moderate levels of communication and trust and poor levels of mutuality within the management - worker relationship. In this case, the procedural repertoire was dominantly used as the main method and barrier to effective

Category four			
Communication			
Case	Reported Level	Repertoire	Mechanism
1	Good	Substantive	Automatic positive
2	Moderate	Procedural	Automatic positive
		Substantive	Automatic negative
3	Poor	Procedural	Automatic positive
		Substantive	Automatic negative
4	Good	Procedural	Automatic negative
		Substantive	Automatic positive

Table 6.4: Cross case results for discourse analysis category four: Communication

Category five		Trust	
Case	Reported Level	Repertoire	Mechanism
1	Good	Substantive	Automatic positive
2	Moderate	Substantive	Automatic positive
3	Poor	Substantive	Automatic positive
		Procedural	Automatic positive
4	Good	Substantive	Automatic positive
		Procedural	Automatic positive and negative

Table 6.5: Cross case results for discourse analysis category five: Trust

Category six		Mutuality	
Case	Reported Level	Repertoire	Mechanism
1	Good	Substantive	Automatic positive
2	Poor	Procedural	Mainly automatic positive
		Substantive	Contingent positive
3	Poor	Procedural	Automatic positive
		Substantive	Automatic negative and contingent positive
4	Good	Procedural	Automatic positive
		Substantive	Contingent positive

Table 6.6: Cross case results for discourse analysis category six: Mutuality

interpersonal communication (using the substantive repertoire as a contrast) and mutuality (where the substantive repertoire was contingent upon hierarchical position). The moderate trust levels were however attributed to personal, rather than hierarchical differences. Computer based monitoring itself was *prima facie* accepted by the respondents, who saw the procedural advantages of the technology, with the managers in particular noting the positive substantive benefits (i.e. one can monitor the person as well).

Category seven	Thoughts about	computer	based monitoring
Case	Accepted?	Repertoire	Mechanism
1	Yes	Procedural	Automatic positive
2	Yes	Procedural Substantive	Automatic positive Automatic positive
3	No	Procedural Substantive	Automatic positive Automatic positive (majority)
4	Yes	Procedural Substantive	Automatic positive (majority) Automatic negative

Table 6.7: Cross case results for discourse analysis category seven: Respondents' views on computer based monitoring

Overall the procedural repertoire was dominant in this case with mixed use of the substantive repertoire.

In case three, the management - worker relationship was dominated by poor levels of communication, trust and mutuality. To describe this the respondents automatically used the procedural repertoire, contrasting it with the substantive repertoire in relation to communication, with interpersonal and hierarchical factors both being the source of mistrust, and the hierarchy being responsibly for the lack of mutuality. In a few cases interpersonal factors were used to describe the lack of mutuality but the substantive repertoire was used mainly as a contrast in relation to this. Computer based monitoring was not accepted by the operators in this case, the main reason for it being the substantive damage it had caused them, although a few saw the procedural advantages.

In case four there was roughly equal usage of the procedural and substantive repertoires in describing the good communication, trust and mutuality levels in their management - worker relationship. In relation to the first two categories, the procedural repertoire was used as a contrast to the idiosyncratic bases of trust and communication, whereas the mutuality level was explained using the procedural repertoire with the substantive one being more contingent. Accordingly, computer based monitoring was

accepted in the main by these respondents, who saw its procedural advantages. However, some respondents noted the negative effects on the individual also. The final section of this chapter will now explain the content of each repertoire, and summarise the overall results of the discourse analysis.

6.14: The interpretive repertoires and conclusions

Having now completed the discourse analysis the following lists, drawing directly from each extract used in this analysis, show the concepts and themes which characterise each of the interpretive repertoires (a) in the organizational frame of reference and (b) in the departmental frame of reference. When the repertoires are shown in this way, the difference between them is almost intuitive. However, it was thought that relying on an 'intuitive' validation of the themes from the cases was insufficient. Accordingly, a second person was used independently to code the data. This person had no prior knowledge or sight of the case material. He was, however, a researcher in Aston University. Having sorted the data into themes, concordance was very high (97%). It was, therefore, assumed that there was a high degree of validity in the themes identified.

Beginning with the organizational frame of reference, first the procedural repertoire and then the substantive repertoire will be listed, and the same for the departmental frame of reference. It should be recalled that with the organizational frame of reference, the substantive repertoire was used as a means of contrasting the department with the organization in most cases, and the question of what this tells us about 'organizational culture' itself is raised by this finding. This and other issues raised by this research will be discussed in the final chapter. Here are the interpretive repertoires, with the broader themes listed. Each corresponding table cell is not meant to represent a bipolar semantic differential, however.

The main thing to note about the repertoires in tables 6.8, 6.9 and 6.10 is that each theme is not meant to be all - encompassing. From the mechanisms the respondents

applied to the repertoires each of these themes is manipulated to achieve the individual explanatory aim. This is the very essence of the interpretive repertoire which is primarily attached to speech, rather than what exists in 'reality'. The final chapter of this thesis will thus attempt to tease out the links between context, talk and technology, and draw some conclusions about how the departmental social context can affect the way in which computer based monitoring is used differently between the cases. This will be achieved by pattern matching the talk with the responses from the work of Westin (1987, 1988). The study will then be discussed in relation to (a) other work on computer based monitoring (b) other work on organizational culture and (c) other work on discourse analysis.

The procedural repertoire	The substantive repertoire
Themes	Themes
Impersonal 'organization speak'	Humans as mature, individual equals
Terms and conditions	Listening
Fringe benefits	Discussion
Tokenism	Fairness
Structure	Trust
Planning	Co-operation
Codification	Commitment
Profit	Dedication
Figures	Knowledge acquisition
Discipline	Friendliness
Rule following	Give and take
Humans as computers / robots	Flexibility
Efficiency	Intelligence
Functionality	Consideration of others
Detachment	Initiative
Unquestioning loyalty	Rule challenging
Obligation	Work hard / play hard
Physical environment	Humour
Work volumes	Vivacity
Humans treated as numbers	Relaxed
No delegation of responsibility	Informality
	Delegation of responsibility
	Comradeship
	Psychological environment

Table 6.8: The themes within the procedural and substantive repertoires used by the respondents in the organizational frame of reference

The procedural repertoire	The substantive repertoire
Themes	Themes
Disciplinary procedures	Approachability
Rank	Openness
Size	Social orientation
Hierarchy	Humour
Indirect action	Bitchiness
Reaction	'Face to face'
Buck passing	Involvement
Definition of self / other through role	Dialogue
Awareness of process	Proaction
Memorandums	Genuine interest
Meetings	Self expression
Misinformation	Creativity
Keeping up appearances	Informality
Certainty	Rumour
Dictatorship	Idiosyncrasy
Loyalty	Give and take
Positional power	Delegation
Prejudice	Confidentiality
Deference	Hypocrisy
Reward	Equality
Fear	The 'grapevine'
Work experience	Individual merit

Table 6.9: The themes of the procedural and substantive repertoires used within the departmental frame of reference and pertaining to the management - worker relationship.

The procedural repertoire	The substantive repertoire
Themes	Themes
Speed	Training
Efficiency	Advice
Volume	Spying
Customer service	Stress
Error correction	Injury
Strategic planning	Individual performance
Statistics	

Table 6.10: The themes of the procedural and substantive repertoires used by the respondents in relation to computer based monitoring

Chapter Seven

Discussion, Conclusions and Agenda for Future Research

7.1 Introduction

This research makes several additional theoretical and empirical contributions to current knowledge about computer based monitoring technology and its application in service sector organizations. This chapter examines each of these contributions in turn, and argues that the results of the current research take our understanding of computer based monitoring beyond that espoused by the models of Westin (1987, 1988), Attewell (1987) and Higgins and Grant (1989). Through the use of interpretive repertoires as the main analytical tool, this research reveals a variation in the context of computer based monitoring vital to its relative success or failure, which would not (and could not) have been revealed by previous theory alone. It also concurs with the sociological analysis of Lyon (1993) in his general rejection of the 'Panopticon' metaphor of surveillance applied by Sewell and Wilkinson (1992) although elements of Panopticism have been identified in the data, and in earlier work of Westin (1988). Further to this, the contextual knowledge gained through the current analysis is extended with it helping in a validity exercise performed on earlier category - based conclusions about computer based monitoring explored in Chapter Five. This research also makes a contribution to the understanding of organizational context and its study, and extends and modifies the work of Harrison (1972) and McGregor (1967), both of whose work were used in theory formation and the development of the interview schedule. The current work is reflexive upon this work, which was discussed in Chapter Three, and reframes it within a post structuralist approach and addresses the issues it raises within a Foucaultian discourse analytic framework.

This chapter also highlights many issues which were not able to be addressed due to the limitations of current theory. The structure of this Chapter is as follows. The next section briefly compares the results of the discourse analysis with the results of the

analysis according to the categories of Westin (1987, 1988). The following section then examines the contribution this work has made to our understanding of computer based monitoring in terms of (a) previous research of computer based monitoring (b) previous models of computer based monitoring and (c) wider surveillance theory. The section following then examines the contribution made by the work to the understanding of organizational context. Finally an agenda for future research is outlined.

7.2 Summary of Case Analyses (all cases are described in full in Chapter Five)

I Case One

Case one was a collections department in a building society in the North of England, and it is described at length in chapter five. The analysis by categories revealed that *prima facie* it was the most liberal of the work regimes in operation, with the technology's characteristics wholly complying with Westin's Union model of monitoring. The technology itself was not seen as political or controversial by the staff and viewed as a mere tool. This is despite the fact that it had been implemented to speed up the work process and to monitor the output of the department. Case one's congruence with previous research findings can be found in tables 5.4 and 5.8 on pages 209 and 215.

When the respondents spoke about the organization, their discourse and repertoire usage resulted in the assertion that the management - worker relationship was the main source of contextual variation and thus the most relevant frame of reference for this study. Comments about the organization used the procedural repertoire with the majority of respondents automatically orienting their talk to the departmental frame of reference, and used the substantive repertoire to achieve this. The 'good member of staff' was distinguished by a number of respondents from the organizational rule following robotic type (i.e. the procedural repertoire), and was in fact defined as someone with excellent interpersonal skills who was hard working as well (i.e. the substantive repertoire). The uniqueness of the department from the rest of the organization was also characterised using the substantive repertoire.

Accordingly when the management - worker relationship was explored along the three categories of communication, trust and mutuality, substantive human themes such as openness and approachability occurred in relation to the former. Similarly for trust the substantive repertoire was used to describe the delegation of responsibility and appreciation of responsibility in the department. Mutuality as a topic was also described using the substantive repertoire and essentially 'human' concepts. The responses in this category also highlighted the ideological form of control being exercised in this case.

Case one can thus be characterised as follows:

- Stringent productivity monitoring technology was applied constantly and at a fast pace
- The staff accepted CBM as a neutral tool
- The characteristics of the technology complied with Westin's Union model
- The management - worker relationship was based on the appreciation of the individual, good communication, ideological control and respect based on a 'work hard - play hard' ethic

II: Case two

Case two was the reservations department of a tour operator based in the North of England. The analysis by categories revealed that a more restrictive work regime was in operation to the one in case one, essentially governed by structure and procedure. Opinions about monitoring were still being formed at the time of the study and the department was still in a state of flux. Nevertheless some patterns were spotted in the data which were revealing in terms of the context of CBM. The case's comparison with previous research on CBM is shown in tables 5.5 and 5.9 on pages 209 and 215. In respect of Westin (1987, 1988) the findings were split between the Union and Taylor models by 6 - 4 respectively, reflecting the mixture of responses.

From the comments about the general labour process and the job design itself, many respondents saw monitoring as a threat to both physical and mental freedom, but this was mediated by social relationships to some extent. Like case one, however, talk

about the organizational frame of reference used the procedural repertoire and references to the department were revealing about the context of CBM. Despite a procedural / substantive; organization / department distinction in category one, when asked to describe a good member of staff respondents used the procedural repertoire and noted a negative distinction between their department and the rest of the organization. A typical response would be 'it's worse because of the monitoring' for example.

Accordingly when the management - worker relationship was explored responses varied. However, one theme pervaded the three categories of communication, trust and mutuality. This was the fact that the respondents discourse was governed by hierarchy. In terms of communication, respondents noted a reliance on latent procedural mechanisms rather than proactive interpersonal communications. As with communication, talk about trust was also hierarchically defined, in terms of who the respondents could or could not trust. Mutuality also reflected the structural limitations to conclude that the management worker relationship is more distant and formal than in case one and as such we can conclude that a hierarchical style of control is more dominant here. Supervisors, as in case one were the mediators of this relationship. Accordingly case two can be summarised as follows:

- Stringent productivity monitoring and listening in was being implemented at the time of the study
- Opinion about CBM was mixed, with some seeing it as a neutral tool, and others seeing it as a real threat to physical and mental freedom
- The characteristics of the technology showed a 6 - 4 split between the Union and Taylor models of Westin respectively
- The management - worker relationship was governed by bureaucratic rule following behaviour based on hierarchical position, with certain roles being seen as mediators between management and workers

III: Case three

Case three was the data input department of a midlands - based bank (one of the six high street banks), whose credit card processing operations were located in Birmingham. The employment situation was unique in the department since a mixture of employment agency and bank staff were working there. The work regime in case three was the most stringent of all the case studies, with all but two characteristics of the technology complying with Westin's Taylor model. The results of the analysis by categories derived from previous research are shown in tables 5.6 and 5.10 on pages 209 and 216.

Like cases one and two, however, talk about the organization either (a) automatically focused on the department or (b) used the procedural repertoire to talk about the organization with the discourse characterised especially by elements of tokenism and distance. However, when focusing on what would constitute a good member of staff, an individual exhibiting the correct procedural rather than personal characteristics was described, with the substantive repertoire only being used in contingency. Accordingly respondents noted, as in case two, that their department was unique from the rest of the organization on negative procedural grounds.

The procedural emphasis was also reflected in talk about the management - worker relationship. Like case two, respondents in case three use the procedural repertoire positively and the substantive repertoire negatively to explain how communication works in their department. Hierarchy was seen as the obstructing factor in relation to interpersonal communication. The discourse in relation to communication revealed a set of disillusioned office managers and a group of supervisors struggling to keep a malinformed and exploited group of operators productive. This dysfunctionality was also reflected when the respondents spoke about trust. Respondents noted a complete breakdown in trust using both the substantive and procedural repertoires. Of the procedural repertoire the departmental closure and the unpredictable statistics were the main problems, and of the substantive repertoire hypocrisy, lack of autonomy and inconfidentiality all featured in the talk. Similarly with case two, case three's responses

as to mutuality were entirely governed by the hierarchy, and so there was little mutuality reported in the management worker relationship. Case three can thus be summarised as follows:

- Stringent productivity monitoring technology, intensive, fast, machine paced work
- Productivity statistics were the main source of stress for operators
- Almost total compliance with Westin's Taylor model of monitoring
- The management -worker relationship was reported to be dysfunctional and was governed by mistrust, latent communication and a lack of understanding which was mediated to a small extent by the supervisors

IV: Case four

Case four was the customer services department of a midlands based subsidiary of an American multinational finance company. The work regime in operation in this case was less severe than case two but more so than case one. The results of the analysis by categories derived from previous research is shown on pages 207 and 217, tables 5.7 and 5.11. This case exhibited a two thirds / one third ratio of compliance with the Union model of Westin (1987).

This fairness aspect of the context in case four is reflected in talk about both the organization and the management - worker relationship. Similar to cases two and three, the respondents in case four either referred to the organization using the procedural repertoire, their talk dominated by notions of tokenism and distance, or they automatically focused their talk on the department. However, unlike cases two and three an organization - person relationship was cast in a more positive light, despite being tokenistic and distant. Furthermore the substantive repertoire was used in relation to what constituted a good member of staff, and focused on the departmental frame of reference. The department was distinguished from the rest of the organization using the procedural and substantive repertoires with a positive emphasis, with broader organizational factors being acknowledged.

With this focus on the department being established there was roughly equal usage of the procedural and substantive repertoires in describing the good communication, trust and mutuality levels in the management - worker relationship. Case four can be summarised as follows:

- Stringent productivity monitoring and listening in
- A balanced view of CBM was offered, with its benefits and pitfalls being acknowledged. Listening in was more controversial because of the potential for inaccurate performance representation
- A majority compliance with the Union model of monitoring was noted
- The management - worker relationship was healthy and based upon interaction between the formal and informal sides of departmental life

7.3 Relative severity of monitoring regimes

The covariation between the context of the monitoring as revealed by the discourse analysis and the responses to Westin's work is demonstrated above, and is significant for the purposes of this study. However, before this is discussed in more detail it should be noted that cases one and three represent the least and most severe forms of monitoring in this study, respectively. Despite similar responses to Westin, the difference between cases two and four lay in the management worker relationship, more specifically with an acknowledgement of the importance of the appreciation of humanistic values and idiosyncrasy. Case two exhibited an over reliance on the mechanisms of bureaucracy and structure in their operations, whereas case four acknowledged the use and complementary nature of both the formal and informal side of work.

The most remarkable aspect of these results is the unequivocal influence of the management - worker relationship over the acceptance of monitoring. In this study the technology itself was held constant throughout, with the context being the main variable between the cases. Across the cases, context as indicated by the interpretive repertoires of the respondents changed in relation to the responses to Westin's model. Accordingly,

it is possible to compare the cases in terms of monitoring severity reflecting patterns in discourse and responses to Westin.

Least Severe		Most Severe	
Case one	Case Four	Case Two	CaseThree

Table 7.1: Relative contextual severity of monitoring regimes

This table will be used in the next section which uses the contextual conclusions drawn in the current study to evaluate previous research into CBM.

7.4 Contribution to previous research on CBM

The following discussion concentrates on the previous research findings as articulated in chapters two and five, and shown in tables 5.1 and 5.2 (pages 118 and 119). On close examination of the categories across the cases, the relative compliance of the cases with the guidelines for use of CBM expressed in the previous research varies according to the organizational context, i.e. according to the scale of severity in table 7.1, above. The next sections explore this in more detail.

7.4.1: Technology implementation

In the preliminary analysis in chapter five the difference in the way the technology was implemented was explored. It was noted that the implementation in case one was accompanied by an instant promotion for the staff, whereas in case three the implementation of computer based monitoring was surrounded by secrecy. The dislike of listening - in in case four was also associated with its implementation. Previous research into computer based monitoring noted that when monitoring is framed positively to staff it is more likely to be accepted. The data in this study support these assertions, thus substantiating the work of DeTienne and Abbott (1993).

7.4.2: Technology use

Westin (1987) emphasised that for monitoring to be perceived as 'fair' there should be a recognition that there can be problems with the achievement of quantity standards. Further to this, Grant, Higgins and Irving (1988) noted that quality and quantity measures should be mutually complementary. Quantitative monitoring, despite being accepted in all of the cases, was only accompanied by a comprehensive and stable quality assessment system in case one, the least severe case of monitoring.

In general the two least severe cases of monitoring perceived quality to be important overall, although there were some problems with the appraisal and telephone service monitoring in case four, although these were being addressed. In case two, operators perceived the emphasis to be on quantity although managers believed they were conveying a quality message to the staff. In case three, the most severe, operators defined quality through quantity. In fact, there was no quality measurement system in case three apart from a 'fire fighting' approach taken by the grade twos.

In a similar vein to the last section, therefore, the maxims about the interaction of quality and quantity measurement systems and the relative pervasiveness of both were confirmed by this work. Data concerning context suggest that the organization with the most severe approach to monitoring paid little attention to formal, structured quality measurement compared to the organization with the least severe approach. These data were supported by additional interview data concerning the feedback and appraisal process outlined for each case in chapter five.

Continuing with the feedback theme, another notion of Grant, Higgins and Irving's (1988) was that the monitoring should accurately represent performance. Again in case one there was a comprehensive feedback and appraisal structure in place, and as such performance was perceived to be accurately represented. This was not so in other cases. In case four, the appraisal system was under review because of a central tendency in the ratings, and case two's appraisal system was also being overhauled. Case three presented myriad problems because of machine pacing, and the fact that the computer calculated daily performance targets, with work being measured purely in terms of quality. This

concur with Grant, Higgins and Irving (1988) where comprehensive and reasonably accurate performance measurement and evaluation systems were in place, CBM was more readily accepted.

In each case, there were ways of manipulating the performance statistics, but no recognised ways of confounding the measuring system itself. There were ways of manipulating input information, and the people who were reading the information from the system. This varied from entering false information via activity buttons to more crude methods such as unplugging telephones. No relation between the likelihood of 'fiddling the figures' and the relative acceptance of monitoring was found. Despite this greater effort was made in case three to 'stamp out' work manipulation than in any other case.

Similarly, there was only one instance of computer based monitoring and listening in being perceived as 'spying'. This was perhaps because monitoring in case two was very new to the respondents. However, listening - in is more controversial in this vein, which lends support to the opinion of Nine to Five (1990) when they assert that the essence of the offensive nature of monitoring lies in the way it monitors the person, not just the task. It is easy to see how this argument applies in relation to listening in, when compared to the cold statistical basis of productivity monitoring. Higgins and Grant (1989) also note this in their model of 'monitoring pervasiveness' that when the individual is monitored (they are unclear as to the meaning of 'individual') CBM is more pervasive than if the group or any wider frame of reference were being monitored. Accordingly some of the data from cases two and four support these earlier assertions.

Patterns in relation to the accessibility of performance information were not found in the data. This is because none of the cases allowed their staff complete accessibility to their performance data. In other words, not every respondent in every case perceived themselves to have access to the data. However, in the most severe case it was the intention that no operator should have access to live performance data, and only through subversion and rule bending did selected operators have access, via supervisors' ID numbers, to the productivity statistics. Similar inflexibility and discipline was noted in case three in respect of performance standards, unlike other cases. All the respondents

noted that they would be willing to challenge performance information, but only in the least severe of cases was it felt that a challenge could change anything. The next section examines the current results in relation to past research into employee effects of CBM, and the emergent patterns in this section will also be reflected therein.

7.4.3: Effects of the technology on the employee

This section refers to the summary of research findings in table 5.2, page 119. Although the main analysis only concentrates on the first three categories, some cases lent validity to other points raised but they referred to specific scenarios not observed in every case. The first three points and the sixth point were taken from Smith and Amick's (1989) speculative / derivative model based on classics from the job design literature, and this was reviewed in chapter two.

The first point in table 5.2 refers to autonomy and job control. Smith and Amick postulated that this would be reduced by CBM because of its Tayloristic nature. In case one, however, CBM had no direct effect on autonomy because of the dominant management - worker relationship which encouraged delegation. In the two most severe scenarios employees perceived themselves to have less autonomy because of CBM and in case four some autonomy was felt although this was by no means universal. This means that Smith and Amick are correct in being speculative on this point, because the relative reduction or expansion of employee autonomy following the introduction of CBM is not dependent upon the technology itself, but the context wherein it exists. More specifically it relies upon the management - worker relationship and the amount of proceduralism or humanism that lies therein. According to the current data, this will determine whether computer based monitoring actually reduces autonomy or not.

A similar scenario emerged in relation to job demands, the second category derived from Smith and Amick's work. The two least severe monitoring regimes notes that productivity monitoring on the whole did not make the job itself more demanding. However, respondents in case four, the second least severe case of monitoring noted that time and attendance monitoring would increase the demands of their job. The converse

applied for the two most severe cases. For cases two and three, who described their management - worker relationships with a negative procedurally dominant discourse CBM was perceived to increase job demands, particularly in case three where performance statistics were the main source of stress for the operators.

The patterns which have emerged so far are finally confirmed by the third speculative category. Respondents in case one did not describe their job as mechanistic or routine, whereas opinion in cases four and two were mixed, and operators in case three noted that their jobs were decidedly routine. All of the above categories display the same pattern of responses, and the subject matter of the categories is directly related to computer based monitoring. However, they refer to aspects of monitoring which are mediated by the working environment: either by job design or the management - worker relationship. The patterns which emerge in the data confirm the role of context in mediating the relative harshness or otherwise of the monitoring technology itself. These results also support the appropriateness of Smith and Amick's initial research which did not specifically monitor context but assumed a role for it.

The next two categories in table 5.2 are confirmed by the data in case three, and taken from Westin (1988). In relation to environmental instability, CBM was definitely seen as a threat, due to the wind down situation in case three, where underachievers were summarily dismissed as the department systematically attempted to appear more efficient to justify its existence. Westin's (1988) assertion about promotion and statistics is also supported here. In a situation in which monitoring is severe and causes stress for operators, there is little promotional opportunity available.

The last two categories: the sign of the feedback (i.e. positive or negative) and the motivational nature of the feedback are points raised by Smith and Amick (1989) and DeTienne and Abbott (1993). They only arose in the data in case two, where CBM was being implemented, and responses were speculative, due to the recent implementation of the technology. However, again the current data confirms past research in that these issues were raised as relevant in one scenario. No comments were elicited about the increased camaraderie in CBM regime, and this is perhaps outside the scope of this study, but will be raised in the final section: agenda for future research.

The conclusion to be drawn in respect of previous research into technology implementation, use and its effects on the employee is that all of the maxims / suggestions are confirmed by at least one of the scenarios investigated here. The maxims concerning productive and effective use of the technology alongside its implementation are more likely to be fulfilled in cases one and four, the least severe scenarios with more humanistic bases to the management - worker relationships, than cases two and three, the more severe scenarios with more impersonal, bureaucratic bases to their management - worker relationships. This lends validity to previous research as well as to the forms of analysis undertaken in this work.

7.5: A Comparison of the Current Research Findings with Previous Models of CBM.

Chapters two and three outlined the main models of CBM which are grounded in empirical data. The current research adds to the published models both theoretically and empirically by adding more detail to the contextual dimension which hitherto has been neglected and ill defined. As was noted in earlier chapters the models of CBM developed by Attewell (1987), Westin (1987 and 1988) and Higgins and Grant (1989) which attempt to address the question of context and CBM, are characterised by lists of 'maybes'. Context is either left as a residual category or is left speculative with regard to its influence. Characteristics of the scenarios outlined by these research models were observed in various cases. However, this study is not concerned with the validation of these previous models, nor indeed identifying all the characteristics of each typology in any number of cases. The current work addresses the backdrop to these lists of specifics, and notes, using the work of Westin (1987, 1988) as a guideline, which discursive contexts (and management - worker relationships) would be conducive to the occurrence of the aforementioned specifics.

This stance was further supported by the use of several factors from previous models in the actual interview process. All of the points from Westin's Union / Taylor model formed the structure of the first section of the interview and several factors from

Westin's 'Organizational Climate Factors' (1988) formed the basis of the second section. This was alongside the work of McGregor (1967) and Harrison (1972) discussed later in this chapter. We can see, however, that the current results could not have been obtained by relying on past work alone, since the contextual factors involved in that work are over - codified and untestable (in the positivist sense). A discursive approach thus freed respondents to speak about the specifics if they were relevant (this was apparent even if they were prompted) without losing too many of the contextual subtleties apparent in the talk. The covariation of Westin's categories with the interpretive lends mutual support to this approach.

Previous models by Attewell (1987), Westin (1987, 1988) and Higgins and Grant (1989) can also be criticised in more basic terms, which this study also attempted to overcome the major criticisms. For example, the work of Attewell (1987) attempts to marry organizational contextual factors with departmental level outcomes, based on an extreme concept of 'the electronic sweatshop'. The main problem with Attewell's analysis is that the model is based on data collected in a single case. Attewell's framework is also questionable in that his taxonomy is based on an amalgamation of several epistemologically dissimilar disciplines, and his criteria for selecting these disciplines are not clear. A discourse analytic approach largely overcomes these differences by assuming that any organizational factors will be 'internalised' and 'normalised' by respondents and will thus appear as normal in their talk. Furthermore, this is examined across four cases. A further point to note is that in terms of the current study, Attewell's criteria are very much drawn from the procedural repertoire, and the current work highlights the importance of interpersonal factors for the effective use of this technology (or whether, in Attewell's terms, an 'electronic sweatshop' is created). The current research also highlights the remoteness of organizational factors which are deemed relevant by Attewell.

The work of Westin (1987, 1988) demonstrated its use as a template for the current work. Its validity was also demonstrated as the factors drawn from Westin covaried with the occurrence of the interpretive repertoires unveiled by the discourse analysis. However, the use of Westin's work highlighted several inconsistencies and

problems with the actual categories themselves. In particular, the Union / Taylor model's categories were not mutually exclusive. Two categories had responses occurring in both the Union and Taylor models in a number of cases. These were 'individual / group production quotas' in cases one and two, and 'individual performance sampling / constant machine monitoring' in cases one and four.

The question of the object of monitoring (i.e. individual, group or business unit) was also addressed by Higgins and Grant (1989) in their model of monitoring pervasiveness. This model can be found on pages 28 and 80 of this thesis. Like Westin (1987), this model requires further clarification. The duality of group and individual monitoring is also reflected in this model and highlights its shortcomings in this respect. Furthermore, since departmental management were also in receipt of the results of monitoring in all the current cases, a further category of 'management' should be added to Higgins and Grant's 'recipient' category. When the data from the cases is applied to this model, the importance of a discourse analytic approach to the study of context is further highlighted since the situation as observed in cases two and four have exactly the same characteristics according to Higgins and Grant's model. The contextual findings in these cases, as discussed in chapter six are completely different, yet according to Higgins and Grant's model the situations are the same. However, despite the need for further clarification of the model, in the original work the authors stress that it is simply a model for systems that should be accompanied by contextual analysis, and this research validates that assertion.

7.6 Contribution to surveillance theory

The nature of surveillance theory and the Panopticon metaphor were explored in Chapter Three. This area has been covered extensively by Lyon (1993, 1994) in particular, Sewell and Wilkinson (1992) who attempted empirically to ground the theory, and Webster and Robins (1993) who critically examined the work of Sewell and Wilkinson.

The essence of the debate is thus: Sewell and Wilkinson (1992) essentially drew upon the work of Zuboff (1988) and the panopticon metaphor (Foucault, 1991) to ground a theory of the electronic panopticon as exemplified by JIT and TQM systems in the UK. Lyon (1993, 1994) and Webster and Robins (1993) view of the 'electronic panopticon' on the basis that it assumed a mechanistic model of human action to render it operational. The Benthamite logic was that the individual was immobile, powerless and subject to a gaze. The individual is seen but cannot see itself. Lyon's and Webster and Robins' points were that viewing the panopticon in a totalising way deflected attention away from the other methods of social ordering, such as humanity, culture and so on.

The organizational culture surrounding the monitoring process is precisely the focus of this research, and the results tend to support the assertions of Lyon (1993) and Webster and Robins (1993). It is acknowledged that from the data and previous work on CBM, that it does exhibit panoptic qualities. Mobility is a factor in Westin's (1988) model, as is involvement and communication, all supposedly reduced to nothing in the panopticon perspective. Results from the current research show that an 'electronic panopticon' is not inevitable following the introduction of CBM, although it may exhibit panoptic qualities. For example in the most extreme case of monitoring, case three, language about social relations in the department was dominated by the procedural repertoire, particularly by robotic and mechanistic imagery, and concepts of the employees not being treated like mature adults: similar in the way to the prisoner within the panopticon may be treated. As Foucault would assert, the individual's internalisation and normalisation to this technology of power was evident in their discourse. The operators' use of the procedural repertoire indicated that their management were not appreciative of their individual idiosyncrasies. However, even in this most extreme case there were social mediators in the role of the supervisors.

In this sense the panopticon metaphor falls prey to the dualism inherent in labour process control theory, for example. In the case of the latter, a subject centred approach to theory was said to overcome this totalising effect. Knights (1990) noted that individual freedom of thought was still possibly under this totalising panoptic power. Smith and Amick (1989) postulated that worker cohesion would increase under CBM.

In the remaining cases of this research, the role of the social mediator and humanistic values were more pervasive in diluting the panoptic effects of the technology. The discourse of the respondents in case one, the most liberal regime, was dominated by the substantive repertoire in respect of their management - worker relationship, despite the fact that the technology they were using did not need management to know the individual. Thus they could have easily been categorised and treated like machines, yet they were not.

Lyon (1993) and Webster and Robins (1993) raised the question of the role of human values within this new 'electronic panopticon'. This research throws new light on this question. The electronic panopticon seems not to be totalising or inevitable, nor does it necessarily increase the 'docility and utility of the subject' (Foucault, 1991: 218) when CBM is present. The presence of the substantive repertoire and the overriding importance of human relationships (in varying degrees) in the face of this technology demonstrate the unsuitability of a blanket application of the panopticon metaphor when considering the effects of CBM on the individual.

7.7: Contribution to knowledge on organization theory

The methodology employed in this study allowed for a degree of reflexivity on organizational theory employed in the conceptualisation stage of this study. The reflexive nature of the methodology is noted as an issue for future research in Potter and Wetherell (1987), and the nature of reflexivity when employing this method is discussed by Woolgar and Ashmore (1988) thus:

'Any statement which holds that humans necessarily act or believe in particular ways under particular circumstances refers as much to the social scientist as anyone else.' (Gruenberg, 1978) Increasingly, scholars are asking what significance should be granted to the fact that production of social scientific knowledge about the world is itself a social activity (page one)

In other words, at the time the theories upon which the current work drew (especially McGregor, 1967) and Harrison, 1972) were formulated the discourse of organization studies was different, and could be characterised as being more 'determinist,

objectivist and dualist' (Knights, 1990). Furthermore, the use of the work of McGregor (1967) and Harrison (1972) was based on the reflexive assumption that their theories were grounded in empirical data, and the same questions could be asked of today's respondents, yielding similar output. The use of this assumption thus validated the posing of certain questions within the interview when attempting to examine organizational / departmental climate, yet within the current emergently critical discourse within organization studies a different mode of analysis could reveal more about context than the original determinist approach would.

Accordingly, the current work facilitated reflexivity upon the work of McGregor (1967) and Harrison (1972), and offers the following comments on their work. The work of McGregor (1967) was used during the theory formation process. As described above, it was assumed that McGregor's Theory X and Theory Y could be identified in the modern service organization. This was considered likely since although McGregor's original work is that Theory's X and Y are purportedly bipolar, the original text couched Theory Y in terms of Theory X. This suggests that the theory is grounded in discourse, and the same ideas could be uncovered today, but using a more discursive method of analysis.

Data concerning the management - worker relationship (i.e. the departmental context) revealed that organizational context certainly embodied a set of assumptions about the basic nature of individuals and both theory X and theory Y assumptions were reflected in the data. However the use of the current methodology and its discursive basis adds a dimension to McGregor (1967). The emergence of the substantive and procedural repertoires notes that the assumptions articulated by McGregor are internalised and normalised by the respondents, and they are reflected in the talk of organization members from different hierarchical levels. Accordingly, an organization / person dimension is added to McGregor, which is traditionally conceptualised as a theory of the individual in the standard management texts (such as Handy (1985)).

The work of Harrison (1972) also informed the construction of the interview schedule, and the results of the discourse analysis also enabled a reflection upon the organization - person distinction as embodied in that work. Harrison's organizational

culture questionnaire was consulted and the same reflexive assumption applied to the asking of the same questions, but analysing the output using different assumptions. The results of the analysis revealed rich contextual data which also made contributions to traditional understandings of organizational culture. To consider the latter issue first, this study's main finding is that between four different organizations, the respondents taken from 'grass roots' level used the same interpretive repertoires when talking about the organization and their relationship with it. In all cases respondents spoke about their organization as being distant and tokenist in its relationship with them. Some respondents didn't even acknowledge a relationship at all, with the entirety of their talk being focused on their departmental situation. Furthermore, in all but one of the cases, respondents also noted that there were significant grounds upon which their departments were different from the rest of the organization.

Speech within the organizational frame of reference also referred to the organization purely in terms of its procedural aspects: terms and conditions of employment, fringe benefits and so on. An interpersonal perspective was only mentioned by two out of forty four respondents. Furthermore, there were no references to any organizational stereotypes from anyone below managerial level.

Data between organizations pertaining to the departmental frame of reference were much more varied and thus indicated that most contextual variance as far as grass roots were concerned occurred in talk about the departmental level of analysis.

As far as theory about organizational culture is concerned this tells us a number of things:

- Far from being value systems which are imposed vertically on organizational members, organizational culture is local and discursive in character.
- Furthermore, despite largely overlooking the topic of organizational subcultures by managerial texts it would appear that at grass roots level 'organizational' culture can be understood as a web of departmental subcultures tied together by organization - wide procedural threads

So it is likely that the analytical distinctions of organizational culture range across a number of dimensions, namely the extent to which culture is monolithic or subject to a

diorama of sub - cultures, or the extent to which culture is a 'surface' construct or is a 'deep' construct internalised and acted upon by individuals in the organization. This research suggests that organizational culture is highly subcultural and deep and rather less the global measure suggested by e.g. Harrison and others. If the current research had used a framework such as the one espoused by Harrison (1972) the local discursive nature of organizational culture would not have been revealed. The construction of an organization / person distinction by the respondents in their talk, referred to above, also showed that the externalisation of the organization / person distinction was unnecessary. This again lends validity to the suggestion that respondents normalised and internalised their environment and this was reflected in their discourse. It also suggests that Harrison was correct in postulating the existence of an organization / person distinction.

This research makes contributions to other debates within organization theory. First of all, the fact that technology was held relatively constant between four cases, and yet the social context was observed to be completely different in each case suggests that there is little support for a technological determinist argument in relation to this technology. Second, the use and demonstrated applicability of a subject centred, discourse analytic approach reflects the emerging debates on the role and nature of interpretive process in the areas of labour process theory, strategic management and technology implementation. These are discussed in chapter three.

7.8: Agenda for future research

Future research issues which were identified by this work concern the following areas: the task domain; the cultural domain; technology and discourse and the methodology itself.

7.8.1: The task domain

Many of these suggestions have emerged directly from the data, but were included in this thesis due to space limitations. They will be examined in future research. Others

concern issues raised in past research which were beyond the ambit of this work. However, findings from this research suggest that the following issues are important:

- CBM and the changing role of the supervisor
- CBM and the nature of machine pacing
- The nature of discretion and autonomy with such stringent technology: should there be a reconceptualisation of 'self management' such as that seen in JIT systems (from Sewell and Wilkinson, 1992)
- The interaction of quantitative and qualitative feedback over time under CBM conditions
- The changes in team dynamics under CBM (following the assertion Smith and Amick (1989) concerning cohesiveness under CBM)
- Longitudinal work on the implementation of CBM technology
- Validation of the effects of Westin's (1988) 'Organizational Climate Factors'
- Psychological work on the previous work experience of people working with CBM and how this affects their perceptions of the CBM technology

7.8.2: The cultural domain

The results of the discourse analysis suggested that organizational subcultures were still a pervasive force within organizations, and were more important at the organization's grass roots than were the broader organizational discourses concerning the procedural aspects of work such as the employment contract, fringe benefits and so on. Given that organizational culture can be studied in this way, future research in this vein should concern:

- The investigation of parallel subcultures and the identification of any similarities and differences which would indicate the presence of an overarching organizational culture and the relative pervasiveness of the subculture.
- The observation of discourse employed in normal everyday organizational interactions as an indication of organizational culture (i.e. not category based)

7.8.3: Technology and Discourse

The use of discourse analysis and the allowing of respondents to talk freely about their work situation revealed several overarching ideas about the nature of the technology used in organizations. Several issues emerged which again were beyond the scope of this study, but merit further investigation. These issues are as follows:

- A more specific Foucaultian analysis of changes in power / knowledge under CBM technology
- A further investigation and validation or otherwise of the panopticon metaphor as interpreted by Foucault
- An investigation as to whether the technology itself has its own discourse from (a) a design perspective; (b) a feminist perspective, as the majority of monitored workers in this study were female; (c) a perspective which takes account of the age of respondents; and (d) the dynamics and conditions of the 'infallibility of technology' discourse, identified in Chapter Five.

7.8.4: Methodology

Although this study has demonstrated the applicability of Potter and Wetherell's (1987) interpretive repertoires in the context of organization studies using a case study methodology (not just individual subjects), further work concerning the development of the methodology needs to be completed. In particular future work should concern the way in which the method facilitates reflexivity, and further codification of analytical method.

7.9: Conclusion

This thesis began with the question as to whether computer based monitoring was inherently bad. Countless anecdotal accounts collected in the American service sector highlighted the issues surrounding computer based monitoring in the workplace: mental

and physical stress and invasion of privacy are the two most commonly mentioned. However, the literature revealed much ambivalence in the academic community as to the actual effects of computer based monitoring, and the interdisciplinary nature of these effects rendered published academic research disjointed and restricted in the analysis of a computer based monitoring system in action. Furthermore, the positivist backdrop to much of this published research rendered an examination of the broader debate about surveillance, unveiled in the literature, difficult since wider contextual issues, their effect on the use of monitoring and the construction of meaning on the parts of those who work with it could not be examined within the existing determinist framework.

The current wave of the use of Foucaultian discourse analytic methodologies in the sphere of social research provided a different epistemological platform from which to base the current work on the context of computer based monitoring. This followed the work of social psychologists and some organization theorists into electronic monitoring, but more importantly attempted to fill a gap in research into CBM, the surface of which had hitherto only been scraped by determinist examinations of context.

The examination of context presented in this thesis shows how employing a method which is one level of abstraction above the categorical determinism which characterises previous research can link and explain the occurrence of speculative models of 'maybes'. The comparison of category - based analysis and discourse analysis discussed in this Chapter exemplifies this point. The types of interpretive repertoires employed in relation to the social context of the technology often mirrored the responses in the analysis by category and as such could be said to have some deterministic power in this regard. However, many more issues were raised by this focus on talk, which were discussed earlier in this Chapter.

Finally the results indicate that computer based monitoring is not necessarily stressful - the role of the departmental context as a mediator of the Tayloristic effects of the technology has been shown to play an important part in the acceptance or otherwise of the technology. The findings also support existing research findings, and highlight the need for theoretical and empirical clarification in future research. The data reveal perspectives on computer based monitoring beyond those available in existing research

and has contributed to the broader debate about the nature of employee surveillance, raising issues of reflexivity in the study of organizations more generally.

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**ASTON BUSINESS SCHOOL
RESEARCH INSTITUTE**
Department of Organization Studies

**NEW TYPES OF MANAGEMENT INFORMATION
SYSTEM**

Recent developments and uses of IT in UK service
organizations.

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Introduction

First of all, thank you very much for sparing some of your time to talk to me today. This interview is being conducted as part of a wider study of new technology and is funded by the ESRC. What I'm aiming to get is a snapshot of current opinions within this department about the call management system, and how its used in conjunction with things like appraisal and staff development.

I am a research officer from Aston University, so the first thing to note is that anything you say will be treated with absolute confidence. Nothing will be attributed to you personally in any reports or publications. The only people who know any details of the contents of this interview are you and I. Even the name of the company will not be disclosed. I would, however, request that this interview is tape recorded. You are more than welcome to a full transcript of the interview - but a tape recording of what you say is a lot easier for me, and will make my analysis more accurate and easy.

I am going to ask you about a number of things concerning, first of all, the nature of the computer system you work with. Then I would like to talk about what it's like working in your department and what you think about the relationships you have with your manager / staff. Finally I'd like to talk about what you think about the company itself and how it treats its staff. Above all I'd like to emphasise that there is no right or wrong answer to any of the questions I've got here. What I am going off will be mainly what you say, this piece of paper is a set of prompts to make sure we have covered all the right areas: so I'm hoping that this will be more of an informal chat than an interview.

Interview Schedule

(1) SYSTEM

1. How long have you been working with the system?
 2. What would you say its purpose was? (use official statement as a prompt)
 3. To what extent does it fulfil its objectives?
 - in what ways?
 4. How does the system measure the speed / quality at which people work?
 - in reality which of these two is emphasised the most
 - which is the most pervasive?
 5. Have there ever been any problems with it?
 - what sort?
 - were there any 'people' problems with the system? eg greater demands on them; job changes to more routine one; opportunities for development (career and personal) ; or as a threat?
- if YES: - what were the circumstances?
- For MANAGERS: Were there aspects of the system you were able to emphasise during the implementation?
- were you then able to implement them?
-
6. How do you use the data from the system? / How is the data from the system used by managers?

QUESTIONS ABOUT THE SYSTEM FOR STAFF ONLY.

1. Would you first describe what the system actually does?
Prompt: feedback frequency; what is monitored; how targets are set.
2. Can you get round the system?
3. Can you access all the performance information which is generated by the system?
If NO: Are you bothered about this? / Why so?
If YES: Do you see this as a good or bad thing? / Why?

4. Can you challenge any of the information generated by the system?

If NO: Would you ever consider doing this, if it was possible? Why?

If YES: Have you ever challenged, or do you know of anyone who has?

5. What happens if you fall short of targets?

Probe for: training, discussion, discipline; how quickly resolved etc

6. How far is the data broadcast, to your knowledge?

(2) MANAGEMENT - WORKER RELATIONSHIP

1. How do you feel in general about working in this department?

- what particular aspects do you like / dislike?

- why?

- how would you say it differs from other 'regimes' you have worked in / under?

2. Who or which groups do you think has the most control over what happens on the 'shop floor'?

3. Is there a prevailing view of the way managers are seen in this department?

Probe for issues such as trust, communication, responsibility and autonomy.

- do you share it?

- do they share it?

4. Is there a prevailing view of the way staff are seen in this department?

Probe for issues such as trust, communication, responsibility and autonomy.

- do you share it?

- do they share it?

5. Do you think there is any difference between the way managers represent themselves and the way they are perceived by the staff?

- what are the key differences?

- what do you think is the basis for this difference?

6. What is the current performance appraisal / review system?/ Is there one?

For STAFF: if YES: Who gives this feedback?

How often?

Is data from the system used in performance evaluation sessions?

For MANAGERS: if YES: How well do you feel it works?

if NO: Why? How is the quality of the staff's work assessed?

7. For STAFF only: Do you feel quite involved in your work, or do you feel detached from it?

- why?

(3) THE BROADER ORGANISATIONAL PERSPECTIVE

1. In general, how does this organisation treat its staff, in your opinion?

- Why do you say that?

Probe for: assumptions made about the basic nature of people
assumptions about how people should be controlled
attitudes towards people 'being original'
attitudes towards people collaborating
attitudes towards conflict resolution

NB try to get respondents to cite examples

2. How does it compare to other organisations you have worked in?

3. What would you say characterises a 'good' staff member, in the organisation's view?

4. What would you say characterises a 'good' manager in the organisation's view?

5. Thinking about people who have done well in this organisation, what would you say set them apart from others?

6. What is the most motivating thing about working for this organisation?

7. What is the most demotivating thing about working for this organisation?

8. Is there anything that makes this department unique from the rest of the organisation?

9. We've talked about a lot of things, but what would you say was the most influential thing which has shaped your experience of the job, and more specifically the monitoring

system - would you say it was down to the managers, or the more general climate in the organisation, or something else?