WITHIN THE WALLS OF WORK-TOPIA: THE CONTINUING EVOLUTION OF CAPITALIST CONTROL

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ABSTRACT

SHANE ELLIOTT: Within the Walls of Work-Topia: The Continuing Evolution of Capitalist
Control
(Under the direction of Arne Kalleberg)

The ability of firms to strategically shape the culture of workers has been studied descriptively, prescriptively, and critically since the famous Hawthorne experiments. This study considers the extent to which information technology aids management in this project. Using four years of participant observation in a product distribution facility, the author demonstrates how workers construct informal prestige hierarchies based on data provided by management. Workers attempt to gain status by "running" or working as hard as their bodies will allow. The result reduces the cost of labor for management. The informal culture of workers appears to serve the interests of the company's bottom line. This study adds to the literature in which surveillance and information technology have been effectively used as indirect methods of control, supplementing traditional methods, thus creating informal control mechanisms within the group.

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INTRODUCTION

Each day, more than half a million cases of grocery goods pass through Big Box Product Facility (PF) # 0227. The grocery products enter one side of the building in bulk form, disseminate into tens of thousands of holding "slots," and then, one case at a time, workers manually reassemble these products into customized orders which emerge, packed into store-bound trucks, from the other side of the facility. A central computer orchestrates this process, integrating the individual repetitive tasks, transforming the warehouse into a seamless, product-churning machine.

This study examines a kind of work culture which develops within this rigidly controlled environment. In PF #0227, maturing technologies of rationalization turn the warehouse into a digital space, and individual workers into atomized avatars playing a game of production. Within this space, orderfillers compete with one another for rewards, prestige and work identities. They form collectives around these competitive identities in ways that benefit the company's bottom line. An informal hierarchy of prestige emerges, even though intense, over-production is required to achieve status within it. The formal structure creating this level of control is virtually unchallenged; indeed it becomes the symbolic material from which identities are constructed. This study analyzes the intertwined nature of formal and informal control strategies made possible through technology and bureaucratic procedures, and the implications of a blurred relationship between workers and management.

Within the warehouse, the computer constructs a three-dimensional digital grid out of the storage racks; each stored pallet of freight has designated coordinates. Workers are "on production;" they are required to perform according to a minimum standard. Workers are tracked

electronically within the grid. Inventory software instructs workers where to place stock, or how many cases to collect, while simultaneously tracking how quickly they perform these tasks.

Control is not achieved just through computers. A maze of policies and procedures obscures "right" and "wrong" behaviors. Work shifts are constructed as collective confrontations with volume—the amount of freight that must be handled before shifts can end. The indeterminate length of shifts is a source of social cohesion among the workers, but on terms which benefit the company. "Informal" relations among workers are shaped by formal structural contingencies, often in ways which facilitate company control. This study will examine how Big Box cultivates this atmosphere—and how it narrowly channels workers' choices and promotes formation of a competitive work culture. Competition among workers enhances managerial control and increases worker exploitation. Enhanced control seems to go unchallenged.

The sociology of work has a rich history studying control in the workplace (Braverman 1974; Burawoy 1979; Edwards, 1979). Research in this area tends to cluster around two broad tasks: characterizing the nature of control in the workplace (Callaghan and Thompson 2002; Hyman 1987, Simpson 1985; and many others) and understanding how workers experience that control (Hodson 2001; Knights and Wilmott 1990; O'Doherty and Wilmott 2009; Thompson and Vincent 2010). Evolving information technology and managerial strategy necessitate reconsidering debates in the literature about control and autonomy (Crowley 2010; Vallas 2003a.)

More than thirty years ago in *Manufacturing Consent* (1979,) Michael Burawoy questioned why workers work so hard. Observing the work culture of a gear manufacturing plant, he concluded that the intra-worker dynamics of management designed production games obscured the reality of economic exploitation. In this paper, I argue that changes in technology, as well as strategic application of those technologies, allow managers to design "informal" work orientations into the "formal" structure of organizations. In effect, the manufacture of informal work structure moves up the hierarchy.

This paper has three parts: 1) A review of the literature on theories of control which inform the analysis; 2) A discussion of site selections and methods of data collection; 3) A description of findings arrived at by analyzing the control system which gives rise to the informally constructed competitive groups of PF # 0227, and a description of the process which makes this dynamic possible. Appended at the end are some implications this analysis holds for scholars studying the sociology of work.

CHAPTER ONE

In Pursuit of Perfect Control

Since the inception of the capitalist work place, management thinkers have idealized purchased laborers as automatons—piston-like pumps within a machine-like process (Ure 1835). Since the early twentieth century, scientific research has aided management's pursuit of that ideal (Baritz 1960; Braverman 1974). As workers continue to contest the conditions under which their potential labor is transformed into actual labor (Edwards 1979; Smith 2006), capital continues striving for the ideal production process. The management-worker dialect waxes and wanes over control of the workplace, in negotiations that have little bearing on the political economy (Edwards, P. 1990; Hodson 2001). Within the workplace, however, workers maintain the ability to define the informal culture, thus resisting managerially imposed norms (Sallaz et al 2009, Thompson 1990).

In the early 20th century, sociologists sought to improve control, with a benign focus on productivity, turnover, and absenteeism in the work force. Elton Mayo (1924, 1945) hoped to create an industrial utopia in the modern world. His work, reported by Roethlisberger and Dickinson (1939) described how workers informally create "norms and sentiments" which define the work experience often in ways that are out of sync with the company's goals. Mayo assumed that the goals of management were rational, while workers who did not conform to them were irrational or emotional (Baritz 1960; Perrow 1986). For much of mainstream organizational sociology, the organization was an essentially harmonious entity, one in which the interests of capital and labor should align, and conflict was an abnormality requiring correctives (Hill 1981).

Critical investigations of power and control in the workplace became more common in the 1970s (Braverman 1974; Burawoy 1979; Edwards 1979). These studies created a foundation for understanding the dynamics by which capitalist-mandated organizations wrestle for control over

workers. *Contested Terrain* (Edwards 1979) described three steps in the modern control process—direction, evaluation, and discipline. According to Edwards, direct, technical, and bureaucratic control strategies have evolved to deal with actively resistant workers. Edwards argued that since the political economy creates two groups—workers and capitalists—who have competing interests within a work site, control of the labor force must be constantly negotiated and reworked. Antagonism is central to the Edwards formulation as capital seeks, day by day "extract more for less," and workers.

Burawoy's *Manufacturing Consent* (1979) addresses issues of worker complicity unaddressed by Braverman and Edwards. Burawoy described a "game of making out" in which workers become so concerned with the uncertainty of maintaining desirable outcomes, that the broader exploitation of workers becomes obscured. This game, which was played in the very same piece rate shop of Donald Roy's (1952) dissertation, has many similarities to the game of "running," or over-producing, I have observed and participated in as an orderfiller in PF # 0227. For Burawoy, the game of making out co-opts worker agency, a necessary component of control. In other words, the workers must cooperate with capital in order for the labor process to be productive.

Control presumes eliminating worker agency, a key inflection point in the sociology of work. While Burawoy was explicitly concerned with how co-opting workers prevents the formation of class consciousness and a Marxist revolution, most researchers focus on the negotiations between capital and labor which shape worker autonomy (Barrett 2004; Damarin 2006; Hodson 2001; Sallaz 2002; Steiger and Form 1991). These studies tend to emphasize worker's ability to retain some power over the labor process despite the control imperative of capitalist production.

Normative Control

Even though labor has little control over broader political and economic terms of work, the meaning and definition of the work process is generally construed as a local negotiation between labor and capital (Thompson and Smith 2010). For Burawoy, ideological complicity arose informally, at the point of production. Wider political forces of exploitation become obscured as workers engage in games in order to make work meaningful. Once set in motion, games take on

dynamics of their own. While management creates the conditions out of which games emerge, their control over the subsequent culture which develops to reinforce the informal rules of the game is vulnerable to worker interpretation, work site logistics, as well as external and internal organizational factors. In other words, while Burawoy sees the larger ideological scripts as under capitalist control, at the "point of production," that control is attenuated by factors beyond capitalist control. Randy Hodson (1999) argues that workers maintain considerable power in shaping normative definitions of culture, at least in terms of work fairness, justice, and engagement. These "workplace norms" emerge as management appeals to workers' sense of dignity in order to secure needed cooperation and commitment.

If, however, ideological definitions of work become open to manipulation through managerial strategy or technology, labor's ability to negotiate normative definitions would be severely circumscribed. As mentioned above, Elton Mayo (1945) argued that correctly shaping worker ideology would be the key to creating a harmonious industrial state. While the human relations science which sprang from this pursuit failed, its promise proved so enticing to executives, that it lived on as human resource management (Baritz 1960; Perrow 1986). Human resource literature is devoted to developing strategies and techniques for increasing the "human capital" of employees, thereby creating workers who are more personally invested, competent, and enthusiastic about the fate of the firm (Swanson 2009). However, sociologists wonder whether managerial techniques, such as job enlargement, Total Quality Management, or "High Commitment Management" really empowers workers, or simply rationalizes a higher level of managerial expectations (Rothschild and Ollilainen 1999). Workers internalizing these higher expectations would be accepting a prescribed ideological orientation to the position.

While it is clear many prescriptions for scripting workplace culture exists, sociologists debate whether they actually work. Vallas (2003a) argues that the empirical research is weak. In Graham's (1993) study of an attempt to implement decentered, indirect control strategies at an automobile plant, she found sabotage, distrust, and an informal work culture beyond management's control. Similarly,

Vallas (2003b) showed that work empowerment strategies are difficult to implement because management cannot relinquish control over the labor process. Thompson and Van de Broek (2010) argue that "normative strategies" are difficult to operationalize because so much variation exists among researchers as to what constitutes a "normative control." For them, all control strategies contain some normative element.

While the results are unclear, it is apparent that management researchers are trying to understand ideological formation, in very sophisticated terms, and how to manipulate the organizational culture with specific intervention techniques (Ghobadi 2010; Hatch 1993; Schein 1990). One then wonders if these attempts to shape culture are impossible, or merely delayed. If ideological control through strategy were achieved, what would it look like?

Better Ideology through Technology

Two studies in particular claimed to have discovered cultural control. Sewell (1998) developed a model of 'chimerical control' to explain the ideological manipulation found in Kay's Electronics. He argued that vertical control forces, such as surveillance and management, intersected with horizontal forces of peer surveillance to shape the informal work cultures. While employees were given the autonomy to enforce their own norms for rewards and punishments within their teams, management information systems kept up-to-date performance numbers for each employee. The subjective experience of worth, Sewell argues, was standardized by the system, and made transparent to team members. A decentralized system of power worked in tandem with a centralized system of information gathering to produce higher levels of work intensity, control, and, ultimately, an ideology scripted by managerial strategy. While other case studies have shown that workers can vary widely in their reaction to the team ideology (Knights 2000), Sewell's case study remains as an example of what is possible.

Ideological control was also claimed to be functioning within Fernie and Metcalf's (1997) study of call centers. Designed to distribute knowledge, call center work requires employees to sit in a cubicle with their headset, keyboard, and computer screen. Incoming calls are routed by a computer

system to the first available worker. Workers must provide emotionally pleasant customer service, while following a script, and solving the customer's problem. When the call is over, the computer tracks how quickly the call was completed, and the next call comes through. Supervisors can listen in on any call to gauge the pleasantness of the employee's voice or skill in solving the issue. The entire labor process is situated within a series of centrally controlled software programs.

Fernie and Metcalf (1997) called this the 'electronic panopticon,' invoking Jeremy

Bentham's vision of a perfect system of control through the ever-present possibility of surveillance.

Indeed, they note that the brochures which sell this system as "Total Control Made Easy" (1997:8).

While noting the possibility for resistance, Fernie and Metcalf describe the use of teams, performance schemes, and transparent productivity to motivate workers. Informal norms developed among team members as they pushed one another to achieve bonus pay. They go a little too far, however, in declaring supervisory power as superfluous, rendered unnecessary due to constant technical surveillance.

For this reason, the 'electronic panopticon' became the subject of heated criticism from sociologists (Callaghan and Thompson 2001; Taylor 2002; Thompson 2002.) Critics argued that control is not simply accomplished automatically through the system, but that other forms of control are still necessary. For example, call center employees are allowed to take "comfort breaks" periodically, which are registered with the system. If these breaks are inordinately long, management might confront the worker about the discrepancy. Callaghan and Thompson (2001) interpret this as an interaction of control systems (direct and technical), arguing that surveillance is merely a resource that management can draw upon; it is not an autonomous, automatic system of control. Taylor and Bain (1999) cite evidence where employees managed to subvert the system. Experienced workers can input codes which allow them to temporarily escape the call queue system; they can debate management over performance statistics, or just flat our resist management definitions of the work (Russell 2008; Thompson 2002; Townsend 2005).

Detractors of 'chimerical control' and the 'electronic panopticon' correctly point out that ideological control has not been perfected, even in those examples. Taylor (2002) argues that nothing in call center control subverts the ability of labor to negotiate the work-effort bargain. Callaghan and Thompson (2001) echo this claim, citing examples of employees who are aware of the managerial strategy behind the "objective" creation of performance criteria. For these authors, this awareness represents a failure of these control strategies to diffuse, minimize, and redirect resistance.

I would argue that these writers are using a rather low threshold to define resistance. Worker cognizance of control strategies may not translate into problems for management. In addition, while some individuals may resist the conditions of control, that may not signal an ineffective system.

Rather, resistance should be analyzed in terms of function, rather than mere existence. For example, "quitting" is considered by Thompson (2002) to be an externalization of resistance. Human resource literature, however, describes 'sacrificial' control strategies, in which demanding, stressful performance criteria lead to high rates of burnout and attrition (Houlihan 2002; Russell 2008.) The "resistance," then, is actually designed into the system, a formal part of managerial strategy.

Townsend (2005) celebrates a worker's ability to fool the system for ten minutes so that he can smoke a cigarette as a breakdown in panoptic control. This resistance seems to be a mere accommodation which allows the system to continue functioning. Following Edwards (1979), resistance should be deemed effective when the firm suffers, operations break down, and some new form of control must evolve.

Through an engagement with new technical control structures, the negotiation of work identity, informality, and ideological definitions appear to be shifting. The terrain on which control is experienced is therefore shifting. Human agency has not changed since Donald Roy's (1953) observations of the creative attempts by workers to define the meaning of work. The context in which that agency is realized, however, could be changing. The complexity with which computer technology can standardize work tasks, represent material reality, and define the quality of our interaction with those standards creates new working conditions (Frenkel 1995). The consequences

for human subjectivity within these environments are still poorly understood; but it does appear, that at the very least, objective performance criteria gives management better control over the employee's subjective experience of work.

Another example from the call center debate further illustrates this trend. In the research of Winiecki (2007), technological systems combine with management strategy to set the terms for the manufacture of worker subjectivity, or management rigs the environment so that only certain kinds of work subjectivities are possible. As management uses statistical data to measure the worth of individual workers, workers internalize these measures as objective, and then find ways to appear to conform to the standard, a process Winecki calls "shadowboxing with data." In some cases this requires strategic gaming of the system. Drawing on Goffman, Winiecki defines these strategies as "secondary adjustments," in which the system is resisted, but on an individual level, which avoids organizational detection. Bonuses are paid according to a team arrangement—even though little team interaction is required to complete tasks—in order to promote peer enforcement of performance standards. Employees get caught up in these bonus pursuits, haranguing those that hold the group back. Individual employees can collectively or singularly draw upon personal experiences to cope with working conditions, resist by exploiting gaps in the system, but ultimately these strategies are used to participate in a process of objectification.

While Barley and Kundra (1992) have shown that managerial strategy cycles over the long term between "normative" and "rational," we cannot discount the possibility that incremental improvements in research on informal culture, combined with advancements in information technology may result in more effective forms of ideological control, in some contexts. Normative control could become something more than merely rhetoric. In recent decades, the ability of capital to duce complex work tasks to simple routines has increased through computerization (Simpson 1985), suggesting we could see information technology controlling a wider range of tasks. What do these new forms of hybridized, chimerical control mean for worker's ability to negotiate meaning into the work process? Can informal control, in some contexts, be achieved through technology, team-

based organization of work, and heightened surveillance? My study attempts to addresses such questions through an investigation of the form and function of control in a product distribution facility. I am concerned with the kind of informal culture which develops in response to the formal control structure, and the degree of influence workers have in shaping the informal definitions of work. If workers are circumscribed, if the informal ideological orientation to work is shaped by the formal structure, there may be implications for the experience of work and control.

CHAPTER TWO

Case Selection and Methods

The emergence of new technology within the product distribution industry offers an opportunity to study the concerns outlined above. Standardization of performance criteria in the warehouse industry has long been a problem, which researchers hoped improved micro processing power might solve (Rose and Fergurson 1983.) This particular site uses computer technology to not only standardize, but integrate a wide range of work tasks. In addition, behavioral research and the application of new technology have improved (from management's point of view) the tools supplied to workers. For example, voice-directed order-selection technology, introduced in the 1990's, has overcome many of the selection and productivity limitations of scan guns (Ludwig and Goomas 2007). Researchers argue that, by replacing scan guns with voice activated software, workers can more efficiently use their hands. Furthermore, talk among employees is restricted because of the confusion this creates for software (71). Workers are socially isolated within their tastes and less distracted by fellow workers. Ludwig and Goomas also recommend combining the software with an immediate feedback performance system to limit "distal contingencies," or the amount of time between the behavior and consequence, thus preventing "deviant behavior" (72). In other words, by making the performance criteria more immediate and transparent, workers are more likely to respond positively to the data. Research on incentive systems confirms this hypothesis (Bateman and Ludwig 2003).

Product Facility #0227 utilizes these techno-behavioral recommendations, along with many of the other managerial strategies discussed above. Teams, surveillance, as well as the traditional

forms of bureaucratic and technological control blend together—directing, evaluating, and disciplining the work force. My site offers a chance to study the cultural forms which are possible in an environment rigidly controlled through information technology.

Methods

This research is conducted using participant observation, which is widely considered an excellent way to understand a cloistered social context (Buscetto 2008; Bositis 1988). Participant observation "enables the research worker to secure his data within the mediums, symbols, and experiential worlds which have meaning to his respondents" (Vidich and Bensman 1968, quoted from Bositis 1988). It is a method of research that allows the researcher to fully identify with the context under study. However, it can be difficult to gain access to interesting sites. As a worker within the site at the time this research began, I had the opportunity to document this work context from a unique perspective.

Getting inside a corporation can be difficult if the company does not understand the study, or does not view it as serving profits (Buscatto 2008). In fact, until the Hawthorne studies and the subsequent human relations movement, social scientists from both sociology and psychology were universally shunned by managers (Baritz 1960). Without the prospect of profitability, researchers are seen as risky. Questioning employees about the taken-for-granted assumptions of work life can lead to problems for management (Buscatto 2008). My job eliminated the issue of gaining access to the study site.

Within sociology, covert methodology is considered to be preferable to overt methods of observation; the quality of data is less tainted by reactions to the presence of known observers.

People behave and respond differently when they know they are being watched (Buscatto 2008.) In my research, problems of overt observation are not an issue here. I was not just an insider, but a member of the context in question. I was in the most privileged position for gathering quality data.

The problem for me was distancing myself in order to empirically document the context. Regular

conversations with others about my research and my observations¹ have brought some of these issues to the surface.

The use of covert participant observation normally presents some ethical concerns, but I believe my situation circumvents them. Roger Horman (1980) expressed some of these concerns in his piece, "The ethics of covert methods." He was researching "language behaviour" among sectarian groupings he describes as "old-time Pentecostal." Horman chose covert methods because overt methods yielded data which were "affecting language-behaviour available for observation" (49). Once covert methods were adopted, he was able to gather data which he felt more authentically documented the culture of the group, but at a cost. He had problems denying his own religious or political beliefs in order to maintain cover. Also, his extension of friendship was falsely motived. "The fieldworker has an ulterior motive of which his subjects are not aware when they kindly invite him to tea or shower him with Christmas cards" (54). Long after completing his field research, his feelings of serious guilt lingered.

As a full participant in the context, my ethical concerns are more limited. I have not presented myself falsely in order to maintain cover, or gain data. I was an employee of the firm. I genuinely befriended orderfillers; the data gained were a bonus. I am not using the company's name in my report, so there will be little potential for harming reputations. These ethical issues pertaining to covert observation are mitigated by the fact that my employment began prior to the study.

To conclude, I believe my position as a covert participant can be justified because there has been little or no ethical transgression. Most covert participants have had to use cover to gain entrance into dangerous or deviant sites (Lauder 2003; Horman 1980; Humphreys 1970). I am already a member of the site, and my conduct at work barely changed as a result of my activity. In addition, the data I gather will be presented anonymously. Despite this, these data are applicable to a specific, but large, industrial population.

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¹ Special thanks to Dr. Gary Long.

The weakness of my approach is that I will have limited access to management and company level data, and was unable to interview workers. With access to management, I would be able distinguish more accurately between events that are strategic, and those that are happenstance. Interviews with management would allow me to analyze the possible conflict and tensions that occur between different levels of managerial decision making. Within the warehouse, smoothly integrated control techniques appear to come from some monolithic entity to manipulate workers. However, perhaps this is how events often appear to workers, who may care little about managerial conflict.

As a member of the context in question, I was not just a "participant observer," an academic who picks a site, then drops in for a few months. As someone dependent on the wage the job provided, my perspective as a worker is fairly unique to the study of workplaces. From a worker's perspective, how internal control strategy might be the result of political infighting is a nonissue; what matters is what the worker must deal with in order to get through the day, remain employed, and come back tomorrow.

CHAPTER THREE

Findings

My findings demonstrate subtle, non-confrontational control measures which operate on the individual externally as well as internally to direct, evaluate, discipline, and reward performance. Formal mechanisms create a highly scripted, routinized experience of work. Informally constructed standards increase the intensity, pace, and difficulty of labor. Managers and workers share in this informally constructed standard for evaluating employee worth. While ideology functions to create consent among workers to work these conditions, the ideology is formulated less on employees' terms, and is experienced as more of an aspect of the "objective" environment. What appears to be informal, "normative," or negotiated between labor and management is actually scripted through the formal structure.

To make this argument, I will first describe the firm, and the level of control. Then I will develop descriptions of technical and bureaucratic control to argue that control is subtle, self-directed, internal as well as external. Next, I will describe the informally constructed ideologies which develop in the warehouse to argue that the informality which does exist is beneficial to the company in the long run, and to the individual only in the short term. Finally, I will discuss some implications these findings hold for the sociology of work.

PRODUCT FACILITY # 0227

The non-unionized parent firm of PF # 0227 operates internationally, with multiple sites.

About 800 people work at this particular site, which distributes groceries to nearly 80 stores within its region. Well-paying jobs are scarce in the local area. Despite the challenging working conditions,

workers would commute as much as an hour or more for a job in this facility. the chance to work here. Once an individual survive the initial training phase of employment, turnover is low. (On the occasions I have seen people quit, they did so during their first few weeks). People in the area surrounding viewed employment at this facility as highly exclusive and desirable. "I work at the PF," could be said with a certain amount of pride. The high wage and social prestige, combined with the lack of a union, all enhanced managerial control within PF # 227. In order to set up my discussion of the control strategies, I will first describe the labor process.

Each day, the PF received two to three hundred thousand cases of grocery products, and ships out roughly the same amount. The overall task of managing this flow of goods, from receiving to shipping, is divided across several repetitive jobs. All of the workers performing these jobs are directed by a central computer, which dispenses the task, micro-manages its accomplishment, and evaluates how quickly it was performed. Very little communication among workers is required.

On Dry side², all activities—from Receiving to Shipping—take place in one, rectangular room; perhaps two and half football fields wide, and three football fields long. One end receives products; the other ships them out. Within this large room are thirty-nine rows of racks, each alphabetically encoded. The racks stand about forty feet high, with four and sometimes five levels, 122 open spaces—slots—per level, which can hold two pallets at a time. Within each "slot" are two rails, embedded with small wheels which allows orderfillers—who manually "pull" cases one at a time over the course of a shift—to remove the empty pallet, and pull forward the full pallet. Each rack has a "pick side," and a "put away side." On the pick side, orderfillers "pull" or "pick" cases from the pallets resting in the "slots," and stack them onto their pallets. On the put away side, fork-lift drivers raise pallets to their designated slots, or retrieve pallets to keep the "pick slots" filled for

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² See Appendix A

orderfillers.³ Each slot is coded in a numerical pattern specifically designed to promote orderfilling accuracy, and nearly 20,000 occupy dry side alone.

Each Big Box employee has a specialized task in guiding the flow of merchandise through this digitally-encoded space. The Receiving crew consists of "unloaders," "labelers," "haulers," and "lift drivers." Respectively, they unload the bulk goods from trucks, enter the merchandise into the Big Box inventory system, take the pallets to their designated aisles, and, finally, insert the pallet into its software-determined location in the grid. Shipping consists primarily of "orderfillers," "lift drivers," and "loaders." Together, they assemble groceries into requested orders, keep slots filled with stock, and load completed orders onto the trucks traveling to various clients served by the PF.

Orderfillers constitute the modal and most physically intensive job in the warehouse. Pallets once received as bulk goods must be manually broken-down and reassembled into specific orders requested by the retailer. On second shift (from 4-12 pm), individual orderfillers typically hand pull anywhere from 1500 to 2000 cases, a total of 30,000 to 40,000 pounds of freight. This number varies, depending on how fast an orderfiller is "running." It was not atypical to see someone pull 3000 cases; which meant lifting close to 60,000 pounds in a single shift.

A wireless minicomputer directs orderfillers in their tasks. The "unit," weighing about two pounds, curved slightly to fit the contour of the hip, requires workers to log on by listening to the prompts from the attached headset, select their user ID number, and then verbalize a password. Each worker's user settings has software which has been trained (during Orientation) to recognize his/her voice. The unit's voice can be adjusted by speed of talk, pitch, gender. Orderfillers can also train their units to hear certain numbers as words of their own choosing. A hunter might use "bird," or "duck" to mean "one" or "two." One worker uses a lot of hip-hop slang. Another uses parts of the female anatomy. Some use names, which I assume are those of their children or their wives. And

³ On Dry side, this arrangement creates social distance between orderfillers and liftdrivers. The pick sides face each other to create "orderfilling aisles," which only orderfillers will populate. The put away sides create "put away aisles" which only lift drivers and haulers will utilize. On Perishable, the liftdrivers and orderfillers use the same aisles, creating more interaction between these individuals.

still, some use impersonal words, such as "green," or "black," or some other color. While these preferences seem to give workers the power to personalize their interface, they also could be viewed as contributing to a more isolated work experience.

Furthering the individualization, constant communication with the unit will be necessary for orderfillers throughout the shift. Once logged onto the system, the warehouse's central computer immediately begins assigning "trips" to the orderfiller, which is an assortment of grocery products requested by a client store. To complete the trip, the orderfiller must communicate with the unit to learn where the needed cases are located, and how many to collect.

After generating a trip, the computer also calculates how long it should take an orderfiller to pull that trip. The travel time between each slot is calculated, the weight of each case, and the number of stops in the trip each enter into an equation which determines the standard time. Once an orderfiller receives the trip, queued up via headset, and completes it, the actual time an orderfiller takes is then divided into the standard time, and multiplied by 100. This results in a *percent* performance. After each trip, the unit will politely inform the orderfiller as the performance of the last trip, as well as the cumulative performance for the day. The unit, then, is both the orderfiller's personalized supervisor and evaluator.

During any consecutive, four-week period, orderfillers must maintain a 95% percent performance average, or face disciplinary action. Orderfillers are also the only workers who receive a bonus for working a rate higher than the minimum production standard. The incentive bonus caps

at 130%, and appears on each pay check. The incentive formula is complex (experienced orderfillers make a higher incentive), but can add several hundred dollars per bi-weekly check.

The labor process within the PF has many moving parts. Workers within the facility use both machines and computers to move freely about the physical space, manipulating freight as directed.

The next section describes how the "potential labor" individuals possess is converted into the labor power which Big Box desires.

CHAPTER FOUR

The Illusion of Omniscience

Big Box seeks to create the illusion of omniscience in the warehouse in a variety of ways.

Constant surveillance—both electronically and by paper—creates data for Big Box to individualize workers, and hold them accountable to very specific employee behavior and performance standards. While this system of control is not entirely perfect, Big Box attempts to create that impression. The illusion interacts with and is enhanced by mystified rules, computer surveillance, documentation of events or deviant acts to elicit worker self-monitoring. This section analyzes the formal components of control as facets of a single project: creating an efficient, autonomous worker. Following Edwards (1979) technical, bureaucratic, and social controls function to direct, evaluate and discipline, but in ways that are non-confrontational and impersonal, thus restricting the workers ability's to negotiate or influence the terms of control.

Computer Conscription

As mentioned in the description, a central computer directs, monitors, and evaluates worker performance. Workers plugged-in to this rigidly controlled environment do not need to walk, talk or think (very much) to collectively move several hundred thousand cases of merchandise each day. They interact very little with respect to the labor process. The entire receiving and shipping process can be executed with very little verbal communication between workers. Sometimes trips on the shipping dock get misplaced, and the loader must resolve confusion with the wrap machine worker.

By and large, "hiccups" in the system are handled by the coaches,⁴ whose job mainly consist of keeping the facility functioning within pre-determined parameters. Workers need only communicate with a computer interface, and operate their equipment; the central computer coordinates and integrates the tasks. Employees are the human components within a massively complex computational process, designed to move as much merchandise as quickly as possible.

Workers "log in" to this system using a password and an identification number. Like the products this process has been designed for, they become denizens of a digital space. In this environment, human supervision of work has been nearly erased. Computers both direct and evaluate worker compliance with tasks; tasks which have been assembled, in large part, by computers as well. The "coaches" are nearly as powerless as workers in this environment. There is no assembly line to stop, or machine to shut down. Orders drop in, almost magically, from the sky each night, and each day they must be shipped out. Trucks appear in the yard, and they must be received. A formula determines exactly how the coach is to deploy his/her tasks as well. Technical control of this work process is nearly complete.

This differs markedly from the context which Burawoy (1979) describes in *Manufacturing Consent*. To "make out" for example, one had to learn the informal lay of the shop: who to befriend in the tool department, the line managers to schmooze to get the gravy jobs now and again. "Informal" becomes a negotiated network of human to human interactions which must be maintained in order for the individual to "make out" and become a respected employee. No such environment exists within Big Box. "Informal" interpersonal relationships develop, naturally, but they are not integral to the functioning of the facility.

The technical control in Big Box subtlety directs and evaluates employees. No supervisor is watches to determine whether or not individuals do their jobs correctly and efficiently. The computer determines the performance level, and employees accept these circumstances with little complaint.

The human-computer interaction is so well-designed that confusion or misunderstanding is rare.

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⁴ The euphemism Big Box has chosen for its managers.

Technological glitches do occur, but they are usually managed by exchanging equipment. The coordination of action and the evaluation of performance fade into the background, becoming instead a subtext for the daily reproduction of culture. Like the work places observed by Sewell (1998) and Frenkel (1995), informal work culture uses objective performance criteria as resources in the creation of norms and values.

Bureaucratic Mystification

In PF # 0227, formal, bureaucratic policy serves to direct and evaluate what technology cannot. If workers consistently fail to perform, electronic information documenting their shortcomings flows seamlessly into bureaucratic channels for disciplinary action. In an environment of symbiotic technical and bureaucratic control, the informal work structure all but vanishes.

Within the PF, documentation is ubiquitous. From hiring to firing, workers are tracked and evaluated by formally defined, organizational criteria. The "coaches" hire workers into formal job descriptions, and seek employees with qualities specified by the "home" office (Edwards 1979). Because the technical control reduces the need for human supervision by managers, they have more time to focus on paperwork. A massively complex paper trail documents the movement of people and resources. Most shifts have only two assistant coaches, one who monitors numbers on process flow, numbers and stock levels, another who handles the paper work.

Each week employees sign their "roll-ups," computer print-outs of the prior week's production performance. A signature indicates that the number was accurate. If there is a discrepancy, an employee can argue that some downtime was not counted, or some procedure did not work correctly. Here, though not necessary to the functioning the system, some informal interaction does occur, as managers must decide whether or not to believe an employee based on personal knowledge and trust of the employee. Usually knowledge and trust are founded on the employee's production performance.

Each time an employee operates a piece of machinery, they must sign a "238 form," located in little metal slots on each piece of equipment in the warehouse. If "Asset Protection" discovers an

unsigned form, the miscreant will receive a "coaching"—the euphemism used in Big Box to denote a documented infraction of the rules. If that equipment has a defect, for example, a huge dent in the side, a coach must sign the 238 form, indicating the dent pre-existed the oncoming shift worker. If unsigned, the operator of the moment can be "held accountable" for that damage, which means a "coaching." The phrase, "held accountable," in itself speaks volumes about the logic behind disciplinary policy. Accountability is not related to guilt or innocence; it means only that Big Box will assign blame to individuals who fail to protect themselves by following procedure. Responsibility is allocated bureaucratically, not empirically. Irrespective of who actually damaged the equipment, someone will be held responsible.

When Big Box does assign blame, it is recorded on the worker's "Matrix," a paperwork web for tracking infractions. Failure to sign a 238 would be a Safety violation. Remaining categories are Housekeeping, Attendance, Production, and Other. I am uncertain how many different infractions are possible. Here is a brief list: Failing to stop and blow the horn of the jack at the firewall entrance (the nickname for the entry-way between the Perishable Receiving and Perishable Shipping areas), breaking a case of product, pulling incorrect cases, not "cleaning as you go," calling in sick, being late, failing to take a lunch break if more than six hours on the clock, bleeding or otherwise sustaining as injury, or cleaning the assigned aisle improperly at the end of the shift. Some of these I will expand on later.

The Matrix is designed to absorb many hits; a worker would have to be written up in one category many times over before being disciplined. It is a system which allows Big Box to hold workers accountable for a wide range of infractions, without any single infraction constituting a threat to the worker's job. (I will cover the exceptions shortly.) Undesirable events in the warehouse, such as injuries, broken cases, or other accidents, are not allowed to be just accidents. There are no accidents at Big Box.

Big Box strips workers of a language to explain accidents through the use of formal policy.

Someone did something wrong, even if no one knows exactly what that was. For example, one day, a

pallet of bleach snapped in half as a lift driver pulled it out of the rack. Cases of bleach rained down; the metal cage surrounding her lift protected her, but she was still "coached" because of the damaged cases of merchandise. The coach who gave her the coaching apologized. He knew there was nothing she could have done differently, but Big Box still had to hold someone accountable. Six months later, the event "fell off," her record was expunged permanently of the infraction. Only a pattern of dropped pallets, or other kinds of safety violations, would jeopardize her job.

What can and cannot be put on the Matrix is a hot topic among workers at the PF. For example,

One day, while orderfillers were waiting in line, I heard a less experienced person asking another, "I'm only working six hours tonight, do I need to take a lunch?" The other said, "Ask that man right there," and pointed to a senior person in line. He responded, "What do we need to know?" He seemed anxious to be helpful, as if he might understand his role as the elder—someone who had gained experience dealing with this maze of rules, and could share his knowledge with a younger person. After hearing the question, the older employee said, "You don't have to take a lunch, but you gotta be off the clock in less than six hours. If it's one minute over, it's a coaching." The younger employee nodded his approval toward the help.

No one asked for clarification of this rule. On the surface it appears arbitrary. Undoubtedly, there is a good reason why Big Box created this rule, perhaps conforming to state or locally mandated labor laws, but those reasons are of little consequence or interest for the employees. Rationalization has reached the point of mystification, and workers are well beyond that point. It has been assumed. Workers rarely probe into the reasoning behind specific Big Box policies.

Anxiety over write-ups, what they might mean, and how events might affect the Matrix is real for employees. Mystification of rules creates ambiguity for workers, which is a constant feature of work life inside the PF.

Tonight I ran into a worker who had just come from taking a drug test. Somehow he tore up a dock plate with the forks on his jacks. He was counting to me the different things he had been written up for recently. He forgot to sign his 238; that was an automatic "step." Then there was an "event"...now this...he is not sure how bad the write-up will be. Because the damage cost over \$500, he had to take a drug test. He felt like he would be okay, but he was

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⁵ This refers to clocking out for thirty minutes. The time clock will not allow employees to clock back in until one second past 29:59 minutes.

very nervous and unsure. I found out later he was placed on "D-Day," but was able to avoid getting fired.

The above example illustrates worker's worry over write-ups which regularly occurs after a worker has been "caught" in some deviant act, such as damaging equipment, or sustaining or causing an injury. In these instances, workers try to figure out how events will be located on the steps of their Matrices, and how damaging they will be to their records. To clarify a disciplinary outcome, I once had to wait a whole week after nearly crushing someone's foot with a lift (fortunately, the other worker's foot was just sprained and bruised.) A committee which meets only once a week had to determine whether to classify the mistake as a "Step One" or "Step Three" safety violation. A Step Three would have put my job in jeopardy for six months. Until this occurred (three years into my employment) I had no idea such a committee even existed.

In the sociology literature, critical descriptions of bureaucratic control paint mechanisms which promote self-regulation among workers (citing?). Within PF #0227, ubiquitous documentation and mystifying rules serve self-regulating functions, but in a more developed state because of advanced information technology. Each individual is defined, for the organization, by a profile, generated by data gathered through the Matrix and performance tracking software, which flow seamlessly into rationalized rules and procedures. Workers learn over time how to perform so that their data profile is acceptable, while also manipulating this data for personal gain. For example, I often hear workers bragging "my Matrix is clean" while threatening to do something brash, such as walk out during a shift, or call in sick on the first day of hunting season. Likewise, orderfillers keep track of their performance indicators religiously, some to know how hard they must work today, others to know how much they can slack off, or others to determine how much they need for a good incentive.

Completing the Illusion

So far, I have described the technical and bureaucratic and controls which function to subtly exert external and internal pressures upon warehouse workers. However, these systems of control are

not perfect. Gaps and blindspots exist within this near totalizing structure, which the experienced employee learns to game. Big Box seems aware of this, and to counter the possibility of worker deviance, Big Box presents their techno-bureaucracy as omniscient; no transgression can escape its gaze. In this sense, a strategy of control operates, one that Foucault (1977) might have predicted, which is intended to elicit employee self-regulation. Big Box depicts its control as perfect; the work processes within PF # 0227 are precise, and coaches have perfect knowledge of all events in the warehouse. I am not arguing that a Panoptic system exists, only that Big Box seems *intent* upon constructing such a system.

This illusion of perfect awareness begins in orientation. Here, new hires, myself among them, heard several stories about Big Box catching transgressors, such as when managers ran a sting operation to catch a suspected meat thief. Lying to a coach meant automatic termination. As our orientation trainer put it, "And if they ask you about something, you had best tell the truth because they probably already know the answer." Later on, a different orientation trainer repeated the lesson another way. He told us of the security tapes that are in the warehouse. Apparently, they were watching the tapes one day and noticed an employee pocketing a candy bar. That worker was fired. A third orientation trainer had still another way to demonstrate Big Box's omniscience. She said, "I know sometimes, it is close to lunch, and them strawberries start smelling pretty good. But is it really worth your job?"

These messages are intended to make employees believe that surveillance is ever-present. When I began working, there was another orderfiller on my shift who had started just two weeks before me. One night we were cleaning an aisle, and he said, "You know, this job isn't so bad. When I was in orientation, they made this place sound like a prison." I laughed and asked, "Did they tell you the candy bar story?" He nodded, and we both had a good laugh about it. I began to realize that Big Box's system of control was not perfect, *just made to appear perfect*.

With pervasive computer tracking and a constant pattern of paper documentation such as signing the 238, Big Box creates the illusion of omniscience. For example, we were told in

Orientation to do our best with each trip, because "that trip has been electronically assigned to you, and it has your name all over it." However, I later learned that trips are randomly audited. In a given year, only about one percent of any worker's trips are audited. Because the Quality Assurance department performs nightly checks of the orderfilling slots, Big Box knows in the aggregate how accurate the system is functioning. For individual orderfillers, however, it is a kind of honor system. Big Box's claim to perfection breaks down in some places, but only through experience with the system. Big Box could not perform more audits, and keep these products flowing in and out of the building at a smooth pace. So, while mystifying the rules keeps workers in the dark about what is right and wrong, the reality and the illusion of constant surveillance should make workers feel as if they had better be doing the right thing.

Taken together, an environment of taken-for-granted constant surveillance is created. For example,

During a survey, employees were shuffled into a computer lab decorated with camouflage bunting to match the survey's theme, "Hunting for a great AOS." As one worker sat at his desk to begin the survey by checking boxes about his experience at Big Box, he noticed a wooden duck on top of the computer. He asked the human resource director, "What is that duck for?" The director replied, "Oh we got cameras in its eyes so we can see what ya'll are marking." The employee froze, and the director laughed, "I'm just messing with you; the survey is totally anonymous." The employee did not share in the laugh.

The worker's response to this interaction demonstrates an employee who has internalized an awareness of surveillance. The human resource director obviously has a different experience of the work environment and perhaps does not realize the sense of inescapability created by the constant electronic and bureaucratic surveillance. To the employee, the idea that cameras might be in the duck seemed momentarily plausible, and not the least bit funny.

Warning signs amongst employee lockers remind everyone that these are the property of Big Box and are subject to search at any time. Taken together, with the mystifying rules, the constant surveillance, technical control and the ubiquitous documentation, Big Box creates an omniscient image for its employees. In effect, this turns each employee into a self-regulated worker, subtly directed by an array of technological and organizational strategies intended to illicit complicity in the

most efficient manner possible. In such a well-controlled environment, one begins to wonder how "culture" might be possible.

Taken together, the bureaucratic and technological mechanisms operate internally and externally upon individuals to produce conformity. Bureaucratic mystification creates internal pressures, teaching employees how to protect themselves from infractions. The technological system externally directs, but fear of how the electronic monitoring system is calculating performance is more internal. Workers do not know how their actions translate into performance until after the fact. These are the formalized mechanisms of control, functioning in an interrelated manner. The following sections demonstrate how the formalized structures interact with informal control mechanisms to create normative conceptions to work which benefit Big Box.

CHAPTER FIVE

Autonomous Actor or Puppets with String?

So far I have described two traditional methods of control: technical and bureaucratic which blend to create an illusion of omniscience. Socially constructed mechanisms represent a third form of control. These are methods of work force organization, designed by Big Box, which appear to create "informal" cultural orientations to work that increase work intensity and circumscribe the potential for resistance.

The Collective Burden

Big Box strives to accommodate a normative orientation to labor which assumes work is distasteful, and should be completed as quickly as possible. Work tasks are construed as impersonal forces which everyone on a particular shift, coaches and workers alike, must band together to defeat. Performance under this social form takes on a moral dimension. Over-producing is not just about winning prestige and monetary compensation by the self-interested individual. It is also about helping fellow workers overcome a collective burden, escaping the 'relative depravation' of work (Burawoy 1979), and going home.

Big Box organizes work shifts into collective confrontations with a specified "volume" of products, an amount of cases that must be shipped or received, depending on the crew, before the shift can end. Shifts are indeterminate in length; each night represents a new challenge. And no one can leave until the challenge is met. The presence of this challenge is perhaps the most powerful force creating cohesion among workers in the warehouse. Each and every shift, when

loaders, lift drivers, and especially orderfillers arrive, the first thing they ask of one another is, "What's the volume?" or "What we got?" or "What're the numbers?" Often this knowledge is supplied without any prompting. It was not uncommon for me to walk in, and another orderfiller simply say, "We got 58 tonight," meaning, 58,000 cases must be shipped out before the shift can end.

Each shift, therefore, constitutes its own Sisyphean mountain that must be climbed before anyone can go home. The start-up meetings always begin with a discussion of these numbers, and what level of "team" is necessary to defeat this challenge, within a certain amount of time. At one start-up, the coach gave the orderfillers two choices. On one hand, they could run 95 "like we did last Saturday," and it would take 8.5 hours to complete the shift. Or, they could run 110 and make it 7.8. "It depends on ya'll." The onerous drudgery of work is taken as a given. Big Box seems to be saying, "We know this work is painful, boring, and difficult. Now, this is what you have to do to end it as quickly as possible." During the shift, at each break, the "percent complete" and team performance numbers are announced over the PA, informing employees what is left to endure. Employees who miss this message will be heard asking about it in the break room. On every shift I have worked, workers and coaches alike celebrated the short, quick shifts, and cursed the long ones.

In this form of organization, production performance takes on moral significance within the group. If I am only running 95%, I am not letting down Big Box or the coaches; instead, I am letting down my fellow employees—those whom I sit with in the break room. My coworkers must suffer onerous drudgery even longer because I am not "pulling my weight." The faster one produces, the greater is the contribution to overcoming the mountain. The slower an individual produces, the more that orderfiller is dragging down the group. This method of organization is not new; the military has long understood that once the bullets are flying and the bombs are dropping, "life, liberty and the pursuit of happiness" become meaningless abstractions. If you are in a foxhole with your friends, however, the guys with whom you trained in boot camp, then you are fighting so the group can survive and get home. I am not comparing Big Box to war, but the principle remains the same.

During light volume shifts, the crews tend to run harder. The end is in sight, and more people are pulling product at a fast pace to get there. If the mountain is too large, however, the opposite occurs. One particular Friday was the Fourth of July. The day before, first shift had been bracing for a heavy day because, typically, the week before the Fourth is one of the worst all year. But, it turned out to be light volume; only 90,000 cases. First shift had assumed Friday, the day of the Fourth, would be equally light, but the volume turned out to be 120,000. Hopes of beginning their holiday weekend a little early were dashed by the unexpected size of this mountain, and the first shift crew, one of the most seasoned in the building, responded by running 98% as a team. One said, "How did you like that volume? Did you feel like we did when we came in this morning and saw it?" Another said, "We saw that volume this morning and said hell no," meaning they were not going to work very hard. These orderfillers were expressing sentiments of the collective, consistently using the pronoun 'we,' and how they felt about the workload. The fact that the crew ran such a low percentage—anything below 105 is low for that crew—could be seen as a manifestation of the collective's feeling. Even within a culture of exploitive overproduction, exploitation has unacceptable limits.⁶

Workers are paid by the hour, but the collective goal—which is normatively enforced by workers and management—is to defeat the daily mountain of cases and to "go home." When workers finish shifts early, their paychecks are less. By organizing shifts as collective challenges against the onerous drudgery of work, Big Box creates a game of escaping the meaningless task as early as possible. The incentive—going home—is perhaps more powerful than a larger paycheck because it is both more immediate and shared by the informal group.

Rewards and Punishments

⁶ More research into how workers resist would be fruitful. It is apparent that Big Box's efforts to cover exploitation can become strained. When shifts last too long, workers cannot simply decide to go home. They must stay, or be punished. The illusion of the game becomes unbearable at that point. Smaller examples can be found in every shift. For example, at the end of night, several orderfillers will "hold their trip," meaning they slow down, even stopping completely for several minutes between each pick, and wait to hear "all trips have been assigned" over the PA. Interviews with orderfillers would necessary to fully characterize the nature of worker resistance.

Volume as the basis for social organization creates an informal system of rewards and punishment to reinforce this normative distaste for work. At the end of each night, clean-up duties are assigned. Orderfillers are ranked each night according to cases pulled. Those at the top of the list receive the easier duties. On dry side, these are emptying garbage cans; on perishable, it might be no clean-up at all. Those at the bottom receive aisles that take longer to clean. This follows from the logic of defeating the mountain; run hard and go home early; pull slow and stay late.

While avoidance of difficult cleaning assignments serves as a motivator during the shift, performance also translates into rewards for the next day. During the start-up meeting, the top orderfillers will be rewarded with easier jobs, such as running the wrap machine or chase.⁷ These jobs are desirable for nearly all orderfillers on the shift. Orderfillers are free of the unit and the relentless stream of cases to be lifted. Some who have never run chase or the wrap machine have no idea what it is like to do these jobs. An orderfiller who is rewarded with one of these jobs benefits in some less tangible ways. Even though the announcement of who has these jobs is handled by the coaches as a routine aspect of the start-up meeting, to the orderfillers, it is a ritual central to the ongoing construction of the status hierarchy. There are orderfillers who regularly get these jobs. When their names are announced, it is seen as business as usual. If someone new is announced, comments are sure to follow. "Look at him! Running chase," is one version. Others might be, "Uhoh, Danny must think he's big time now—he gets that chase every Friday." It is almost like a rite of passage. Winning a support job confirms an orderfiller's status as someone who can run. These jobs are highly visible; every other orderfiller will see them in this prestigious roles throughout the shift. It is also important to note that "winning case count" is not based on production performance, but how many cases a worker has pulled—or the amount of effort contributed to defeating the mountain. Orderfillers understand the logic behind this arrangement, and informally negotiate to reinforce it.

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⁷ Running the wrap machine entails taking the trips other orderfillers have completed through a machine which covers the rectangular solid of assorted cases with a cocoon of shrink wrap. Chase involves going behind orderfillers and collecting cases that were previously unavailable for selection.

One day, in the minutes before the start of my shift, several orderfillers at the time clock were talking about last night's stand-out performer. This orderfiller had run 163, pulling 400 cases per hour (or, he lifted an average of 7200 pounds of freight per hour.) The orderfiller in question was not present yet, but others were bragging on him. "Let me put it this way, he didn't start until 4 and he came in second." Then, before start-up, I heard this hero-orderfiller telling someone "Man I feel it too." The other said, "I bet you do," in reference to the soreness he experienced. Once start-up got underway, the coach awarded chase to a different orderfiller; he had picked the most cases, but with a three-hour head start. The second place orderfiller, who had run 163, looked like someone had punched him in the gut. Then, the chase winner pointed out the discrepancy, the coach apologized, giving chase to the orderfiller who had pulled the most per hour, and everyone had a good laugh about it.

The hero-orderfiller had been counting on the reward; it was on his mind, probably as a saving grace, from the first moment he began to feel sore and weak from the previous night's effort. Having it taken away was painful. For the crew, it was also painful, and equally a relief when the situation was corrected. Rewarding chase to the top orderfiller is a ritual, central to the legitimacy of over-production.

In summary, when work shifts are organized to defeat a specified amount of volume, an informal, worker-constructed sense of obligation to fellow employees arises. In this context, rewards and punishments for performance make sense. Coaches, likewise, are bound to the fate of the crew; they cannot go home until everyone is finished. Control is accomplished subtlety, through a combination of external and internal pressures.

Management thinkers learned the importance of informal "norms and sentiments," as they apply to work, in the Hawthorne studies of the 1930s (Roethlisberger and Dickinson 1939). Human Resource Management is built upon this understanding. The usual question has been how to get the goals of the informal group to align with the goals of the formal structure (Perrow 1986). Inside PF #0227, volume, the mountain of cases to be pulled every shift serves exactly this purpose. Producing becomes a moral activity that is reinforced by rewards and punishment.

It is difficult to label these socially constructed meanings as "informal." The line between formal and informal becomes blurred, almost indistinct in some cases. What is clear, however, is that these normative, informal dimensions are constructed out of a formally constructed, "objective" structure. The informal dimensions form in ways which benefit Big Box, and circumscribe the

possibility of workers developing alternatives. The actual mechanisms which direct and compel workers, which shape these individuals into collective units moving freight in and out of the building, function as a subtext, almost on auto pilot, written into the apparent nature of the organization.

95 is Failure

An employee's ideological orientation to work is shaped through normative controls. Work becomes seen as distasteful, production speed helps everyone escape the drudgery. This section describes a second form of informal worker culture which benefits the company. Among orderfillers, the formal structure appears to successfully create conditions such that an inescapable competitive culture pervasively defines the experience of work. Over-production becomes a symbolic resource which seems to subvert the economic rationality we might expect, given the existing incentive structure. This over-production ideology develops informally, and is reproduced through the cultural, human-to-human interactions. It uses resources structured by the firm to economically benefit the firm at the expense of the employee.

As Table 1 illustrates, the incentive to over-produce is effectively utilized by Big Box to drive labor costs *down*. I should emphasize, this table is not based on actual data, but, on my employment history with the firm. These numbers are estimated to illustrate a trend. The harder orderfillers pull, the more Big Box saves in labor costs for the shift, even if every orderfiller on the shift is receiving a full incentive amount.

Table 1

| The team average of | 95% | 115% | 130% |
|-----------------------------------|-----------|-----------|-----------|
| 30 orderfillers | | | |
| Total Actual Minutes ⁸ | 15,158 | 12,522 | 11,077 |
| Length of shift in | 8.42 | 6.96 | 6.15 |
| hours | | | |
| Orderfiller Labor | \$4294.76 | \$3547.86 | \$3138.46 |
| Cost ⁹ | | | |
| Incentive Cost ¹⁰ | \$0 | \$532.1 | \$954.97 |
| Lift Driver and Loader | \$1431.4 | \$1183.2 | \$1045.5 |
| Labor Cost ¹¹ | | | |
| Total Labor Cost | \$5726.16 | \$5263.16 | \$5318.93 |

Note that the crew collectively working at 115 percent has saved Big Box \$682 in labor costs compared to the 95 percent crew. That is only one shift. Five shifts ship product out every day at the PF. If each one collectively ran 115, PF #0227 would save \$3410 per day, and if they could maintain that average for the entire year, it would save \$1,241,240 in labor costs. Given the fact that the perishable and freezer crews habitually run over 130 percent, these estimations could be rather conservative. At any rate, I am only using them to illustrate Big Box's stake in cultivating this culture of competition.

But what about the cost to an individual orderfiller? Does not a running orderfiller make more money than a walking orderfiller? The answer is no. The orderfiller on the crew that ran 95 percent would have worked 8.42 hours at \$17 an hour, for a total of \$143 dollars. The orderfiller on the 130 crew worked only 6.15 hours, but at \$20 per hour. His total for the night would have been \$123. The lower producing orderfiller made \$20 more than the high-producing orderfiller.

⁸ The total amount of time it took all orderfillers to complete all trips on the shift. Assumes a baseline of an 8-hour night if thirty orderfillers averaged 100 percent production.

⁹ Assuming an average of 17\$ per hour for the orderfillers.

¹⁰ Assuming a generous 3 dollar per hour bonus for those running 130 or better. For the first column, no orderfillers receive this bonus. For the second column, I assume 15 orderfillers ran 130 and receive the full bonus, and 15 orderfillers ran 100 and receive no bonus; for the last column, all orderfillers receive this bonus.

¹¹ Assumes 5 loaders and 5 lift drivers with an average pay of 17\$ per hour. These workers produce no incentive cost.

Orderfillers running 160 and 170 make even less money. The catch 22-for orderfillers is this. The orderfiller running 95 percent on the 130 percent crew makes only \$104. Therefore, if everyone else is running, the orderfiller who wants to maximize his pay must either convince everyone to slow down, or run him/herself.

Incentive structures like these have existed since the days of Fredrick Taylor (1998). Since the Hawthorne electric experiments, informal work groups have been observed creating culture orientations which restrict output, or are otherwise hostile to management's interests (Burawoy 1979; Perrow 1986; Roy 1954). These informal norms are generated by labor, in a negotiation with management. In PF # 0227, the informal culture, shared by workers and managers alike, seems to find over-production morally desirable.

The orderfilling culture draws upon data from the computer tracking system, such as case count and production performance, to shape one's subjective experience of work. To achieve acceptance and status among peers, one must be able to "run," or over-produce above the minimum, 95% performance standard. Running is a physical engagement with the products—how they are pulled as well as how they are stacked—and a mental engagement with the technology used to move the product—reading the check digits and utilizing the unit. It is also extremely taxing. Despite these difficulties, many orderfillers have pushed themselves to pull as hard and as fast as they can. Daily competitive games, rewards, prestige, and even punishments or shaming revolve around rankings produced by the structure, culture, and technology of the warehouse. The ability to participate in the competition shapes one's identity at work.

Shift-specific hierarchies emerge through a direct translation of performance metrics. At the top is the alpha orderfiller. Generally, he¹² can run 170 to 200 percent. He may or may not run this way often, maybe only once or twice a year, unless someone challenges him to a race. He may run this way several times a week, or he may "coast" at 130 just to max out his incentive pay. It depends on the orderfiller, and on the shift. Some areas of the warehouse, such as Meat and Produce, have

¹² Female orderfillers can rarely go beyond the 130 mark.

easier production standards. Hence, 120 percent on Meat and Produce does not carry the same amount of prestige as 120 percent on Dry. Specific meanings for these numbers are negotiated by the work crews themselves.

Experienced crews, where most of the orderfillers have been together for years, are filled with regular runners, while a young weekend crew might only have a few workers who can run. Some crews will have several alpha, and might be referred to as "the big dogs." Below them are groups of regularly competing orderfillers who can run somewhere between 130 and 150. These orderfillers ordinarily win the chase or wrap machine jobs, and frequently talk with one another about how fast they are running, or what kinds of trips they are getting. These constructions are fairly stable. Once an alpha ascends, they rarely fall. At the bottom of this hierarchy are those who can just "run production." They might make it to 95, or even 110, but rarely above that. These orderfillers never win support jobs, everyone knows they do not run, and this is generally tolerated. The belief is the production numbers reveal some innate aspect within each worker: some are runners, others are not. Those that just "run production" tend to socialize with one another, but they are not necessarily shunned by higher producers, since it is usually assumed they are performing at maximum level. Those who demonstrate the ability to overproduce, or who are young and appear physically fit yet never attempt to run, are usually looked down upon with disdain for not working up to their apparent capabilities.

Each orderfiller has a reputation fixed within this hierarchy. His/her work identity is presented to other employees in relation to this hierarchy. If a worker breaks the pattern, especially if a non-running orderfiller begins running, it becomes the subject of conversation, an oddity that must be explained. For example, one night on Meat and Produce, a universally disdained orderfiller began the night running 150 percent. Everyone was shocked. It was *the* hot topic in the break room and bathroom conversations. Jovially, everyone kept asking him what was wrong; what's "gotten in to him." He had deviated from worker's understanding about the current hierarchy, in a way that made everyone happy for him.

The effort to distinguish between those who run and those who do not became clear within the first few hours of my first day at PF #0227. After orientation, I got "out on the floor," and I remember being mildly surprised to find that the front line workers used the same standards for measuring each other as the managers. My previous work experience had taught me to expect a significant gap between what employers preached, and what employees did. These gaps certainly exist at Big Box, but in this most salient aspect of the distribution process—orderfilling—the informal work culture and the formal culture seem to share the same standard. On that first night, in the break room, after the initial conversation consisted of orderfillers confessing their production performance thus far, my trainer began playfully chastising the crew for the not running hard enough. I asked what it meant to "run." He said,

"It depends on the shift. Like the guys on this shift, no one can really run that well. Maybe 140 or 150. I can run," he started pointing people out in the break room, "He can run, him, he can't run." He went through the ten males who were in the booth tables in the break room. They just kind of nodded or smiled, embarrassed. "Now, if you want to see some people that can really run, come in on dayshift. Those guys clock out with 160 or 170." And he shook his head in amazement.

The tone of the conversation indicated that an orderfiller's production speed directly informed his/her level of prestige. There were those that could run, and those that could not. Throughout the night, he would differentiate between the two. One orderfiller, Pat, was generally disdained by the entire troop. The trainer called him, "One of those that really tries to run but can't." Apparently, this put him at the very bottom of the hierarchy. The trainer, apparently, could run, but chose not to. Because of a charming, jovial nature, he was generally accepted amongst most of his peers.

In order to be accepted as a competent, competitive orderfiller, one needs to win "case count" at least once or twice. Each shift constitutes a daily challenge for orderfillers: case count¹³. "Racing" is the term when two or more orderfillers are competing for next day's prize—either chase or the

¹³ Case count is a separate measure of one's production performance. Case count simply refers to the total number of cases an orderfiller has pulled, percent performance refers to how quickly those cases were pulled.

wrap machine. Sometimes races occur spontaneously in the course of the night. Sometimes orderfillers plan to race in advance. On other occasions, coaches actually plan the races. In the most extreme form, racing can occur when one orderfiller challenges another:

While working second shift perishable, I saw one especially brash orderfiller begin to pick on a quieter orderfiller in the break room. Both were known to be high-producing workers, but the brash one wanted to prove he was the better of the two; he kept asking for the other to name a day in which they could settle the matter with a race. The quieter one kept refusing, saying the other would cheat by getting help with cases, or he would cancel the race at the last minute. This went back and forth for several minutes. Finally, an assistant coach walked by, and was pulled into the discussion.

The brash one, Charlie, asked the coach, "John, who would win between me and Bruce?" John said, "Charlie, I don't want to get you into something you can't get out of."

Charlie appeared incensed by the comment, "John, John, are you saying, really saying, that Bruce could beat me?"

"Charlie, you start out way up here," the coach held his hand high to show that Charlie, the brash orderfiller, would begin the night producing at a high percentage, "then you drop off. This man (indicating Bruce) can *maintain*."

This interaction is not unusual. It occurs in a number of ways on a regular basis on the various shifts which I have worked. Management, worker, and the overt control structure (percentages tracked by computer) interact to produce this exchange. Charlie knows that John, the manager, watches their performance ebb and flow on a computer screen during the shift, and this knowledge is in fact relied upon to settle a dispute. These two never did race, but, thereafter, I would often playfully invoke Bruce's name to Charlie, who would become defensive at the accusation that he could not defeat Bruce in a race. In this example, surveillance, performance objectives, and management become resources for employees to construct competitive identities. There was no hostility in the exchange; its resources were invoked by both orderfillers. The alpha orderfiller may have won, but the beta orderfiller still received prestige as someone who can compete, someone who does belong as a productive orderfiller.

Orderfillers, when running, invest themselves heavily in the small details of how a shift progresses, and how particular trips can be beneficial or problematic to "getting case count." Trips vary greatly in the number of cases, and in the number of slots required to retrieve those cases. The standard of comparison, cases pulled, is not reliable. So orderfillers sometimes qualify their

competitive losses by discussing the kinds of trips they, or others, were getting. One night as I was leaving, I saw James, who explained why he unjustly lost the previous night's race.

Trey beat me, he ran 140, I ran 151, but he just kept getting all the good trips. I mean he beat me by 297 cases, but...his first trip was 344 cases, an N thru Q. Then he had an H where he picked 190 out of that slot 444. I was getting E,F,P,Q,R, HV:D. 110 cases in a 40-minute trip. But he fell off the pace...I never fell off.

The structure, the resources with which these orderfillers create their status is not questioned. The fact that trips are assigned, randomly, and that Big Box has constituted these trips to maximize the movement of product, rather than according to an equitable distribution of cases, is all assumed. It sometimes feels as if trips just fall out of the sky. Orderfillers rarely, if ever, question why or how trips are created, or even how standard times are computed. These structures are taken as givens, the task of presenting oneself as a worthy, competitive individual worker follows from them.

At other times, races can become regular competitions between a handful of orderfillers. Rather than being a challenge, these orderfillers habitually "run," and end up running on the same nights. (Most orderfillers do not run on consecutive nights; it is too taxing on the body.) During the course of the shift, they will check the case count screen, and the competition can intensify if two orderfillers at the top are very close to one another. One night, I was running, and noticed I was only 50 cases behind the top orderfiller. My adrenaline shot into overdrive as I tried to make up those cases.

Another night, on second shift dry, I looked at the final case count to find, surprisingly, Donald had the top spot, which might have been the first time for him to get it. He is widely known for his poor stacking, and the frequency with which his trips fall over in the wrap machine, rather than for his ability to run. After signing the clean-up list, I got on my jack to ride away, and Trey, an orderfiller who regularly runs (but came in second place tonight) came over to ask, "Who is 728?" (On the case count screen, only our associate numbers are shown.)

I said (jokingly), "It's your arch enemy." He looked confused, "No, James is 635." (On most nights, James and Trey compete for first place.)

"No, it's Donald Lassiter." A stunned look came over Trey's face. He could not believe he had been beaten by *that* orderfiller (Trey ran 12 points higher than Donald, but lost by 16 cases).

Again, our interaction presumes a structure of impersonal surveillance, and out of that, workers construct identities as competitive orderfillers. I presented myself as someone who understands the positioning within the hierarchy by playing with a reputable orderfiller's, Trey's, loss to a disreputable orderfiller, Donald. Trey responds as someone who is properly indignant, but in sporting fashion. He sought Donald out and the two had a jovial exchange over the "upset" victory.

Sixteen cases is an incredibly small margin by which to lose. In many ways, "winning" or "losing" a race comes down to the luck of the draw. Two orderfillers, running the same percent performance, can have very different case counts. Racing, as a contest, is riddled with contradictions. Unlike "real" competitive sports, the losers do not really lose anything. In the National Football League, for example, players and coaches lose their jobs for failure to produce consistent victories. And unlike competitive sports, no effort is made to level the playing field through comparable trips. These inconsistencies are readily accepted by orderfillers. They know luck is involved in the outcomes, but that does not taint the contest for them, nor their commitment to it. Orderfillers are attempting to create meaning within a meaningless activity. If we think of trips, cases, and percent performance as tools, it does not matter to orderfillers where these tools come from, how they were made, or for what purpose. What matters is how these tools can be used to earn prestige.

Over-producing orderfillers earn the respect of their fellow workers, and prestige from their coaches. An individual's work identity is shaped in relation to a competitive hierarchy. Orderfillers either run, or do not; it is the first and foremost criterion for measuring the worth of an orderfiller. Some orderfillers seem to desire this reputable status, and therefore push themselves physically and mentally to achieve higher and higher levels of production. Those who do not run have established justifications. It may be as simple as, "I'm not one of those orderfillers," or "They're only getting 95 out of me," but it still must be negotiated against the assumption that overproducing is good.

Stacking is another way to differentiate orderfillers, but it does not have the same weight as production speed. Gossip about others occurs within these two dimensions: running and stacking. "He can't stack...," or, "he can run, but his stacking's horrible." I remember a tale about one orderfiller, "That m-f can run 170 and stack like that (a perfect cube)." Some would say, "I may only run 120, but my stacking is perfect." Stacking is a matter of personal pride, and it bears only slightly on a worker's identity. Those who ran 170 but stacked shakily are still at the top of the food chain. To stack well or not is a choice; production speed is not. Orderfillers running only 95 percent are not treated with the same respect. At the heart of it, running is about earning informally generated respect and prestige. The higher percentage an orderfiller can run, the more he/she will have. However, the foundation for these rewards is structural, scripted into the "objective" environment.

CHAPTER SIX

Conclusion

The question now becomes, how is this possible? How does the intense pursuit of prestige in a work game become a way for workers to reduce their incomes? Incentives cannot explain the whole story. Big Box pays more if workers run harder. Presumably, some workers would choose to make incentive payment, and others would not. That is certainly the case. Recall from Table 1, however, that minimum production only leads to lower wages if everyone else is over-producing. If everyone worked at a slower pace, everyone's hours, and pay, would increase. Technological and bureaucratic isolation could explain why groups do not form with this intention.

Instead, over-production becomes morally important to the group. Orderfillers who run are helping the crew meet a challenge. In addition, the incentive does not explain why some workers, or even some entire crews, regularly run 140 percent, or why anyone would ever want to run 200, which is high enough to become an alpha orderfiller. In addition, incentive pay does not explain the hierarchy. If workers were only concerned with making money, they would care little about daily competitive challenges.

I argue that Big Box has structured the environment so that even though competition is not part of the official rhetoric—it is not preached or encouraged—it still makes sense. In fact, Big Box explicitly tells its managers not to berate individuals or crews about their production performance (although it still happens.) But, even though managers do not ask orderfillers to run, it is rigged into the environment. Big Box has structured its work environment so that certain behaviors become

prevalent, despite the fact that managers do not ask explicitly for these behaviors. How does this occur?

To begin with, Big Box strives to make the formal control structure invisible. Control in this facility is achieved through policy or technology, which appear to the worker as a natural, commonsense way to run an operation. As a result, there is no culture of managerial control against which a worker culture forms in opposition. Managers even have a title, "coach," which suggests they are on the same side as workers, who also have titles, "associates," suggesting they have some power over the resources or goals of the company. The rules governing this relationship are somewhat murky, however. Policies are presented to workers in a piecemeal fashion, like shards from a shrouded monolith. Workers must learn what is right and wrong by treading carefully through a regulatory environment that is set against them. Control is through self-monitoring; because workers do not know right from wrong—they must either err on the side of caution, or rely on the manager for guidance.

The assignment and evaluation of labor is on "autopilot." Managers check the gauges via computer screen, and make adjustments as needed. Workers have clear direction; when it comes to production rates, there is no mystification. Control is objective and "natural," stemming from a little device at the worker's hip, or the scan gun, or the computer screen. The authority directing the worker to act is hidden within these devices.

Instead of human managers soliciting effort through direct supervision, there is formal talk about safety and cleanliness. The rhetoric employees do hear from coaches is, "Be safe." It is invoked at the end of every start up, and it is the first thing workers see when they walk in the door. And at the end of every shift, the exhortation: "Let's get a good clean-up tonight." Maybe Big Box cares about safety and cleanliness, but there is no doubt that managers care about is production. As a result, workers proudly display their own anti-safety rhetoric. They can thumb their noses at safety, and hide broken cases of spaghetti beneath a rack, and feel as if they are resisting.

With safety and cleanliness opposed, Big Box has cleared the runway so that orderfillers will form collectives valuing *something*. This Big Box cannot offer, at least not explicitly. This must come from the workers themselves—if it is to be binding. The foundation for this morality comes from the indeterminate shift length. Because no one can go home until the cases are shipped or received, collectives form within shifts to meet this challenge.

Running hard, or over-producing, now has an immediate benefit for everyone on the shift: they can go home early. The immediacy of this benefit—a shorter shift—supersedes the monetary loss (see Table 1.) The loss of money, if noticed, is not apparent until payday. Rewards, punishments, and prestige reinforce the competitive legitimacy. In short, Big Box succeeds in aligning the goals of the informal culture with those of the formal structure by making the sources of control non-human, and by rewarding high producers with a shorter shift. These strategies are conscious and direct. Wired into the wireless unit, orderfillers become avatars in a digital space.

Case count and percent performance becomes their scores. They just happen to be shipping groceries.

The ability of firms to strategically shape the formation of informal groups appears to be growing. While previous studies have found examples where attempts to co-opt the informal work group have failed (Graham 1993; Knights 2000; Vallas 2003b), this study adds to the literature in which surveillance, information technology, and team-based organization have been effectively used as indirect methods of control, supplementing traditional methods, thus creating informal control mechanisms within the group (Fernie and Metcalf 1997; Sewell 1998; Winiecki 2007).

In the workshop observed by Donald Roy (1952) and Michael Burawoy (1979), employees were engaged in production games which allowed them to take some pleasure in their work. Roy even talks about finishing early, then "loafing conspicuously" in front of the bosses. He grew to hate the gaze of management. Burawoy (1979) speaks of informal protocols which guided the production process. One had to develop relationships in order to make production. Managers would sometimes try to impose formality on the labor process—usually in ways that created bottlenecks and inefficiency. This would infuriate workers who would be unable to make 140 percent of production

as a result. After a few weeks, workers were able to erode the new rules, and get things back to normal.

Burawoy considered these two studies as examples of worker's conformity to capitalist profiteering overriding their own political interests. I would also add that it demonstrates ways in which the informal, worker generated culture can contest formal managerial strategy. The informal culture restricts the power of management. In both cases, workers succeed in negotiating, shaping, and defining the terms of their work culture.

In Big Box, such outcomes are rare. Control mechanisms are difficult to shape because they are minimized, impersonal, and unobtrusive. Direct control is less necessary as part of daily operations; contested interactions between workers and managers exist, but they are usually about "coaching" someone on how to conform to the system. Control does not have to be interpreted through personal relations with authority figures.

In this competitive, highly routinized environment, where the perfection breaks down, is resistance possible? Probably some level of personal, individual resistance should be expected in any coercive job. Big Box is no exception; for orderfillers, there are numerous ways to resist by gaming the system. For example, I could call out a case to the unit as if I have picked it, but put nothing on my pallet. If my trip were audited, I would be coached for a minor offense. Leave out more than a few cases, however, and your trip starts to look a little strange. It is not clear how extensive this practice is; no one ever talked about it (the sense of being watched was ever-present). Yet I suspect some must have, given how easy it was.

After working as an orderfiller for three years, I transferred to the lift driving position. The competitive culture was non-existent, though management still tried to encourage it. Our "numbers" were read in ranked order during daily start-ups. New hires cracking the top three might get a slap on the back, but otherwise it is business as usual. Lift drivers do not celebrate over-production. There is no incentive for lift drivers. Despite this, seasoned lift drivers regularly tried to get %115 or so, in order to protect their rolling four-week cumulative performance against a bad day. In addition, lift

drivers get assigned one set of aisles at the beginning of the shift. The difficulty of those aisles, a daily question mark, is, once determined, fairly stable for the whole day, and prescribes the number of "moves" one driver can make. There is some variation for effort and skill, but it is not prevalent in conversation or in rewards like it is in orderfilling. As a result, lift drivers do not compete. The few crews I observed are an isolated lot; I suspect this is the case because so little of their work allows for interaction with others. In fact, on the crew I worked, loaders and lift drivers exhibited a marked difference in group cohesiveness. Perhaps this is a consequence of the way loaders work in constant motion on a shared dock. They have a high degree of daily interaction which allows for sustained conversations. Social integration was higher among loaders than in the lift driving group. Both lift drivers and loaders cases have more control to resist engagement with the work. This suggests limits to management's ability to inspire efforts in low discretion jobs. While the similar strategies seem to apply to loaders and lift drivers (minus the incentive), orderfilling becomes the competitive arena.

All three work groups—orderfillers, liftdrivers, and loaders—illustrate the power of the structure to shape the informal nature of the collectives. Orderfillers are hyper competitive. Lift drivers merely get by in isolation; loaders are a congenial group. Differences are also apparent between first and second shift crews—the former tend to be more "uptight"; they work in the presence of salaried management. Second shift, which does not, is markedly more relaxed. Perishable crews tend to more close-knit than dry shipping crews. These differences appear to affect the ways workers experience work which is possible—the normative environment appears to hinge on these structural variations.

Spontaneous, human-to-human informality does exist within the warehouse, but its rare—highlights the prevalence of formal control. When things break down—pallets fall over, serious injuries occur, trips fall over—these events stick out and become "war stories" told to new hires or transfers at any opportunity. If a trip falls over, for example, people come together to pick it up. The orderfiller could be angry or indifferent, but the other workers usually relish the break in monotony, and come together to accomplish an informally organized task. Jovial conversations mark the

communal restacking, sometimes even at the end of long shift. When a pallet of jelly is smashed against a rack, managers often take the opportunity to "BS" with a group of employees as they pick glass off metal girders. When there is a break in the ordered flow, informal interaction quickly fills it. Managers and workers escape rigidly controlled routines into moments of spontaneous sociation.

So why, then, does orderfilling take on the competitive imperative which other tasks lack? Perhaps there is something in the nature of the orderfilling task—the activity, how it is measured, and rewarded—which "fits" with the wider competitive culture in which we all live¹⁴. Video game competition is a phenomenon every orderfiller is probably familiar with prior to employment. If not that competition, then some form will suffice. Perhaps the nature of the technology, which requires people to mentally wire into a physically demanding activity¹⁵, combined with this real time performance tracking, have set in motion a unique, idiosyncratic cultural context.

Still, several questions remain. How do orderfillers explain their desire to run? If it is all about making incentive for them, why do people want to run 150? What are the health consequences associated with running over long periods of time? This study was not able to answer these questions. My position as a covert researcher, unable to interview, prevented me from fully characterizing the range of responses to the culture. In addition, my dependency on the wage left me vulnerable to the coercive, demanding aspects of the job¹⁶, which may have clouded my perception of the control mechanisms, or obscured other aspects of the atmosphere which may run counter to my claims.

Future research to corroborate and build upon these findings is necessary. Is competition at work becoming more widespread? What are the rules of these games—are they set by the company or informally within the group? As information technology widens the range of activities that can be

 16 For example, twice I have had a "mandatory work day" added to my schedule before a holiday, usually with just a few days notice.

¹⁴ Some readers will note the absence of gender in this analysis. Masculinity no doubt plays a large role in motivating orderfillers. The jobs in the warehouse are not gendered per se. Males dominant orderfilling, but there are no jobs considered female, and they tend to make up a sizable portion of other positions in the warehouse. Without interview or observational data about motives at work, or company data regarding workforce composition, little data were available for an explicit analysis of the gendering process.

packaged into a performance metric, how will people respond to the heightened, transparent pressure to perform? Competition is as old as society, but is something new being created in the interaction with computer technology?

In addition, the power of information technology to shape the labor process increases as jobs become more difficult to find. Economic restructuring in the face of international competition is leading us into an era of precarious work in the formal sector (Kalleberg 2009). Employers are returning to 'neo-Taylorist' forms of recruitment and retention, which involves selecting the "right" (i.e. high energy individuals who never complain and easily adapt) person for the job, also, periodic layoffs are used to motivate employees (Crowley 2010). As these forces converge, the ability of workers to resist demeaning, stressful, or overly-intense work conditions could diminish significantly.

The power which shapes this context is so totalizing, so encompassing, it is barely a part of worker's daily awareness. Our knowledge of how groups can rescue meaning from meaningless activity has been extended, but no one should be surprised. After all, did the collectives forming several millennia ago to make sense of seasonal weather know any more about their environment? Powerless people must still make a life out of the conditions that they face.

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