5

The Motors of Change

Ten

Struggles on the Shop Floor

In part 2 I described changes in the organization of work and in part 3 how these changes contributed to the obscuring and securing of surplus value. In part 4 I discussed the degree to which the labor process was insulated from external changes and the consciousness workers acquire outside the factory. I turn now to my last task: the explanation of changes in the labor process observed between 1945 and 1975 at Geer Company and Allied Corporation. In this chapter the discussion is focused on struggles on the shop floor, while the next chapter takes the discussion beyond the workplace.

Economic Struggles

The object of economic struggle on the shop floor is the effort bargain, that is, the monetary reward for labor expended or the reward for effort. Management determines the reward for effort through the piecework system. Thus, in 1945 each operation on each piece was assigned a "price." The hourly wage was computed by multiplying the number of pieces turned out by the price per piece.

In addition, workers were guaranteed a basic hourly wage when they failed to produce the expected number of pieces. In 1975 the system had changed from one based on prices to one based on "rates"; that is, each operation on a given piece had a standard rate, fixed at so many pieces per hour. If the operator exceeded the standard rate, he or she earned a bonus, worked out as a proportion of his or her hourly basic earnings. When they fell short of the standard rate, operators received the basic earnings. (For further discussion of "prices" and "rates," see chap. 4.) However, in both systems we can construct a "reward-for-effort curve" (see figure 1), which indicates the reward an operator receives for turning out so many pieces per hour, that is, for expending a certain level of effort. For any given operation we can also construct an "effort curve" that indicates the returns to capital and labor (measured in pieces or their equivalent value) for any given level of effort (see figure 2). Moving up on the effort curve constitutes making out.

We have already referred (chapter 4) to the hierarchical conflict that can attend the pressure and frustration of making out and how this can be redistributed into conflict among workers. This hierarchical conflict is *not* a form of struggle, since it is part and parcel of making out. Rather, it is a form of *competition,* and it takes as given the distribution of economic rewards, the rules of the game, and the hierarchy of preferred outcomes. Economic *struggle,* on the other hand, refers not to moving up on the effort curve but to the displacement or reshaping of the effort curve so that the relative returns to labor and capital change. Management seeks to cut prices (1945) or increase rates (1975), while workers strive to do the opposite. In the labor process, struggle of this nature is initiated, most usually, by the methods department, whose responsibility it is to establish the shape and position of the effort curve. However, since 1945, as we shall discover below, the methods department has increasingly withdrawn from the shop floor, and day-to-day struggle around the effort bargain has accordingly diminished.

Time Study in 1945

The methods department at Geer employed a crew of time-study officers as watchdogs of efficiency—emblems of scientific

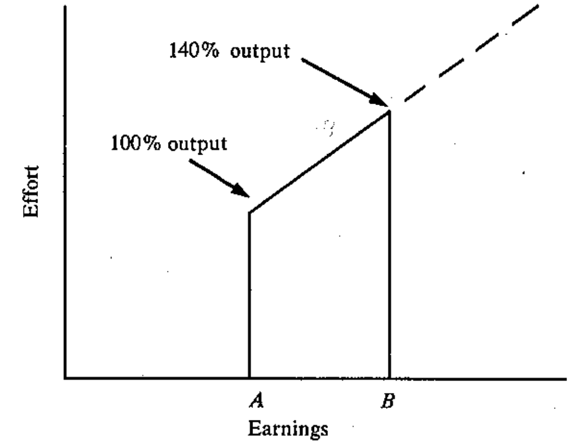

Figure 1 **Reward-for-Effort Curve**

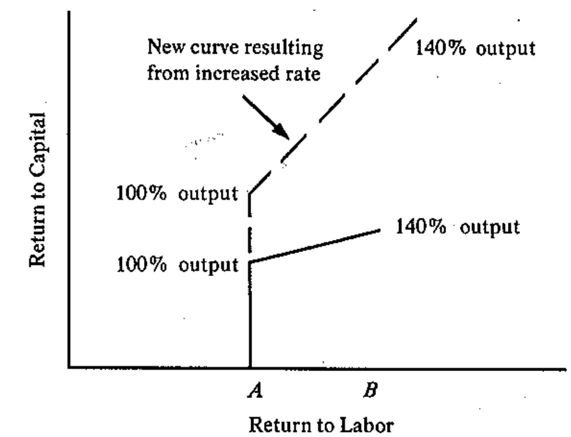

Figure 2 **Returns to Capital and Labor**

In both diagrams, *A* corresponds to "base earnings," achieved for output less than or equal to 100 percent. The segment *AB* is the bonus pay for 140 percent output. "Effort" is measured in terms of output. The standard output is 100 percent. Workers begin to earn an incentive bonus for levels of output in excess of 100 percent. (The "expected" rate of output is 125 percent. See chapter 4.)

management. They were to be found, stopwatch in hand, constantly prowling about the shop floor, timing jobs in their search for "good prices," which offered "gravy work" for the operator. Only perpetual vigilance on the part of operators kept them at bay.

> If the "Big Shots" were disagreeable to the operators as symbols of "more work," the time study men held the expanded significance of "more work for less pay." Worker hostility toward members of top management was tempered by manifestations of a sense of humour; relations with the time study men were "grim business" all the way.[1]

The time-study men were agents of "speedup," always trying to cut the piecework prices. It was even suspected that they received a commission or bonus for the amount of money they saved the company. This was not true, as Roy later discovered, but it is significant that many operators believed it. How else could they explain the persistent attempts to undercut the operators?[2] The tactics of the time-study men were met with unqualified opposition.

> The writer was further warned to "watch out for" the time study men whether he exceeded a quota or not, the implication being that the time study men did not rely solely on "clues" from the records, but performed "private eye" work in the field to detect "gravy" jobs.
>
> "The men you want to watch out for are the time study men. Whenever you see a man standing around with a watch attached to a board, watch out! Slow down! Take it easy!"
>
> Stella, a milling machine operator, and regarded as a skillful one, described some of the subtleties of the "detective work" of the time study sleuths.
>
> "I caught Eddie timing me with his back turned the other day. He was listening to the machine to see when I finished a piece. Later he came along and looked at the route sheet, just as I thought he would. He'll come along, get the number of a job, memorize it, and write it down later.
>
> "He'll come along to time old jobs that way. You won't think he's watching you, but he'll be listening to your machine."[3]

The consequences of the continual presence of the methods department is not difficult to imagine.[4] Obviously, operators were careful not to turn in more than their quotas and not to exceed them

in front of time-study men. Anyone turning in more than his or her quota was subject to considerable social pressure and harassment. Operators, time clerks, foremen, and others were always on the lookout for operators who might be turning in more than the quota, either accidentally or intentionally.

> However, the "social climate" of the Jack Shop was evidently not congenial to the flowering of quota smashers. Either they were nipped in the bud, or they failed to sprout at all; for during the eleven month period the writer's attention was drawn to but several minor and isolated instances of quota exceeding. These dark deeds occurred under special conditions and their perpetrators were not "habituals."[5]

Indeed, Roy can offer only three trivial, isolated instances of rate-busting.

If there were no rate-busters, then what about price-cutting? The methods department could "legitimately" lower prices on any piecework jobs by introducing some small change:

> It is understood and agreed that the Company may at any time change piecework rates because of mechanical improvements, changes in specifications, or engineering changes.[6]

If management wanted to change a price, it could therefore easily do so. During his eleven months at Geer, Roy himself never experienced a price cut, though he heard reports of a number. His own day man, Joe Mucha, experienced two cuts and one unsuccessful attempt. Roy also reports four other cases of price-cutting on other machines, but it is not clear whether Roy knew of any others. One technique frequently employed by the methods department was to remove the price on a job and then place that job in the category of "time study." This was a recognized precedent to retiming and repricing. "Whenever a price was removed, the operator had reason to assume that a price cut was in order."[7]

The timing operation itself was a game with no clearly defined rules:

> Job timing was to the operators a "game," a "matching of wits," with the rigorous codes of fair play characteristic of cricket not in evidence. The object was a "good price," and that end justified any old means that would work.[8]

Operators commonly tried to fight back by adding extra movements and running the job at low speeds; but the time-study officer was, of course, attuned to these and other tactics, and they therefore could not be relied upon to achieve a "good price," as Roy discovered to his own cost. Roy himself had three new jobs timed. He confesses that he was still green at the art of "screwing the time-study man," and he never scored a clear victory. The struggle brings workers together in solidarity against the methods department. Each gives the other his own tips on how best to deceive the time-study man. After the timing and the awarding of a price, there is a postmortem with fellow operators, inspectors, setup men, and so on, in which each offers advice for future encounters. Even foremen have a stake in operators' getting a good price, as already described, and on occasion they will intervene on behalf of the operator:

> Joe said tonight that I was given a poor price on the worm gear. He was looking for a price of ten cents or twelve cents instead of the six and a half cents I was given. He asked me if I put the feed up for the timing. I told him I ran it at 11 feed, and he threw up his hands.
>
> According to Joe, they were going to time him shortly before three o'clock, and tried to get him to run at 610 speed and 11 feed (he had been running 445 and 7). He tried a piece at 610 and 11, but Rosie (day foreman) told the time study man that the work was unsatisfactory at that speed and feed. Instead of timing the job at 445 and 7, the time study man walked away and came back later to time me at 445 and 11 (which I had been running at time study).[9]

On the other hand, operators were constantly on the lookout for foremen or other management officials who might be in collusion with the methods department. "Although the line foremen on the second shift were never accused of the greatest of offenses, collaboration with the methods department, were never branded with the epithet 'Company Man,' the feelings of the machine operators toward them were by no means of complete approval."[10] As has frequently been pointed out in the literature, foremen are middlemen and in an ambiguous position, inclining them to support different sides of industry in different situations.

Leaving the foremen aside, the pervasive influence of the time-study men and the constant fear of price-cutting served to generate a solidarity among workers. Struggle with management tended to counteract the patterns of conflict associated with making out, namely, the diffusion of hierarchical pressure into antagonisms and competition among workers. Animosity toward one's day man, toward the inspector, toward fellow operators and others was tempered by the continual creation of a common interest in opposition to management as represented by the methods department.

Industrial Engineering in 1975

Over the past thirty years the situation has changed dramatically, for reasons I will explore in the next chapter. Today, time-study men have been replaced by industrial engineers, who spend most of their time in some distant office with pencil, paper, and pocket computer. Time study has been professionalized and made more "scientific." There is a marked reluctance on the part of industrial engineers to appear on the shop floor with a stopwatch. Sometimes they have to, but they are careful to begin by trying to win the cooperation of operators and to dampen hostility. They certainly do not march up and down the aisles looking for loose rates or combing the output records in search of an occasional rate-buster. It is now difficult to find an industrial engineer on the shop floor, let alone find one retiming a job. Bill, my day man, tried to find an industrial engineer to give one of our jobs a permanent piece rate (to replace an estimated rate). That particular job must have come up about half a dozen times while I was there, but Bill never managed to get it timed. Indeed, neither Bill nor I had any job timed on any of our machines during the entire ten months I was at the engine division.

Yet the fear of rate increases remains a pronounced feature of shop-floor culture, and so it remains the basis for continued enforcement of "quota restriction." The fear is well founded, but, as I shall indicate below, rate increases do not result from the decision of an idiosyncratic, rapacious time-study man on the prowl; instead, they follow a predictable pattern. To my knowledge there were three instances of rate increases in the small-parts department during the ten months I was there. In each instance the rates on a number of jobs run on the same machine were affected. In one case the rates were first drastically increased but then, a few weeks later, were restored to their original level—for reasons that remain unclear.

A second case involved an automatic lathe. One of the operators, Ed, handed in "suggestions" for increasing a number of rates on his machine—a very unusual but not unprecedented event. Indeed, it was not the first time Ed had done this. If suggestions are workable and therefore save the company money, the operator receives a bonus. The bonus, of course, goes only to the worker who makes the suggestion, not to other operators on the machine in question. Once a step of this nature has been taken, there is little that any operator can do to convince management that the new rates are unfair. Not surprisingly, feelings of intense hostility are directed at the worker who makes the suggestion, and he is almost totally ostracized on the shop floor; for his action not only infuriates the operators who are directly affected but is a direct affront to the entire community. Ed himself, who was a senior employee, with over thirty years at Allied and Geer, appeared unconcerned about the animosities he had aroused. Helpless, his night-shift worker could demonstrate his hostility only by bidding off the job. However, given the existing high level of unemployment, management had little difficulty in finding a skilled substitute. Union officials stood by and watched. They claimed they could do nothing about the situation, but one steward intimated that, if he had been working on that machine, he would have given Ed something to think about.

The foremen were also disturbed by Ed's action, for it upset the policy of assigning "loose" rates to the more skilled jobs. As I pointed out in a previous section, this is necessary because tight rates lead to high mobility between jobs; and, when an automatic lathe is involved, mobility can be costly in terms of training, production of scrap, and efficient operation of the machine. For the simpler jobs in the shop, such as the speed drill, where most novices begin, little training is necessary; the rates are difficult to make and turnover is therefore considerable, but it is not costly. Operators who manage to get placed on the more sophisticated machines tend to stick with them. Thus, if rates on an automatic lathe are increased, the job is less attractive, and foremen are then faced with a problem of stability. However, the methods department, whose

operations are evaluated on the basis of dollars saved by "methods revision" and "time study," was only too pleased to put Ed's suggestions into effect.

The third case of rate increases was contested more vigorously. It concerned one of the final operations in the production of gears: "shaving" the teeth. The job required a certain amount of expertise in setting up, and both of the operators who were involved were senior employees. Art had had over twenty years with the company and worked on day shift, while Bruce had had eleven years and worked on night shift. Art had been turning in 150 percent for the past year, and the company had eventually decided to intervene. To increase an established rate, the methods department had to introduce a technical change. It was decided to reduce the number of "passes" over the teeth. Since both Art and Bruce were experienced operators and gears are the most essential parts of the engine (assembly cannot begin without them), they were in a relatively strong position to fight the change. They adopted two strategies. First, they both submitted bids to one of the automatic screw machines; second, they staged a "go-slow." For two weeks management officials stood around the shavers, to monitor the quality of the gears that came through, following the technical change, and doubtless to discourage Art and Bruce from slowing down. The struggle continued by other forms of withdrawal from work, such as absenteeism and taking casual days. This had the planned effect: gears were not coming off the line quickly enough. Eventually a compromise was struck: if the operators would make every effort to catch up on the backlog, management would increase rates only on the small gears. A few weeks later, Bruce left the gear machine to take a job on one of the automatic screw machines. Art remained on first shift, and a new operator took over from Bruce. Throughout the struggle with management there was hostility between Art and Bruce, stemming from their different relations to the union (Bruce was a shop steward, while Art had been the previous president) and from Bruce's resentment of Art's rate-busting. This did not help in their fight against the changes. The greatest sympathy went to Bruce, who was a solid, hard-working operator. Art's rate-busting only reinforced the unpopularity he had acquired as president of the union.

Thus, with the exception of the mysterious first instance, operators lost their struggles with management. As Frederick Winslow Taylor demonstrates so well in his narration of a similar case of rate-increasing, the company, by virtue of its greater power, can ultimately force operators into submission, if only because it can easily replace operators by drawing on both the internal and the external labor markets.[11] Rate increases do generate economic struggles, but these struggles both reinforce the rules of making out and intensify conflict among workers. By "playing the game according to the rules," that is, by increasing only those rates that operators have consistently and openly demonstrated to be "loose," management escapes confrontation with an antagonistic and cohesive group of workers. Instead of being directed at the methods department, hostility is largely directed against workers who bust rates or hand in suggestions. Everyone in the department comes to hear about rate increases, and gossip surrounds the guilty operator for years to come. Some operators threatened to beat up Ed; others wanted to tinker with his setups or hide his tools. Foremen point out to their subordinates that they have only themselves to blame for rate increases. Breaking norms and its punishment—rate increases—serve to restore or reinvigorate commitment to the rules that are violated. Rate increases are the occasion for ritual affirmation of the norms of making out and of the coincidence of management and worker interests that they symbolize. As long as management restricts itself to increasing only those rates where the 140 percent ceiling has consistently been flouted, its action, far from generating a cohesive opposition, strengthens consent to its domination.

In 1945 the time-study man was the focus of an emergent conflict between the operators and the company. Instead of engendering commitment to the rules of making out, the time-study man, by precipitating an economic struggle, undermined the rules of the game. In other words, economic struggle threatened to spill over, and frequently did spill over, into political struggles—that is, struggles over the rules of making out, over the relations in production. In 1975, by contrast, economic struggles engendered by the industrial engineer not only were fewer in number, but they reinforced the rules of making out—that is, economic struggles did not promote struggles of a political nature.

Political Struggles

It is in the nature of making out to attempt to avoid, negotiate, and even subvert certain rules in order to achieve one's quota. We have noted, for example, that one such strategy is to transfer time saved on one job to another job—the practice called "chiseling." In 1945 this led operators to subordinate and refashion some of the social relations in production that define the rules of making out. Specifically, chiseling requires the cooperation of time clerks, who tell the operator which job is next; of the crib attendant, who gives out fixtures and prints while the operator is still punched in on a previous job; of the stock-movers, who bring up the stock early, without a work order; of the inspectors, who sign the operator off the previous job after he has already begun a new job; and of the foreman, who connives in all of this. These "informal" practices, contrary to the "formal" rules, Roy called the "fix."[12] We have also noted in earlier chapters how other "angles," involving the subordination of social relations to the operators' interest in making out, were arranged with the cooperation of the foreman, who would, for example, "fix" time cards, or with the inspector, who might change the time of punching off setup, and so on.

Between March 1945 and May 1945, a new set of rules was promulgated from on high to restore and enforce the "formal" set of relations in production at Geer.[13] The first new ruling concerned the crib attendants, who were no longer to allow prints and fixtures out of the crib until operators brought them a yellow card, which showed that they had punched off the previous job. This only created more work for the crib attendants, since operators could no longer help themselves to fixtures and had to return them at the end of the shift. However, setup men could still steal into the crib to pick up the fixture needed for the next job. The next intervention was therefore more drastic: everyone but the superintendent and crib employees was barred from the crib. This created confusion and bottlenecks outside the crib, serving to frustrate operators, crib attendants, and foremen alike:

> At quitting time I noticed Gil [foreman] talking to Walt [crib attendant] at the crib window. Gil seemed very serious; Walt was waving his arms and otherwise gesturing in a manner indicating

> rejection of responsibility. I didn't catch any words, but gathered that Gil was voicing disapproval or warning, and after Gil left I said to Walt, "Looks like you're behind the eight ball now!"
>
> I noticed that Walt's hair was mussed, and he looked a little wild. He denied that he was in any trouble whatsoever; nor was he worried about anything whatsoever.
>
> "I'm just working here!" he exclaimed. "I just go by the cards and beyond that I've got no responsibility!"[14]

Obviously accustomed to such "new rulings," Hanks predicted that this one would not last out the week.[15] In another move to reduce the autonomy of the operators, stock-movers were instructed to bring stock to the machines only when presented with a work order and not before. This meant that operators first had to punch off one job and onto another before they could receive any stock. Time clerks were no longer to pass out information about subsequent jobs. Johnny, the setup man, was rudely ejected from the time cage when he tried to find out what Roy's next job would be. Inspectors had to introduce "the red-tag system," which involved tagging any machine that was running scrap, checking pieces every hour, and recording that check on a work sheet.[16] But this was just too much work for the inspectors.

> Sam was busy checking tonight, and he did not like it.
>
> "To hell with this God damned system!" he remarked on one occasion as he made a routine check nearly three-fourths of an hour late. He "dated" his check back from eight-fifteen to seven-thirty.
>
> I have never seen Sam so disgusted. I couldn't help ribbing him just a little.
>
> "You'll have to get around a little earlier for your first check after this," I said solemnly, when he checked my first one at five-twenty. He responded with profanity.
>
> I looked closely at Sam several times, and I actually think he was perspiring.[17]

Moreover, inspectors now had to count the pieces completed by the operator at the end of the shift, and their ability to connive in the chiseling process was also made more difficult. Even foremen were subject to restrictions. "During the 'crackdown' period Gil reported that his days of 'fixing' cards after the end of the shift were over."[18] These changes were introduced over a period of two months, but it was only a matter of weeks before things were back to normal.

I experienced a similar set of events. Inspectors were instructed to introduce a "green-tag system." The green tag, stamped with the date, operation, and inspector's number, was attached to the first piece OK'd by the inspector. If one assumed that operators did not switch the tag to another piece, the responsibility for scrap could be accurately attributed to a particular operator or inspector. New inspection cards were also introduced; these provided space for the operator to record periodic checks of the pieces he turned out. Foremen would come around to check whether operators were properly filling in the cards. There was also a crackdown on foremen who were handing out "double red cards" too liberally or were awarding too many hours, at setup-man pay, for breaking in new operators. Time clerks were instructed to keep production and setup cards in the time cage and not let them out on the floor. This may have been directed at operators, like myself, who were penciling in the times rather than having them punched in on the clock. But the bombshell of 1975 fell, as it had in 1945, when the crib was locked to all but the general foreman and crib attendants. This created havoc on second shift, where there was only one crib attendant. For example, one of the machines I frequently ran was the broach. A piston pulled a long steel shaft—the broach, tapered with sharp teeth—horizontally through the inside rim of a pulley or gear, cutting a keyhole of a prescribed size. The trickiest part of setting up was finding the correct broach with which to run the operation. The broaches were kept in the crib, but the crib attendant hardly knew one broach from another, and I always went into the crib to fetch them myself. With no one allowed in the crib, a crisis descended over the broach operations. I had to get special permission to enter and find what I needed. All these changes proved as unworkable in 1975 as in 1945, and it was not long before things were back to normal.

The Sources of Political Struggle

The crackdowns of 1945 and 1975 were not isolated or unusual events. They were, according to both Roy's and my own informants, integral to shop-floor dynamics and therefore recurrent events.

Hanks knew that the new rulings wouldn't last, just as Bill, my day man, did; as Bill put it, "They're always introducing some new shit like this." Hierarchical control produced intergroup tensions, but these in turn gave way to cooperation as informal alliances sought to circumvent managerial rulings. Sooner or later this process led to renewed attempts from on high to reimpose strict controls. But why has this been such a persistent feature of shop-floor life since before Roy's time?

Roy interprets these events as indicating that, under certain circumstances, efficiency can be maintained only through informal channels; that efficiency is not the prerogative of management; and that the informal work group does not necessarily obstruct but may in fact facilitate the pursuit of managerial goals. He is making a telling criticism of the Hawthorne experiments and providing an important corrective to those who see only mischief and obstructionism, from management's point of view, in the informal group. But if rules hamper production, as both Roy's and my own observations suggest, why does management persist in imposing them? Roy appears to have no answer. To argue that management does not understand the requirements of efficiency or is ignorant of what is going on at the shop-floor level is to commit the same mistake that Elton Mayo did when he charged workers with not understanding managerial efficiency. So what are we to make of the cyclical dynamics?

First, the dynamics are inscribed in the relations in production, namely, operators' autonomy vis-à-vis their machines, coexisting with their dependence on auxiliary workers. Departmental specialization means that auxiliary workers are responsible to their own managerial hierarchy, which is motivated by concerns different from those of production management. For example, during my last days at Allied I noted that "materials control" management was clamping down on the distribution of stock to the production departments. Up to that time, foremen had been able to inflate—doubling or tripling—the amount of stock specified on the shop order. In this way the high costs of frequent setups on the automatics were avoided, and operators would receive long runs on their jobs. Now the distribution of stock was limited to the amounts specified on the shop order. This move was part of a drive to cut

back on inventories, but savings in this area were canceled by increased production costs elsewhere. Moreover, the change stimulated conflict between operators and foremen, on the one hand, and between operators and the stock distributor, on the other. Another focus of conflict is quality-control management, which is always at odds with production management. A new quality-control manager frequently begins by imposing stricter control over inspectors, and this in turn leads to antagonisms between operators and inspectors. Conflict can give way to continued production only if workers collaborate in breaking rules, where this is mutually advantageous, even though reimposition of the original rules by higher management appears to be the inevitable consequence. In other words, the dynamics stem from the juxtaposition of the *interdependence of production and auxiliary workers* and the *relative autonomy of the corresponding departments.*

But managers, who are often themselves products of the shop floor, must be aware of the consequences of enforcing restrictive rules—in particular, their inevitable demise. Why then do they persist in these apparently futile efforts? A possible explanation is that the cyclical intensification of "obsolete" rules constitutes a ritual affirmation of managerial domination. In the day-to-day play of the game of making out, workers exercise considerable control over their own activities; the occasional introduction of rules is designed to remind them, or has the consequence of reminding them, that they are indeed subordinates and that their autonomy is confined within definite limits. It serves, in other words, to discipline the labor force. The enterprise creates mechanisms to make itself independent of, or to supplement, a traditional source of discipline: the reservoir of unemployed labor. However, when the rise of internal labor markets and internal states produces greater security of employment for the workers, management has to find alternative means of discipline. But this explanation is not entirely satisfactory, since the organization of work, as I have described it, is designed to eliminate the need for discipline and to concretely coordinate the interests of worker and manager. Ritual punishment through the imposition of rules serves only to reintroduce hierarchical antagonisms and to undermine the organization of hegemony on the shop floor.

I am therefore led to look at the dynamics in another way—namely, as a struggle between shop management and higher management. Shop management is responsible for securing surplus value, which is at the same time obscured. Being unable to monitor its own success in securing surplus value, shop management allows the labor process to drift in accordance with the dictates of making out, which increases costs and reduces quality. The operators constantly interact with their foremen and pressure them to be lenient in distributing double red cards. They pressure inspectors to OK pieces that barely pass acceptable standards. They pressure the crib attendant, and this can lead to disorganization if operators enter the crib to help themselves or if they keep fixtures at their machines, where others can't find them. Pressure on the time clerks can lead to extensive chiseling. Since auxiliary workers frequently share the operators' interest in subverting rules and refashioning relations, these tendencies, if not reversed, can lead to a profit crisis. However, where it does not actually encourage them, *shop* management turns a blind eye to these practices.

It is *higher* management that introduces "new rules" with the object of protecting profit. Higher management is less involved with the direction of the labor process—the obscuring and securing of surplus value—than with the realization of surplus value in the form of profit. It falls to higher management, therefore, to impose limits on costs and quality. Since, however, it is distant from the shop floor, it can exercise control over these factors only by imposing rules—rules that turn out to be incompatible with the organization of the machine-shop labor process.[19] The continued obscuring and securing of surplus value rests on the relaxation of these rules, and the relaxation eventually produces another profit crisis.

In short, struggles over relations in production and the cyclical dynamics to which it gives rise are the concrete expression of the simultaneous obscuring and securing of surplus value. The obscuring of surplus value in the labor process leads higher management, concerned with the realization of surplus value, to impose rules to counteract tendencies that undermine the securing (production) of surplus value. It is in the nature of the machine-shop labor process that, as a remedy, these rules are worse than the disease. They have to be relaxed. Then the cycle begins again.

Conclusion

In this chapter I have distinguished two types of shop-floor struggles: economic struggles, whose object is the effort bargain, and political struggles, whose object is the relations in production. In 1945 the economic struggles could, at least potentially, lay the basis for political struggles; in 1975, the economic struggles had the effect of reinforcing consent to existing relations in production. Yet, in both periods, political struggles produced a cyclical imposition and relaxation of the rules created by higher management—rules that worked against the interests of shop management. The cyclical dynamics can be viewed as a specific expression of the defining character of the capitalist labor process—the simultaneous obscuring and securing of surplus value. Struggles between different levels of management, which are the result of the separation of the production of surplus value from its realization, do not always lead to a cyclical dynamics. Higher management is sometimes successful in imposing a lasting change in production relations,[20] and it is sometimes able, too, to respond to the pressures of realizing surplus value through economic struggles—for example, by speeding up the assembly line.

Although both Roy and I experienced economic struggle and a limited form of political struggle on the shop floor, only rarely did we observe struggles over production goals, over the ordering of preferred outcomes, or over whether to participate in making out or some other game. Isolated instances of such ideological struggle were regarded as "deviant," and, as such, they renewed commitment to, rather than undermined, the goals of making out. Yet, only when struggle has moved to an ideological plane—that is, when the terrain of political and economic struggles becomes the object of struggle—is the capitalist labor process directly threatened. Ideological struggles take us beyond capitalism, beyond the dictatorship of needs. They are struggles, not over the shape of the effort bargain, but over the very notion of reward for effort; not over relations in production, but over their basis in the relations of production. Ideological struggles distinguish that which exists from that which is natural and inevitable.

Eleven

Class Struggle and Capitalist Competition

In chapter 10 we saw that struggles on the shop floor are largely shaped by conflicts between different levels, and among different fractions, of management. These struggles give rise to a cyclical change, which acts as the vehicle for the introduction of long-term unidirectional change in the labor process.[1] That is, the rise of the hegemonic organization of work, the internal labor market, and the internal state are superimposed on the cyclical dynamics endemic in the machine shop. But what was the source of the changes between 1945 and 1975 that the cyclical dynamics mediated rather than produced? To answer this question, we must go beyond the shop floor and examine the interaction between "external" and "internal" factors in ways that we did not attempt in the discussion of short-term change in chapter 8. As we shall see, the longer the time span, the fewer are the variables that one can safely hold constant and the further afield must one search for the origin of change.

Forces beyond the shop floor usually make themselves felt through two channels—class struggle and capitalist competition—and these in turn affect the dynamics of the labor process in ways determined by the essential structure of the machine shop. Thus,

class struggles and capitalist competition are organized in such a way as to prevent shop-floor struggles from themselves becoming the source of change in the labor process, except in the cyclical manner already described.

In the normal everyday life of the shop floor, workers are not organized as a class. For this reason I have avoided referring to struggles on the shop floor as class struggles. Instead, I have until now distinguished the different struggles by the *object* of struggle. Class struggles, on the other hand, are those that involve struggles between classes. They are struggles that both presuppose and shape the organization of workers and capitalists into self-conscious collectivities with common interests. In this chapter I will try to show how class struggle between the organized representatives of capital and labor—namely, management and union—contributed to changes in the labor process at Geer and Allied. Insofar as union and management struggle to reshape or maintain the distribution of economic rewards (economic class struggle) and the relations in production (political class struggle), they are organized representatives of their respective classes.[2] The fact that these struggles take the capitalist order as given, natural, and inevitable—that is, these struggles are not ideological and are rarely even political—does not mean that they are not class struggles.

The second motor of change is capitalist competition. In examining the impact of a recession on the labor process, I looked at relations among capitalists in terms of their interdependence. Each firm depends on other capitalists, both to supply it with its instruments of production and raw materials and to buy its products. Relations of interdependence are conditions for the realization of profit, while the rate of profit is shaped by competitive relations among capitalists. Competition may be waged over human and nonhuman inputs into the productive process, over the organization of production itself, or over consumer outlets. In other words, from the standpoint of the use value of commodities, relations among capitalists are those of interdependence, while, from the standpoint of the exchange value of commodities, relations among capitalists are competitive. Between 1945 and 1975 the competitive structure of the engine division radically changed, with consequences I explore below.

In this chapter, therefore, I will argue that changes in the labor process at Geer and Allied over the past thirty years are the product of a combination of class struggle and capitalist competition, themselves shaped by broader forces, which I shall briefly discuss in the concluding chapter. But first I will address a slightly different hypothesis—implicit in much of the literature, both Marxist and non-Marxist, on the organization of work—that changes in the labor process are part of an inherent dynamic toward rationalization, fostered through managerial foresight, the product of deliberate managerial strategies, promoted in anticipation of competition and struggle, or simply the result of the pursuit of efficiency.

Changes Instigated by Management

Since the consequences of the changes between 1945 and 1975 in Geer/Allied's engine division all contributed to the consolidation of a hegemonic organization of work, the obvious hypothesis is that management engineered the changes with this objective in mind. According to such a theory of "concessions," management initiates changes and dispenses benefits in order to forestall future conflict and to preserve industrial harmony. That is, management introduces change, not as the result of struggle, but in anticipation of struggle and in an attempt to secure the workers' active consent. There have indeed been periods in American history when an "enlightened" fraction of the dominant class has been influential and has managed to introduce limited concessions of this nature.[3] There is, however, ample evidence that management at Geer and Allied could not be characterized as "enlightened" in this sense. Many of the changes that have occurred have been the consequence of struggles between union and management, and those that were not, as I shall show, were the result of changes in the competitive position of the engine division or of competition within management.

Concession theory predicts that, in periods when struggle is temporarily muted, organizational changes will still occur. World War II was one such period. But an examination of the contracts signed between the union and management shows very few such changes at Geer. To be sure, a wage freeze was in effect during most of the war period, but there are no reasons why changes in working

conditions could not have been implemented. Instead, it was just after the war, in the face of renewed labor strife throughout the United States, that changes were introduced. The 1947 contract for the first time included "superseniority" for union officials, provision for public announcement of job vacancies, a job-classification scheme, and a rationalized wage structure. Subsequently, management vigorously resisted reducing, from five years to two and then to one year, the length of continuous employment necessary before an operator could exercise plant-wide seniority.

Another observation casts doubt on the concession thesis. According to historians of "corporate liberalism," the distribution of concessions in the organization of work is a phenomenon most characteristic of the large corporation. However, an examination of the contracts and conversations with union officials suggest that many of the major organizational changes were made after the war but *before* Allied took over. According to one president of the local, whose term spread over both periods, Allied tended to be more liberal in dispensing benefits and correspondingly reluctant to negotiate changes in the organization of work. Geer, by contrast, having smaller funds and operating in a more competitive market, was less able to grant direct economic concessions and, as a result of bargaining, was more prepared to introduce organizational change. All of this is not to say that there is no "enlightened" group of corporate executives in American industry; however, they were not to be found in Geer or Allied's engine division, and, moreover, they were not the executors of the changes that contributed to the consolidation of the hegemonic organization of work.

In questioning the theory of concessions, I have stressed the changes that management resisted—changes that were the outcome of conflict between management and union. However, there have been other changes that *appear* to be "concessions" granted without struggle—in particular, those involving time-study men, inspectors, and foremen. Industrial engineers explain their own disappearance from the shop floor in a number of ways. First, they say that in 1945 Taylorism was still very popular and management retained its faith in the stopwatch; since then there has been a change in management philosophy. Second, methods have been professionalized; the industrial engineer now computes rates while sitting at his desk.

Third, it has become more important and lucrative to change technology than to change rates. An official of the American Institute of Industrial Engineers told me that industrial engineers are reluctant to go on to the shop floor to time jobs because of the hostility they arouse. He also complained that industrial engineers are now so unfamiliar with the jobs and operations that they cannot time them properly. Nor can they detect when operators are pulling the wool over their eyes.[4]

A similar set of reasons is given for the relaxation of quality control on the shop floor. Changes in the philosophy of quality control have led to the transfer of responsibility from the inspector to the operator. Moreover, the source of poor quality is now found less in workmanship and more in design. Rather than insisting on improved quality on the shop floor, more is to be gained by insisting that suppliers—of castings, for example—meet certain specifications for the quality of their products. One manager of quality control also assured me that he was trying to cut back even more on the number of inspectors because poor quality could just as easily be located with the use of sophisticated statistical techniques. It might be noted, parenthetically, that inspectors are regarded in the company's accounting system as overhead, to be cut where possible. Not surprisingly, a good quality-control manager is hard to come by, and the turnover in that position is considerable.

Changes from the authoritarian to the service-oriented style of supervision reflected, according to personnel management, the shift toward increased responsibility of the worker. One can no longer treat people the way one used to, the argument goes, because employees are now better educated and less prepared to tolerate arbitrary authority. Now one has to persuade rather than command, or, as Morris Janowitz puts it, manipulate rather than dominate.[5] This change in philosophy is reflected in the human-relations literature associated with such names as McGregor, Likert, Argyris, and Drucker. These writers hold that the democratic ethos that pervades the political arena has inevitably spread to the industrial setting. Changes on the shop floor are manifestations of a general trend in society away from coercion and in the direction of persuasion.

These changes in industrial engineering, in quality control, and in personnel management appear to be enlightened managerial initiatives. In reality they provide neither the necessary nor the sufficient conditions for the rise of the hegemonic organization of work. Thus, the philosophical changes that management and its intellectual representatives present as having causal efficacy are largely rationalizations of changes brought about by other forces. The tenacity of the human-relations view of industrial organizations, the retirement of the methods department from the shop floor, and the reduction of the inspectorate are reflections of real shifts in the relations in production and technology brought about by struggle and competition. Yet it would be a mistake to dismiss the changes in managerial philosophy as mere reflections of changes in the labor process, having no causal efficacy of their own. They are also reflections of the conflicting interests of different fractions of management. The various interests within management are responsive to professonal associations, which exist to defend and advance the interests of some fractions of management against those of other fractions. The national institutes of personnel management, quality control, and industrial engineering provide the ideological basis and source of innovations that will promote and present their respective particular interests as the interests of management as a whole. However, the ability of these various fractions to further their disparate interests is limited by their common interest in the survival of the firm, that is, by the level of class struggle and capitalist competition.[6]

Competition

Firms can respond to competition in different ways with different consequences. I will consider four possible responses: first, introduction of new technology, which increases productivity; second, cutting costs through low wages and low rates of capital replacement; third, speedup, that is, intensifying the expenditure of labor; fourth, specialization and/or expansion, thereby introducing economies of scale. I will first examine Geer's and then Allied's response to competition.

Smaller companies have fewer options in responding to competition. Thus, Geer did not have access to large funds for capital investment in new machines, tooling, and so forth. Roy does note that, as he was leaving, Geer was installing some new automatic lathes, but when Allied took over, in 1953, capital equipment was in a poor state of repair. Moreover, Geer had little choice but to manufacture a wide range of products. It was essentially a large jobbing shop, whose livelihood was based on relatively small orders tailor-made to the requirements of individual buyers. It was not large enough, nor did it have a sufficiently assured market, to specialize in any one product. Only when the war brought large government orders for engines for tanks and lifeboats did it experience an unprecedented expansion. After the war, when it had to cut back its production, it again became vulnerable to market fluctuations. Almost inevitably it merged with a larger corporation. Therefore, in responding to competition, Geer relied on maintaining relatively low wages and benefits and low rates of capital replacement. Roy and his coworkers were always complaining about the inadequate tooling and fixtures. Speedup, of course, was Geer's other response to competition, and this, as we have seen, took the form of price-cutting. Under Geer management, we may conclude, competition led to the intensification of struggle.

Allied has responded to competition in a different way, reflecting the larger resources at its command and the captive market of the engine division. Rather than speedup and low wages, Allied introduced new machinery, eliminated unprofitable lines, and ultimately limited production to diesel engines. In 1957 Allied brought in its own general manager. Tooling, machinery, and fixtures were all improved. The crib was reorganized. Product lines were eliminated, and in 1961 the division was split in two, with the engine plant moving into a new single-story building a mile from the old four-story Geer building. As a result of these various rationalizations, some of which may be attributable to developments in the machine-tool industry, certain auxiliary personnel became less important. Thus, there was a reduction in the number of layout men, who were responsible for a detailed setting-up when there were no standard fixtures. The function of the time-study man became less important because there were fewer jobs to time and, in other cases, standardization meant that a number of operations could be timed simultaneously. The methods department became increasingly involved in methods revision, that is, with improving technology and organization rather than rerating jobs. Once given a rate, an operation was rarely retimed. When improved and cheap inspection equipment became available, which employees could purchase for themselves, greater responsibility for quality control could be shifted to the operator. In contrast with Geer Company, at Allied *competition led to changes that brought about a diminution of struggle on the shop floor.*

Moreover, competition itself was cushioned by the plant's integration into a large corporation. In the first place, the engine division now had a captive market and was therefore not directly subject to the rigors of the open market. At the end of each year a plan is drawn up for the coming year, based on orders received for engines from other divisions of Allied and on estimated costs of production. Prices of engines are fixed annually, and profit margins are low. If the engine division meets the various targets embodied in the plan, senior management in theory receives a bonus. Failure to meet the targets and the incurring of financial loss occur frequently, but they do not have the devastating effects they would have if the plant were operating autonomously in the open market. The losses can be absorbed by the corporation, although the management of the division may incur penalties. (While I was employed, the general manager of the engine division was fired because of the plant's poor performance.)[7] As a consequence, failure to make a profit does not immediately redound on labor in the form of wage cuts, speedup, and so on, and therefore does not necessarily intensify struggle. At the level of the corporation, also, competition is subject to greater control than it would be for a smaller company. First, there are the various forms of informal price control (Allied was involved in a famous antitrust suit). Second, losses suffered in one product line may be balanced out by other more successful lines. Third, large corporations have all sorts of accounting devices for concealing or writing off losses—short-term losses, at any rate. In summary, Allied's takeover of Geer resulted in the diminution of struggle, for two reasons. First, the rationalization of production directly reduced the level of shop-floor struggle. Second, the role of the engine division within the larger corporation plus the oligopolistic position of the corporation itself facilitated the absorption of struggles through the externalization of costs.

Struggle

We have indicated how competition, in the Geer period, produced struggle on the shop floor, while, in the Allied period, it had the effect of diminishing struggle. But struggle takes place at the bargaining table as well as on the shop floor. What determines the struggle at the bargaining table, and what consequences does this struggle have for further struggle and competition? As I have already suggested, Geer appeared to be more willing to negotiate changes in the conditions and organization of work because it could not afford wage increases and fringe benefits. The rise of the internal labor market and the rationalization of the internal state therefore began—after the war, but before Allied took over. In 1954—under Geer management, but when Geer was already a part of Allied Corporation—after considerable conflict a breakthrough was achieved in consolidating the internal labor market: the period of continuous employment required before plant-wide seniority could be exercised was reduced from five years to two years. Later, under Allied, the bidding system was improved, and job openings had to be posted on departmental bulletin boards. It is important to note that the operation of the internal labor market was also facilitated by changes in technology. Since the improved machines did not require the same skill and experience as the older and less reliable ones, they provided conditions for increased mobility between jobs. Although it is true that Allied did give in to a few changes in the organization of work, such changes had in the main been initiated and established under Geer. However, Allied was responsible for introducing new fringe benefits, such as the supplementary unemployment benefit and pension scheme, and other benefits, such as vacation pay, were improved. Wages also increased relative to the average in manufacturing industry after Allied took over, as indicated in Table 6.

What were the consequences of these struggles at the bargaining table? As I showed in part 3, the rise of the internal labor market and the internal state, as well as the linking of wages and fringe benefits to seniority, served to diminish struggles on the shop floor. The rise of the internal labor market reduced the power of the foreman, reduced the struggle between the time-study man and the operator, increased competition and conflict among laborers, and so

Table 6 **Changes in Workers' Earnings at Geer/Allied from 1937 to 1975**

	Minimum Earnings of Incentive Workers		Anticipated Rate of Grade-3 Operators*	
Year	Hourly Earnings	Percentage of Average in U.S. Manufacturing	Hourly Earnings	Percentage of Average in U.S. Manufacturing
1937	$0.62½	...	....	....
1942	0.75	95%	....	
1945	0.79	83	....	....
1947	1.09	92	$2.06	175%
1949	1.15	86	2.14	160
1951	1.26	83	2.28	151
1952	1.35	85	2.39	150
1954†	1.47½	85	2.54	147
1956	1.74½	92	2.79	148
1959	1.94	92	3.04	143
1962	2.26	98	3.38	146
1965	2.52	100	3.68	146
1968	2.83	98	4.22	147
1971	3.49	102	5.15½	150
1974	4.40	104	6.13	145

Source: Figures for Geer/Allied earnings come from union contracts. Data for average hourly earnings (excluding overtime) in manufacturing come from U.S. Department of Labor, *Handbook of Labor Statistics* (1974), Table 96, p. 21.

*Anticipated rate = 125 percent. Grade 3 is the highest labor grade for incentive workers.

†The 1954 contract was the first one signed with Allied Corporation.

forth. The consolidation of the internal state and the constitution of the industrial citizen with rights as laid down in the grievance machinery further regularized struggle. In short, struggle at the bargaining table had the effect of absorbing some forms and diminishing other forms of struggle on the shop floor. *Therefore, under Allied, the consequences of struggles reinforced, and combined with, the effects of competition in reducing struggle.*

A problem that must be raised, though its solution lies beyond the scope of this book, concerns the determinants of struggle at the bargaining table. In part, the struggle reflects the dynamics of the shop floor and the resources of the particular firm, as I have suggested; in part, it is responsive to general movements in bargaining patterns throughout United States industry. Contracts signed by the United Auto Workers with the major automobile corporations and by the United Steelworkers with United States Steel provided and continue to provide not only models for contracts but the agenda of items for negotiation, first with Geer and then with Allied. The introduction of job-classification schemes, bidding systems, fringe benefits, and so forth followed their introduction in the basic steel industry. Why the contracts followed the directions taken in these particular lead industries (autos and steel) is a matter for further inquiry.[8]

But the consequences are interesting. Once an internal labor market has been introduced, it becomes a terrain for future class struggle. Unions fight for the extension of bidding and bumping rights, so that these may be exercised, not just within individual departments, but on a plantwide basis. They then fight for a reduction in the seniority required to exercise plant-wide bumping, and so on. Thus, although management might originally support the introduction of an internal labor market as a means of rationalizing job structures, struggles subsequently waged over bidding and bumping are met with strong opposition from management, which is interested in the flexible deployment of its labor force. Similarly, the emergence of a system of benefits and regularized wage bargaining have meant that incentive earnings as a proportion of total earnings have diminished considerably since 1945. In other words, the monetary incentive for making out has fallen. Therefore, collective bargaining is not only a *form* of class struggle that guarantees management the support of the union in the enforcement of the contract. In addition, the *content* of the collective bargain, at least at Geer and Allied, contributes to a reduction in the level of militancy on the shop floor by promoting conditions for the organization of consent.

Ironically, the impetus that produced the trade-union locals of the thirties came from the militant rank and file. At Geer the union had

to be organized clandestinely in the face of ruthless managerial resistance.[9] That early militancy was absorbed in the organization of class struggles at the bargaining table after the war. The very success of union struggles in the thirties had led to the introduction of changes that wrested control of the union from the membership. I would suggest, then, that the conservatism of the established trade unions in the United States is in part rooted in the shop-floor experience, which has permitted the emergence of a union bureaucracy unresponsive to the rank and file.[10] Whether union leaders are conscious of the self-serving consequences of their struggles with management for "industrial democracy" is a matter for further investigation.

Why should the experience of the United States be different from that of Great Britain, where there continues to be a strong shop-steward movement and a militant rank and file? In similar industries, workers in Britain have managed to retain greater control over the shop floor than in the United States,[11] and the internal labor market is there largely organized by the union rather than by management. In a machine shop like the one at Allied, for instance, the British union has a considerable say about who shall fill which job. But why should there be such a difference? One possible answer lies in the relative timing of unionization and mechanization. In Great Britain, unions had established themselves prior to the twentieth-century thrust toward mechanization, whereas the reverse is true for the United States. Thus, at the time of their formation, industrial unions in the United States had to take expropriation of control over the labor process as a *fait accompli,* whereas, in Britain, industrial unionism appeared earlier, was able to resist such expropriation, and in this way laid the basis for a more militant trade-union movement. More recently, large British corporations have been attempting to move toward more American patterns of organizing work, the internal labor market, and the internal state.[12]

Conclusion

Changes in the labor process between 1945 and 1975 have been the outcome of three interacting forces, namely, the rivalry between different levels and among different fractions of management, competition among enterprises, and class struggle. In attempts to advance their power within the corporation, different managerial groups draw upon national associations for support. These external bodies do exercise some indirect influence on the outcomes of struggles within management, but an examination of their practices would take us beyond the scope of this study. Suffice it to say that, as a result of interdepartmental rivalry, changes can occur in the labor process. This is perhaps particularly clear in the replacement of time-study men by industrial engineers.

Intramanagement conflict does not take place in a vacuum but in anticipation of responses from workers on the shop floor. The common interest in which the competing fractions of management all share—the interest in securing and obscuring surplus value—sets limits on the changes any one fraction can adopt. However, conflict within management is not limited simply by the anticipated reactions of workers—by the power of constraint; the more direct pressures of class struggle and competition with other enterprises also play a limiting role. When engaged in collective bargaining, management represents a common interest vis-à-vis the union. Similarly, when it is competing with other enterprises, management presents a united front. At Allied's engine division, senior management has a common interest in achieving the targets of its annual plan, since bonuses are attached to its fulfillment. Inevitably, however, individual departments will express their specific interests as matters of common interest.

Just as class struggle and capitalist competition set limits on conflict within management, so they also set limits on each other. On the one hand, the competitive standing of Geer constrained its ability to dispense economic concessions and compelled it to bargain over working conditions, whereas Allied's oligopolistic position and the engine division's service role with respect to other divisions of the corporation not only permitted increases in wages and benefits but were the necessary price of retaining control over the labor process. On the other hand, struggle, by extracting varying concessions from management, affects the competitive position of the company.

While struggle and competition set limits on their mutual variation, both are, within those limits, shaped by other forces. The competitive position of Geer changed after the war when the government stopped letting contracts, and it changed again when Allied took over. The changing position of Allied in its various product markets received cursory examination in chapter 3, and these fluctuations have affected the entrance of the engine division into markets outside the parent corporation. Significantly for our purposes, competition among firms leads to the introduction of new technology, which can reshape the labor process. If it were not protected by a captive market but instead were in direct competition with, say, General Motors, Allied's engine division would have to expand and/or specialize its production so as to be able to introduce more automated machine tools. If such technological changes can transform the labor process, what forces determine the form of new machinery? David Noble has implied that the development and production of automated (numerically controlled) machine tools was motivated by the twin concerns of large corporations to push small machine shops out of business and to enhance managerial control over the labor force.[13] If technology is in fact not neutral and its development is as much a political as an economic process, it becomes important to examine why one machine rather than another is developed and marketed.

Class struggle is also affected by forces that come from beyond the shop floor. First, it is the contracts negotiated at the largest corporations that establish the terrain of struggle at smaller companies. Second, the struggle itself is shaped by the ability of a company to offer concessions without jeopardizing its survival and by the pressure brought to bear on the union leadership by the rank and file. I have tried to show how changes in the lived experience on the shop floor, themselves brought about by struggle and competition, have, over the past thirty years, reduced the level of militancy among union members.

The importance of everyday life on the shop floor has implications for theories of the United States labor movement. It suggests that the role of trade unions, so important in the orthodox histories of the United States working class, cannot be adequately understood without reference to changes in the labor process. It suggests that the hegemonic ideology of corporate liberalism can be an effective force in coordinating the interests of capital and labor only if it is rooted in the daily life of the working class. In this study I have pointed to changes in the labor process that might be congruent with such a hegemonic ideology. By the same token, the claim that only a corrupt union leadership and a contaminating culture block the spontaneous and immanent tendency of the working class toward class struggle is also unsatisfactory. Leaders in part reflect the demands of the led, and the strength of a culture is linked to its roots in working-class life.[14]

To explain the sources of changes in the labor process, it has been necessary to move beyond the individual enterprise. At the same time, these more distant changes are conveyed to the labor process through their impact on class struggle and capitalist competition. Moreover, struggle and competition do not have any unique consequences for the labor process, such as the reduction of uncertainty, the separation of conception and execution, the intensification of shop-floor struggles, and so on. Rather, the effect of changes in pattern bargaining, in the competitive structure, in industrial engineering, and so on, is shaped by the already existing relations in production, that is, by the imperatives of obscuring and securing surplus value. The scope of this study does not allow me to explore the specific dynamics of these more distant changes. Instead, I will present, in the next and final chapter, a more general picture of the transformation of the political and economic context in which all these changes have occurred.

Twelve

From Competitive to Monopoly Capitalism

I began this study by contrasting the capitalist mode of production with the feudal mode of production, in this way deriving what is distinctive about the capitalist labor process: the simultaneous obscuring and securing of surplus labor. We explored the generic features of capitalism that contribute to the obscuring and securing of surplus labor, namely, the system of wage labor, the subordination of the worker to the labor process, and the mystifying effects of the market. Beyond these, a variety of different mechanisms contribute to the same end.

Thus, in examining the labor process at Geer and then at Allied, I drew attention to the changing patterns of force and consent brought about through the development of a relatively autonomous internal state and the emergence of an internal labor market as well as changes in the organization of work and the system of piece rates. All these contributed to the growth of individualism, the dispersion of hierarchical conflict, and the concrete coordination of interests between capitalist and laborer, as well as between manager and worker, and thus to the obscuring and securing of surplus labor. We can extrapolate the differences between Geer and Allied into two different types of capitalist labor process. The first is the despotic organization of work, in which coercion clearly prevails over consent. Here the expenditure of labor on the shop floor critically determines the survival, not only of the laborer, but of the firm itself. Workers have no ways to defend themselves against the arbitrary whims of the manager or overseer who hires and fires at his own discretion, just as the entrepreneur or manager has few ways to defend himself against the caprice of the market. Anarchy in the market leads to despotism in the factory. The second type of labor process, the hegemonic organization of work, is based on consent predominating over coercion. Here the wage and therefore the survival of the laborer are only weakly linked to the expenditure of labor, and the firm is able to insulate itself from, or directly control, the market. Subordination of the market leads to hegemony in the factory.

How do our two types of labor process relate to changes in capitalism? In this study I moved outward from the shop floor to examine the impact of markets, professional associations, schooling, family, competition among capitalists, struggles between unions and corporations, and so forth. To appreciate the broader significance of changes in the labor process and, in particular, of the two types we have constructed, it is necessary to reverse the process by first briefly sketching the dynamics of capitalism in the advanced nations. Only then is it possible to return to the labor process and understand its transformation as part of an ensemble of changes in capitalist societies.

I will first trace out the rudiments of Marx's theory of the development of capitalism. As I stated in chapter 11, there are two motors of capitalistic development: struggle and competition. In order to survive as capitalists in a perfect market, capitalists must compete with one another in the search for profit. They do this, according to Marx, by increasing unpaid labor, either in absolute terms through the extension of the working day or, when this is no longer possible (as a result of, for example, the Factory Acts), through increasing relative surplus value, that is, through reducing the amount of the working day spent on producing the wage equivalent. This reduction in "necessary labor" can be accomplished by

reducing real wages or by increasing productivity and the wage-goods sector so that the amount of labor necessary to produce the wage equivalent falls. While both of these methods produce lasting gains for individual capitalists, the more normal way to increase unpaid labor is through temporary competitive gains. By intensifying or mechanizing the work process, an individual capitalist can increase his profit—but only until his competitors catch up. There are three consequences for the capitalist class of this competitive innovation on the part of the individual capitalist. The first is intensification of class struggle between capital and labor. Second, when all the capitalists have adopted the new machine, pioneered by one capitalist, then, in terms of unpaid labor, all the capitalists are back where they began; but the rate of profit—that is, the surplus value regarded as a proportion of the wages, instruments of production, and raw materials used up—has fallen. Third, the continual expansion of production, with either falling or constant wages, leads to crises of overproduction, which force capitalists to cut back production and render their capital idle. In short, the market forces individual capitalists to innovate and gain competitive advantages over one another, but, when they do so, they threaten their own existence as a class by intensifying class struggle, bringing down the rate of profit, and creating crises of overproduction. That is, compelled to pursue their individual interests on pain of survival, they undermine their common interest in the survival of capitalism.

The logic of Marx's analysis led him to anticipate the overthrow of competitive capitalism. In this, of course, he was correct. However, in identifying the overthrow of competitive capitalism with the overthrow of capitalism and the inauguration of socialism, he was incorrect. As it turned out, competitive capitalism was pregnant not with socialism but with a new form of capitalism—monopoly capitalism—in which the patterns of struggle and competition have been transformed. What Marx missed was the possibility of tempering the worst effects of competition without undermining competition completely and the possibility that class struggle not only could be contained within the parameters of capitalism but could be harnessed to the reproduction of capitalism if workers extracted concessions that would make it more tolerable. Class struggle was not the gravedigger of capitalism but its savior.[1] Of course, both Marx and Engels were aware of the tendencies toward the preemption of the market through the emergence of joint-stock companies, trusts, cartels, and even nationalization. They also recognized the possibility of repressing struggles and ameliorating the conditions of the proletariat. But there were definite limits on such last-ditch attempts to save capitalism from itself. These reactive mechanisms to restructure capitalism were the death throes of capitalism, which was doomed to splutter into its revolutionary overthrow.[2]

If competitive capitalism gave birth to monopoly capitalism rather than socialism, the event was by no means foreordained, and the labor was neither short nor easy. During the first three decades of this century, particularly in Europe, there were indeed moments when the capitalist edifice seemed to be toppling.[3] The rise of fascism was as much a sign of capitalism's weakness as of its strength. Even from the vantage point of fifty years later, it is not obvious why Marx was wrong in anticipating the overthrow of capitalism or precisely how capitalism managed to save itself. Indeed, this has been a major problem for twentieth-century Marxism in its various forms, and many solutions have been postulated. The very acuteness with which Marx analyzed competitive capitalism and its inevitable demise made it necessary to revise his theories when one was trying to understand, first the appearance, and then the development, of monopoly capitalism. Some of the assumptions on which Marx based his analysis no longer held under monopoly capitalism. In short, with the consolidation of monopoly capitalism, history forced Marxism beyond Marx.[4]

Given that Marx and Engels saw the state as protecting "the common interests of the entire bourgeoisie," it is not surprising that twentieth-century Marxism has spawned numerous theories of the capitalist state. They all share the view that the state is the key agency, first in handling the conflict of competitive capitalism and then in guiding capitalism into a new era. On the one hand, the state takes over some functions of the market and complements others. It regulates both competitive and interdependent relations among capitalists through planning, nationalization, and the provision of infrastructures, such as roads and the postal service; through antitrust legislation and fiscal policies; and through absorbing "surplus" in order to prevent crises of overproduction.[5] On the other hand, the state becomes involved in organizing struggles—in confining them within limits or repressing them—so that they do not threaten capitalist relations of production. It does this by disorganizing the dominated classes, which it accomplishes by transforming relations among agents of production (capitalists, managers, workers, etc.) into relations among individuals constituted as citizens with equal rights before the law, in education, and in the electoral system, or into relations among parties, races, religious groups, or language groups. In this way the apparatuses of the state appear to be above classes or autonomous with respect to classes, in that they operate according to their own logic, which cannot be arbitrarily changed at the will of any one class. Moreover, this autonomy constitutes both a real and a necessary basis for preserving the political interests of capitalists—that is, their class interest in the maintenance of the capitalist order. For, to preserve these political interests, the state must frequently act against the capitalists' economic interests by granting concessions to other classes. In normal times the state applies coercion in a more or less legally prescribed manner and not at the immediate behest of the dominant class; but in times of crisis the state may lose its relative autonomy and become an instrument of the dominant class in the arbitrary repression of struggle.[6]

In going beyond Marx to develop more sophisticated theories of the state, Marxists have paid less attention to the equally fundamental changes taking place in the enterprise.[7] The consolidation of monopoly capitalism involves not simply state intervention in the working of the market; capitalists themselves have tried to conquer and subordinate the market to their interests. This has involved both concentration—the merger of enterprises producing similar commodities into large corporations—and centralization or vertical integration—the extension of the single enterprise into both product and supply markets. Allied's takeover of Geer clearly involved both processes. Geer was producing lift trucks and engines in a competitive market, while Allied was one of a handful of corporations that virtually controlled the production of agricultural machinery. Geer was limited in the commodities it produced and was therefore dependent on suppliers and buyers; Allied, by absorbing Geer, sought to preempt one more market, namely, the market for engines, and thus reduce its dependence on outside suppliers.

Concentration and centralization have obvious implications for the organization of work. If competitive, supply and product markets are subject to control; it then becomes essential to control the labor market as well. To control some markets and not others would be a self-defeating process. Just as Allied brought the production of engines under its management, so it also sought to bring the supply and distribution of labor under its control, through the development of an internal labor market. In addition, it sought to regularize relations between workers and managers through the grievance and collective-bargaining machinery of the internal state.

Just as the internal labor market, the internal state, and the global state were involved in the taming of the market, so all three were also involved in containing the struggles that threatened to overthrow competitive capitalism. Just as the global state became involved in the organization of struggles in the wider political arena, so an internal state emerged to regulate struggles within the factory. This internal state was not so much a coercive instrument of the company as it was a set of institutions that organized struggles over relations in production—and, to some extent, relations of production at the level of the firm—in ways that fostered the smooth running of the enterprise.[8] Thus, the internal state and the internal labor market imposed constraints on managerial discretion, institutionalized the granting of concessions, and thus concretely coordinated the interests of management and worker, capitalist and laborer; constituted workers as industrial citizens with rights and obligations; and fostered competition, individualism, and mobility. But the internal state has the effect not only of organizing struggles but also of dispersing them among enterprises. It prevents struggles from reaching beyond the enterprise and coalescing in struggles aimed at the global state.

We have so far considered changes in the mechanisms for distributing people into places in the production process and for organizing struggles over relations among those places. But what can we say about the relations themselves and the activities to which they give rise? Have they changed with the transition from competitive to monopoly capitalism? Harry Braverman claims that the distinctive feature of monopoly capitalism is the destruction of skill, or what he calls the separation of conception and execution. In practice this process of craft destruction has been an uneven one, which took

place as much under competitive capitalism as it has under monopoly capitalism. Furthermore, if we are to understand changes in the labor process, it is equally important that we note the way in which the labor process is reconstituted once skill has been expropriated, that is, we must note the particular mechanisms through which conception dictates to execution, once they have been separated. Inasmuch as these relations in production are shaped by technology, we can make few generalizations, since the impact of machinery on the labor process has been so varied.[9] However, we can draw some general conclusions about the way the internal labor market and the internal state have affected the relations in production and the corresponding activities. Both have offered workers a very limited but nonetheless critical freedom in their adaptation to the labor process. The rise of rules and, with them, constraints on managerial intervention, have opened up an area of choice within which workers can constitute work as a game. Workers are sucked into the game as a way of reducing the level of deprivation. But participation has the consequence of generating consent to the rules, which define both the conditions of choice and the limits of managerial discretion. Thus, it is not the rules themselves but the activities they circumscribe that generate consent.[10] Of course, the extent of this area of choice is affected by technological imperatives, but its existence, no matter how small, is crucial.

The hegemonic organization of work does not pervade monopoly capitalism. Different sectors of advanced capitalism employ different forms of labor process, and by no means all of them have elaborated an internal state and an internal labor market like the ones developed at Allied. Not even all of the largest corporations have erected hegemonic systems, as the organization of work in agribusiness clearly demonstrates. Since the labor process in the competitive sector is by definition less well insulated from markets, one may argue that in general there is less to be gained there by introducing the internal labor market and internal state. Nor can the costs of these institutions be absorbed simply by raising prices, as they can be in the monopoly sector. On the other hand, it would be a mistake to equate the labor process in the competitive sector of monopoly capitalism with the labor process under competitive capitalism. Even where they are not unionized, competitive industries have developed rudimentary internal labor markets, grievance procedures, and collective bargaining. In short, the labor process found in the competitive sector exhibits features of both despotic and hegemonic systems. Just as the form of the labor process is not uniform throughout monopoly capitalism or even tending in that direction, so it is not the same across all advanced countries. Thus, even in their monopoly sectors, the forms assumed by the internal state and the internal labor market in Britain are very different from the forms they assume in Japan; the forms they assume in the United States lie somewhere in between.[11]

Marxist theories of the state have drawn their inspiration from the formulations to be found in Marx's own writings, but the emergence of a Marxist psychology has represented a more fundamental departure. For Marx, in all precommunist societies the social relations in which men and women are involved are "indispensable and independent of their will," that is, they compel people to act in particular ways. Thus capitalists, if they were to survive as capitalists, had no alternative but to compete and to accumulate, just as workers had no alternative but to sell their labor power for a wage. Moreover, workers were compelled to work as fast and as hard as the labor process dictated. There was no room for choice. Rationality was embedded in social relations and independent of the people who carried those relations, just as the experience of commodity fetishism was independent of psychic makeup. It was not that individuals were motivated by the pursuit of material self-interest but rather that the specific rationality of capitalism, the specific needs it produced, led people to act in particular ways. The rationality and needs generated by feudal relations led to very different types of activities.

The turn to psychology was another way of explaining why Marx's anticipations were not fulfilled. The link between relations and practices was not as Marx supposed it to be. It was therefore necessary to examine the operation of psychic mechanisms to explain, first, why the proletariat did not engage in the revolutionary overthrow of capitalism and, second, why it embraced the restoration of capitalism. In its most simple form, Marxist psychology argues that it is the consciousness men and women carry with them, inculcated in different areas of life but particularly in the family

and school, that shapes their response to capitalist relations. A more profound formulation is to be found in the Frankfurt School's appropriation of Freud, specifically aimed at understanding fascism and its appeal. The rise of monopoly capitalism realizes Marx's view of individuals as merely carrying out the logic of capitalist relations. But where Marx saw this as a matter of survival, the Frankfurt School presents it in explicitly psychological terms, namely, as the destruction of the autonomous ego. This does not contradict Marx's analysis but reflects the transition to monopoly capitalism. Where competitive capitalism retains an arena of resistance and class struggle, under monopoly capitalism the individual psyche is stripped of its capacity to resist the structures of capitalist domination. The family no longer nurtures the rebellious and independent individual of early capitalism. Instead, people are directly shaped by and subjugated to broader institutions: the mass media, the culture industry, and so on. The arena of subjectivity, of conscious resistance to domination, disappears, giving way to the individual as a mere object of manipulation. Monopoly capitalism has managed to shape our very character in accordance with its rationality.[12]

Just as in the turn to the state, so in the turn to psychology the transformation of the labor process gets left behind. In parts 3 and 4 of this study I have tried to return to Marx's original concerns by arguing that the translation of labor power into labor is conducted independently of the different psychic makeup—character or consciousness—that workers bring with them to the shop floor. Activities at work can be largely accounted for in terms of the organization of the labor process, the internal state, and the internal labor market. Consent is produced and reproduced on the shop floor and is not dependent on legitimacy drummed into people's heads in schools or on character formation in the family. Even in the marginal situations where imported consciousness does shape behavior, its specific impact is determined by the workers's position in the production process.

Of course, productive activities and the reproduction of consent do depend on certain minimal human characteristics produced outside work and common to all workers, such as the capacity to communicate through language and the inclination to participate in socially constructed mechanisms, such as games, which compensate for loss of control over the labor process. I do not maintain that what happens outside work has no bearing on what happens at work or that individuals are shapeless pieces of clay out of which the shop floor molds laboring men and women. Rather, variations in the character and consciousness that workers bring with them to the workplace explain little about the variations in the activities that take place on the shop floor. These activities are most adequately explained by reference to a person's position in the organization of work. At least two qualifying remarks are in order. First, I am talking here about hegemonic and despotic organizations of work. In those less-well-insulated labor processes where neither despotism nor hegemony reigns, there is more room for external factors to exert influence on work behavior. Second, in times of crisis, whether local or global, when the hegemonic system breaks down, the consciousness people carry in their heads and the characters they have formed become critical in the shaping of activities.

To summarize: to explain the restoration of capitalism in its monopoly form, twentieth-century Marxism has focused on areas that remained largely underdeveloped in Marx's own writings. At the same time, it has accepted Marx's view of the labor process and has therefore missed the significance of its transformation, in particular the ability of the factory to contain struggles and to produce consent. The state, the school, the family, culture, and the personality are not unimportant, but their importance can be assessed only by taking the transformed labor process as one's point of departure.

This is particularly important in the study of crises. It is very fashionable to pinpoint some contradiction and conjure up some crisis. Crisis theory is a blossoming area of Marxist discourse. Indeed, it seems that, the more stable capitalism appears, the more we lament the gap between what is and what could be and the more desperately we search for new crises. In this study, however, I have resisted the temptation. Instead, I have suggested that the prospects of a local crisis—that is, one emerging at the point of production—are bleak indeed. Others have persuasively argued that capitalists can buy peace in the economy only at the price of externalizing or displacing struggles into the wider political arena, where they become fiscal or legitimation crises. Unfortunately, these are abstract

crises, as much a product of the Marxist imagination as of the real world.[13] Moreover, as Marx points out, crises present opportunities to the dominant classes as well as to the dominated classes. They are the means by which capitalism is able to restore stability and save itself from itself. Nowhere is this more clear than in the crisis of transition from competitive to monopoly capitalism.

This pessimism brings us to a third overtaking of Marx by Marxism, again brought on by the events of the twentieth century, specifically in the underdeveloped nations of the world. Marx's sometimes qualified anticipation that socialism would appear first in the most advanced capitalist societies was premised on the collapse of competitive capitalism. The transition to monopoly capitalism has not merely postponed the emergence of socialism in capitalist countries, but, it is convincingly argued, has made it more likely that socialism will first emerge in the underdeveloped nations.[14] The stability of monopoly capitalism has been won, not only by a restructuring of the economy and the state, but also by an incorporation of the "peripheral" regions of the world into a system of international capitalism. For the advanced nations this has meant a certain uneven development, while for the poor nations it has led to a greater underdevelopment. At the same time, the expansion of repressive apparatuses in the postcolonial states reflects a growing resistance to continued incorporation within world capitalism and the search for some alternative. It is therefore in the Third World, and possibly in some European countries, that the most significant experiments have been made and that socialism is very much on the agenda.