

LEAN ENOUGH

FACTORY RELATIONS OF PRODUCTION UNDER NEOLIBERAL GLOBALIZATION

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Chapter 6. Theoretical Reconstruction: The Political Economy of Lean Postfordism

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6.1 Introduction

The previous chapters have invoked a fair amount of contingency. But this contingency has occurred within a very tightly circumscribed range of activity: lean manufacturing in the postfordist labor process. In this concluding chapter, I restate the empirical argument and then draw all the elements together to provide an overview and summary of how the theory of organizational political economy explains a diversity of stable, intermediate organizational forms and the tolerance of relatively inefficient organizational forms within a competitive market context. The theoretical arguments regarding the organizational political economy of lean postfordism have been explicit throughout the dissertation. However, the analysis has been motivated and guided by a broader set of theoretical arguments regarding the macro political economy of lean postfordism, which have remained largely implicit. To complete the theoretical reconstruction, therefore, I step back to provide some theoretical reflections on the political economy of technical change and the manufacturing crisis under neoliberal postfordism, with a view to placing within a more systematic framework the organizational-level contingencies invoked in my empirical analysis. Why, then, lean production?

6.2 The empirical argument: Diversity of stable, intermediate cases

The central empirical question I ask in this dissertation is how are firms in the United States manufacturing sector, particularly smaller suppliers, contributing and responding to economic globalization? I have framed this question by asking what the transition from Fordism look like at the organizational level? Mainstream approaches in both economics (neoclassical and contractual theories) and sociology (neoinstitutional theory) predict

tendencies toward organizational homogeneity as market and institutional forces, respectively, discipline firms into adopting the profit-maximizing or normative organizational model. I show that lean production, *adopted as a comprehensive package of complementary lean practices*, is both the most efficient and the normatively dominant model. Yet, I find that the transition from Fordist mass production is not leading to convergence around this comprehensive model of lean but is resulting in a nontrivial diversity of organizational forms, many of which are *relatively inefficient* yet apparently *stable*. An apparent homogeneity at the level of managerial rhetoric and general types of practice conceals a rather dramatic degree of heterogeneity in actual practices.

This organizational diversity is generated in two main ways. First, managers vary in their technical conceptions of lean production and in their aspirations levels, and thus implement lean in different configurations. Second, even where managers attempt to implement similar models of lean, nondiscretionary differences develop as managers must contend with political and cultural issues that force them to compromise and otherwise alter their original plans. But how this diversity of intermediate organizational forms, many of which are relatively inefficient, sustained in the face of market pressures? In brief, I argue that these intermediate cases are stable because, although failing to transform into world-class lean organizations, the changes they do make are *good enough* to meet the aspiration levels of satisficing managers and the performance targets of industrial customers.

In terms of discretionary differences, I find that managers attempt to implement lean with one of three approaches. The most thorough approach is *learning lean*, which entails a systematic focus on lead-time reduction. This approach implies adoption of a

complementary set of lean practices and a high level of technical commitment to implementing this set of practices system-wide, with sustained emphasis on using lead-time reduction as a tool for continuous improvement. A systematic focus on lead-time reduction can drive a range of lean goals, from inventory reduction to high levels of process control and system interdependency (as well as traditional metrics such as productivity and quality), but requires the most sustained commitment and is a substantially more complicated and longer-term undertaking. Less thoroughly but still somewhat systematically, a *lean standardization* approach entails a commitment to improving workflow and process control, including some concern with the complementarity of practices. Lean standardization is distinguished from the learning lean approach by being more focused on standardizing process improvements throughout the plant and less focused on high levels of system interdependency or systematic lead time reduction. In a *lean enough* approach, lean structures and methods are adopted in a limited and fragmentary fashion. In this approach satisficing managers aim to reduce inventory and other forms of waste by selectively adopting various practices from the lean toolbox in a more or less haphazard way that displays little concern with the complementarity of such practices.

The notion of being lean enough refers situations in which managers make enough technical changes to the manufacturing system to see significant performance improvements, using practices such as reduced inventory and increased quality, standardization and process control. Managers adopting a lean enough approach become satisfied with these relative improvements over their organization's past (Fordist) performance and do not push forward toward organizationally superior lean

standardization or learning lean systems because they are perceived as either not feasible in the local context and/or personally costly – and unnecessary – for managers. Yet, the changes made by lean enough plants yield good enough performance improvement to satisfy industrial customers *who are interested in lean domestic suppliers*, even if not good enough for customers engaged in global labor arbitrage.

Even where managers attempt to implement a similar type of lean, however, nondiscretionary differences develop, as managers must contend with political and cultural obstacles in the factory. At a political level, managers may face individual workers and organizational factions with differing interests, orientations, expectations and opinions. In such contexts managers are often forced to negotiate changes within individuals and factions in the workplace. For instance, without getting some degree of buy-in from workers, getting teams to function effectively and/or devolving responsibilities to front-line workers in cells can be quite problematic. Often, management will scale back its plans and have to substitute supervisory for front-line engagement in lean programs. Continuous improvement in factories functions much differently depending on whether there is widespread or quite limited participation by workers. In some cases such problems are more overly political but there are also important cultural elements that are equally problematic. Specifically, workers often have dispositions and deeply-rooted habits that managers must accommodate, again often forcing management to alter plans in important ways. For instance, making the right parts in the right sizes at the right times can seem relatively straightforward, but for workers who have always been instructed to focus on maximizing output with little regard for upstream or downstream operations, working in a demand-driven environment can be

challenging and quite frustrating. Such legacy issues loom large in my data, but these are not the only cultural problems: implementing complex new routines in a sustainable way, across individuals, can be quite hard even where old dispositions or habits are not part of the problem.

6.3 The theoretical argument: Organizational political economy

In this dissertation I have elaborated a theoretical framework, organizational political economy, intended to explain how the orientations, interests and decision-making processes of managers and workers are shaped by politics of production within plants and relations of production between firms. This framework draws from and engages a range of literatures, including the sociology of work, industrial relations, human resource management, organization science and organizational economics. However, the literatures addressed most systematically in my analysis, and therefore the focus of my theoretical reconstruction here, are labor process theory and institutional sociology (the latter with a particular emphasis on organizational environments).

6.3.1 Labor process

Following Karl Marx's original analysis of the capitalist labor process, including the distinction between labor and labor-power (Marx 1990 [1867]), which framed the problem of labor effort as political and not merely a managerial problem, labor process theory has generated a number of interesting insights and theories.¹ These range from the theory of deskilling (Braverman 1974) to the theory of endogenously-generated consent

¹ On the distinction between labor and labor power, managers can contract only for labor time (labor power) but not for actual labor effort, and this disjunction has a range of implications for organizational life and capitalist labor markets beyond the many problems it poses for managers.

(Burawoy 1982), from bureaucratic control (Edwards 1979) to concertive control (Barker 1993), from responsible autonomy (Friedman 1977) to nominal empowerment (Vidal 2007). This body of labor process theory finds its most general expression in Michael Burawoy's notion of the politics of production, meant to capture the political and ideological effects of the organization of work and the struggles around it (1987). The analysis in this dissertation has sought to breathe new life into labor process theory, which seemingly faded away along with the demise of Fordism, by integrating insights from organizational theory into the labor process framework to explicitly theorize the problems of satisficing and organizational routine. Retheorizing these problems within labor process theory has the advantage of providing a framework where power and conflict over labor effort are analytically central.

The organization of work continues to be a political and ideological, not merely economic, process. But the changes in class structure – namely, growth of a middle class – and political ideology that have come along with the Fordist class compromise have apparently transformed individual orientations toward work to the extent that, compared with pre- and early-Fordist times in the US (Edwards 1979), work has become relatively depoliticized and workers now come to work already controlled. Conflict over labor effort has shifted from issues of control of production and physical effort, understood more overtly in terms of the politics of capitalism – politics in the narrower sense, contention over who gets what – to issues of dignity at work (Hodson 1996) and intellectual or mental effort, understood more in terms of organizational life issues. Thus, I find conflict at work to be central, but primarily confined to issues concerning managerial efforts to alter organizational routines – politics in a broader sense,

transformation of social relations – including new expectations for mental effort.² To illuminate and understand these issues, labor process theory needs to better theorize how managerial strategy is developed and implemented. To do so I rework the concepts of satisficing and organizational routine.

The satisficing model I use to understand the development of managerial strategy focuses on two elements of ambition: vision, or the conception of strategy, and aspiration level, or the will to realize one's vision. The notion of vision refers to the perception of an organizational environment (including internal production politics) and the conceptual framing of possibilities, constraints and goals, while aspiration level refers to the thoroughness of information search and the criteria that individuals use to determine whether a given outcome is satisfactory.

Although managers face technical and institutional pressures, these environmental factors are not hyper-disciplinary, but instead permit a range of variation in organizational form and performance. Thus, variability across and stability within local managerial visions are important elements shaping organizational behavior. A key mechanism highlighted in my analysis is that strategic vision is structured by conceptual frameworks, variable across individuals, that are *dual-effect*, allowing managers to simultaneously conceive an actual work system as good (or lean) enough while limiting focus and excluding certain practices from consideration. My analysis found that the institutional and competitive forces that managers face in the US manufacturing sector permit a limited range of how lean is conceived and implemented, allowing managers to

² That is, “politics” is being used in two slightly different ways here. In this paragraph I have invoked politics a more traditional and narrow way, to refer to contestation over who gets what, while more generally I use it in an Althusserian way to refer to an abstract process of the transformation of social relations. In this view, economics refers to the transformation of nature, and ideology the transformation of subjectivities.

envision lean in ways that emphasize certain elements and deemphasize others. Combining vision and aspiration level, then, where managerial vision leads to the implementation of a lean enough strategy generating relative performance improvements, managers with moderate aspiration levels are unlikely to ratchet up their strategic vision of lean to a lean standardization or learning lean model. My analysis highlighted three organizational sources contributing to the good-enough framing of lean: highly demanding environments, organizational complexity, and organizational culture. Plant managers generally do their best, but how extensively and completely they can pursue “lean transformation” can be limited by their need to manage multiple and often conflicting demands, by the sheer complexity of many manufacturing plants, and by cultural problems in organizational change.

Capitalist managers have devised a variety of ways to maximize their extraction of labor from workers, from traditional Taylorism (Braverman 1974) to bureaucratic control (Edwards 1979). However, in the lean postfordist plants I observed, physical effort was not a problem, in part because workers voluntarily work hard to avoid boredom and/or make the work more challenging (Burawoy 1982), and in part because work has become depoliticized in the first place. Under the neotaylorism of lean, the main managerial problem of control concerns mental effort, which cannot be forced in the same way as physical effort. Now, in many cases the managers I spoke with explicitly discussed the strategy of using teamwork as a form of peer pressure to get workers to self-manage and monitor their own effort. And such teamwork in many cases did partially de-bureaucratize control (Grenier 1988), generating a form of concertive control in which strict self-discipline results from workers negotiating norms and values (Barker

1993). But even if such peer pressure and concertive control were able to maintain authority hierarchy without, or with less, bureaucratic control, *they were not able to effectively induce mental effort*. In many factories workers remained resistant and reticent, elements of production politics which played an important role in generating discretionary and nondiscretionary difference in the conception and implementation of managerial strategy. It matters how workers frame or assign meaning to new practices and this, in turn, is shaped in important ways by managerial approach (e.g., rushed or deliberate) and managerial attention to workforce dispositions.

I theorize the issue of organizational culture by reworking the notion of organizational routine, inspired by Richard Nelson and Sidney Winter's excellent discussion, noting among other things that much tacit and practical organizational knowledge remains embedded in routines (1982). I distinguish *operational routines*, ranging from detailed technical routines to more general procedures of various sorts, from the *relational routines* that may enable or constrain the application, development and functioning of more technical, operational routines. Relational routines refer to what is often understood as workplace culture, the norms, habits, conventions (shared understanding and expectations) and informal rules that develop in the workplace. One mechanism my analysis highlighted in terms of constraining managerial strategy and generating organizational difference is the problematic transferability of operational routines: many complex operational routines can only be learned and sustained through repeated practice, being very hard, for example, to transfer from skilled individuals to the organizational system. The problematic transferability of operational routines is often an issue of the durability of old routines and the problem of establishing new relational

routines. For example, workers are often committed to particular normative understandings of what their responsibilities should be, and informal conventions may develop in this regard. As a matter of habit, on the one hand, workers may get comfortable in old routines that are hard to overcome. Establishing new routines, on the other hand, often requires workers to take ownership over new methods. Successfully implementing new work arrangements requires establishing rules, conventions and incentives so that particular patterns of behavior and interaction can be stably reproduced, that is, institutionalized.

6.3.2 Organizational environments

Polymorphism and organizational diversity

The idea of institutional isomorphism was particularly exciting for organizational sociologists for two reasons. First, it ran counter to the prevailing understanding of organizational theory, which focused on diversity and variation in organizational forms and environments. Second, all of the action was in social institutions: power, norms, rules, regulations and concerns with ceremonial legitimacy. What was an interesting and compelling hypothesis, however, quickly turned into a sort of mission: to examine how institutional processes in a range of fields “reduce variety, operating across organizations to override diversity in local environments” (DiMaggio and Powell 1991: 9, 14). The theoretical tools of neoinstitutionalism were not all hammers, yet everything seemed to look like nails (isomorphism).

Now, it is true that the isomorphism hypothesis found a great deal of empirical support (e.g. Baron et al. 1986; Eldeman 1990; Fligstein 1985; Galaskiewicz and Wasserman 1989; Mezias 1990; Orrú et al. 1991: 363, 387). But it is also true that calls to examine the sources of heterogeneity (Powell 1991) and the strategic response to organizational environments (Scott and Meyer 1991; Zucker 1991) went largely ignored. I have found, however, two neoinstitutionalist interventions that are helpful for theorizing the generation of organizational heterogeneity. Christine Oliver has argued that managers may act according to multiple rationalities as they attempt to manage technical and institutional pressures at multiple levels (1997). And Ayse Saka argues that interpretive processes are central, as the diffusion of work systems is subject to “editing” in a local context and what is considered successful is subject to reevaluation (2004). I build on this work, arguing that political and cultural processes within workplaces are polymorphic, generating a diverse set of actual practices within a general organizational form.

My analysis reveals four ways in which the politics of production operate as a set of polymorphic causal forces generating discretionary and nondiscretionary differences in how lean gets implemented. First, managers vary in how they envision lean and how they interpret their organizational environment, including their local context *inside* the factory. Second, managers often must negotiate change with individuals and factions who have their own orientations and expectations. Third, managers must often accommodate the norms, conventions and dispositions of workers as they seek to overcome old and establish new routines. Fourth, in the face of multiple demands and organizational complexity and uncertainty, managers often are unable to focus on implementing ideal systems and perfecting them.

In contrast to the neoinstitutionalist literature, the industrial relations (IR) and human resource management (HRM) literatures see organizational diversity as a basic characteristic of organizations and their environments. Indeed, a great deal of empirical research in IR and HRM has, quite usefully, centered on documenting heterogeneity in organizational form and performance (for extensive overviews, see Appelbaum and Batt 1994; Ichniowski et al. 1996; and for a more recent synthetic statement, see Cappelli et al. 1997). Yet there is a general tendency in the IR and HRM literatures to boil down postfordist organizational diversity to a few basic types, typically (better) high-involvement, or “high performance,” systems, and (worse) low-involvement systems. In principle, of course, there is nothing wrong with using typologies. However, where the emphasis is too heavily normative, as with the emphasis of the IR and HRM scholars on the merits of the so-called high performance type (Godard and Delaney 2000), relying too much on a given typology can obscure diversity within type. Further, despite a fair amount of good work emphasizing limited and selective adoption of new organizational and human resource practices (e.g., MacDuffie and Pil 1995; Osterman 1994), the literatures do not have a good theory of the sources of stability in intermediate cases. The organizational political economy framework can hopefully contribute in both respects, focusing analytical attention on discretionary and nondiscretionary sources of heterogeneity (generating nontrivial diversity within type), and on how politics of production within, and relations of production between firms generate sustainable intermediacy.

Technical and institutional pressures

A second area in which my research has direct and clear implications for reconstructing neoinstitutional theory is in terms of theorizing processes of institutionalization. Again, a strikingly interesting hypothesis, that the diffusion of an organizational practice in a field eventually transforms the field such that adopting the practice becomes more a matter of organizational legitimacy rather than efficiency (Meyer and Rowan 1991), set the substantive tone for future research. Following a basic analytic distinction between technical and institutional environments, there was some tendency to focus on the *degree* of institutionalization of organizational environments (Meyer and Rowan 1991; Scott and Meyer 1991), as if it is environments as such, rather than particular practices within them, that can be more or less institutionalized. I follow Walter Powell (1991) and Marco Orrú and collaborators (1991) in theorizing all environments, even competitive markets where the technical pressures on organizations are strong, as constituted and made orderly through social institutions. The questions should concern not whether but how given environments are institutionalized, with the central analytical question concerning how technical and institutional pressures are configured in any given environment.

An important move forward in understanding technical and institutional pressures has been to shift the focus to issues of definition, interpretation and implementation *within* organizations (Westphal et al. 1997) and to examine how managerial rhetoric may be used with serious technical intent yet also become infused with institutional value (Zbaracki 1998). In this vein, the research presented in this dissertation provides a basis for understanding processes of institutionalization as dynamic and multiplex. Processes of institutionalization may not be uniform or without contradiction, and given practices

may have both technical and institutional aspects, leaving open the possibility that certain managers may adopt a given practice (largely) ceremonially while others may by (largely) technically-driven. How an organization responds to a given practice depends both on internal organizational politics and on *how* the practice is institutionalized.

In the context of lean production in the US manufacturing sector, managers use the rhetoric of lean with serious technical intent, but often at a level general enough to mask important differences in approach. Lean production continues to exist and be used at a technical level, but as lean has diffused among leading manufacturers and been adopted by major industry associations and consultant, it also has multiple institutional moments. Lean has become the normative model of American management, being associated with a set of technical practices while simultaneously becoming associated with rhetorical excess at certain levels (e.g., attracting zealots and detractors alike; in certain uses becoming an institutional myth divorced from technical complexities). At an institutional, trans-organizational level, that is, lean is sometimes subject to rhetorical exaggeration and used to refer to a variety of increasingly diffuse practices. At the same time, however, lean also exists at a trans-organizational level as a coherent, normative model and, at a technical level, in which individual organizations continue attempting to implement (technical) practices that are closely aligned with their (formal) structure. Managers within organizations continue to use lean rhetoric with serious technical intent, even as it becomes institutionalized at multiple levels.

Institutional markets

The research presented in the foregoing chapters indicates that the supply side of the market for durable goods is constituted in multiplex ways by institutional relations of production between firms. My analytical focus, in particular, was on relations between customers and suppliers. The analysis generated two important arguments for institutional theory and for market theory. First, conceptions of the organizational environment, and competitive strategy, in supplier firms are shaped by the multifaceted institutional structure of relations of production, from differing norms of subcontracting relations across industries to factional conflict over organizational strategy within firms. Thus, the often-indistinguishable technical and institutional pressures that suppliers face from their industrial customers can be quite contradictory, sending mixed signals about what industrial customers actually want, and demonstrating to suppliers there is space for variation in strategy, organizational process and, ultimately organizational performance. Suppliers learn, for example, that by consistently excelling in some areas (e.g., quality and/or service), they can get some slack in other areas (e.g., delivery and/or price).

Second, the institutional structure constituted in part by relations of production between customers and suppliers is permissive of a limited but significant range of variation in the capabilities and organizational form of supplier plants. Customer-supplier relations are institutionalized in many ways that create space for diversity in supplier performance. At an individual level, purchasing agents in customer firms may satisfice in terms of supplier performance. At an organizational level, customer-supplier relations are often multiplex, with suppliers being assessed simultaneously on different levels such that at any one level pressures are not exacting. Departmental and factional conflict within industrial customers contributes to organizational satisficing. Finally, customer-

supplier relations are often deeply embedded, such that suppliers can meet performance targets satisfactorily and enjoy relatively stability despite technical inefficiencies.

In other words relations of production between firms constitute, at various spatial scales, *institutional markets* that permit differences in strategic managerial vision and actual performance, including a range of relatively inefficient organizational practices in supplier factories. Relations of production between firms are governed by a variety of institutional mechanisms, resulting in an institutional market structure in which pressures are often unexacting, and good enough performance is tolerated. These institutional markets are tolerant of diversity and mediocrity, ultimately, because they are relations of production managed by profit-rate satisficers for whom efficiency is a means, not an end.

Regarding departmental conflict, there are often various groups within the overall supply management function that may be operating at cross purposes, as when one group is responsible for picking suppliers (based on cost) and another group is responsible for managing the relationship (focusing on quality). In terms of factional conflict, there are often factions pushing very short-term metrics and practices, such as sourcing based only on piece price, versus those pushing longer-term strategy, such as investment in domestic suppliers for long-term flexibility. Finally, there is a range of situations that regularly result in stable, embedded relations between customers and suppliers, thus shielding suppliers from extreme competitive pressures. For example, it may be costly and hard for customers to switch suppliers, for a range of reasons from a long-term relationship with consistent good performance to the cost of qualifying suppliers, to specific engineering or other capabilities that suppliers may have. There is widespread uncertainty and imperfect information such that, from the view of competitors, markets are not hypercompetitive.

6.4 Conclusion: Theoretical reflections on macro political economy

My analysis and explicit theoretical arguments were framed in terms of organizational issues, with special emphasis on the problem of organizational diversity. But the analysis of the organizational transformation from Fordism was inspired by a venerable problematic in Marxist political economy: implicit, and sometimes apparent, throughout were theoretical arguments concerning the interaction of the forces and relations of production in technical change. By way of conclusion, I now make this set of arguments explicit.

Lean as organizational technology

As I argued in section 4.5, the most important technological advances in lean production are not physical but organizational. Physical technologies, often based on microprocessors, from sophisticated machine tools to logistical abilities, are important elements of lean production. But many of the core lean technologies are quite low-tech organizational routines rather than physical mechanics or electronics. Consider what are arguably the three central lean methods: value stream mapping and product-focused organization; reduced inventory and just-in-time production; and process improvement and standardization. All three sets of methods are fundamentally organizational routines that can substantially improve productivity and flexibility. Value stream mapping and product-focused organization use simple pen-and-paper and brainstorming sessions to reorganize factories in ways that can substantially reduce waste, scrap and costs, while

improving long-term capability.³ Likewise, just-in-time efforts or process improvement methods, from single minute exchange of die (SMED) to 5S standardization, are generally focused on changes in routine, rather than on new mechanical or electronic applications.

Lean production, then, is part of a broader set of specifically organizational technologies, which encompass management systems, including the management of technical knowledge, and formal and informal organizational structures and routines. In Marxist terminology, lean production is not a change in relations of production but, *qua* organizational technology, should be understood as an aspect of the forces of production.

I argued in chapters three and four that lean production is the dominant organizational model under postfordism both for technical and institutional reasons. Technically, lean refers to a set of methods and disciplines that are highly efficient and flexible, particularly when adopted as a comprehensive package of complementary practices, ideally suited to meet increasingly differentiated market demand. Institutionally, lean is widely adopted by leading firms and is normatively dominant among management scholars, industry associations and consultants. But lean is not simply a set of good management ideas that won out over potentially viable alternatives such as the socio-technical systems approach. And the set of technical practices that have come to be associated with the rhetoric of lean is not simply a toolbox of effective organizational practices for reducing inventory and improving efficiency.

Rather, the core disciplines of lean constitute an organizational technology that is an evolutionary next step in the development of the productive forces. The lean labor

³ As with most lean technologies, these methods can be implemented without computers, though spreadsheets and other software programs are often used in practice.

process constitutes a systemic improvement on the Fordist model not only in terms of efficiency but also, crucially, in terms of the flexibility required by fragmented and fickle international markets: demand-driven production with a neotaylorist division of labor, achieving efficiency through continuous improvement in process control and standardization, *and* flexibility through product-focused organization, small batches and short cycle times. In short, lean is an organizational technology that is the successor to the Fordist labor process. Lean is an advancement in the productive forces in which productivity growth is based on (a) substituting a new basis of efficiency gain – systematic process control and continuous process improvement – for the scale economics of Fordism; and (b) flexibility to satisfy increasingly differentiated market demand.

Based on these two considerations, neotaylorist continuous improvement in process control and postfordist flexibility to satisfy differentiated markets, the transition to lean – as an organizational technology for systematic process control and demand-driven production – was structurally determined. The ability to institutionalize neotaylorist continuous improvement has been greatly improved with employee involvement and ultimately made possible by the increasing depoliticization of workers under Fordist hegemony.⁴ As many have shown, the design of work in pre- and early-Fordist times was constrained by managerial concerns with controlling highly skilled workers who saw control over production as a political battle (Braverman 1974; Edwards

⁴ Hegemony is understood here in the Gramscian sense of combining ideological leadership with material class compromise. The ideological leadership consists of the American civil religion, combining the view that economic mobility requires only sufficient work ethic with the view of the American project as one of international benevolence focused on spreading freedom and democracy. The material class compromise consists of the middle class consumption and patterns – widespread ownership of automatic washing machines, cable TV, Monday night football, Nintendo, the internet, etc. – generated by Fordism.

1979; Gordon et al. 1982). Traditional Taylorism, the extreme fragmentation of work tasks with strict supervision designed to deskill workers and coerce work, was a product of the times. Perhaps traditional Taylorism followed from the engineer's pretension, that engineer's have all the information they need to design work in the most efficient way, and that front-line workers have nothing to add. But my argument is that the politics of production, including struggles over the control of production inside and outside the workplace, plays an important constraining role, in addition to the engineer's pretension. That is, lean neotaylorism, designed to enlist workers in continuous improvement, often by increasing their responsibilities and authority, was not possible under the political conditions of early Fordism. When managers and engineers were able to design work without worrying about controlling workers – and where the ideas of Ford, Taylor, the Gilbreths and others were re-thought in a different context entirely at Toyota in Japan – neotaylorist organizational technologies began to flourish.

But Fordism worked well enough for quite some time, until international competition become markedly heightened in the early 1970s and markets for mass produced, standardized goods became saturated, internationalized, and increasingly fragmented and fickle. And along with the efficiency gains of neotaylorist continuous improvement, lean offered a demand-driven organizational strategy perfectly suited to taking advantage of internationalized, differentiated markets. The story of how Fordist mass production was too rigid for changing international markets is a quite familiar one (Boyer 1997; Jessop 1992; Peck and Tickell 2000; Piore and Sabel 1984). In terms of the Marxist theory of history, the main thing that Marx missed, and Smith got right, is, in Smith's terms, that the division of labor is limited by the extent of the market (Smith

1976 [1776]). In Marxian terms, to understand technical change and historical progress requires not a productivist focus but a focus on the production/consumption dialectic. Historical growth is driven by changes in the productive forces. But the productive forces are a coin with two sides: the division of labor and market demand. The former, Smith correctly observed, is limited by the latter. Thus reformulated, the forces of production include productive knowledge (including physical technology) and division of labor, where the latter includes the size and shape of the market. Lean postfordism, then, is a change in the productive forces, combining demand-driven production with neotaylorism (including employee involvement) with differentiated market demand (rather than mass consumption). Lean is thus structurally determined, based on changes in markets, on the one hand, and the politics of production (*allowing* employee involvement), on the other.

Finally, the changes in the politics of production within plants that I have documented in this dissertation suggest that the ideological effects of the organization of work are not simply, or even necessarily, as Burawoy suggests, performing the heroic function of “providing the ideological preconditions for obscuring and securing of surplus ... while coordinating the interests of workers and management” (1987: 38). My data on the labor process indicate quite clearly that the politics of production in postfordism have changed dramatically: in most places in the present conjuncture in the United States, workers come to work already controlled, already having consented to capitalist relations of production and the legitimacy of capitalist work. As Adam Przeworski has argued persuasively, three mechanisms of consent, outside the labor process, can be found (1997; see also Cohen and Rogers 1983). One is general and two historically specific. The first is simply that in a capitalist economy the entire society is

dependent on the actions of capitalists: workers cannot survive on their own and they must secure wages for whatever else they want to do, and hence produce a profit as a condition of employment (1997: 138, Ch. 4). Now, these conditions alone are not enough to secure a docile, compliant workforce, as is clearly demonstrated by Richard Edwards (1979), among others. The actual concrete coordination of interests implied by capitalist hegemony requires more specific mechanisms through which the interests of workers are realized. The main one discussed by Przeworski is the political process of democracy itself: “struggles over the realization of material interests become institutionalized in a manner rendering their outcomes to some extent indeterminate with regard to positions which groups occupy within the system of production. ... Capitalist democracy is a particular form of organization of political relations in which outcomes of conflicts are within limits uncertain, and in particular, in which these outcomes are not uniquely determined by class positions” (Przeworski 1997: 140).

People are able to advance their material interests in part through the political system, among other things, resulting in greater lesser degrees of independence from the market (Esping-Andersen 1999). The third mechanism is a related form of indeterminacy of outcomes: Like internal labor markets, the society is organized such that upward mobility is *possible* even if it is much less probable than the American mythology would have it. More generally, the widespread dispersion of ‘middle-class’ consumption patterns in the United States during the “golden years” in the post-war economy has added to the legitimacy of the capitalist system. Coercion always lurks in the background,

but capitalist leadership has apparently been excised to a large degree through class compromise that it has needed to rely little on overt domination at work.⁵

The ideological effects of the organization of work are a defining aspect of the capitalist labor process, but they are not *the* defining aspect. Equally important is that the complex relations of production, within and between firms, structure economic positions in ways that enforce the capitalist imperative of production for the sake of surplus value, profit over all else. That is, organizational positions, structured within layers of institutions, are associated with particular practices such that capitalist relations of production are reproduced without having to rely on individual dispositions.

Class fractions under neoliberal globalization

The reproduction of capitalist relations of production, however, is far from automatic. Harnessing and managing the technical growth of the productive forces requires effective governance of a stable class alliance, a political process of establishing a mode of regulation to guide a macroeconomic pattern of growth (Jessop 1992; Leborgne and Lipietz 1992; Peck and Tickell 2000; Tickell and Peck 1992: 192). As technical growth and processes of globalization continued apace, the Fordist class compromise and the Keynesian mode of regulation began to crumble (Jessop 1992; Peck and Tickell 2000). The globalization of financial markets altered the effects of traditional monetary policy, for example, offsetting the state's ability to control interest rates (Frieden 1991). Meantime, neoliberals in the state and the executive boards abandoned the Fordist class compromise, including Keynesian fiscal policy, seeking to rescue declining profits and

⁵ I do not want to argue that there is not extreme economic coercion and exploitation in many sectors, occupations and particular workplaces in the American economy (e.g., in migrant farm labor, apparel sweatshops in LA and New York, meatpacking occupations, among others).

structure a new round of growth in their favor, using the rhetoric of deregulation, free trade and corporate restructuring (Harrison and Bluestone 1988).

At the organizational level, perhaps the most defining change in terms of relations of production under neoliberal globalization is the fracturing of capital between globally-mobile, multinational prime contractors, on the one hand, and locally-rooted, smaller subcontractors, on the other. This divide has been growing for much of the postfordist period, but has only become particularly acute and political since the latest manufacturing crisis began around 2000, after the organizational changes of vertical disintegration had fully taken form and the diverging interests of the new class fractions became undeniably clear.

While the major business associations, particularly the National Association of Manufacturers, began to represent the interests of the globally-oriented fraction of capital, they presented these interests as universal. But the hemorrhaging of manufacturing jobs and business was too brutal. The locally-rooted fraction that bore the brunt of the crisis, while the multinationals often clearly benefited, began an open rebellion within and without their organizations. In this struggle, chronicled in detail in the pages of *Manufacturing and Technology News*, a locally-rooted fraction of manufacturing capital actively contested policies within NAM and other organizations, while starting their own organizations to protect their interests.

In an uncharacteristically colorful headline article entitled “A Seething Political Anger Rises in America’s Industrial Heartland,” *Manufacturing and Technology News* reports five new domestic manufacturing organizations – Save American Manufacturing, USA Fair Trade, the Manufacturing Coalition, MAD in USA, and a coalition of textile

and apparel industries – recently formed because the major manufacturing associations were not representing their interests.⁶ Part of the problem, the article reports, is the diverging interests between large industrial customers, increasingly shifting production offshore, and domestic suppliers. The response of the National Association of Manufacturers (NAM) did not smooth things over. At one point, Jerry Jasinowski, then president of NAM, stated that effects of offshoring on manufacturing job loss have been “dramatically overstated.”⁷ The Domestic Manufacturing Group, a splinter group of domestic manufacturers formed within NAM in 2004, was reprimanded by NAM and disallowed from meeting at NAM headquarters in 2005.⁸ Soon after, seeking to take on NAM, the Michigan Tooling Association expanded its reach the national level and changed its name to the Tooling, Manufacturing & Technologies Association.⁹

The effects of neoliberal globalization have been so negative for certain sectors that new class alliances have formed, including a coalition of farmers’ and manufacturing organizations in late 2006 and the Alliance for American Manufacturing in 2007, a coalition of steel industry management and the United Steelworkers union. And the locally-rooted fraction of manufacturing capital was being beat so badly by the practices of the globally-oriented fraction that it found support from a variety of unlikely quarters, from congressional task forces and key individual advocates in congress, to the conservative CNN anchor Lou Dobbs, whose TV show, *Lou Dobbs Tonight*, featured a recurring anti-corporate, anti-outsourcing segment beginning in 2003.

⁶ *Manufacturing & Technology News*, September 3, 2003.

⁷ *Manufacturing & Technology News*, April 2, 2004.

⁸ *Manufacturing & Technology News*, June 22, 2005. For more on fractional struggle within NAM, see *Manufacturing & Technology News*, July 7, 2006, October 10, 2006, and November 14, 2006.

⁹ *Manufacturing & Technology News*, January 5, 2007.

An important component of the Fordist mode of regulation was a class compromise between big labor and big capital, which allowed for the sharing of large and growing productivity gains in the form of rising profits and rising wages (Jessop 1992). Under neoliberal governance of postfordism, wages are stagnating, inequality and economic instability are growing, and career ladders are collapsing (Dresser and Rogers 1997). Yet, the macroeconomy seems to be muddling through. At the micro-organizational level, lean, also a sort of muddling strategy, appears to be a stable equilibrium cohering with the macroeconomic patterns of neoliberal postfordism. In terms of macroeconomic performance and growth, however, the question of the postfordist trajectory remains open? Much of the direction remains likely to depend on what alliances between classes and class fractions, if any, become stably forged, which, in turn, will affect how the state approaches the economy. At an abstract level, principal problems with the system are that under lean postfordism wages are a source of competitive disadvantage and profits are sought primarily through externalization. Regarding externalization, the leading multinational prime contractors in the United States are often referred to as “screwdriver factories” – they typically do little actual manufacturing, rather assembling products bought from other factories the world over.

At a concrete level, after three decades of restructuring, the lean postfordist economy is seeing inequality skyrocket as good manufacturing jobs continue to go offshore while being replaced with increasingly tenuous service sector jobs that often do not pay a living wage. The manufacturing sector has seen two previous waves of “deindustrialization,” rounds of massive job loss during 1979-1982 and 1989-1992. In these earlier waves, much of what happened was a shakeout, the shifting of jobs from

large, unionized employers in cities to small, and worse paying, non-unionized employers in suburban and rural areas. This deunionization primarily hurt the urban black working class, while most employers benefited from the growth in cheaper, non-union labor.

The current wave of deindustrialization is quite different. Now jobs are moving overseas to lower-wage countries, and this time white-collar tech jobs are moving, largely to India, right along with blue-collar jobs to China and elsewhere. But this is not to sound a nationalist alarm; it is not the low-wage countries and workers who are “stealing our jobs” but, for the most part, multinational prime contractors who are giving them away to save what usually amounts to be a tiny percentage of their growing profits on labor costs. While the US economy lost around three million jobs in the two decades between 1978 and 1998, it shed fully four million jobs in the seven years between 1998 and 2005 (Luria et al. 2005).

In short, the lean postfordist economy has been shedding good jobs in manufacturing; the service sector jobs that are replacing the manufacturing jobs pay, on average, less. Many people who are willing to work hard cannot find good jobs, and indeed, often cannot even find any jobs or any pathway to good jobs. Employers and their associations constantly complain of a so-called skill shortage, but institutions of skill formation are not forthcoming in the “liberal” context of the US. Attempts to fill the void created by the neoliberal “deregulation” are taking place mostly at the local level, with a variety of policy experiments designed to attract investment and jobs. But the neoliberal policies themselves, based on deregulation and competition over limited investment, preclude any supra-local strategies, leaving the local levels to fight it out in a zero-sum

game (Peck and Tickell 2000). In the words of Jamie Peck and Adam Tickell, we are still searching for a postfordist institutional fix.

References

- Appelbaum, Eileen and Rosemary Batt. 1994. *The New American Workplace: Transforming Work Systems in the United States*. Ithaca, NY: ILR Press.
- Barker, James R. 1993. "Tightening the Iron Cage: Concertive Control in Self-Managing Teams." *Administrative Science Quarterly* 38:408-437.
- Baron, James N., Frank R. Dobbin, and P. Devereaux Jennings. 1986. "War and Peace: The Evolution of Modern Personnel Administration in U.S. Industry." *American Journal of Sociology* 92:350-383.
- Boyer, Robert. 1997. "How Does a New Production System Emerge?" in *After Fordism*, edited by R. Boyer and J.-P. Durand. London: Macmillan Press.
- Braverman, Harry. 1974. *Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century*. New York: Monthly Review Press.
- Burawoy, Michael. 1982. *Manufacturing Consent: Changes in the Labor Process under Monopoly Capitalism*. Chicago: University of Chicago Press.
- . 1987. *The Politics of Production*. New York: Verso.
- Cappelli, Peter, Laurie Bassi, Harry Katz, David Knoke, Paul Osterman, and Michael Useem. 1997. *Change at Work*. Oxford: Oxford University Press.
- Cohen, Joshua and Joel Rogers. 1983. *On Democracy: Toward a Transformation of American Society*. New York: Penguin Books.
- DiMaggio, Paul J. and Walter W. Powell. 1991. "Introduction." Pp. 1-38 in *The New Institutionalism in Organizational Analysis*, edited by W. W. Powell and P. J. DiMaggio. Chicago: The University of Chicago Press.
- Dresser, Laura and Joel Rogers. 1997. "Rebuilding Job Access and Career Advancement Systems in the New Economy." Center on Wisconsin Strategy, Madison, WI.
- Edwards, R. 1979. *Contested Terrain: The Transformation of the Workplace in the Twentieth Century*. London: Heinemann.
- Eldeman, Lauren B. 1990. "Legal Environments and Organizational Governance: The Expansion of Due Process in the American Workplace." *American Journal of Sociology* 95:1401-1440.
- Esping-Andersen, Gøsta. 1999. *Social Foundations of Postindustrial Economies*. Oxford, UK: Oxford University Press.
- Fligstein, Neil. 1985. "The Spread of the Multidivisional Form among Large Firms, 1919-1979." *American Sociological Review* 50:377-391.
- Frieden, Jeffrey A. 1991. "Invested Interests: The Politics of National Economic Policies in a World of Global Finance." *International Organization* 45:425-451.
- Friedman, Andrew L. 1977. *Industry and Labour: Class Struggle at Work and Monopoly Capitalism*. London: The Macmillan Press Ltd.
- Galaskiewicz, Joseph and Stanley Wasserman. 1989. "Mimetic Processes Within an Interorganizational Field: An Empirical Test." *Administrative Science Quarterly* 34:454-479.
- Godard, John and John T. Delaney. 2000. "Reflections on the "High Performance" Paradigm's Implications for Industrial Relations as a Field." *Industrial and Labor Relations Review* 53:482-502.
- Gordon, D., R. Edwards, and M. Reich. 1982. *Segmented Work, Divided Workers: The Historical Transformation of Labor in the United States*. Cambridge: Cambridge University Press.

- Grenier, Guillermo J. 1988. *Inhuman Relations: Quality Circles and Anti-Unionism in American Industry*. Philadelphia: Temple University Press.
- Harrison, B. and B. Bluestone. 1988. *The Great U-Turn: Corporate Restructuring and the Polarizing of America*. New York: Basic Books.
- Hodson, Randy. 1996. "Dignity in the Workplace Under Participative Management: Alienation and Freedom Revisited." *American Sociological Review* 61:719-738.
- Ichniowski, Casey, Thomas A. Kochan, David Levine, Craig Olson, and George Strauss. 1996. "What Works at Work: Overview and Assessment." *Industrial Relations* 35:299-333.
- Jessop, Bob. 1992. "Fordism and Post-Fordism: a Critical Reformulation." in *Pathways to Industrialization and Regional Development*, edited by M. Storper and A. J. Scott. London: Routledge.
- Leborgne, Daniele and Alain Lipietz. 1992. "Conceptual Fallacies and Open Questions on Post-Fordism." Pp. 332-348 in *Pathways to Industrialization and Regional Development*, edited by M. Storper and A. J. Scott. London: Routledge.
- Luria, Dan, Matt Vidal, Howard Wial, with Joel Rogers, in collaboration with Sue Helper, Gary Herrigel, Josh Whitford, Edith Wiarda, and Jonathan Zeitlin. 2005. *'Full-Utilization Learning Lean' in Component Manufacturing: A New Industrial Model for Mature Regions, & Labor's Stake in Its Success*: Sloan Industry Studies Working Paper WP-2006-03, Alfred P. Sloan Foundation.
- MacDuffie, John Paul and Frits K. Pil. 1995. "Changes in Auto Industry Employment Practices: An International Overview." in *After Lean Production*, edited by T. A. Kochan, R. D. Lansbury, and J. P. MacDuffie. Ithaca, NY: Cornell University/ILR Press.
- Marx, Karl. 1990 [1867]. *Capital*, vol. 1. Translated by B. Fowkes. London: Penguin.
- Meyer, John W. and Brian Rowan. 1991. "Institutionalized Organizations: Formal Structure as Myth and Ceremony." Pp. 41-62 in *The New Institutionalism in Organizational Analysis*, edited by W. W. Powell and P. J. DiMaggio. Chicago: University of Chicago Press.
- Mezias, Stephen J. 1990. "An Institutional Model of Organizational Practice: Financial Reporting at the Fortune 200." *Administrative Science Quarterly* 35:431-457.
- Nelson, Richard R. and Sidney G. Winter. 1982. *An Evolutionary Theory of Economic Change*. Cambridge, MA: Harvard University Press.
- Oliver, Christine. 1997. "Sustainable Competitive Advantage: Combining Institutional and Resource-Based Views." *Strategic Management Journal* 18:697-713.
- Orrú, Marco, Nicole Woolsey Biggart, and Gary G. Hamilton. 1991. "Organizational Isomorphism in East Asia." Pp. 361-389 in *The New Institutionalism in Organizational Analysis*, edited by W. W. Powell and P. J. DiMaggio. Chicago: The University of Chicago Press.
- Osterman, Paul. 1994. "How Common is Workplace Transformation and Who Adopts It?" *Industrial and Labor Relations Review* 47:173-188.
- Peck, Jamie and Adam Tickell. 2000. "Searching for a New Institutional Fix: the After-Fordist Crisis and the Global-Local Disorder." in *Post-Fordism: A Reader*, edited by A. Amin. Oxford: Blackwell.
- Piore, Michael J. and Charles F. Sabel. 1984. *The Second Industrial Divide: Possibilities for Prosperity*. New York: Basic Books.

- Powell, Walter W. 1991. "Expanding the Scope of Institutional Analysis." in *The New Institutionalism in Organizational Analysis*, vol. 183-203, edited by W. W. Powell and P. J. DiMaggio. Chicago: The University of Chicago Press.
- Przeworski, Adam. 1997. *Capitalism and Social Democracy*. Cambridge, UK: Cambridge University Press.
- Saka, Ayse. 2004. "The Cross-National Diffusion of Work Systems: Translation of Japanese Operations in the UK." *Organization Studies* 25:209-228.
- Scott, Richard W. and John W. Meyer. 1991. "The Organization of Societal Sectors: Propositions and Early Evidence." Pp. 108-140, edited by W. W. Powell and P. J. DiMaggio. Chicago: University of Chicago Press.
- Smith, Adam. 1776 [1776]. *The Wealth of Nations*. Chicago: University of Chicago Press.
- Tickell, Adam and Jamie Peck. 1992. "Accumulation, Regulation and the Geographies of post-Fordism: Missing Links in Regulationist Research." *Progress in Human Geography* 16:190-218.
- Vidal, Matt. 2007. "Manufacturing Empowerment? 'Employee Involvement' in the Labour Process after Fordism." *Socio-Economic Review* 5:197-232.
- Westphal, James D., Ranjay Gulati, and Stephen M. Shortell. 1997. "Customization or Conformity? An Institutional and Network Perspective on the Content and Consequences of TQM Adoption." *Administrative Science Quarterly* 42:366-394.
- Zbaracki, Mark J. 1998. "The Rhetoric and Reality of Total Quality Management." *Administrative Science Quarterly* 43:602-636.
- Zucker, Lynne G. 1991. "The Role of Institutionalization in Cultural Persistence." Pp. 83-107 in *The New Institutionalism in Organizational Analysis*, edited by W. W. Powell and P. J. DiMaggio. Chicago: The University of Chicago Press.