It is widely recognized that emerging new forms of flexible or lean production in the contemporary global economy require much greater commitment and loyalty from core workers than the mass production systems they are displacing. The “flexible worker” must proactively resolve problems, master new and multiple tasks, make suggestions for how to improve production processes, perhaps work in a “team” environment, and accept a greater role for performance in his or her pay and promotions. Without the worker’s active integration, the tightly orchestrated and decentralized lean system, designed to force bottlenecks to the surface for immediate resolution and dependent upon the everyday harnessing of workers’ tacit knowledge, either breaks down or fails to achieve its “continuous improvement” goals in quality and productivity. The increasingly globally integrated automobile industry is a prime example, having recently followed the Japanese lead in adopting various what human resource specialists like to term “high-performance work organizations”—multi-skilled, cross-trained work, often in production teams, flat job classifications, performance-linked pay and promotions, variable work schedules, and the like. The Western Hemisphere, particularly the United States, Brazil, and Mexico as its largest auto producers, has been a key laboratory for “diffusion” of, and experimentation with, lean, flexible methods since the late 1970s.

An under-appreciated aspect of work flexibility is the very different forms it may take from the point of view of worker voice and empowerment, and the quite distinct and wide-ranging workplace social systems that have emerged to buttress flexible practices across different factories and places of work. Imagine, for a moment, a plant in which the employer unilaterally conceives and implements flexible workplace arrangements. Workers are exhorted to “participate” in many ways that are unprecedented under the “Taylorist” mass production, with its elaborate separation of control over production (“conception”) and the rote tasks of repetitive, physical labor (“execution”) —namely, to make suggestions on...
process improvements through quality circles or “suggestion programs,” to rotate actively within teams, to find more efficient ways to perform their broadened daily range of tasks, and to take part in a variety of training seminars, shopfloor meetings, and social gatherings. In these many gatherings, and in the structure of “self-directed,” small group work without direct, continuous supervision, individual commitment to company goals is re-affirmed and reproduced as a social norm and the traditional status and authority lines that separate worker and manager are blurred. The individual is asked to subsume his or her personal aspirations, identities, and background into the discursive and organizational construct of “the team.” But the team turns out not to be the immediate, rotating, flesh-and-blood work group composed of self and workmates. After all, the worker might eventually be transferred to another group, and and the team’s power and authority to make major decisions (like hiring, scheduling, and rotations) is actually quite circumscribed. Rather, “the team” is really the larger factory and the company that owns it, entities whose managers make all strategic production and work decisions with little or no constraints from independent worker representatives or established channels for the articulation of worker demands and grievances.

This description expresses the essential attributes of a particular ideal type of micro-social, factory-level system in which work and employment flexibility is expressed—a type that I refer to as “individual embedding.” “Individual” because it is the person and his or her effort, commitment, and loyalty that are the cornerstone, and embedding because the economic exchange that takes places through flexible work is expressed and reproduced as an extra-economic, social relation.

Now, imagine a second factory. Here many of the same flexible innovations just described have also been introduced. But this has taken place as part of an elaborate negotiated process between the employer and worker representatives—unions, works councils, shop stewards, or whatever the particular form the latter may take. Many of the precise details of the new arrangements were in fact proposed by the worker representatives, seeking to maximize such goals as skill enrichment, worker autonomy, and worker voice. Moreover, these representatives participate actively and on an ongoing basis in the implementation, monitoring, and re-adjustment of new concepts such as work teams, multi-tasking, flextime, or performance-based pay. If teams are created, they tend to be “worker-centered,” with leaders chosen directly by their members or through union participation and endowed with authority to make everyday work decisions and to participate in strategic work reorganization. Management and worker representatives agree in principle to seek to harmonize goals of productivity, quality, and profitability with those of worker health and safety, job security, skill acquisition, and job enrichment. However, these goals enter into frequent conflict, and there are inevitable tensions, sometimes leading to open tests of strength and shifting re-definitions of the trade-offs and synergies between management and worker-union goals. Conflict is contained within manageable limits, and there is mutual self-restraint in taking unilateral decisions affecting production and work. These representational and negotiating processes shape the content of flexibility and its symbolic construction as a joint, legitimate undertaking, and in both senses help engender and reproduce worker commitment.

This second factory illustrates a second ideal-typical social system undergirding work and employment flexibility—one that I call “collective embedding.” “Collective” because the cornerstone is the legitimate, active, and independently expressed collective voice of workers
in the re-shaping of the workplace. “Embedding,” again, because this is an alternative, but equally viable and durable, means of socially anchoring and reproducing the economic exchange of flexibility.

RECASTING THE DEBATE ON FLEXIBILITY

Despite the general recognition of the heightened importance of worker integration to new production processes among both advocates and critics of flexible manufacturing, relatively little serious attention has been paid to a crucial issue for analysis and policy: Namely, under what social conditions and by what mechanisms is the core work force’s active commitment to flexible work arrangements secured and reproduced over time? Why are such polar opposites as the “individually” and “collectively embedded” flexible factories found alongside each other in today’s global economy, even within the same industry? As flexible production and globalization of production continue to spread and reinforce each other, these issues are crucial not just for the competitive success of firms and the regions and nation-states in which they operate, but also--perhaps more importantly--for the evolving rights and responsibilities of citizens in their places of work and their relationship to the larger society and polity. As individual wage-laborers are asked to give more and more of their physical and psychic energy—and often of their waking hours—to work, the place of work and the relationships and organizations surrounding it become ever more important as spaces of everyday sociability and tangible encounter with larger social structures and institutions. Work and the struggle for, and over, employment are perhaps the most direct, everyday arenas in which laborers (and would-be laborers) experience contemporary meta-trends like globalization, democratization, and market reform—even if, as many have noted, the salience of work identities and worker-based organizations has declined in historical terms within the larger polity.

This study explores the issue of the integration of workers into flexible work and employment arrangements through an analytical framework centered on the notion of social embeddedness of work relations and the tools of network analysis. The empirical centerpieces are four cases studies of auto assembly plants arrayed across the three Western Hemisphere countries, and falling on either side of a key divide that I identify in this comparative tri-national study of auto assembly plants—namely, whether they were established (“brownfield”) facilities experiencing the traumatic transition toward flexible production and work based on the rigid hierarchies and vertical integration of Taylorism and mass production prevalent through the 1970s or, alternatively, were new (“greenfield”) sites built from the late 1970s onward based on flexible/lean principles. Case studies of two plants anchor the comparative discussion of reorganization dynamics in brownfields--the “Reliable Motors” plant in greater São Paulo and the “Common Motors” factory in central Mexico. Meanwhile, studies of two new sites in the U.S. South, corresponding to the “Regional” and “Grand” corporations, are central to the examination of the establishment of employment and work relations in “greenfields.”

---

2 Names of the companies and sites studied are protected by agreement with the firms and unions that permitted access only on this condition. Where informants’ identity is not jeopardized and statements are based on aggregate data or studies in the literature, real company names are used.
The study makes two central arguments based on the analytical framework of embeddedness, the conceptual toolkit of network theory, and the heuristic notion of plant lifecycles. First, the economic transactions and exchanges that characterize flexible work and employment are embedded, or anchored, in a broader and deeper social relation between workers and employers, with important extra- and non-economic elements; this social relation informs, typically cements, but sometimes alters and transforms the nature and terms of flexibility. The process by which new workplace social practices and norms emerge around flexible arrangements is conceptualized as one of embedding of flexibility, and whether individualistic or collective norms prevail in that emergent social relationship is the key factor distinguishing the two modal types of embedding (“individual” and “collective”) that I identify. Second, in order to explain why a particular plant follows one or the other of these two dominant embedding trajectories, I turn to the structure and configuration of the social ties in which the immediate labor and management actors are enmeshed—in short, social networks. These ties, which are found to vary significantly but in patterned ways from plant to plant, shaped the resources and repertoires that the actors brought to bear in responding to these challenges. In the case of established, “brownfield” plants built under mass production, it was the structure of labor and management’s dyadic and outward ties—the pre-existing social fabric of the factory—that shaped the contours of work reorganization along one of the two alternative paths (and along two variants of the individual embedding trajectory, characterized below). In the case of the “born flexible” greenfields, the structural conditions of greenfield investment and globalization of production determined a uniform initial course of individual embedding that varied only in terms of whether there was limited, circumscribed worker voice under subordinated unions (“structured individualism”) or no worker voice at all (“dispersed individualism”). However, over time in the plant’s life cycle, as the potential for conflict emerged, contingent outward connections of plant management to corporate headquarters and to local business elites together with workers’ ties with potential local allies in civil society and national and international allies in the labor movement shaped the prospects for the consolidation, reconstruction, or transcendance of individual embedding. In short, labor and management’s agency and encounters in work reorganization were structurally conditioned by pre-existing network ties.

The four case studies, put into the broader context of evidence on the broader universe of plants in each of the three countries, generate surprising empirical findings that highlight the limitations of dominant images and approaches to the issue of worker integration into emerging flexible work and employment patterns. Contrary to both the optimistic image of “emancipation” of work from the drudgery and dehumanization of Taylorist mass production, and the mirror-like counter-image of an insidious new form of capitalist “despotism” in the workplace, this study highlights the existence of considerable variation in patterns of work reorganization both within and across the Brazilian, Mexican, and U.S. auto industries during the 1980s and 1990s. One the one hand, a surprisingly large number of plants—surprising given the seemingly strong structural obstacles to worker voice posed by the onward global march of markets—are found to have experienced the joint, negotiated transformations toward flexibility that I characterize as collective embedding of work flexibility. The Reliable site outside São Paulo typifies this pattern, also found at a significant number of other brownfields in both Brazil and the United States, although to a sharply lesser extent in Mexico. On the other hand, unilateral, management-controlled flexible transformations that I characterize as individual embedding—typified by the Common factory in central Mexico—are illustrative of this trend, found among another group of brownfields in all three countries. The Grand and
Regional sites in separate U.S. southern states are greenfield examples of this pattern, which I find to near be universal among newly minted greenfields. However, patterns at greenfields diverge somewhat over their life cycles, with some encountering rocky consolidation processes and others moving toward collective embedding. This overwhelming finding of cross- but especially intra-national diversity in the emerging social relations of work flexibility highlights the limitations of conventional perspectives on workplace change that emphasize either company-specific variables or national industrial institutions, particularly formal-legal institutions, as the principal or sole determinates of patterns of workplace restructuring.

Moreover, these findings also re-cast debates about the new international division of labor (NIDL), globalization, and convergence in economic practices such as employment relations. I find that there are sharp analytical and empirical parallels in the politics of work reorganization in this advanced manufacturing sector across the structural divide of the countries’ distinct places in the NIDL. Indeed, the brownfield/greenfield distinction and the character of plant-centered social ties proves to be a more consequential fault line in shaping embedding patterns than does Third or First World plant location. Moreover, contrary to expectations that developing country workers are structurally advantaged (in the NIDL view) or disadvantaged (in the “export of jobs” view) in the technological, organizational, and spatial restructuring of industry, the study finds that Brazilian brownfield workers were more likely to experience collective embeddin (but Mexican brownfield workers less likely) than their U.S. counterparts. Among the prosaic findings of the study is that in the U.S, the bi-modal pattern of diversity across collective/individual lines, found to a greater or less extent in all three countries, was the most even. Adding another layer to the decidedly mixed U.S. picture were the two distinct forms of individualism that embedding took (“structured” and “dispersed”).

This cross-national comparison is also counter-intuitive from a strictly construed path-dependent perspective based on national institutional (especially formal-legal) traditions and legacies—a view that that has been strong in comparative labor studies, particularly cross-national perspectives on industrialized countries (e.g., Thelen 1991, Turner 1991, Golden and Pontusson eds. 1992; for a useful summary and critique see Locke 1996). For Brazil was characterized by the least worker autonomy, most intrusive state control over labor movements, and weakest organized shopfloor union presence and strength of the three countries during the Taylorist mass production era. Presumably under such a perspective, Mexican autoworkers, having achieved strong workplace protections under newly autonomous but apolitical unions in the 1970s, would also have been better positioned than their Brazilian colleagues to shape workplace reforms in worker-friendly fashion workplace reforms; their nationally organized U.S. brothers and sisters would have been the best situated of all countries under this line of thinking, working from the entrenched job control institutions they had helped construct under the Fordist “post-war settlement” between capital and labor. Yet, I demonstrate, the presumed historical strengths of adversarial, arms’ length relational traditions and institutions in Mexican and U.S. plants often proved to be obstacles to the negotiated construction of a flexible new workplace, instead encouraging contests of strength typically won by employers. Meanwhile, the historical absence of bilateral, worker-inclusionary workplace institutions in Brazil proved a paradoxical blessing in disguise at many (but not all) Brazilian brownfields—a finding that turns the path-dependent logic of “strength begetting strength” and “weakness begetting weakness” on its head. Such basic
labor-management institutions of collective bargaining and workplace representation were bilaterally constructed virtually *ex novo* in the same period that flexible arrangements were jointly shaped, making possible in plants with propitious relational settings a more harmonious “fit” between the two. Again, however, it must be stressed that intra-national uniformity was to be found nowhere, suggesting the causal importance for these three “New World” countries of their size, geographic diversity, and less unified national labor and industrial institutions in comparison to the West European nation-states that have been the main empirical focus of formal-institutionalist comparative studies of labor and industrial restructuring.

**EMBEDDEDNESS, NETWORKS, AND PLANT LIFE-CYCLES**

At the conceptual and explanatory core of this study is an integration of the embeddedness optic, network analysis tools, and a life-cycle perspective in studying the issue of plant-level restructuring and workers’ place and role therein. The embeddedness image or metaphor—introduced by Polyani (1957) and recast by Granovetter (1985)—casts market transactions between economic agents as grounded and anchored in concrete social relations. It has been very influential in recent intellectual currents such as the “new economic sociology” in the U.S. (Swedberg ed. 1993, Granovetter and Swedberg eds. 1992) as well as in comparative studies of economic governance and convergence/divergence in advanced capitalism (Hollingsworth and Boyer eds., 1997; Hollingsworth et. al. 1996; Berger and Dore 1996; Campbell et. al. eds, 1991). In contrast to neoclassical or neoliberal tenets, the embeddedness perspective depicts many of the ostensibly price-governed interactions of putatively atomized economic agents as nested in broader sets of motivations, understandings, and rules of the game that come from relations in society and the non- or extra-economic dimensions of individual transactions and exchanges of resources. These social relations are constitutive of economic transactions, creating and reproducing over time norms of conflict, competition, and cooperation that help determine where exchanges and encounters occur (and do not occur), to whose gain and whose loss, and with what frequency and continuity. Among the different sources of embedded transactions are the formal rules and regulations of states (a “macro” level); the decision rules established by associations, cartels, and other economic organizations (a “meso” level); and informal ties bred among agents through schooling, ethnicity and kinship, or iterative, face-to-face exchanges (a “micro” level).

Empirical examples of socially embedded economic exchanges abound in the recent literature regarding a wide range of economic phenomena. Thus, students of labor markets have found that individuals often find jobs through complex networks ultimately tapping “friends of friends” or “colleagues of colleagues” that they activate in their job searches (Granovetter 1974). Meanwhile, scholars of mechanisms of coordination or “governance” have argued that client and supplier firms exchanging components or other inputs in many cases maintain long-term, trust-based relationships—so-called “relational” or “obligational contracting”—in which pricing and other aspects are handled through collaboration and negotiation rather than “arms’ length” bidding relationships or an extensive reliance on contracts (e.g., Cambell et. al., eds. 1991, Hollingsworth et. al eds.1994). Evans (1996) has used embeddedness to understand the relations between policy makers and business elites in developmental states. Other examples from a now voluminous literature could be cited in
areas such as corporate governance, industrial-financial linkages, and industrial clusters and districts.

Much analytic leverage may be gained, I argue, by extending a similar reasoning and an explicit embeddedness framework to the study of employee relations in contemporary workplace transformation. In mass-production industries practicing Taylorist separation of manual and intellectual labor and an elaborate functional division of labor, such as autos, a hierarchical type of embeddedness prevailed historically. During this period, whose heyday ran from roughly the Great Depression of the 1930s through the onset of international economic crisis in the 1970s, employers and workers interacted under a set of formal, contractual relations structured by the vertical layers of decision-making and implementation of the firm. Relations of authority that rigidly separated control and supervision of production from its execution, and structured the employment trajectories of individual workers based on seniority principles, were the hallmark of Taylorist employment and work organization. However, the rigid, bureaucratic structure of workplace interaction proved ill suited to the greater agility, shorter production runs, and increased need for multi-tasking, mutual cooperation, and contribution of tacit knowledge from workers under the flexible/lean paradigm. The characteristic modes of embeddedness of employment and work under emerging flexibility privilege coordination of decentralized units and actors over managerial command and control, while by no means abolishing fundamental power and authority asymmetries. However, these networks are not limited to the actual organization of production or of career ladders in firms, but rather also encompass new formal and informal norms governing how workers interact with managers and with each other and how they relate to the firm. These networks, I argue, can take the two quite distinct forms of negotiated, consensus-oriented collective embedding or management-driven individual embedding.

Whether hierarchies or emerging worker-manager networks actually prevail on any given shop floor, the workplace relationship between laborers and managers is always enmeshed within larger ties extending outside it, both within and between the respective spheres of business and labor organizations. But, I argue, exactly how any particular factory’s relations are enmeshed, how centrally located its labor and management actors are, what density and closeness characterizes these networks, all of these crucial aspects are subject to variation both over time and, at any given point in time, from plant to plant. This plant-centric, network-based explanatory framework challenges the limitations of conventional alternative approaches emphasizing the causal primacy and sufficiency of, respectively, national labor institutions and politics and of company strategy and culture. These latter factors set only the broad context, and more or less wide constraints and opportunities, for the struggle over embedding of flexibility at any given brownfield factory. Their importance, however, is magnified in the case of newly established greenfield factories.

Linked to but distinct from embeddedness notions, network theory highlights the ways in which social actors interact with each other in regularized, structured fashion. Actors are constituted, exchange resources, and attach symbolic and material meanings and values to themselves and others in a socially constructed, interactive process—quite unlike the atomistic agent of methodologically individualist conceptions who is assumed to be “pre-formed” outside of social relations and autonomous in her preference formation. Network analysts consider that series of encounters between given dyadic pairs and within broader sets
of interconnected actors constitute relationships between and among these actors that they term “social ties” (or “links” or “bonds”). They are particularly interested in the character of ties between pairs of actors (dyads)—the frequency of encounters, the extent to which bilateral exchanges (cooperation, transactions, etc.) occur, the affective “charge” or “valence” of the relationship, and the degree of trust. To the extent that a particular dyadic link involves frequent encounters and considerable two-way exchange involving mutual trust and a strong mutual valuation of the importance of these relations, it will be referred to in this study as “close.” To the extent that it lacks these attributes, the tie will be characterized as “distant.”

Another property of social relations highlighted by network analysts is the way in which dyadic pairs adumbrate into larger multi-actor social structures of interlocking ties characterized by particular network configurations. I will highlight one aspect of these configurations, which is their relative density or sparsity. Another important property of networks, from an actor’s point of view, is his network position—that is, the extent to which it is central or peripheral to the structure in question. All three of these attributes of network ties and structures—closeness, density, position—are crucial for this theoretical strand, and for the present study, in shaping how actors are formed and conceive of their identity and interests; how they perceive others; how (and whether) they learn as they encounter new stimuli; what resources (information, capital, manpower, etc.) they brandish; and what means of exchange and interaction they engage in.

CONTRASTING STORIES OF PLANT-LEVEL CHANGE: “BROWNFIELD” RESTRUCTURING

The text is organized around four plant stories of emergent work flexibility. These stories, set into broader comparative perspective, are used to develop the contrasting ideal types of collective and individual embedding, and the two subtypes of the latter, as well as subsequently to develop the network-based explanation for these contrasting embedding trajectories. The first story is that of the American-owned “Reliable Motor Company” factory located in São Bernardo do Campo in greater São Paulo’s ABC region, Brazil’s industrial heartland. Built and conceived under a protectionist, import-substitution policy regime and the traditional hierarchical concept of vertical (“in house”) integration of production, the plant was Brazil’s second largest auto assembly plant for the period from the mid-1970s onward. Like other plants in what was widely regarded as an organizationally and technologically backward national industry, the Reliable factory in São Bernardo faced in the first half of the 1990s a series of jolts and prods that led it accelerate the slow pace of technological and organizational modernization that had characterized most of the country’s auto industry throughout the 1980s. First, the sudden liberalization of Brazil’s automobile import tariffs and a sharp 1990-91 downturn in domestic demand forced Reliable and other companies to scramble for survival early in the decade. Then toward the middle of the decade demand revived and subsequently boomed, and Brazil and the newly formed South American Common Market suddenly loomed as a large potential growth market. A huge wave of foreign direct investment ensued involving not only existing multinational auto manufacturers but also a half dozen new ones. Existing plants such as Reliable/São Bernardo, as well as

---

3 For reasons that will be elaborated below, I have chosen not to adopt the popular “strong” versus “weak” ties formulation, even though it is ostensibly based on a quite similar dichotomous formulation.
new ones that began sprouting up in the second half of the decade in “greenfield” interior locations, suddenly were thrust not only into a fierce struggle for market share within Brazil; they also increasingly became export platforms for small- and medium-size vehicles and pieces in complex emerging intra-firm divisions of labor linking that country and Argentina and in turn tied into larger global strategies by parent firms in Europe, the U.S., and Asia. In short, the winds of globalized trade, investment, and finance patterns, held back somewhat by Brazil’s “late” embrace of liberalization, hit the Reliable factory and the larger Brazilian auto industry with gale force speed.

Amidst these winds of change, the Reliable/São Bernardo plant experienced decisive breakthroughs toward higher levels of labor flexibility in the 1992-1995 period. The job classification hierarchy was flattened and reforms such as extensive multi-tasking, merit pay, and a flexible workweek adjustable to demand conditions were all introduced. Even amidst considerable bilateral conflict, these contentious reforms ended up being achieved consensually through a series of formal and informal agreements negotiated by the firm, the Metalworkers’ Union of the Greater ABC Region, and the worker-elected plant-level works council (comissão de fábrica); union proposals actually formed the basis for many negotiated changes. These developments seemed unlikely, given the sharply antagonistic relationship that had prevailed going back to the late 1970s at this and other São Bernardo plants. During the late 1970s and on through the eighties, a militant movement known as the “new unionism” confronted recalcitrant managers against the backdrop of larger national struggles over democratization and the debt crisis. Returning to the 1990s, these workplace reforms in the first half of the decade--together with other deals involving, for instance, subjecting outsourcing decisions to consultation and relocating redundant workers into non-production jobs previously outside union representation--enabled both sides to achieve important goals. That is, the plant’s productivity and quality standards were enhanced significantly at the same time that job loss was stemmed, pay levels and working conditions increased significantly, and the works council’s participation in decisions on work organization was enhanced measurably. The study presents evidence of similar negotiated restructuring trajectories at a majority of Brazil’s brownfields during the same time period, some U.S. brownfields during the eighties and nineties, and--though the picture is less conclusive--at one Mexican brownfield.

At Reliable, collective worker voice exercised through legitimate, autonomous worker representatives shaped the terms, pace, and content of flexibility along rule-bound, consensual lines. Managers’ newfound freedom to give more tasks to workers, adjust work hours to shifts in demand, or transfer them to other posts was conditioned and circumscribed by a combination of specific prescriptive and proscriptive rules and by a mutually recognized norm of negotiating all important changes in employment and work practices. Distinct objectives, and inevitable conflicts, characterized this bilateral cooperation, hence the borrowed term “conflictual cooperation” (Streeck 1991, Rodrigues 1997, Cardoso and Comin 1993). Unionists continued to mount collective actions but implicitly observed restraint in the methods and timing, careful to use stoppages and protests primarily as a calibrated instrument in the service of negotiating objectives and the enforcement of agreements.

My intensive fieldwork reveals that several aspects of the pre-existing social ties within and surrounding plants such as Reliable/São Bernardo in Brazil were crucial in shaping collective embedding of flexibility: (1) close but non-dependent links between management...
and an internally democratic and close-knit network of unionists, workers councilors, and other plant activists; (2) close outward links by unionists to supportive social movement, NGO, political party, and international union allies; and (3) close inter-firm linkages joining most of the country’s São Paulo-based foreign affiliates as well as the relative autonomy of the “Brazilianized” subsidiary management from corporative head offices at most firms. Contrasts across the three countries along all three variables account for the more widespread character of collective embedding in Brazilian brownfields as compared to their counterparts in Mexico and the United States.

My second case study takes the discussion of established production sites to central Mexico and elaborates the ideal type of individual embedding of work flexibility. Here the Mexican subsidiary of the German manufacturer that I call “Common Motor Company” set up an assembly plant in a traditional industrial city and under similar patterns of economic organization to that of Reliable of São Bernardo in Brazil—namely, protectionism, import-substitution, and vertical integration. For several decades, this central Mexican factory had been not only Mexico’s largest auto assembly plant but also its largest manufacturing facility of any type. While compared to the South American country, Mexico experienced (and embraced) the forces of globalization sooner, Common was initially slow and clumsy to react on the organizational and labor front relative to other firms with operations in that country. But when it did, in 1992, it acted with a vengeance, abruptly thrusting its work force into conditions of high flexibility through coercive measures.

A combination of international and domestic factors led to a rapid integration of Mexico’s auto industry into globalized patterns of trade, investment, and sourcing starting in the early 1980s. They included the government’s embrace of liberalization and market reform; its export promotion regime for the auto sector; the rise of fierce competition for market share within the neighboring U.S. between Japanese, American, and European companies; and the brief but ill-fated embrace of “world car” strategies by global auto manufacturers. The conjunction of the latter two developments in the global industry with the rapid growth of Mexico’s export processing plants under the Border Industrialization Program and the extension of its duty-free import provisions to all parts of Mexico suddenly made the U.S. southern neighbor a very attractive location for export-oriented, higher-value-added manufacturing facilities like auto assembly plants. Unlike all of its rivals operating in Mexico, however, Common opted in the eighties not to open new greenfield facilities in lower-cost locations in northern or north-central Mexico, instead choosing to expand and upgrade its existing plant in the country’s traditional auto manufacturing zone in central Mexico. In effect, it started to graft a few ultra-modern, high-tech facilities onto the existing, and by that time technologically backward, structures of the existing site—much as Reliable of Brazil had done at São Bernardo going back to the early eighties and on through the nineties. Common also set up a suppliers’ park next door to encourage key auto parts firms to integrate more closely on “just in time” delivery lines.

From the mid-1980s through 1991, Common was able only to chip away at the margins of the structured, protective Taylorist system of work organization. Workers steeped in its job protections and restrictive work rules, strong shop stewards, and a militant union leadership together prevented major restructuring inroads. The decisive breakthrough to flexibility took place in mid-1991 when—taking advantage of a wildcat strike and post-electoral split within the union—the company locked out workers, appealed successfully to
federal labor authorities to annul the existing collective bargaining contract, and effectively engineered an organizational coup to prop up a conciliatory, company-dominated union leadership that had been repudiated by its base. These coercive measures enabled Common to execute a massive workforce reduction and impose a radically new collective bargain that enshrined teamwork, internal labor mobility, and more performance-based pay and promotions on its own terms, as well as to gut the powerful shop steward system. The company also pushed for a reform of union statutes, designed to guarantee the permanence of a quiescent leadership that would legitimize management dominance of workplace organization and concern itself only with “bread and butter” issues.

The outcome of these changes was a highly flexible labor system. Emulating to some extent practices pioneered in Japanese manufacturing and then adopted selectively by various Western firms, Common set out after the events of 1992 to inculcate in its workers a sense of worker commitment to improving production and loyalty to the enterprise. Its campaign was based on a set of material incentives, institutional mechanisms, and symbols of more “transparent” and “open” management. Among restructuring (and surviving) brownfields, I find evidence of such unilateral work reorganization at all but one factory in Mexico, many of the restructured U.S. plants, and a significant minority of Brazilian sites. The concept of individual embedding is centered on a personalized bond between the individual worker and the firm, with little or no collective worker voice and instead management determination and control of the shape, content, and pace of reorganization. This individualized bond between the worker and the firm is bereft of any meaningful collective voice but characterized by significant if asymmetrical channels through which he or she participates in the life of the workplace. These features make it distinct from what might be called the “disembedded” image, presented by what I will call below the “neo-despotism” perspective, of plants run under the economic whip of the market and backed by the implicit or explicit coercive force of states and employers. Such an image, however accurate for perhaps characterizing some export-oriented, labor-intensive light manufacturing plants in Third World export zones and immigrant-based sweatshops in some First World inner cities, is misleading for studying auto assembly plants and, by extension, other high value-added, technology-intensive industrial operations.

Individual embedding is found, however, to be characterized by two distinct subtypes, which mostly fall on the respective sides of the greenfield/brownfield distinction. At Common and all the other Mexican brownfields marked by this embeddedness pattern, as well as at all of the established Brazilian and U.S. plants in this category, management maintained existing bargaining mechanisms with unionists over circumscribed (mostly bread and butter) issues even while seeking to individualize work and employment relationships with the work force. I call this subtype “structured” individual embedding, or “structured individualism” for short. The term highlights the important mediating and regularizing role played by such channels and intermediaries in shaping and reinforcing the link between individual worker and firm.

Among established factories like Common, individual embedding emerged where two network-structural conditions held—namely, social ties between labor and management were distant (or close but dependent) in the pre-flexibility period, and the respective actors’ ties within the unionist and business spheres created disincentives and barriers to the pursuit of negotiated alternatives. Where they prevailed, adversarial, low-trust links encouraged
instrumental communication and unilateral behavior on both sides as the challenge of flexibility came to the fore. A dynamic of imposition and resistance typically developed in which capital’s structural advantages (and larger economic conditions) carried the day. On the other hand, at plants with close but dependent links tying unionists asymmetrically to management (and resting on distant, non-democratic ties to rank and file) a smoother individual embedding trajectory based on conciliation ensued. This was the case of two of the four Brazilian brownfields in the individual embedding category (G.M./São Caetano and Fiat), as well as of those established factories in Mexico that were dominated by unions from one of the official, ruling party-linked labor confederations. As the latter examples attest, distant or dependent ties to management were reproduced and reinforced at such factories by the nature of outward ties to labor organizations. Existing behavioral patterns and action repertoires were cemented and “frozen” by these outward network linkages at a critical juncture at which local unionists most needed to experiment with creatively militant strategies. Moreover, relational patterns within and among firms that encouraged confrontational plant restructuring strategies centered on rapid reduction of labor costs and isolation or submission of worker representatives.

FLEXIBLE WORK AT “GREENFIELD” PRODUCTION SITES

The third and fourth stories around which this analytical narrative is woven take us to the southeastern United States, and to two German-owned greenfield production sites set up by the other two firms from that country’s own “Big Three” automakers—“Regional Motors” and “Grand Motors.” In response to heightened competitive challenges in Europe and in other world markets, in the nineties each of the two companies embarked on aggressive campaigns to develop more global production and commercial strategies and networks. As part of these campaigns, the traditional German rivals opened their first U.S. car plants ever (and Regional its first true assembly facility outside Europe) in 1995 and 1997, respectively. Like nearly all greenfield plants, in automobiles as well as many other sectors of contemporary global production, the Regional and Grand factories were, to borrow a phrase coined by De la Garza (1992) in the Mexican greenfield context, “born flexible.” Young, industrially inexperienced workforces were carefully recruited and exhaustively trained to perform multiple tasks in a team-based form of work organization. Job classifications were few and extremely broad, and promotions and pay were linked to individual worker performance and collective factory productivity and quality. Both plants were constituted as non-union shops, taking advantage of local regulatory, economic, and political climates and traditions in this pair of Southern states that were decidedly hostile to unions. Within the broader context of the U.S. automobile industry, the two plants were part of a second generation of investment in greenfield production sites, whose predecessors were a series of Japanese “transplants” and Japanese-American joint ventures set up in the late seventies and eighties and a more limited number of new Ford, Chrysler, and G.M. facilities.

Like Common in Mexico, the Regional and Grand cases provide yet another illustration of a dynamic of flexible work organization centered on individual embeddedness. But at such greenfields, newly hired autoworkers without any automotive, union, or even (in many cases) industrial experience were carefully screened, trained, and socialized from the outset with an eye toward ensuring an active contributory role and commitment to flexible work arrangements. Indeed, this was the embeddedness pattern at all the greenfields built in
all three countries for which evidence could be found. Thus, to the label “born flexible” could be added that of “born individualized.” For instance, similar to the Common of Mexico case, worker teams at the two U.S. plants --usually a key institution in flexible workplace restructuring-- operated not as autonomous, self-chosen units of decision-making and representation (as they did at those collectively embedded plants practicing the team concept). Instead, more in keeping with the original Japanese model, teams were management-selected and -controlled mechanisms for organizing multi-tasking and rotation, pressuring for faster work rhythms, and encouraging competition and self-policing of workers in the pursuit of more onerous work standards and practices. However, given the complete absence of recognized, legitimate worker representatives at these firmly non-union shops where UAW activists and even logos were banned, the Regional and Grand U.S. cases are illustrative of a dispersed individualized embeddedness, marked by the completing absence of formal channels for articulation of worker interests. Breaking even more radically than structured individualism with the mass production-era legacies of collective bargaining and contractualism, dispersed individualism entails an even more fragmented pattern of employer control over workers than structured individualism. Status-based hierarchies of skill and titles are completed replaced by broad, horizontal classifications and worker/supervisor, white-collar/blue-collar divisions are formally blurred, as a broad, horizontally defined mass of so-called “associates” and “team members”--to use the standard industry lexicon—is defined by managerial fiat. Both through institutionalized practices of “involvement” and “participation” and symbolic imagery, teamwork under individual embeddedness is not just a strategically concentrated, operationally decentralized principle of work organization. It is also a powerful metaphor for a system in which “the team” with whom the worker is asked to identify and to which she is asked to commit is the larger collectivity defined by the factory and the corporation; under such a work system, individual performance evaluations and extensive peer pressure over discipline, attendance, and work ethic are used as tools to induce worker effort and proactive commitment. In sum, managers at factories like Grand and Regional’s new U.S. sites made careful, systematic efforts to try to undercut potential sources of collective identity--the work group, union membership, skill, race, ethnicity, gender, blue-collar status. The purpose was to ensure active worker commitment to continuous productivity and quality enhancements, and to undercut potential obstacles to strategic managerial control.

Individual embedding is found to be nearly universally characteristics of newly minted greenfields in this study. It is, I argue, “structurally overdetermined” by the brutal combination of heightened speed of capital mobility (even in the unusually “heavy,” place-bound auto industry) and pro-business national and local climates of investment attraction and economic regulation. To put this argument into network terms, I argue, greenfields emerge immersed in local, extra-workplace networks that make their highly asymmetrical shop floor and employment relationships a more or less direct extension of highly stratified and elite-dominated local political economies.

Nonetheless, important international and cross-plant divergences appear upon closer examination. First, structured individualism was fostered and perpetuated in Brazil and Mexico by corporatist national institutions and legacies that facilitate “company unions” at new sites and discourage non-union shops (e.g., Erickson and Middlebrook 1982). In contrast, the U.S. national union recognition system, together with the informal character of national bargaining institutions and of automaker organization, paved the way for a successful
greenfield strategy by new entrant companies unconstrained by these institutions. Moreover, the study does find some evidence of medium-term “drift” from uniform individual embeddedness across greenfields. Individual embedding experienced a rocky consolidation at a Ford and a General Motors plant in northern Mexico, and potentially such a scenario is emerging at Grand and at a greenfield Volkswagen site in Brazil. In addition, individual embedding gave way to a transformation toward collective embedding as an independent, forceful worker leadership and extensive conflict result in a negotiated restructuring dynamic at Ford-Mazda and G.M.-Hamtramck in the United States. Key variables in shaping the medium- to long-term embedding dynamics of greenfields again relate to network connections: workers’ and their leaders’ ties to supportive community activists or labor leaders on the national or international scene, and management’s to upper corporate echelons and to its anti-union, pro-investment allies at the subnational elite level. Here again, I find not just cross-national differences in the structuring of local-national connections but also salient differences in the socio-political fabric of locales—for example, in whether there is any union or industrial tradition to build on in the region, whether national organizations have local activist branches or networks, and, not least of all, the degree of strength of anti-union coalitions linking automakers to other businesses, government officials, and other local elites. These variables helped determine whether the potential flash points in greenfield embedding, related to movement through a plant’s life cycle from greenfield through “consolidation” and into “maturity,” resulted in any wider ramifications in terms of incipient worker discontent and everyday acts of resistance. Several factors, the study finds, may lead to the emergence of conflict in maturing greenfields, particularly as the “honeymoon period” fades and growing pains set in. They include pay gaps vis-à-vis plants in other regions of the country; the reaching of promotions ceilings; lack of remuneration for de facto skills differentials; tightening local labor markets (due to expansion and agglomeration effects); work intensification (and resultant injuries); and supervisor abuses.

LIMITATIONS OF ALTERNATIVE PERSPECTIVES

Conventional explanatory and normative perspectives on work restructuring are inadequate or misleading for the study of emergent work flexibility in the auto industry of the Americas. They center on national institutions of economic and labor organization, or company strategies, “cultures,” and structures (or in some cases, the interplay between the two; e.g., MacDuffie 1995). Above all, these two dominant perspectives cannot, either individually or jointly, account for the patchwork pattern of cross-national, intra-national, and in some cases intra-firm contrasts in embedding trajectories underlined by this study. National institutionalist approaches, emphasizing the key role of national and national-sectoral institutions and their legacies in refracting and mediating the impact of global competition and diffusion of international best practice, rightly point us toward the past’s impact on the paths taken to the present (Thelen 1991, Turner 1991, Golden and Pontusson eds. 1992, Berger and Dore eds. 1996, Hollingsworth et. al. eds., 1996, Erickson 1982, Collier 1982). Yet they conceive of legacies through the overly narrow prism of formal institutions and unified national systems (Locke 1995), reducing restructuring trends at the meso or micro level to a microcosm or derivative of national trends or struggles among organized class actors and states. There is, this study demonstrates, much more autonomous play of social forces at the plant, sectorial, and subnational levels than this perspective allows, at least in the more diverse and heterogeneous nation-states in question and during a period marked by
economic globalization and less unified—and uniform—national “system” of labor and industrial regulation and conflict. Within the parameters of national institutions, actors, and struggles, individual plants establish and reproduce over time their own distinct legacies of labor-management relations that are best understood as such (sets of formal and informal norms), rather than simply as artifacts of encompassing contemporary or pre-existing formal-legal institutions. However, at newly minted greenfield plants these national institutions—including the investment attraction regime, a subject not given much attention in these studies—do have a large, disproportionate impact in shaping embedding patterns.

For their part, perspectives on plant restructuring centered on the particular competitive strategies and cultures of individual corporations (e.g., Womack et. al. 1990, Samuels 1990) similarly provide useful guidance but not definitive explanations. Global firms and national subsidiaries do have distinct strategies and objectives as well as, in many case, differing approaches to the content and corporate structure of human resource management. Yet these differences frequently give way to pragmatic responses to local opportunities and seldom are translated neatly into plant-level outcomes. Moreover, intra-firm differences, or individual plant drift from larger company patterns, are often the product of the “relational push and pull” between managers and their workers and unions with whom they interact in distinct settings. Company policy, particularly within firms that have generally decentralized (or deconcentrated) decision-making as they have become more global, should thus not be seen a priori as an autonomous, self-contained process. The study finds that individual units of a TNC often behaved differently depending on the relational setting, as when Reliable plants were marked by individual embedding at its Mexican factories, collective embedding at its main Brazilian brownfield, and a mix of both across its U.S. facilities. Moreover, individual companies were influenced heavily by their internal structure and external links with competitors, both of which shaped plant-level human resource practices as much as their “grand strategies” for productive and human resources restructuring.

The convergence hypothesis within globalization studies (Ohmae 1991, Strange 1997, and Berger and Dore eds.1996), and especially studies of global auto firms (Womack et. al. 1990), has some resonance with the elective affinity found in this study between greenfield status and initial individual embedding. Yet this hypothesis still remains under-specified, where it is not outright misleading, as an explanatory tool. The causal mechanisms accounting for increased homogeneity among employment practices across territorial spaces—demonstration effects and learning?, power relations?, competition-driven efficiency?, technology?—are unclear or unproven in these formulations. This study finds only a limited, or “soft,” convergence among greenfields, and demonstrates that it is driven by the marriage between structural and regulatory conditions at the national and subnational levels that favor spatial relocation of production and companies’ desire for a “blank slate” on which to mold new laborers unilaterally to the demands of flexibility and to pursue the spatial production and sourcing arrangements most conducive to flexibility. But contrary to convergence assumptions, the study concludes that greenfields may take divergent medium- to long-term paths depending on unfolding relational dynamics inside and outside factory walls. Also, among established factories, I underline the bifurcation between individual and collective embedding trajectories within this globally integrated industry—a bifurcation within companies, and even within nation-states and given subnational regions. Such patterns of bifurcation, running across the Rio Grande fault line of power in the political economy of the
Americas, also run contrary to arguments about the determination of employment and work relations by the mode of national insertion into the global economy (e.g., based on exports versus import substitution; cf. Kuruvilla 1995, Deyo 1987). In general, this study finds a continued “friction” of place and social relations within ostensibly totallizing and homogenizing processes of globalization and flexible production, as have some other careful, comparative empirical studies of the global auto industry (e.g., Deyo, ed. 1996, Kochan et. al. 1987) and other industries (Frenkel 1994).

Finally, neither the normative assertions nor the implicit causal assumptions of the mirror-image “emancipation of work” and “neo-despotism” viewpoints are borne out by the study. The former fail to look beyond the well-documented productivity and quality advantages of flexible/lean work and production—flexibility as economic transaction—to its social dimensions and overtones as a concrete relation among human beings and organizations—flexibility as social relation. Or, alternatively, they mischaracterize this relationship in empirical studies, exalting the very narrow and circumscribed shopfloor participation of management-dominated teamwork systems. Critics of new forms of despotism rightly point to downsides of heightened exploitation—increased workloads and stress, repetitive-motion injuries, managerial abuses, and the like—that have been underlined particularly strongly by empirical studies of the auto industry (e.g., Babson ed. 1995, Juárez and Babson eds. 1999). But they fail to appreciate the contingent nature of these ills, or some of the hidden benefits for workers—like improved job tenure and ergonomic and job satisfaction improvements deriving from active task rotation—that often accompany them even where they are manifest. More fundamentally, those who focus on the despotic essence of flexibility correctly perceive the socially embedded dimensions of flexible work and employment, yet they mischaracterize these micro-relations as simple, unproblematic microcosms or extrapolations of larger political and/or class relations. They also conceive of workplace relations through the narrow, essentializing prism of the reproduction of the larger capitalist order, thus missing important variations in embedding across workplaces that actually have tangible, variable impacts on worker rights and empowerment within the capitalist order.

In other words, what is absent from neo-despotic formulations, as well as the other perspectives outlined above, is the “play” of local social forces. In directing attention “outward” and “upward” away from the workplace and toward larger national and global institutions and struggles as the motor and steering wheel of all workplace change, this perspective—like, in their own way, convergence and national labor systems perspectives—fails to appreciate the strange mixture of stubborn defense of localism and of bold experimentation that characterize the reorganizing (and reorganized) factories of this study. Both this defense and this experimentation flourish, this study finds, as workers, unionists, and managers encounter the would-be homogenization of the narrow global templates of “teamwork,” “continuous improvement,” “Just in Time,” and the like. As a guide for progressive strategy, moreover, the mechanistic emphasis on macro-level determinants of micro-level workplace change deriving from national class politics and global economic formations leads in practice to defeatism and immobilism in the face of concrete opportunities

4 The strongest statement is Womack et. al. (199), who laud the benefits of “lean production” for workers. But see also Adler (1995, 1999) and MacDuffie (1995).

for meaningful reform offered by the new order’s dependence on active, sustained worker commitment—and its vulnerability to the withdrawal of that commitment.

The study highlights stubborn, prosaic elements of workplace change that defy easy normative claims. On balance, I demonstrate, collective embedding is clearly preferable to individual embedding from the point of view of worker voice and of improvement in worker autonomy and “livability” of the workplace. This conclusion underlines the guarded, empirically derived optimism of some observers regarding the existence of equally competitive and efficient work system alternatives to management-dominated “lean production” that are consistent with flexibility while being more humane and “worker-centered” (e.g., Turner and Auer 1996, Babson 1995, Kaminiski 1999). Yet, there do seem to be some intractable problems within the flexible/lean production paradigm, closely associated with work flexibility, like limits on the reduction of work cycles and on the extent of re-integration of conception and execution within an assembly line framework. Outsourcing of the more labor-intensive, “sweated” aspects of the production process to parts makers, and the consolidation of a “core-periphery” segmentation within automotive production chains, can sometimes be an inadvertent concomitant of collective embedding in assembly factories at the top of the chain in instance where unions ignore the parts segment. Moreover, the continuous pursuit of conflictual cooperation by unionists entails a delicate balancing act between heightened technical and negotiating expertise and continued militancy and mobilization of worker support that is difficult—though by no means impossible—to sustain over time, especially when economic crises place progressive unionists on the defensive.

On the other side of the equation, seamless managerial domination of workplace flexibility is complicated in such advanced manufacturing settings as auto assembly plants by the high dependence of the new workplace order on active worker commitment. Thus, managers’ repertoire of means to promote commitment (now as important as the former chief objective of control) necessarily comes to be weighted more heavily toward symbolic and procedural mechanisms of “open management” and toward material incentives and socialization processes, and less toward explicitly heavy-handed and coercive elements. However, the symbols and rhetoric of horizontality and cooperation articulated by management, when not accompanied by some genuine decentralization of decision-making to the shop floor, may well prove on some occasions to be boomerangs. Complacent managers may “overplay their hand” under individual embedding. As workers “see through” the ruse of bottom-up participation and/or simply take management’s discourse and promises of empowerment at face value, they may become discontent and even mobilized into action. In sum, the shift in the content and mechanisms of managerial schemes to control and harness labor power that accompanies the flexible revolution in high value-added, technology-intensive sectors like auto assembly is both more potentially insidious from the larger perspective of restructuring of capitalist domination and more potentially vulnerable to worker apathy and discontent. These two contradictory tendencies within emergent flexibility co-exist uneasily in the contemporary auto industry of the Americas, and are likely to continue to do so for the foreseeable future. The stubborn specificities and contingencies of historically bound places and countervailing social forces continue to assert themselves in the face of an increasingly globalized sector and newly hegemonic managerial workplace designs within management doctrines that cannot easily erase them.
HISTORICAL BACKGROUND AND KEY CONCEPTS

Globalization and flexibility are important, contested concepts which need to be carefully defined to be useful for empirical research. One insightful observer has characterized globalization “as the most overused and underspecified concept in the contemporary social sciences.”\(^6\) For purposes of this study, globalization of the international political economy refers to the heightened volume and pace of cross-border flows of investment (direct and portfolio) and of trade in goods and services, or expanded capital mobility and trade, for short.\(^7\) In terms of the international auto industry, globalization signifies increasing cross-border integration in the production, input procurement, organizational, managerial, financial, and distribution networks of the transnational corporations (TNCs) that dominate the industry. Clearly, there has been a mutually reinforcing relationship between these broader changes in the world economy and industry-specific changes. Indeed, the auto sector was among the pioneers in the formation of the burgeoning economic phenomenon of cross-border production, sourcing, and distribution networks long before Gereffi and others termed the coin “global commodity chains,”\(^8\) or globalization became a watchword of public and scholarly discourse.

A brief digression on the nature of globalization in the auto industry, and of its close connection with flexibility, is in order. Automobile TNCs were, of course, among the leading firms in the rise of the spread of the multinational form of international business organization to developing countries in the post-World War II period (Bennett and Sharpe 1985, Humphrey 1982, Roxborough 1984, Shapiro 1994). Nonetheless, and paradoxically, they largely remained “national champions” still tied overwhelmingly to their home or—in Europe—world-regional markets. Their production and sales abroad were adjuncts that were usually specifically adapted from home country designs and technology through what might be called “local models, produced locally, for local (and protected) markets.” Since the 1970s, auto TNCs have taken on a more truly “transnational” or “global” dimension through a myriad of changes that--primarily by way of a number of notable watchwords--are familiar to even the casual observer of contemporary international business trends. Among these have been increased investments and corporate revenue shares tied to developing and post-socialist economies (“emerging markets”); the development of fewer, more standardized international vehicle platforms (the ill-named “world cars”); greater emphasis on imports and exports of components and finished vehicles within assembly firms and between them and components concerns (“global sourcing” and “export platforms”); the tapping of equity and currency markets in multiple countries to mobilize and manage corporate financial resources; and greater international exchange and rotation of upper and middle managerial and technical staff across international locations.

Highlighting an important larger shift in the strategies of many directly investing TNCs in developing countries, UNCTAD (1994) has spoken of “complex integration” as a new or distinctive step in recent times in the form of insertion of developing countries into certain global industries. They contrast complex integration with alternative, and previously

---

6 Remarks by Prof. Richard Higgott, Director of the Centre for the Study of Globalisation and Regionalisation at Warwick University, during the panel discussion on “Justice in the Global Economy,” Carnegie Council on Ethics and International Affairs, New York City, June 9, 1999.

7 This usage is broadly consistent with, for instance, Sassen (1998) and Berger and Dore eds. (1996).

overwhelmingly predominant, patterns such as local production for local markets or off-shore assembly-for-export platforms. Shaiken (1990, 1995) has noted, using the specific example of Mexican greenfields, the novel development of growing “advanced manufacturing” in developing countries, previously thought to be capable only of inefficient import substitution or “screwdriver” assembly for export. Under such emerging patterns in sectors as diverse as auto assembly, auto parts, and software engineering, middle-income developing countries become sites for increasingly complex, value-added, and technology-intensive manufacturing (and in some cases even design) operations. This emerging phenomenon is crucial for the present study, and owes much to the fact that some developing countries (and post-socialist ones as well) offer a virtuous combination of skilled, underemployed workers and professionals, lower labor costs, infrastructure subsidies, and labor and business regulatory advantages.

A key concomitant of expanded global production and integration has been shifts in production models beyond mass production-era reliance on long production runs, vertical integration of production processes, and buffers like high inventory and substantial worker idle time. As has been widely noted and discussed (Womack et. al. eds. 1990; Babson ed. 1995; Kenney and Florida 1993; Liker et. al. eds. 1999), the manufacturing system pioneered by Japanese automobile firms in the sixties and seventies was particularly influential in shaping the global restructuring and expansion of European and U.S. competitors such as Reliable, Common, Regional, and Grand from the eighties onward. Variously referred to as “Toyotaism” or “lean production,” this system entailed (at least in its heyday) a particular form of work flexibility centered on the following: broad job classifications; extensive worker participation in production through teams, quality circles, and other mechanisms; a strong paternalistic link to the firm cemented by lifetime job security; and remuneration and promotion systems that reward commitment, cooperative problem solving, and the continuous mastering of new tasks. Important aspects of this model were selectively emulated and adapted by European and U.S. competitors beginning in the 1980s (Kenney and Florida 1993, Liker, et. al. eds., 1999, Streeck 1996), including aspects of work flexibility.

This study adopts a broad, open-ended concept of work flexibility. While popularized by “lean production” and by Piore and Sabel’s (1986) discussion of “flexible specialization” as a small firm-based production system, the notion of work and employment flexibility is properly understood as something that is connected to, but analytically separable, from production system flexibility and that is not reducible to any of the particular and competing concepts used to analyze new production systems. For instance, many observers have noted the fact that Fordist-Taylorist mass production itself exhibited contrasts between (1) “external rigidity” (in hiring and firing) combined with “internal flexibility” (in worker redeployment) in Northern Europe and (2) and “internal rigidity” (job control) combined with “external flexibility” (ease of hiring and firing) in the United States (Streeck 1991, Thelen, 1991, Turner, 1991). What, I argue, conceptually binds together the variants of flexibility in the production systems debate is a general movement from rigidity toward variability that takes place along several or all of the four dimensions: (1) employment (labor markets); (2) work content; (3) remuneration, and (4) working time. Flexibility in employment refers to a loosening of the conditions under which workers may be hired and/or fired (the aforementioned “external” aspect) and those under which they may be transferred, promoted, downgraded, and re-deployed within the productive unit or firm (i.e., the “internal” aspect). Usually, this loosening is associated with a greater emphasis on performance and productivity
criteria (measured aggregately or individually), and a lessened emphasis on skill categories and seniority criteria. Flexibility in work content, a second dimension of “flexibilización” (as Latin American observers characterize this larger process), means increased breadth and variations in the nature of work. Examples of measures that increase the flexibility of work content are the broadening or elimination of job descriptions and categories; “multi-tasking” practices that require laborers to engage in several tasks at once (such as operating more than one machine, or performing maintenance and quality monitoring in addition to production tasks); “polyvalent” work schemes that obligate the operative to master different sets of tasks and to rotate frequently and routinely them; and “teamwork” systems in which groups of workers are asked to jointly execute given tasks and goals (and in some cases conceive them) on an ongoing, continuous basis. A third dimension of the study’s conception of work flexibility is flexibility of remuneration. Performance-oriented pay (especially under so-called “pay for knowledge” systems), in which pay packages are made more contingent upon mastery of task and other aspects of individual performance, is a major reform here. However, modern versions of “piecework” would be another example, as would pay schemes that de-link remuneration from a standard work day or week and from classical overtime schemes. Working time flexibility is the fourth and final dimension. It refers to increased variation in the length and periodicity of employee’s working hours, but may also refer to work rhythms (intensity of work).

Such a conception captures broad but essential features of reorganization of work beyond classical Taylorist molds that are common to all the most influential analytical and normative models of contemporary production systems in manufacturing—“post-Fordism” (Amin ed. 1994) and “diversified high quality production” (Streeck 1991, 1996) as well as lean production and flexible specialization. The study thus seeks to bracket the important but distinct debate about alternative production system configurations, instead zeroing in on issues of employment and work that are often secondary or derivative concerns in such debates. Moreover, the four dimensions of work flexibility also hone in on what seem to be the key common “pressure points” in the struggle for improved firm performance and competitiveness that are highlighted by both management theorists of different stripes as well as market-oriented advocates of regulatory reforms to create “flexible” labor markets (Edwards and Lustig 1997, World Bank 1995). As such, these issues are also obviously key fronts in the struggle to defend, improve, and re-define worker equity and voice amidst market reform and competitive restructuring.

The study thus steers clear of an essentialist concept that there is a single, unitary “model” of labor flexibility. Rather, I underline that flexibility (as the name itself suggests) can be accomplished in starkly different fashions, with often strikingly distinct implications for worker empowerment, autonomy, and equity. The key is to focus upon the transformation paths of embedding traversed by established plants as they cross the somewhat nebulous but still perceptible threshold into qualitatively more flexible systems—or, in greenfields, the implementation of work systems in post-mass production plants that are born flexible. In this connection, I stress that flexibility is not an evolutionary endpoint or steady state but rather an open-ended, protracted process. In this sense, I am admittedly capturing transformations at some plants at early stages that could take different courses in the future. Yet, there are strong grounds for reasoning—as well as evidence from now-established greenfields—that the distinct forks in the road that they have taken at this critical crossroads will strongly shape future evolutionary possibilities.
BIBLIOGRAPHY


__________ and Iram Jácome Rodrigues (1996). "La industria automotriz y la reforma en las relaciones de trabajo en Brasil." In Héctor Lucena, ed., Los efectos laborales de de la reestructuración productiva: Casos de la industria automotriz en Venezuela,
Argentina, Brasil, Colombia y México. Valencia, Venezuela: Universidad de Carabobo/Asociación de Relaciones de Trabajo.


DIESSE, Subseção Sindicato dos Metalurgicos do ABC (1997). "Reestruturação
Setoriais como Fórum de Negociação." Dados 37, 277-315.
Dombois, Rainer, and Ludger Pries, eds. (1998). Las relaciones industriales en el proceso de
Decentralization in the Developing World: Elective Affinities in the Pursuit of
Competitiveness,” Studies in Comparative International Development 33:4
EIU (Economist Intelligence Unit) (1987). The Brazilian Motor Industry: Change and
Edwards, Sebastian and Nora Claudia Lustig, eds. (1997), Labor Markets In Latin America:
Combining Social Protection with Market Flexibility, Brookings Institution.
in Brazil and Mexico.” In Sylvia Ann Hewlett and Richard S. Weinert, eds., Brazil
and Mexico: Patterns in Late Development. Philadelphia: Institute for the Study of
Human Issues.
In Silvia Portella, ed. Sindicalismo latinoamericano entre la renovación y la
resignación, Caracas: Nueva Sociedad, 47-56.
Princeton University Press
Erickson, Kenneth Paul (1977). The Brazilian Corporative State and Working-Class Politics.
Berkeley : University of California Press.
Ferro, José Roberto (1995). "A Indústria Automobilística no Brasil: Desempenho,
Estratégias e Opções de Política Industrial." ILDES/FES, Policy Paper 14 (Feb.).
Campus, 311-336.
________________, Afonso Fleury, and Maria Tereza Fleury (1997)."Brazil: The Diffusion of
a New Pattern of Industrial Relations Practices." In Thomas A. Kochan, Russell D.
Lansbury, and John Paul MacDuffie, eds., After Lean Production: Evolving


Cuadernos de la Casa Chata #144.


A flexible work attitude will allow emergencies to be less disruptive to the flow of the business. More Workplace Flexibility Skills. Review more examples of flexibility, and tailor your interview responses to show examples of how you’ve been flexible at work. A - L. Admitting an oversight with accounting for expenses and suggesting alternative ways to avoid similar mistakes. Allowing employees to work from home when feasible to help balance work with family responsibilities. Analyzing the style and preferences of individual subordinates. Assessing the needs and preferences of individual custo