What has Sociology to Contribute to the Study of Inequality Trends? An Historical and Comparative Perspective

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Abstract

Most of the empirical and theoretical research on the rising inequality trend in American labor markets occurred within labor economics despite long standing sociological interest in the structure of inequality, and despite strong evidence that the trend was produced by institutional as well as technological forces. Several reasons for this imbalance are discussed. The fact of differing inequality trends in the U.S. and Europe offers an additional perspective on the potential explanations for the American trends. This comparative perspective highlights the role of institutions in producing inequality trends and suggests strategies for potentially productive sociological research on these issues.

The United States is a highly unequal society, and becomes more unequal with each passing year. In the 1980s, most of the increase was at the bottom of the distribution (Blau and Kahn 2002). In the 1990s, this trend slowed, but inequality at the top of the distribution – especially when non-wage income is taken into account -- has grown markedly (OECD 2003; Card and DiNardo 2002; Atkinson 2003; Piketty and Saez 2003). Why is this occurring? Many Americans probably have no clear answer to this question. Those who think they do have an answer probably attribute the trend to "market forces," by which they mean that the trend is inherent in modern economies.

In their recent review of the literature on rising earnings inequality in the U.S., Morris and Western (1999, p. 642) argued that "market explanations dominate research on rising inequality," and that while institutional explanations have received some attention, "the focus has been narrow, restricted largely to the two major wage-setting institutions: the minimum wage and unions." Their review article primarily addressed the literature for American trends in inequality, which they described in terms of "unresolved debates" and "few concrete answers," but the theoretical concerns generalize more broadly to comparative trends across industrialized societies. Specifically with respect to the contributions of sociology, their evaluation as of 1999 was negative; they lamented that sociologists had been "strangely and remarkably silent" about a subject that would seem to be as central to this discipline as to economics or political science (Morris and Western 1999, p. 624).

This evaluation raises two obvious issues. The first of these concerns the reasons for the silence, while the second concerns the prospects for the future. The reasons that sociologists excluded themselves from this issue are clear enough, and Morris and

Western note a subset of these issues in their discussion about research on American inequality trends. From a broader comparative perspective, however, the issue of sociological silence is better phrased in terms of two distinct questions. Within the American context, the question is the one raised by Morris and Western, and silence refers to a failure to document or attempt explanations of American trends in the inequality of earnings. From a comparative perspective, the question is more subtle, and refers to the difference in inequality trends between the U.S. and Europe, or more specifically, the fact that inequality trends have been much stronger in the U.S. than in Europe.

I argue that there are five major reasons why the rising inequality trend in the U.S., and the difference between the American trend and that of other industrialized countries, did not receive more attention from sociologists until the late 1990s. The first was the relative lack of interest in sociology on wages, earnings, and income. The second was the relative attention to social mobility rather than distributional change. The third was the relative attention to intergenerational mobility rather than career mobility. The fourth was the relative focus on gender and racial inequality rather than inequality in the population as a whole. The fifth – and perhaps most ironic-- reason was the relative lack of interest by quantitative sociologists in institutional features of the labor market such as unions or the minimum wage and their impact on inequality. This paper will first review these reasons in more detail, and second will discuss recent developments that indicate a potentially growing contribution by the discipline to the study of these trends.

The first source of the difference concerns the fact that recent American inequality trends have primarily expressed themselves in terms of wages, earnings, and

income. Sociological interest in financial outcomes has increased considerably over the past two decades, but for a long time, the core research questions in social stratification were framed either in terms of occupational status or in terms of social class – with the Goldthorpe scheme (Goldthorpe 1987) and the various schemes proposed by Erik Olin Wright (Wright 1985) being prime examples. Various justifications have been offered for these approaches, including (a) that occupations are a source of prestige, which is a prime dimension of stratification in industrial society (Treiman 1977), (b) that occupation-based class schemes capture life chances, being akin to a measure of permanent income (Sorensen 2000), (b) that they distinguish groups who have distinct relationships to the market (Goldthorpe 1987), and who vary in some common way in terms of extraction of surplus or vulnerability to exploitation (Wright 1985).

Occupations clearly constitute an important dimension of social stratification. However, the large sociological literature on occupational status or class-based inequality failed to highlight or explain the emerging inequality trend. There are two major reasons for this failure. The first reason was that occupation or class studies in social stratification were centrally focused on questions of social mobility (Hout and DiPrete 2005), while changes in the structure of inequality involved point-in-time distributions. The second reason was that trends in American wage, earnings, or income inequality are not well explained by trends in the occupational distribution, or by trends in class structure as measured by the dominant class schema.

Sociology did not completely ignore the study of distributional trends, but research on this issue largely failed to highlight to uncover the emerging inequality story. So for example, research in the 1970s in sociology argued over whether a dual labor

market existed in the U.S., in which some jobs were located in primary labor markets and others were located in secondary labor markets (Kalleberg 1979). Obviously, dual labor market theory is about inequality. However, the debates that occurred at this time focused not so much on whether there was a growing separation between "good jobs" and "bad jobs" but rather whether dual labor market theory was an accurate way to characterize industrial labor markets.

In the 1970s and early 1980s, a controversy developed over the impact of technological change on the American occupational structure. Building on long-standing Marxian theories about growing proletarianization, Braverman (1974) argued that the forces of capitalism were combining with technological change to produce a broad "deskilling" of the American labor market. This assertion, which amounted to a theory about changes at the mean, was contested by Spenner (1979, 1983) in particular, who argued that skilling and deskilling of occupations was occurring at about equal rates, with little net change occurring and with no increase in the standard deviation of these skills, at least according to the *Dictionary of Occupational Titles*. Meanwhile, Erik Olin Wright also was working within a Marxian framework on the general question of proletarianization and changing forms of exploitation. His theoretical approach was dynamic, and saw changes in capitalism producing new forms and distributions of exploitation. Aside from the fact that his definition of "exploitation" was abstract and controversial, his empirical work did not specifically address whether inequality in any major dimension of workplace resources or rewards was increasing.

Trend research that bore the closest connection to the emerging focus on inequality was the work on the emerging post-industrial society and the work on

deindustrialization. Daniel Bell (1976) argued that the demand for services would grow in the emerging post-industrial society, but it was not appreciated at the time that this growing demand would become one ingredient that produced rising inequality, particularly since the wage premium for college-educated workers in the 1970s was actually falling due to oversupply (Freeman 1976). At the same time as the professional and managerial segments of the workforce were expanding, the relative share of workers in agricultural occupations was contracting, and the share of semi-skilled manual workers was also contracting both because of a contraction of the manufacturing sector (where these workers predominated) and because of an across-the-board reduction in the proportion of workers in these categories (see also Singelmann and Tienda 1985). This trend and the mechanisms that produced it (foreign competition, outsourcing, and subcontracting) were later amplified by institutional economists such as Barry Bluestone and Benjamin Harrison (1982) who noted that the male blue-collar workers who suffered displacement from their relatively high paying factory jobs often had to settle for lower-paid new jobs.

Studies of changing occupational distributions could not by themselves, however, account for the emerging trend in wage inequality, both because the relative pay of occupations was changing and because inequality in pay within occupations was increasing (Katz and Autor 1999). A central component of the rising inequality was the rising returns to education even after supply differences were taken into account (Western and Morris 1999; Katz and Autor 1999). These changes in the 1980s were primarily driven by declines in the pay of male workers with a high school education, a change that was associated with the job displacements from heavy industry manual jobs reported by

Bluestone and Harrison. Because sociologists in fact had a long-standing interest in occupational mobility, there certainly could have been more attention paid to this concomitant of inequality trends. The fact that many sociologists who study social mobility concentrated their efforts on intergenerational mobility is one reason why the changing life-course mobility patterns were not given greater prominence in sociological research. However, even sociologists studying career mobility would not have fully appreciated the implications of job displacement unless they studied earnings mobility as well as occupational mobility.

As indicated earlier, the two factors that were most notable about the American trend were first, that it was happening at all, and second, that the American trends were different from those in other industrialized nations. A large group of sociologists in fact study comparative mobility, and so one might have expected them to pay greater attention to these diverging trends. But the particular orientation of their research agenda offers insights into the reason for this lack of attention. One issue concerns the way that societal differences were conceptualized. Perhaps the dominant finding of comparative stratification research in the 1970s was Treiman's demonstration that the prestige of occupations is remarkably similar in societies throughout the world (Treiman 1977; Hout and DiPrete 2004). Class theorists such as Erik Olin Wright (1985) or Robert Erikson and John Goldthorpe (1992) argued in the 1980s and early 1990s for a relational and discrete rather than hierarchical and continuous perspective on class structure, but – similarly to Treiman -- they conceptualized their class schemes as applicable to all industrialized societies. Thus, the dominant theoretical approaches to inequality in sociology focused on similarity and not difference across industrialized nations.

A second issue was the dominant focus of comparative stratification research in the 1980s and early 1990s on intergenerational mobility (Hout and DiPrete 2005), which is not especially relevant to the American inequality trends. Nonetheless, it was apparent that rates of social mobility were not constant across industrialized countries. In a seminal paper in the mobility literature, Featherman, Jones, and Hauser (1975) attributed these differences mostly to differences in the origin and destination marginal distributions of mobility tables, which is an important aspect of inequality and of inequality trends. But, with its tendency at that time to privilege questions about mobility over questions about inequality, the so-called "second generation" of comparative mobility research within sociology (Ganzeboom, Treiman, and Ultee 1991) tended to avoid any direct study of differences in the distribution of positions in favor of the study of mobility differences between countries after taking these distributional differences into account.

As it turns out, the approach of the second generation would not have been terribly informative about cross-national differences in wage and earnings inequality even if it had paid attention to marginal occupational distributions. Blau and Kahn (1996) found that differences in inequality between the U.S. and Europe in the 1980s were not in fact caused by cross-national differences in the distribution of positions. In contrast, cross-national differences in education, potential labor force experience, and marital status do matter; they account for about 35-40% of the inequality difference at the bottom of the distribution, with the rest being unexplained by cross-national differences in these variables. At the top of the income distribution, cross-national differences in inequality were unrelated to individual characteristics. At both the top and the bottom of the income

distribution, institutional forces were a major cause of the observed heterogeneity across nations.

Just as Erikson and Goldthorpe argued that institutional differences between European and American societies have produced country-specific differences in social mobility (Erikson and Goldthorpe 1992), so have scholars argued that institutional differences between Europe and the U.S. account for cross-national differences in the structure of earnings and income inequality. But whereas mobility scholars have found it difficult to construct systematic explanations of social mobility differences (Erikson and Goldthorpe, for example, attributed the differences they observed in the relative mobility patterns of the countries in their study to idiosyncratic country-specific factors), researchers studying inequality have been more successful in their search for systematic institutional differences. Pontusson, Rueda and Way (2002) found that high levels of unionization, centralized wage bargaining, and a large public sector workforce reduce inequality by boosting the wages of unskilled workers, while political strength of left political parties reduces inequality by restraining the wages of workers at the top of the wage distribution. Their research, in other words, supports the view that institutional forces affect the extent and structure of inequality across the industrialized world.

The final reason for the lack of attention to inequality trends by sociology was the amount of attention given by sociologists to the study of gender and race inequality. The reasons for this interest are well-known and uncontested, and if trends in population inequality were being driven primarily by trends in gender inequality, or by trends in racial inequality, then the strong sociological interest in group differences would have been relevant (or even dominant) factors in explaining the overall trend. But in the actual

historical case, the rising levels of wage and earnings inequality had little to do with rising gender or racial inequality; indeed, it was the *decline* in the earnings of high-school educated males relative to females in the 1980s that characterized an important component of rising earnings inequality in the U.S. (Morris and Western 1999).

Notwithstanding the early work on the deindustrialization thesis by sociologists such as Singelmann and Browning (1980), efforts to explain the increasingly-well documented inequality trend in the U.S. arose largely within neoclassical labor economics. Katz and Autor (1999) summarized existing literature in terms of a "supply-demand-institutions" (SDI) framework that conceptualizes wage change as potentially arising from changes in supply and demand, shifts in the demand curve, unions, minimum wages, and inter-industry wage differentials. In their interpretation of the literature, outsourcing and competition from low-wage countries have had only a minor effect on the relative changes in wages for high- and low-skill labor.[1] Of much greater importance is the "skill biased technological change" (SBTC) that shifted the demand curve for high skill labor upward relative to low skill labor. The major evidence for this conclusion was the twin facts that the returns to education were rising even after supply factors were considered, and that inter-industry rents were increasing, which is to be expected if returns to unmeasured skills were rising, as the SBTC theory predicts.

Even from a mainstream labor economics perspective, the SBTC theory is not airtight. Three facts are troubling for this theory. The first is that no one has satisfactorily measured SBTC. As Card and DiNardo (2002) pointed out indirect measures of SBTC

[1] Katz and Autor find that the growth of trade with less developed countries would account for only about 5% of the increased college wage premium from 1980 to 1995. Katz and Autor find the evidence that the decline in manufacturing employment ("deindustrialization") played an important role in rising wage inequality.

(typically the use of information technology at the workplace) do not explain why 90/10 wage inequality rose so much faster in the 1980s than the 1990s even though the pace of information technology was at least as rapid in the 1990s as in the 1980s. Meanwhile, institutional explanations appear to have considerable power to explain American trends. According to Card (2001), the decline in unionization may explain 15-20% of the rising wage inequality between the early 1970s and the early 1990s, while DiNardo et al. (1996) finds that this decline can potentially explain 1/3 of the 90-50 wage differential over the same period. An even more powerful institutional factor is the decline in the minimum wage. Lee (1999) has argued that declines in the minimum wage can explain almost the entire rise in wage inequality during the 1980s, while Card and DiNardo (2002) found the minimum wage changes explain 90% of the variation in the 90-10 wage ratio during these years.

These results suggest that institutional forces are quite strong, and indeed may be the dominant factors in accounting for trends in wage inequality in the U.S. However, labor economists frequently question whether these institutional effects are exogenous to changes in market forces. Katz and Autor, for example, note that falling productivity of low-skill workers could have been a cause of the decline in the minimum wage, in which case the institutional change is not the underlying cause of the rising inequality. Regarding the apparent effect of the decline in unionization, Katz and Autor similarly write that

> "shifts in supply and demand that raise relative wage differentials will reduce the strength of centralized collective bargaining and lower union influence on wage setting….Institutions that go strongly against market forces face a difficult task. The fact that unionization fell in most countries in the 1980s, when market forces appear to have favored greater inequality, may be no accident." (Katz and Autor 1999, p. 1547).

It is this suspicion that apparently powerful institutional factors are actually endogenous to technological changes that causes many economists to favor technical explanations for the inequality trend in the U.S.[2]

On the surface, Europe offers a major challenge to a technical theory like SBTC. Technological change has followed a similar course in the advanced economies of Western Europe as it has in the U.S. However, in marked contrast to the U.S., inequality trends are either absent or greatly moderated in continental Europe (OECD 2003). No one seriously denies that institutional forces are the proximate cause of these cross-national differences. Coordinated wage bargaining, the extension of union agreements to the non-unionized sector, and high minimum wages and wage indexation systems that favor low-paid workers all have the effect of reducing pre-tax inequality (Blau and Kahn 1999). Meanwhile, progressive taxation systems and progressive social welfare systems reduce post-tax inequality. Nonetheless, the twin presumptions from Katz and Autor (1) that "market forces appear to have favored greater inequality" and (2) that "institutions that go against market forces face a difficult task" (Katz and Autor 1999, p. 1547) lay behind the search for a broader "unified theory" to explain the stark differences in inequality trends in the U.S. and Europe.

The unified theory is the principal effort within the labor economics community to unify the obvious impact of institutional forces in Europe, the sharply different cross-national inequality trends in Europe and the U.S., and the presumption that inequality-

[2] The analogue to this perceptive of labor market institutions being endogenous to technical forces is what Swank (2002) calls "the theory of diminished democracy," which he defines as "the declining capacity of democratic institutions to sustain public policies that depart from market-conforming principles in a world of global asset mobility." (Swank 2002, p. 3). If true, this would have implications for trends in national after-tax income distributions.

favoring market forces are at work throughout the industrialized world. The unified theory hypothesizes the presence of skill-biased technological change on both sides of the Atlantic, and sees two institutionally determined possible outcomes. One possibility is that low skill workers work for lower wages to reflect their lower productivity. The second possibility is that labor market institutions prevent a wage adjustment, marginal product of low-skill workers dips below marginal cost as a consequence of SBTC, and employers reduce their employment of low-skill workers. The unified theory has been succinctly summarized as:

> "…the U.S. experience of declining unemployment, falling to steady real wages, and rapidly rising wage inequality and the EU experience of rising unemployment, rising real wages, and comparatively stable relative-wage levels are two sides of the same coin. The United States permitted real and relative wages to adjust, while many countries in Europe…chose to let employment take the brunt of the shocks." --Blau and Kahn (2002, p. 256)

Stated more formally, the unified theory can be expressed in terms of three propositions: The unified theory can be summarized in terms of three propositions:

[1] The major institutional features of major industrialized countries have remained relatively stable since the 1970s (when unemployment was relatively low in Europe and high in the U.S).

[2] The macroeconomic context has changed considerably since the 1970s; specifically, the industrialized world has experienced a common set of "macroeconomic shocks" during this period, including low productivity growth, inflation in the 1970s followed by disinflation in the 1980s and 1990s, growing levels of international trade, and perhaps most importantly, a technologically driven steady decline in the relative demand for low-skilled labor (Blau and Kahn 2002).

[3] The labor market outcomes in a country are a product of the *interaction* between that country's institutional features and the common global "macroeconomic shocks."

At a meta-level, the unified theory can be read as a global version of the SBTC theory for American inequality trends. The unified theory says that institutions can control inequality trends, but only through tradeoffs with other desirable economic outcomes, and specifically with employment growth. According to the unified theory, the impact of macroeconomic shocks on the American labor force was largely unbuffered by labor market regulation. Because U.S. wage setting mechanisms are flexible, American wages adjusted to these shocks and their impact on employment levels was relatively small. In contrast to the American case, European labor markets are rigid, characterized by greater institutional control over wage setting, greater institutional control over the allocation of labor, and greater labor costs to employers tied to employment protection regulations and to mandated contributions from employers to finance the relatively generous European social welfare benefits. According to the unified theory, the rigidity of European wage-setting mechanisms minimized the impact of these shocks on the wage structure and instead produced a reduction in employer demand for low-skill labor, which is reflected primarily in low employment levels for low-skill workers and secondarily in high unemployment rates for these workers (rates of unemployment are more sensitive to measurement differences and social welfare benefit differences across countries than are rates of employment). American and European arrangements thereby represent opposite responses to the same basic growth-equality trade-off.

The labor economics literature does not ignore the issue of institutional change. Its treatment generally takes two forms. On the one hand, changes in institutions are viewed as relatively minor compared with changes in technical forces. Blau and Kahn (2002, p. 5) characterize the differences between the labor markets of the United States and "other Western nations" as being "largely the same" in the 1960s and early 1970s as they are now. The big change since that time is not in institutions but rather in the "variety of shocks to which labor markets in all countries have been exposed" (Blau and Kahn 2002, p. 5) and their impact on labor market outcomes. On the other hand, institutional change is recognized, but often viewed as endogenous to market forces. It is important to avoid oversimplification here: Blau and Kahn (1999, 2002) in particular acknowledge three perspectives on institutional change. First is the political economy perspective, which views institutional arrangements and change as a product of power differences between major corporate actors. The second perspective is the "market-failure" perspective, in which rational actors construct institutions to increase economic efficiency. Finally, the third perspective is what might be termed the "market-dominance" approach, in which institutional arrangements that --in Katz and Autor's words --"go against" market forces are gradually undermined by internal and global competitive forces (Katz and Autor 1999, p. 1547).

It is not unreasonable to perceive a "short-run" and a "long-run" version of the unified theory. The short-run version is the one stated by Blau and Kahn (2002), namely that institutional change is a relatively unimportant element in the explanation of the different trends in Europe and the U.S. during the past three decades. The long-run version – implied by Katz and Autor – is a convergence theory, in which institutional

differences between the U.S. and Europe are weakened in the long-term by common market forces operating on industrialized countries in a global marketplace.

It is clearly the case that unemployment rose to dramatically higher levels in Europe than in the U.S. in the 1970s and 1980s while wage inequality was accelerating in the U.S. relative to Europe. These central pieces of supporting evidence for the unified theory are uncontested. However, other evidence calls important aspects of the unified theory into question. This evidence can be summarized as four puzzles.

The first puzzle concerns the timing of the inequality trends. European unemployment increased dramatically in the 1970s and early 1980s, but thereafter it has fluctuated with the business cycle. In contrast, U.S. wage inequality increased throughout the 1980s and 1990s, but not in the 1970s, when the bulk of the European rise took place (DiPrete et al. 2004). The unified theory seems largely to be a theory for the European experience of the 1970s and the American experience since the early 1980s, not for the diverging evolutions observed in the 1980s and 1990s on the two sides of the Atlantic. It is therefore unclear how European economies have absorbed the asymmetric technological, industrial and international shocks that have driven the rise in wage inequality in the U.S. during this period.

The second puzzle concerns heterogeneity in Europe, and specifically the differences in the experiences of small and large European states. While unemployment in France and Germany has been high, countries like the Netherlands, Denmark, Norway or Austria have unemployment rates comparable to U.S. rates even as their wage-setting institutions are comparatively centralized, their unemployment insurance is generous and their level of wage inequality is low.

The third puzzle concerns the employment growth trends in Germany and France, which are the countries most commonly used to contrast American and European experience. Recent research on unemployment in the U.S. and Germany finds that the rate of employment growth for low skill workers in Germany was almost identical to that in the U.S. despite dissimilar wage trends (Krueger and Pischke 1997). Additional research finds that growth in unemployment among German workers was not concentrated among low-skill workers (Gottschalk and Smeeding 1997). Similarly, Card, Kramarz, and Lemieux (1999) have shown that during the crucial decade of the 1980s, when American relative wages for low skilled workers dropped considerably and when French relative wages remain highly stable, the pattern of relative employment growth for low skill workers was very similar in France and the U.S. This pattern does not correspond to the unified theory's prediction.

The fourth puzzle concerns the problematic character of the SBTC theory even when applied only to American trends. First, no one has satisfactorily measured this technological change. Second, as Card and DiNardo (2002) recently pointed out, indirect measures (typically the use of information technology at the workplace) do not explain why 90/10 wage inequality rose so much faster in the 1980s than the 1990s even though the page of IT was at least as rapid in the 1990s as in the 1980s. If SBTC is not as important as the evidence from the 1980s suggested, then arguments which downplay the apparent importance of institutional forces in recent American history as "endogenous" to market forces lose much of their force.

These puzzles have led some scholars to search for alternative theories for explaining the alternative paths of the U.S. and Western European nations. In a recent

paper (DiPrete, Maurin, Goux, and Quesnell-Vallée 2004), I and collaborators argued first that the characterization of European labor markets as rigid overlooks important forms of institutional flexibility, and second, that the concept of inequality used to study trends needs to be generalized to include other dimensions besides wages. While the unified theory considered European labor market institutions to be largely static and rigid, we found French labor market institutions to have changed significantly in response to environmental pressure. Importantly, however, this flexibility occurred within a political and cultural framework that protected a relatively (to the U.S.) egalitarian wage norm. We questioned the main prediction of the unified theory that unemployment trends were the primary consequence of the global economic forces of the past twenty five years. We found that inequality trends in France were occurring in the 1990s, but that these trends involved the job security of low-skill jobs rather than trends in employment, unemployment, or wage inequality. The paper argued that the concept of inequality needs to be generalized beyond a focus on wages in order to fully understand the character of recent labor market trends in the U.S. and in Europe. The paper further argued for a view of Europe that recognized important heterogeneity of European labor market institutions, and predicted heterogeneous responses to the forces of technical change and globalization.

The empirical basis for our assertions about institutional flexibility and about alternative national strategies for coping with global economic forces was largely drawn from France and the U.S. In a special issue of Work and Occupations devoted to the differing inequality trends in Europe and the U.S. (DiPrete 2005), Maurin and Postel-Vinay (2005) later addressed whether the unified theory is correct in its assertion that the

European response to technological change and to the forces of globalization was limited to a choice between rising unemployment and rising wage inequality, or whether institutional differences both within Europe and between Europe and the U.S. can produce alternative responses to these forces. The starting point for the paper is the DiPrete et al. (2004) finding that inequality trends in France during the 1990s have taken the form of rising skill-biased inequality in job security rather than either secular rises in unemployment (as predicted by the unified theory) or increased skill-biased wage inequality (as occurred in the U.S. during the 1980s). In order to find out how typical the French situation is, Maurin and Postel-Vinay compare the trends and distributions of wages and temporary labor contracts across thirteen European countries using data from the European Community Household Panel (ECHP) for the years 1995-2001.

While data inadequacies prevent definitive conclusions, the general pattern is clear: low-skill workers earn lower wages and have less secure job positions than do high-skill workers. Maurin and Postel-Vinay find that higher skill-based wage gaps are associated with lower-skill-based gaps in job security, which suggests that a tradeoff may exist between these two forms of inequality. While the short duration of the ECHP panel prevents any definitive analysis of trends, their analysis of this period finds that country-specific upward trends in job security inequality are more pronounced than are country-specific trends in wage inequality, which supports the argument that job security inequality is the distinctive European response to SBTC that corresponds to rising wage inequality in the U.S. Finally, they find evidence of a kind of convergence occurring in Europe: countries that had relatively small job-security inequality in 1995 have

experienced stronger upward trends in job-security inequality in subsequent years than have countries which started the period with greater job-security inequality.

Maurin and Postel-Vinay conclude that a demand shift away from unskilled labor was occurring in Europe as well as the U.S., but that this shift affected two distinct dimensions of labor costs, namely wages and job security. European countries differ in the tradeoff they accepted between these two forms of inequality. In their view, these findings undercut the simple contrast drawn by the unified theory between "efficient" American labor markets and "egalitarian" but rigid European ones. Instead, they argue, the true comparison is between countries where employers have substantial freedom to structure employment relationships and countries where institutional arrangements enforce a national preference weighting for equality in compensation and equality in job security. In the latter countries, labor market institutions dictate the tradeoff between these two dimensions of inequality.

Meanwhile, other evidence has developed concerning the endogeneity of European institutions. Ebbinghaus and Kittel (2005) take as their starting point the assertion within the unified theory that European wage-setting institutions are rigid and that this rigidity in the face of skill-biased technological change should produce unemployment. Ebbinhaus and Kittel question this assertion. They report that bargaining patterns are heterogeneous in Europe and have changed considerably over time. Ebbinghaus and Kittel note a history of European unions trading wages for social benefits, and question whether wage growth in Europe has been faster than in the U.S. They present OECD data that shows relatively high but declining labor cost growth rates in Europe. They further find evidence that the variation in labor costs within Europe has

been decreasing, and indeed that there is a general convergence taking place between the U.S. and the countries of Western Europe in labor costs growth rates.

How could labor cost pressure be causing rising and diverging unemployment trends, when Western European labor cost trends have converged on the American trend and when cross-national variance in labor costs was declining? Using Granger-causality tests with country-specific regressions of the relationship between wage growth and unemployment growth, they find considerably more evidence for the effect of unemployment growth on wage growth than for the effect of wage growth on unemployment growth. Thus, rather than finding evidence that rigid labor market institutions drive up wages at the expense of unemployment, they find that wage-setting institutions appear to adapt to prior wage growth in order to mitigate future unemployment growth. The higher was nominal growth in the preceding year, the more likely it was that the bargaining partners changed their bargaining pattern in the subsequent year. These changes apparently occurred as part of an explicit effort to curb "excessive" wage growth. Over the long-term, the trend was away from centralized wage bargaining toward industry-level bargaining with implicit coordination across industries, and away from state imposed coordination toward a system of state-sponsored coordination. However, the intra-associational and state-coordinated bargaining patterns remain sharply different from the American system in which wage determination is either made by the employers, or via firm-specific collective bargaining agreements. The evident "endogeneity" of European labor market institutions demonstrates considerable institutional flexibility without convergence on American-style labor markets.

The evidence from these papers amounts to a different picture of Europe than the unified theory suggests. If European labor markets are inflexible, they are inflexible in different ways, and with different consequences. The rigidity of Europe thesis fails in a second way, also. As DiPrete et al. (2004) Ebbinghaus and Kittel (2005), and Maurin and Postel-Vinay (2005) show, European labor market institutions have changed in important ways over time, and with important consequences for inequality trends, wage trends, and unemployment trends. These papers see institutions changing through a political and cultural process that is influenced by not dictated by technological trends. They further see inequality trends as the outcome of changing institutions as well as changing technology. Finally, they see wage trends (and wage inequality) as one of several employment-related trends that define distinct dimensions of inequality. Even if SBTC and the forces of globalization are inherently inequality-producing, it may be that inequality is properly seen as multidimensional, and that tradeoffs between different dimensions of inequality are possible. Workers and the other corporate actors may favor different points in this tradeoff space in different countries, and may tune institutions to produce the alternative tradeoffs that workers, employers, and the state are willing to live with. This perspective goes beyond the unified theory's hypothesis of a simpler tradeoff between wages and unemployment. It furthermore provides additional evidence in favor of a theory of non-convergence, in which alternative institutional patterns are consistent with technical and market forces, so that heterogeneity of labor market institutions across the industrialized world provides an accurate long-term as well as contemporary description of reality.

Much remains unknown about the nature, strength, and direction of the forces of SBTC and of globalization. The idea that technology does not fully determine the structure of jobs was developed by Scoville (1972) in the early 1970s, and, as Kalleberg notes in his 1979 review, several scholars in the 1970s focused on changes in the structure of jobs as part of the managerial effort to maintain or increase their control over production. In order to determine the factors that link technology, job content, and pay, sociologists might follow the lead of recent work in labor economics on the use of computer technology at the workplace and restart the earlier sociological tradition of researching specific jobs and occupations in detail.

Of at least equal importance is a better understanding of the determinants of institutional change for labor market institutions. Why did the union movement weaken so dramatically in the U.S. during the 1980s and 1990s? Why did the minimum wage steadily decline during this period? If the answer is "SBTC," then the "SDI" (supply-demand-institutions) framework of Katz and Autor can accurately be simplified to a "supply-demand-technology" framework, and the usual objects of sociological analysis become mediating factors in an American story that largely belongs to neo-classical economics. If the existing heterogeneity of Europe is an intermediate step along a path of convergence toward the American model, then the story of inequality trends throughout the industrialized world is neoclassical economic as well.

But if heterogeneity of institutional forms persist in Europe, then why should scholars believe that institutional change in American labor markets has an essentially technological explanation? And if the explanation is also or even primarily social and political, then sociology has a central role to play in the theoretical and empirical work

that lies ahead. One possibility is that institutional change in America was facilitated by specific institutional features of the American case, such as right to work laws or barriers to successful union organizing. Another possibility is that the conservative trend in American politics, which facilitated the decline of American unions (recall Reagan's firing of the air traffic controllers) and the decline of the minimum wage, is being fueled by cultural factors linked with lingering racial antagonisms and the rising strength of the American religious right. The story is doubtless more complicated than this, of course. To uncover the right story, silence must be replaced by careful and rigorous scholarship.

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