On the Neoclassical Tradition in Labor Economics

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Abstract

In a recent article George Boyer and Robert Smith describe the development of the neoclassical tradition in labor economics. In this paper I re-examine this subject and provide an alternative account of the evolution of thought in the field. I argue Boyer and Smith incorrectly define both the institutional and neoclassical approaches to labor market analysis. The essence of institutional economics is not a fact-gathering, descriptive approach, but a paradigm built on property rights, a behavioral model of the human agent, and theories of imperfect competition. In the case of the neoclassical paradigm, they err by defining it too broadly, making it largely coterminous with constrained optimization. What they refer to as neoclassical labor economics is actually divided into two separate theoretical approaches, one a market-clearing approach associated with the modern Chicago School and the second a nonmarket-clearing approach associated with economists of what I refer to as the "Cambridge Group." Viewed in this manner, the early institutionalists, the postwar labor economists (e.g., Dunlop, Kerr, Lester, and Reynolds), and the labor economists affiliated with the Cambridge Group are all within a common stream of economic thought built around Keynesian economics at the macro level and various non-clearing market models at the micro level. What Boyer and Smith call "modern labor economics" is, by way of contrast, associated with the Chicago/market-clearing approach.

On the Neoclassical Tradition in Labor Economics

"The commodity theory of labor is not false, it is incomplete." John R. Commons (1919: 17).

"It does not follow from any of this that the ordinary forces of supply and demand are irrelevant to the labor market, or that we can do without the textbook apparatus altogether. It only follows that they are incomplete and need completing." Robert Solow (1990: 22).

"What we need is a theory which will take account of both sorts of markets, a theory in which both fixprice and flexprice markets have a place." John R. Hicks (1974: 24)

In a recent issue George Boyer and Robert Smith (2000) described the evolution of thought in the field of labor economics and, in particular, the ascendance of the neoclassical paradigm and decline of the institutional. Since this topic has received only modest attention to date, their article represents a valuable addition to the literature. Personally, I also found it informative and insightful in a number of respects.

There are, however, also some deeply problematic issues in their article pertaining to both fact and interpretation. In this essay I re-examine the 20th century evolution of thought in labor economics with two purposes in mind: to point out what I believe are the shortcomings and lacunas in B&S's account and, more positively, to provide an alternative interpretation of the development of the field. I note, however, that this alternative account is necessarily selective and broad-brush and, thus, omits numerous theoretical and (particularly) empirical developments in the field that are important in their own right but secondary to an analysis and critique of the Boyer-Smith article.

I conclude that B&S do not accurately define and characterize the neoclassical and institutional approaches to labor research and, hence, are led to a portrayal of the development of the field that is neither balanced nor accurate. As they see it, modern labor economics is largely neoclassical in orientation with a modest number of institutionalists on the fringe. In my alternative interpretation, the field is divided into two roughly equal size groups, one centered around the Chicago School and a competitive/market-clearing paradigm and the other centered around a modestly more eclectic group I call the "Cambridge Group" (Cambridge, MA, home of Harvard and MIT) and an imperfect competition/nonmarket-clearing paradigm. The central issue that divides them goes back to debates in the late 19th century -- the extent to which models of rational behavior and competitive markets are useful tools for explaining and predicting labor market outcomes and, correlatively, the extent to which free markets promote economic efficiency and social welfare.

The B&S Argument in Brief

Summarized below are what I perceive to be the essential points made by B&S, organized for purposes of exposition into individual paragraphs.

The central issue around which Boyer and Smith develop their article is succinctly stated in the first paragraph. They say (p. 199), "At the end of the second World War, labor economics was dominated by a group of academics who, while knowledgeable of neoclassical theory, had their roots in the institutional approach to economics. However, the next thirty years saw the rise to dominance of an approach to labor economics that was rooted in neoclassical economic theory."

In developing this line of argument, they go on in the next section of the article to describe the basic features of the two paradigms. They summarize the institutional approach in these words (p. 201, emphasis in original): "Institutionalist labor economics emphasized the word *labor*. This approach was fact-based, its methodology largely was inductive, and it generally relied on a case study approach toward data gathering. From the intensive, often historical, study of individual cases or events came detailed *descriptions* of various labor-market institutions or outcomes. They then summarize the contrasting approach of neoclassical economics in these words, "the neoclassical approach to labor economics -- which emphasizes the word *economics* -- is built upon posited maximizing models of firms and workers at the individual level, and its is ahistorical in nature. One starts, as did Marshall, with certain fundamental principles about economic actors, not a collection of facts, and from theoretical analyses (often expressed and reasoned mathematically) are drawn hypotheses or conclusions about labor market outcomes. In its quest for analysis, this approach looks for general patterns rather than pathologies peculiar to certain institutions or markets."

Given these two summary statements of the institutional and neoclassical approaches, B&S then describe the evolution of the labor economics field. The pioneers of the field in the United States, and the most important early contributors, came from the first generation of institutional economists (roughly 1890-1940), represented by people such as Richard Ely, John R. Commons, and Sumner Slichter. They were then succeeded by a second generation of institutionalists (or "neoinstitutionalists") who dominated labor economics from roughly 1940-1965. Important names include John Dunlop, Clark Kerr, Richard Lester, and Lloyd Reynolds. This group was in turn succeeded by a "third generation" of institutionalists (or "neo-neoinstitutionalists"), such as Michael Piore, Peter Doeringer, Paul Osterman, and Lester Thurow. The neoclassical approach to labor economics also went through at least three generations. The first, according to B&S, originated with Alfred Marshall and other late 19^{th} century marginalists. Then, starting in the early 1930s, a second generation appeared, centered on John Hicks and Paul Douglas. Next, a third generation of neoclassical economists rose to power and influence, beginning in the late 1950s-early 1960s. The most important contributors of this group were located at the University of Chicago and included people such as H. Greg Lewis, George Stigler, Jacob Mincer, and Gary Becker.

B&S then look more closely at the early "postwar" labor economists, such as Dunlop, Kerr, Lester, and Reynolds (DKLR), and explain in greater detail why they believe these economists are best considered to be "neo-institutionalists" rather than "neoclassical revisionists." According to B&S, the hallmark of the institutional approach is fact gathering ("descriptive economics"), while the hallmark of the neoclassical approach is theory-building and hypothesis testing. When they examine the research of DKLR, they conclude that it (p. 207), "did not attempt to construct a new theory or modify an existing one to account for apparent empirical inconsistencies" but, rather, largely took the form of a negative critique of the assumptions of neoclassical economics -- supported by a variety of (alleged) empirical anomalies.

In the last part of the paper, B&S then examine the resurgence of the neoclassical paradigm in labor economics in the post-1960s period. They cite the work of Gary

Becker as being particularly influential and provide the following quotation from Becker to highlight the theoretical core of the modern neoclassical approach (p. 208): "The combined assumptions of maximizing behavior, market equilibrium, and stable preferences, used relentlessly and unflinchingly, form the heart of the economic approach…." They go on to observe that while the core model of the neoclassical paradigm assumes competitive markets and market-clearing equilibrium outcomes, a number of "inconvenient facts" (e.g., rigid wages, persistent inter-firm wage differentials, layoffs and large-scale unemployment) appear to challenge these assumptions. But, B&S note, the adherents of the neoclassical model have amended and modified the core model in various ways to reconcile theory and fact.

In the conclusion of the article B&S reach a relatively optimistic assessment of the state of neoclassical theory and research in the field. As they portray it, in the last three decades neoclassical economics has made great strides in extending and the refining the basic microeconomic "price theory" model that lies at the core of the paradigm, with the result that the theory is at once more powerful and encompassing and at the same time more "real worldly" and relevant to applied policy concerns. In the process, the neoclassical approach has, in B&S's opinion, successfully incorporated many of the concerns and criticisms voiced over the years by the institutionalists. Thus, they state (p. 218), "Recent years, therefore, have seen movement away from some of the more academically insular features of 'pure' neoclassical analyses of the labor market toward including some 'realistic' characteristics of the institutional approach…. Thus, the stated mission of the neoinstitutionalists -- causing simple price theory to adapt to the unique realities of the labor market -- seems to be on its way to fulfillment."

The Postwar Labor Economists Reconsidered

The first claim of B&S is that the "postwar" labor economists, such as DKLR, are best considered to be adherents of the institutional approach on the grounds that their research was largely atheoretic, descriptive, and oriented toward fact-gathering. I will question in the next section this characterization of the institutional approach, but here let's first consider whether B&S accurately describe the research program of the postwar labor economists. I suggest they do not.

I first call attention to two of the earliest works of the postwar labor economists, the first being Richard Lester's textbook *The Economics of Labor* (1941) and the second John Dunlop's book *Wage Determination under Trade Unions* (1944).

Lester states in the first paragraph of the Preface (p. vii, emphasis added), "The emphasis throughout the book is upon *economic principles rather than upon particular events or ephemeral facts*. Facts, as such, mean little until they are examined and interpreted." Then, in the first chapter he tells readers that the focus of the book is on "labor problems" which he states (p. 3) "center around the purchase, sale and performance of labor services." He goes on to say (p. 5), "The focal point of labor problems is the labor market, where such issues as wage rates, hours of work, conditions of work, and job tenure are supposed to be solved." In a later chapter he depicts the process of wage determination with a demand-supply diagram (p. 116).

I contend, therefore, that B&S err in labeling Lester's approach to labor economics as largely "descriptive" or "fact-gathering." Indeed, I believe that a disinterested comparison of Lester's text with other labor texts published only a few years earlier (e.g., Yoder, 1933) reveals that it was far more analytic and made much greater effort to bring economic theory to bear on labor issues.

But, having said this, it is also equally clear that Lester's approach is *not* "neoclassical" as that term is used by B&S. The tip-off is provided in the Preface immediately after the passage previously quoted. Lester states in the next paragraph, "Throughout the book, including the sections dealing with historical material, emphasis is placed upon the nature of the market. In so far as possible, the new market analysis of monopolistic or imperfect competition is here applied to labor and labor problems. Knowledge of the significant monopolistic elements in markets is absolutely essential for an understanding of the theory of wages and collective bargaining." He goes on to state in the chapter on wage determination (p. 188), "Generally speaking, labor markets are by their very nature some of the most imperfect markets in our economy." Thus, my contention is that it was not "fact-gathering" or "descriptive" that distinguishes Lester's approach from the neoclassical but rather that his theory of labor markets was based on *models of imperfect competition* and stressed *nonmarket-clearing outcomes*.[1]

Next consider Dunlop's book. In the Introduction he states (p. 4), "This subject [the study of trade unions] cannot be left any longer merely to institutional and historical methods. Just as the process of product-price formation has been illuminated by the theoretical analysis of discrimination, small numbers, price leadership, and flexible plant, so organized labor markets represent a field of important theoretical inquiry." He goes on to say, "The trade union is clearly a decision-making unit. Since analytical models have been devised to explain the pricing and output decisions of business enterprises, Chap. III attempts to construct corresponding models of trade unions which may assist in understanding wage-rate determination. An economic theory of a trade union requires that the organization be assumed to maximize (or minimize) something." Then, in Chapter III Dunlop develops in both graphs and equations various models of union wage determination, such as the wage bill maximization model. These models are still recognized today as pioneering and are frequently referenced and presented in the modern literature on union wage determination.

I conclude, therefore, that B&S again err when they characterize Dunlop's work as largely "descriptive" or "atheoretical" and thus "institutional." It is, rather, self-evidently analytical and directed at theory-building and, further, assumes maximizing behavior and uses marginal analysis and calculus.[2] But, like Lester, it is also equally clear that Dunlop in important respects is *not* in the neoclassical camp. A clear sign comes on the next page of the Introduction where he provides this caveat (p. 6), "One of the many dangerous habits of mind that economic theory may create is an imperialism that insists that all aspects of behavior, particularly any activity related to markets, be explained with the usual economic variables…. A fundamental tenet of the following pages is that modes of behavior that are broader than economic theory contribute materially to the understanding of wage determination…. To appraise wage policy of a trade union merely from the framework of analytical economics may be to misunderstand behavior completely." Thus, while Dunlop is clearly engaged in theory-building, he departs from the standard neoclassical approach in that he counsels a more interdisciplinary effort that brings to model-building insights and ideas from fields outside of traditional economics.[3]

I present one more example to drive home the point. In 1957 the book *New Concepts in Wage Determination* was published, edited by George Taylor and Frank Pierson. It contains chapters by DKLR and other prominent postwar labor economists in which they endeavor to summarize and synthesize a decade and one-half of research on wage determination. It clearly reveals the dichotomy developed above -- the explicit effort to develop theory but in a direction that in significant respects departs from the neoclassical approach. Thus, in the Preface the editors tell readers, (p. vii-viii), "The most rewarding and most arduous task encountered in the preparation of this volume has been the working out of such a general framework [of wage determination]…. The view suggested in the opening chapter and developed in the rest of the volume is that wage theory should be closely, but not exclusively, tied to general theory…. Contrary to the theorist's usual view, it is the wide range of variables ordinarily taken as given which is important to an understanding of wage issues. A corollary of this position, which serves as another theme for the different chapters, is that wages are profoundly affected by the institutional environment in which wage setting occurs."

Further insight is gained from the introductory chapter by Pierson -- a chapter that according to Lester (personal interview with the author) was very much a joint effort of all participants and an attempt to arrive at a summary statement of their views. Pierson states (p. 16), "The three postulates of stationary-equilibrium theory just discussed [maximization, static analysis, equilibrium], when combined with the assumption that labor is bought and sold under conditions of pure competition, form the core of traditional wage theory." He then says of this theory (p. 18), "When viewed against the complex and shifting network of relationships involved in the wage-determination process, discussed above, competitive theory seems completely out of touch with the world of actuality. Except in a very loose or general sense, this hypothesis affords a poor basis for explaining wage relationships." [Pierson (p. 19) later takes a modestly more positive view when he states, "The competitive hypothesis is useful in explaining general, long-term trends in wage relationships."] How, then, should a better wage theory be constructed? Pierson points to the following additions/revisions:

(1) Incorporate in a thorough-going way various theories of imperfect competition in product and labor markets, recognizing that wages and prices

are often inflexible and do not readily clear markets (implying wages are often "administered prices" and the market equilibrium concept is thus not applicable, at least in the short run).

(2) Since structural aspects of individual labor markets differ considerably, a range of different models should be developed that fill in the middle ground between the two unrealistic extremes of pure competition and monopsony.

(3) The more non-competitive is the market, the more model-building needs to move away from marginalism, pecuniary maximization, and equilibrium by incorporating non-pecuniary motives (e.g., non-profit maximizing goals of firms), bargaining power, and the role of administrative decision (non-price rationing).

(4) Recognize that market forces are often significantly impeded by institutional and social factors, thus opening up a significant degree of indeterminacy in economic relationships and giving some latitude for discretion in decision-making by firms and other economic agents.

(5) Recognize that labor is embodied in human beings and thus psychological and social influences rank large in many wage-employment decisions.

(6) Take seriously the Keynesian message that effective demand drives the level of output and employment in the economy, implying that wage adjustments are typically of distinctly secondary importance to output fluctuations in determining labor demand and that models of wage determination have to incorporate the level of effective demand (or involuntary unemployment) as an additional independent variable. [In a model of a perfectly competitive labor market involuntary unemployment does not exist in equilibrium, so such a variable would be redundant].

(7) Pay more attention to the dynamic *process* of market adjustment (as opposed to comparative static equilibrium outcomes), since many times the variables impounded in the "other things equal" assumption do not in practice stay "equal" (i.e., the change in the wage leads in a recursive manner to changes in one or more of the other variables supposedly held constant, thus leading to a different end result than predicted by comparative static analysis)

In the Conclusion to the chapter, Pierson states another fundamental tenet of the postwar labor economists. He says (p. 31), "The contributors to this volume believe that wage theory should be related not only to the central body of economic thought but to the experiences and findings in the field of industrial relations as well" -- where "industrial relations" is defined broadly to include human resource management, labor relations, labor law, industrial sociology, and other related social science disciplines.[4]

The Institutional Approach

According to B&S, the institutional approach to labor economics is distinguished by an emphasis on description, fact-gathering, historical analysis, and an inductive case study methodology. The opposite side of the coin is that the institutionalists did not endeavor to build theory or derive generalizations about the operation of the economy. Like their treatment of the postwar labor economists, this characterization is also wide of the mark -- it captures part of the reality but misses the fundamental aspects that distinguish the instititutional paradigm from the neoclassical.

The key features that B&S list for institutionalism are essentially methodological in nature -- they involve *methods* of doing research. I claim, however, that institutionalism is more fruitfully understood as a *paradigm* -- i.e., a theoretical set of propositions or a conceptual tool for understanding reality. Viewed in this way, before one can talk about institutional labor economics one first has to define the essence of the larger paradigm.

The question, of course, is whether there is an identifiable institutional paradigm. Many economists may think not, but I will make the affirmative case.

John R. Commons is widely considered to be one of the founding fathers of institutional economics, so his work is a logical place to look. His crowning life's publication was the 900+ page treatise *Institutional Economics: Its Place in Political Economy* (1934a). In the first paragraph of the book he uses the term "my theory" (or "theories") three times, suggesting that its purpose is not fact-gathering but theory-building. The nature of this theory, and its all-encompassing generality, are indicated in this statement (p. 523), "The subject-matter of institutional economy…. is not commodities, nor labor, nor any physical thing -- it is collective action which sets the working rules for proprietary rights, duties, liberties, and exposures, …."

What Commons means by this is that all economic activity takes place within institutions, such as markets, firms, and families, and each institution uses "working rules" to regulate and structure production and exchange by defining property rights which, in turn, determine ownership of resources and the permissible and impermissible uses of these resources (Samuels, 1995; Schmid, 1987). In constructing his theory, he defines (p. 55) the basic unit of institutional economics to be the "transaction," which represents a "legal transfer of ownership" or transfer of property rights. Commons distinguishes three kinds of transactions: *bargaining* (voluntary transfer of property rights to resources through market exchange), *rationing* (transfer of ownership rights to resources through the command of a superior), and *managerial* (the transfer through management methods of the labor power purchased or owned by the firm but residing in the worker). In so doing, he defines the two principal methods for organizing production and exchange -- markets coordinated by the price mechanism (the bargaining transaction) and formal organizations (a firm, a non-profit or government agency, a socialist system of central planning) coordinated by command (the rationing transaction). Today this distinction is often framed as the choice of "make versus buy."

Institutional economics thus has a "macro" and "micro" research agenda. The "macro" agenda is to understand a society's choice of economic institutions, such as capitalism versus a socialist planned economy or markets versus firms; the "micro" is to understand the more detailed operation and outcomes of individual institutions, such as markets and price determination and firms and the process of management. In its "macro" version institutional economics thus asks a "deeper" question than neoclassical economics, since the latter (e.g., as in general equilibrium theory) typically takes the institutional structure as a given. Institutional economics also effectively subsumes neoclassical theory within it as a special case, recognizing that the latter correctly models economic activity in that *subset* of situations where bargaining transactions occur in approximately competitive conditions (Kaufman, 2001). [This implies that marginalism is compatible with an institutional approach, but only where underlying economic relations have the requisite degree of divisibility]. One reason institutional economics is thus associated with the case study approach to research is that the researcher must first identify the relevant structural characteristics of the economic situation being studied before knowing which model or framework nested within institutional theory is best suited.

Although Commons started this line of research in *Institutional Economics*, his influence remained modest given his obscure style of exposition and holistic approach to theorizing. But several years later Ronald Coase (1937) independently introduced many of the same ideas in a way that economists could better understand, and then Oliver Williamson formalized, synthesized, and popularized the ideas of Commons and Coase into what is now known as "new institutional economics" (NEI).[5] As Williamson (1985) acknowledges, the fundamental unit of activity in NIE comes from Commons -- the transaction, while it has been elsewhere noted that another fundamental NIE concept -- "bounded rationality" -- has also come into NIE from Commons through Herbert Simon (Kaufman, 1999a). Finally, I note that Williamson derives hypotheses and predictions about "make versus buy" by using a largely non-marginal form analysis he calls the "comparative institutional" method," which is quite close to the "comparative method of reasoning" advanced by Commons (1950: 124), and like Commons he largely (but not completely) eschews equilibrium modeling.

There are two points I wish to make from this overview of institutional economics that bear directly on the issues raised by B&S.

First, contrary to the assertion of B&S, the essence of institutional economics is not a set of research methods (fact-gathering) but is a unique theoretical paradigm (see Furobotn and Richter, 1997; Kasper and Streit, 1998), albeit admittedly less formalistic and developed than the neoclassical. It is quite true, on the other hand, that in theory-construction institutionalism does emphasize to a much greater degree a grounded, inductive (I would say "adductive") methodology in which axioms and premises are adduced only after careful empirical investigation and fashioned with the express goal of being a good first approximation to reality.

The second point is that the core theory of institutional economics at its "micro" level of market analysis typically uses a distinctly different set of assumptions and models relative to traditional neoclassical economics. Institutional economists build market theories based on behavioral models of the human agent (e.g., bounded rationality), models of imperfect markets, and the important role played by property rights, institutions, and unequal endowments. Neoclassical theory, on the other hand, in its core version utilizes the rational actor model of the human agent, largely competitive models of markets, and tend (as a generalization) to take property rights, institutions, and endowments as exogenously given. As noted by Coase (1988: 6) and many others (Furobotn and Richter, 1997; Reder, 1999), neoclassical economics typically assumes zero transaction cost in market exchange, while the foundation of institutional economics is the existence of positive transaction cost. Positive transaction cost, in turn, rests on bounded rationality, imperfect markets, and incomplete property rights.

Now I turn to a more detailed look at the early institutional *labor* economists. I first consider their methodology of research, turning later to the substantive nature of their theory of economics and labor markets. Four aspects are salient: the emphasis on fact-gathering, the importance of realism of assumptions, the virtues of a "go and see" participant/observer method of investigation, and the necessity for an interdisciplinary approach to theory-construction. B&S describe the first two but largely omit the latter two.

As B&S note (p. 200), the classical and neoclassical economics of the late 19th century - early 20th centuries contained a heavy strain of laissez faire philosophy. The reason is that the theory of human kind and the economy used by these economists rested on proto-typical neoclassical theoretical assumptions, such as the "economic man" model of the human agent and a model of highly competitive markets, overlaid with normative assumptions about the sanctity of property rights and freedom of contract, the importance of individual initiative, and the social virtues of a Darwinian struggle for "survival of the fittest" (Fine, 1956; Kaufman, 1997). Given this world view, orthodox economists -- and their judicial compatriots -- tended to turn a blind eye toward labor problems on grounds that unemployment, poverty, or work accidents reflected personal choices, character defects, or the working out of natural law (e.g., unemployment arose from laziness, refusal to work for a lower wage, or the unavoidable dislocations that accompany industrialization). They correlatively viewed trade unions and government regulation of employment conditions with considerable hostility, seeing the former as a form of monopoly and abridgement of freedom of contract and the latter as a unwelcome source of paternalism, corruption, interference with market forces, and façade for the enrichment of special interest groups.[6]

A concrete example of the interplay of orthodox economic theory and conservative political/judicial opinion is workplace safety and health regulation and the "assumption of risk" doctrine (Moss, 1996; Commons and Andrews, 1936). Traditional economists and judges opposed government intervention (e.g., such as a worker's compensation program) on the grounds that competitive markets provide workers, per Adam Smith's theory of compensating wage differentials, a fully compensatory pay premium for greater risk. Thus, injured workers have no claim for state-provided accident benefits since they knowingly accepted the risk when they took the jobs and were compensated for doing so (implying that a workers' compensation payment would represent double-payment). A second example concerns payment of workers with company-issued scrip. State laws requiring payment with cash wages were declared an unconstitutional abridgement of "freedom of contract" (Commons and Andrews, 1936). One can easily imagine constructing a neoclassical model that explains the efficiency virtue of such a decision, given that unrestricted sorting in competitive labor markets allows all sides to "gain from trade" and workers who do not want to be paid in scrip can easily quit such jobs and find a match with other firms willing to pay cash wages. This type of reasoning was, in fact, used by the courts of the late 19th century (Lehrer, 1987).

We know that Commons and the other early institutional labor economists were self-professed social reformers and proponents (within bounds) of trade unions and government labor legislation. Kenneth Boulding (1957:7) has stated, for example, that Commons was "the intellectual origin of the New Deal, of labor legislation, of social security, of the whole movement in the country toward a welfare state." In appreciating the institutional approach to labor economics, it is important to first understand *how* they became social reformers and, then, how this impacted their approach to research.

It is apparent from the autobiographies and biographies of the early institutional labor economists that their interest in labor and social reform in significant degree came from the transformative experience of coming into contact with real life employment conditions and workplaces in America's mills, factories, and tenement lofts (Commons, 1934b; Lescohier, 1960; Eisner, 1967; Douglas, 1971).[7] All of the leading institutionalists were schooled in orthodox theory, but they only came to appreciate the huge gap between the theory and reality of labor markets when they experienced the work world first-hand.[8] Commons (1934b) relates, for example, that his interest in labor and commitment to employment reform developed only after he lost his professorship at Syracuse University and began five years of personal investigation of employment conditions for the U.S. Industrial Commission and Civic Federation. Later, he made a point of immersing his students in the real life of work, such as in the several month-long Pittsburgh Survey where they lived in steel towns and observed the life of steel workers, and in the investigative work for the U.S. Commission on Industrial Relations.

Out of the dual role of the early institutionalists as economists and reformers came the characteristic features of their research. Fact-gathering, for example, was crucial in order to present disconfirming evidence vis a vis orthodox theory. According to orthodox theory, labor problems either do not exist (e.g., unemployment is a voluntary choice) or are best solved by individual initiative and market forces. Thus, the institutionalists had to demonstrate, in an early 20th century form of hypothesis-testing, the converse case -- that contrary to the null hypothesis labor problems are serious and widespread and market forces do not solve them (indeed, in some cases they exacerbate labor problems). If they are not successful in this effort, then obviously the next step-- developing an alternative non-neoclassical theory -- will have little purpose and will arouse scant interest. In constructing an alternative theory, fact-gathering is again crucial in order to derive (or "adduce") more realistic assumptions and to identify the crucial forces and variables at work. Convinced that orthodox theory was in significant respects incorrect, the institutionalists took it as self-evident that the reason must be that its assumptions or structure are inaccurate. Thus, empirical investigation and fact-gathering, partly done through a "go and see" approach where the researcher obtains personal, first-hand grounding in the subject through case study, participant/observer methods, has to precede theory development in order that its assumptions and structure are *realistic*, where "realistic" is used in the sense of being a good first approximation to reality. [Illustratively, Commons spent over two decades on empirical research before turning to full-scale development of institutional theory, and he helped found the National Bureau of Economic Research (NBER) so that there was a firmer empirical foundation for economic theory.] Finally, the "go and see" approach and commitment to realism of assumptions necessarily led the early institutionalists to take a more holistic, interdisciplinary approach to research and theory-building, given that labor problems and the operation of labor markets and labor institutions are impacted by not only economic motives and forces but also by numerous psychological, social, legal, political, and historical forces. The early institutionalists were thus the academic founders of the field of industrial relations and treated labor economics and industrial relations as largely inseparable subjects (Kaufman, 1993).

The point I am making in the preceding is that the institutionalists did indeed stress fact-gathering and a case study, historically-informed approach to research, but that this approach was not a barren exercise in atheoretic descriptiveness but was instead the hand-maiden of theory development and hypothesis-testing. To be a convincing argument, however, it is also necessary to demonstrate that the early institutional labor economists went the next step -- that is, they engaged in theory-building or, even better, developed a bona fide theoretical framework. Clearly B&S do not think so, but I believe the evidence indicates otherwise.

The first indication that B&S may be incorrect comes from the quote by Boulding cited above where he uses the term "*intellectual* origin." If all Commons and colleagues of the institutional school did was assemble a mass of facts about labor problems, it is unlikely that this exercise by itself would have been powerful or persuasive enough to serve as the intellectual (theoretical) template for the near-revolution in labor policy initiated during the New Deal of the 1930s. As I will try to briefly indicate, the early institutionalists did fashion a theory of labor problems and labor markets, this theory was quite distinctive from neoclassical theory, and the institutional theory did in large part provide the intellectual underpinnings for the labor legislation of the 1930s..

The institutional theory of labor markets had several roots, including the German historical school of economics, the Social Gospel movement in America, and several late 19^{th} century American economists, such as Richard Ely, Henry Carter Adams, and Simon Patten (Dorfman, 1963; Jacoby, 1990; Kaufman, 1997). Ely, Adams, and Patten were among the young "rebels" in the American economics profession who rejected classical and early neoclassical theory as sterile exercises in deductive logic and scholarly apologias for laissez faire. They sought to develop a "new economics" with a more pscyhologically informed, humanistic representation of the human agent, models of markets that recognized the growth of trusts and monopolies, and a view of the economic process that made it possible for institutions such as government and unions to promote social welfare. To promote their new paradigm, they organized the American Economic Association in 1885 (Fine, 1956).

The most direct and immediate influence on the early labor institutionalists, however, came from Sidney and Beatrice Webb in England, and in particular their book *Industrial Democracy* (1897).[9] The focus of the Webbs was on trade unions and collective bargaining, but they advanced two ideas that the American institutionalists generalized to form key components of their theory of labor markets.

The first idea was to analyze the determination of wages in terms of bargaining power rather supply and demand. Following Marshall, the Webbs note that in a perfect market wages are determined by supply and demand and workers receive a wage equal to the contribution to production of the last person hired (p. 646). But, they say, this conclusion has two problems. The first is that it masks the superior bargaining power capital exerts over labor in the wage determination process due to unequal endowments. Because the average worker needs the job far worse than the firm needs the worker, and because the worker's labor is perishable and has zero value if not sold today, the ordinary worker's reservation wage is typically quite low. As a result, the supply curve of labor to the market lies much further to the right than would be true if labor had a pre-market endowment equal to capital. [Much the same occurs if labor law favors the interests of one side over the other, such as when the government allows unrestricted immigration to flood the labor market with job seekers.]

From a Marshallian perspective, in a perfect market neither labor nor capital has market power, since both are wage and price takers, and thus an "equality of bargaining power" exists (Kaufman, 1989, 1991). Further, the wage determined by supply and demand, although possibly quite low, is "optimal" in the sense that it reflects underlying opportunity costs and leads to an efficient allocation of resources. But, say the Webbs, when consideration is given to the unequal endowments capital and labor bring to the labor market, it is evident that firms in the aggregate are in a far superior position to workers in wage determination, leading to a marked *inequality* of bargaining power and a very low wage rate (pp. 656-57). This wage rate, in turn, may be non-optimal in a larger social perspective both on grounds of justice and long run economic growth and human wellbeing (e.g., less than a "living wage" will cause a reduction in future labor supply through ill-health, poor education, etc.).

Viewed broadly, labor may thus suffer from an inequality of bargaining power even in an erstwhile perfect labor market. But, say the Webbs, this raises the second problem with neoclassical theory. Orthodox theory presumes perfect markets, but they note (p. 648), "competition between individual producers and consumers, laborers and capitalists, is, as the economist is now careful to explain, in actual life very far from perfect, and shows no tendency to become so." They go on to note a number of imperfect aspect of labor markets, including asymmetric information, restrictions to mobility, barriers to entry in product markets, and involuntary unemployment. In each case, they claim, the net effect is to lead to a still greater inequality of bargaining power for labor (e.g., asymmetric information favors employers since they have superior information about market conditions; involuntary unemployment undercuts workers' bargaining power by making them compete with people desperate for work).[10] The other consequence of these market imperfections is that they create an area of indeterminacy in wages in which demand and supply set only upper and lower limits to the wage rate. Within these limits, say the Webbs, the wage rate (p. 649), "can be decided only by higgling and bargaining."

The second conceptual idea advanced by the Webbs that had a marked influence on the American institutional labor economists was to look at the employment relationship in terms of a political model of workforce governance (Kaufman, 2000). The goal of neoclassical theory is to construct a general theoretical framework that explains in a unified manner all economic activity. In so doing, the penchant is treat labor markets as similar to all other markets, to view labor as a commodity (albeit one with a utility function), and the employment relationship as growing out of market exchange between labor buyers and sellers. This perspective, in turn, gives primary emphasis to labor as a factor input in production and portrays work as only a means to an end (earning an income in order to buy goods and services), and the conditions of work as having no independent social significance beyond how they affect demand/supply.

The Webbs put forth a different conceptualization of the work and the employment relationship. People' satisfaction with life comes not only from consumption but also from work, and the conditions of work thus should also enter the individual's utility function as an independent argument (pp. 819-21). One of the most important conditions of work is that employees enjoy certain basic democratic rights, just as they do in the political sphere outside of industry. These democratic rights include a voice in the selection of leaders, some say in the determination of the terms and conditions of employment, and the protection of due process in the resolution of employment disputes. Pursuing this line of thought, the Webbs suggested that the employment relationship could thus be reconceptualized -- instead of treating it as an exchange-based relationship it could be modeled in political terms as a form of workforce governance (pp. 841-42). The governance structure of the typical firm was akin to absolute monarchy, symbolized by the "master-servant" legal doctrine that ruled the employment relationship of late 19th century England and the United States and the correlative doctrine of employment-at-will. Part of the Webbs' advocacy of trade unionism, therefore, was that it transformed industry from autocracy to a measure of democracy and, in so doing, contributed to improved employee wellbeing at work (independent of any effect on utility via consumption). The other part was that unions equalized bargaining power in wage determination and, by setting a uniform wage (a "common rule") in the labor market, could take wages out of competition and thus maintain reasonable terms and conditions of employment.

The conceptual framework developed by the Webbs was adopted by the American institutionalists and then expanded and elaborated. I have elsewhere described the institutional theory of labor markets in considerable detail (Kaufman, 1997, 2000), so for sake of brevity I summarize the main points.

The institutional theory of labor markets starts with the end goal(s) that economic activity is meant to contribute toward. In neoclassical theory, maximum efficiency in the production and allocation of resources (Pareto optimality) is the end goal. The early institutionalists broadened the goals to three. Following the neoclassical economists, efficiency was one, but they added two others: economic outcomes must satisfy minimum standards of equity (justice) and must contribute toward human development and self-realization. A minimum standard of justice was incorporated into institutional theory by Commons' (1934a) concept of "reasonable value" (essentially the community's collective judgement on whether an economic outcome passes the test of reasonableness, as illustrated by the Supreme Courts' frequent use of a "rule of reason"), while human development and self-realization was captured in Commons' contention that economic activity must contribute toward "expansion of the human will" and Ely's statement (1886: 3) that an economy should promote "the full and harmonious development in each individual of all human faculties." The latter consideration is the foundational idea for what is now called "humanistic economics" (see Lux and Lutz, 1988, and the *Journal of Social Economy*).

A second principle that flows from the first is that economic theory should include in people's utility functions not only consumption goods but also variables representing the conditions and experience of work, and that where efficiency and the two other goals (justice, self-development) conflict a trade-off should be made. Commenting on the orthodox point of view, Commons (1919: 33) states, "they [workers] are treated as commodities to be bought and sold according to supply and demand," and then says of the institutional perspective (with an obvious link to the Webbs), "they are treated as citizens with rights against others on account of their value to the nation as a whole." Slichter (1928: 651-52) gets to the same idea when he says, "it is vitally important that the methods of production shall be planned not only to turn out goods at low costs but to provide the kind of jobs which develop the desirable capacities of the workers."

A third principle is that in economic theory the human agent should be modeled as purposive and self-interested, but with two significant amendments. The first is that human rationality is limited by what Commons (1934a: 874) referred to as "stupidity, ignorance, and passion" -- an idea that Herbert Simon (1982) developed into the idea of "bounded rationality." Decision-making thus may have systematic biases and agents may "satisfice," implying (for example) that firms may not minimize cost (Kaufman, 1999b). The second amendment is recognition that many human emotions, such as feelings of injustice, hatred, love, and envy, arise from interactions or comparisons with other people, thus making behavior interdependent. For economic theory, this means that utility functions are interdependent and decision-making is based in part on relative comparisons, making indifference curves, supply and demand curves, and other such constructs no longer stable functions (Slichter, 1931: 625-27; Tversky and Kahneman, 1991).

A fourth principle is that most labor markets contain significant imperfections, such as limited and asymmetric information, significant costs of mobility, limited numbers of buyers (firms), externalities and public goods at the workplace, and involuntary unemployment. In one group of labor markets, these factors give employers market power over wages and working conditions and non-competitive outcomes for workers (e.g., as in the steel industry, where even a nationwide strike in 1919 was unable to induce employers to abandon the 7 day/12 hour work schedule). In other labor markets, these imperfections create conditions of excessive "cutthroat" competition where wages and working conditions are depressed far below full employment standards ("sweatshop" conditions, as in the needle trades). In either case, labor markets will not give rise to fully compensatory wage differentials for hazards or disagreeable factors, such as workplace accidents and long work hours, as predicted by neoclassical theory.[11] For this reason, firms often do not bear the full (social) costs of production (e.g., the full cost of workplace accidents), leading to a misallocation of resources and shifting of costs to workers and communities (Stabile, 1993).

Fifth, the market imperfections just cited create an inequality of bargaining power for many workers, particularly the less skilled and educated and in periods of less than full employment. One consequence is that wages for many workers are market determined only within an upper and lower bound, and within these limits they are determined by either administrative fiat or bargaining. Because wages are often administered prices, Commons (Commons and Andrews, 1936: 372) notes that "today 'individual bargaining' in any real sense [in the sense of a "give and take"] cannot exist" and that without union or government help "the inequality in withholding power between employer and employee is so great that the term bargaining is a misnomer [i.e., is "take it or leave it"]."[12] Reminiscent of the Webbs, he further states (p. 373), "It is obvious that the individual laborer is at a great disadvantage in bargaining with the employer…. It is a case of the necessities of the laborer pitted against the resources of the employer."

A sixth principle is that wage rates often are unable to equilibrate demand and supply and clear labor markets. One reason is that the wage rate performs a dual role in labor markets -- it allocates labor, as in neoclassical theory, but also is used by firms to motivate labor (Slichter, 1931: 592-650).[13] The wage rate (or change in the wage) that meets one objective often does not meet the other, leading to nonmarket-clearing outcomes. [As Palley (1995) has framed it, there are in effect more "targets" than "instruments".] A second reason is that wage cuts are often unable to eliminate involuntary unemployment due to insufficient aggregate demand. The early institutionalists were "proto-Keynesians" in that they believed the level of output and labor demand were primarily a function of the level of purchasing power and, thus, they concluded wage cuts often exacerbate the level of unemployment (Slichter, 1931: 490-91).[14] [Since labor demand curves in recessions and depressions are generally quite inelastic, a reduction in the wage rate reduces the wage bill and household income.]

Seventh, the early institutionalists believed that on net workers do not receive the full value of their marginal product (Slichter, 1931:616-39; Douglas, 1934: 94). One reason is that firms often face a rising supply curve of labor even in relatively competitive labor markets (because inframarginal workers face positive costs of mobility and can be paid less that is necessary to attract new workers from the labor market), giving rise to an upward sloping marginal cost of labor schedule and an equilibrium wage that is less than the workers' marginal revenue product. A second is that specific on-the-job training, and other sources of bilateral monopoly, create an area of indeterminacy in wage rates and thus open the door to wage determination through bargaining. Given that workers on net suffer an inequality of bargaining power, they are likely to be underpaid relative to their productivity. A third reason is that involuntary unemployment in labor markets undercuts worker bargaining power and also allows firms to pay a wage lower than the value marginal product.

I grant B&S that there is no one place that these seven principles are stated and succinctly described, but I claim that they are nonetheless readily identifiable after a careful reading of this literature. I further claim that by any reasonable standard these propositions, and the more general conception of labor markets they embody, clearly qualify as "theory" and not mere "description." And, finally, I also observe that the institutional principles just described provided the most important theoretical foundation for the New Deal labor policies of the 1930s. In an effort to stabilize labor and product markets, equalize bargaining power, and promote greater democracy in industry, the Roosevelt administration enacted many of the reforms advocated by Commons and the early institutionalists, such as minimum wages, old age insurance, and protection of the right to collective bargain. The major justification for the National Labor Relations Act, for example, is that encouragement of collective bargaining reduces labor's unequal bargaining power, stabilizes wage rates and expands purchasing power, and promotes economic expansion. Illustrated here is also the symbiosis between institutional and Keynesian economics -- the use of institutions to stabilize and advance wages in individual labor markets, thereby promoting in the aggregate greater effective demand and a reduction in unemployment (Kaufman, 1996).

The Neoclassical Approach

I next wish to re-examine B&S's account of the neoclassical approach to labor economics, and the purported reasons why the neoclassical approach has come to dominate labor economics research. The message of the preceding section is that getting the definition of "institutional" right makes a large difference in evaluating its prospects, adherents, and contributions. This same message applies in this section. But in describing the neoclassical approach, B&S err in the opposite direction. While "institutional" is treated too narrowly and lacking of theoretical content, B&S define "neoclassical" too broadly and too uncritically accept the intellectual coherence of neoclassical theory. The result is that their account of the evolution of the field down plays fundamental divisions within labor economics and suggests there is greater theoretical unity than actually exists.

To start the discussion, I want to demonstrate that within B&S's article are two different, partially disjoint definitions or conceptualizations of what constitutes "neoclassical." In reading B&S's article, for example, one is immediately struck by the breadth and diversity of people, topics, and theoretical ideas that purportedly fall within the intellectual boundaries of neoclassical economics. In a number of places, for example, "neoclassical" is equated with "price theory" and "standard economic theory" and the subject matter is treated as pertaining to labor markets, such as wage determination, labor demand, human capital, and so on. Consonant with this perspective, B&S at one point (p. 212) state that neoclassical theory is "a sparse model of maximizing behavior in the face of competition and constraints." The key word here is "competition," which tends to focus attention on demand and supply in labor markets and, presumably, how demand and supply determine wage rates and the allocation of labor resources.

But then in numerous other places B&S shift to a much more expansive notion of the domain and specification of neoclassical theory. With respect to subject area, for example, B&S also describe the application of neoclassical theory to non-market topics, such as "personnel economics" [defined by Lazear (1999: 200) as "the use of economics to understand the internal workings of the firm"] and the "economics of the family." Unlike markets, neither business firms nor families utilize competition and flexible prices as the mechanism for coordination, control, and allocation of resources.

B&S also include within the corpus of neoclassical economics a surprisingly heterodox group of economists and a similarly heterodox set of theoretical revisions and additions to the basic price theory model. One example is Akerlof and Yellen's (1990) "fair wage-effort" model and Solow's (1990) book *The Labor Market as a Social Institution*, both of which modify the standard model by introducing norms of fairness into wage determination. Their models predict, in turn, that wages will exhibit considerable rigidity, will be set above the market-clearing level, and will lead to persistent involuntary unemployment. Although Rees (1993: 385) recently remarked that "the neoclassical theory of wage determination which I taught for thirty years…. has nothing to say about fairness," and despite the fact that the predicted outcomes (e.g., persistent unemployment) are not consistent with market equilibrium, B&S nevertheless include these works and models in the domain of neoclassical economics. They also claim that another neoclassical work is Robert Frank's book *Choosing the Right Pond: Human Behavior and the Quest for Status* (1985), which argues that workers' desire for social status leads to within-firm individual wage differentials that are smaller than individual differences in marginal productivity; and a journal article by Jeremy Bulow and Lawrence Summers (1986) that uses the assumed link between wages and work effort to construct a model of dual labor markets that gives rise to non-compensating wage differentials and involuntary unemployment. As a final example, they label Richard Freeman and James Medoff as neoclassical economists, even though their work (the book *What Do Unions Do?*) makes the non-neoclassical case for greater unionization in the labor market.

One is led to ask what distinguishes these diverse and fairly heterodox authors and models as "neoclassical," and correlatively why they are neoclassical as opposed to the other labor economists that have also written on these issues but whom B&S put into the neoinstitutional "fact-gathering"camp (e.g., Peter Doeringer and Michael Piore, Bennett Harrison, Paul Osterman)? The answer they give (in the context of discussing internal labor markets) is that (p. 215, emphasis added), "Unlike the neoinstitutionalists, ….neoclassical economists have built their studies of firm behavior upon models of *maximization in the face of constraints*." I note that the word "competition" has fallen out of this definition, presumably reflecting the fact that demand/supply-type competition is not found within firms and other non-market institutions, and that "neoclassical" is in this version made synonymous with constrained optimization. This omission is not accidental or idiosyncratic for they elsewhere (e.g., p. 214) describe "maximizing behavior" as the distinctive feature of the neoclassical approach.

The reason I dwell on this distinction is that it highlights the two different conceptualizations of "neoclassical" contained within B&S's article. When B&S describe the neoclassical approach in terms of maximization in the face of constraints, they are framing it as essentially a "theory of choice." This perspective, of increasing popularity in the field, originated with Lionel Robbins (1932) who defined economics as the study of how best to allocate scarce resources to alternative ends (i.e., how to make the best choice). The real impetus to the "economics as a theory of choice" perspective has come, however, from the highly influential work of Gary Becker. Becker does not define his approach to theorizing as "neoclassical," but rather in more general terms as the "economic" approach. As B&S note, Becker's economic approach is better defined in terms of methodology than topic. The methodology is described in these words by Becker (1976: 14), "The combined assumptions of maximizing behavior, market equilibrium, and stable preferences, used relentlessly and unflinchingly, form the heart of the economic approach as I see it." Because it represents a generic theory of how people make choices, Becker portrays it as providing a unified framework for explaining all forms of behavior -- per these words (p. 8) "the economic approach is a comprehensive one that is applicable to all human behavior, be it behavior involving money prices or imputed shadow prices, repeated or infrequent decisions, large or minor decisions, emotional or mechanical ends, …."

In B&S's account, the terms "neoclassical," "economic approach," economic theory," "price theory," and "modern labor economics" are used interchangeably with little-to-no distinction. Doing so, however, permits a subtle but powerful extension in the reach and domain of neoclassical economics, as they define it. To illustrate, consider an "official" definition of *neoclassical*. According to the *MIT Dictionary of Modern Economics* (Pearce, 1999:301), "neoclassical" connotes, "A body of economic theory which uses the general approach, methods, and techniques of the original nineteenth century marginalist economists… In particular, they studied the possibility of a set of market prices which ensured the equality of supply and demand in all markets. The idea of a perfectly competitive economy in equilibrium, which may be attributed especially to Walras, is central the neo-classical scheme."[15]

The Becker "theory of choice" approach has much in common with this definition of "neoclassical," but at crucial places generalizes it and shifts the purpose. In the above-stated definition of "neoclassical," attention is focused on explaining how demand and supply determine equilibrium prices in competitive markets and how these prices in turn allocate resources to their most efficient use. I call this the "traditional" definition of neoclassical economics, as it corresponds to the long-standing microeconomic or "price theory" model. But Becker turns the purpose of economic theory from one of explaining *market price* determination and resource allocation to one of explaining *people's choices* in all walks of life, using neoclassical assumptions of utility maximization, rational behavior, stable preferences, and equilibrium prices (monetary or shadow). The difference here is that the object of analysis goes from the determination of prices *per se* to how prices affect individual decision making through their impact on relative benefits and costs of alternative courses of action. Becker's economic approach is thus more general and far-reaching, per Lazear's (2000) observation that (p. 103), "The most aggressive economic imperialists [e.g., Becker] aim to explain all social behavior by using the tools of economics. Areas traditionally deemed to be outside the realm of economics because they do not use explicit markets or prices are analyzed by the economic imperialist."

Thus, when B&S equate "neoclassical" with Becker's "economic" approach, the reach and generality of the former increases tremendously and many diverse economists and models now come under the "neoclassical" umbrella. Illustrative, for example, are the previously-mentioned economists cited in B&S's article: Akerlof, Solow, Frank, Bulow and Summers, and Freeman and Medoff. Using the "official" dictionary definition of "neoclassical," large doubt exists as to whether any of these authors' works so qualify, as the model of the labor market contained in them does not give rise to a competitive equilibrium solution. They are, however, "neoclassical" if the term is re-interpreted to mean a paradigm based on a theory of choice built around constrained utility maximization.

Two examples illustrate this conundrum. The first is Solow's book in which he introduces norms of fairness into wage determination. If "neoclassical" is interpreted to mean a model of constrained maximization, then Solow's model qualifies. The model he constructs explains rigid wages and unemployment by including in the worker's utility maximization decision an additional cost variable – the social opprobrium people receive when they try to gain employment by bidding down the going rate of pay. If "neoclassical" is interpreted to mean a theory based on a competitive market-clearing model of labor markets, then Solow's work does not qualify for it leads to the non-neoclassical prediction that wage rates will not clear the labor market and involuntary unemployment will persistent over time.

The second example, also discussed by B&S, is implicit contract theory. B&S note that the competitive model predicts that flexible wages should clear labor markets in response to a demand or supply shock but, in actual practice, wages are sticky and firms therefore adjust quantities (not prices) by laying off workers. They then describe how implicit contract theory has resolved this paradox. It does so by introducing an asymmetry in the utility functions of workers and the firm – the firm is risk neutral but workers are risk averse. The predicted outcome, represented mathematically by a constrained optimization model, is that workers and firms bargain an efficient contract in which workers gain income security in the form of stable (non-cyclical) wages and in return workers compensate firms by agreeing to work at a lower wage level. The model thus juxtaposes “rational behavior” and what appears on the surface to be non-neoclassical outcomes – rigid wages and involuntary unemployment. In this spirit, B&S conclude (p. 211), "In sum, it is the view of neoclassical labor economists that layoff unemployment is not inconsistent with economic theory."

I ask the reader to ponder four questions. First, what do B&S mean by the term "economic theory?" To my mind it is clear that what they are referring to is the expansive, constrained optimization Becker-type version of neoclassical theory (albeit a version resting on differences in “tastes” as an explanatory variable). Second, is the implicit contract model consistent with the more traditional conception of "neoclassical," such as contained in the dictionary definition cited above? The answer, I think, is "no," since wage rates do not clear the labor market and balance supply and demand. Third, is there any form of human behavior that cannot be rationalized or “explained” by a suitably specified constrained optimization model? Opinions may differ, but one may reasonably conjecture that answer is “no” given the wide range of behaviors Becker and associates (Becker, 1976; Stigler and Becker, 1977; Becker and Murphy, 2000) have already applied the model to (e.g., drug addiction, crime, music appreciation, fertility, fads and fashions). And fourth, if the answer to question three is “no” or close thereto, then in what meaningful sense is it possible to subject this version of neoclassical theory to the test of falsification (the desideratum of a theory)? Again, opinions will differ, but the falsification test appears quite difficult to operationalize in practice with Becker’s approach since it is always possible to revise the specification of the objective function and/or constraints so that the predicted behavior fits the facts (as with the implicit contract model).[16] If this is the case, does not “neoclassical” then effectively subsume all forms of behavior – per the “imperialist” claim made by Lazear in an earlier quotation – and thereby risk losing its intellectual coherence as an *economic* paradigm (i.e., a theory of how an economy works)?

My purpose in raising these questions is not to critique Becker's economic approach (no such effort is made or implied), but to suggest that when B&S equate it with "neoclassical" they inevitably end up defining the latter so expansively that it becomes synonymous with any model that uses constrained optimization. One way out of this conundrum is to search for a more tightly specified definition of neoclassical that is better able to discriminate among neoclassical and non-neoclassical theories. Toward this end I have already provided a dictionary definition. A second approach is to return to B&S's article and search for other characteristics that define "neoclassical." Doing so turns up, in addition to constrained maximization, six other assumptions/concepts. These are (modestly paraphrased in several cases): methodological individualism, rational behavior, marginal analysis, (mostly) competitive markets, equilibrium, and market-clearing.[17] Some of these concepts are not specifically contained in the dictionary definition, but three are: competitive markets, equilibrium, and market-clearing. This congruence reinforces belief that a more discriminating conception of "neoclassical" turns on these key properties.

Evidence in support of this conjecture is provided by looking in more detail at two of the economists that B&S claim are central figures in the early development of the neoclassical approach. The first is John Hicks, the second is Paul Douglas. Each published a pioneering book in the early 1930s using the same title, *The Theory of Wages* (Hicks, 1932; Douglas, 1934). Looking at both books, each contains "neoclassical" features. Both Hicks and Douglas use constrained maximization, marginal analysis, rational behavior (Douglas with qualifications), and methodological individualism. But it is the differences that separate the two books that are more important.

Hicks assumes as a useful first approximation that labor markets are competitive, the invisible hand of the price system leads to an efficient allocation of resources, and that flexible wages will automatically clear the labor market (perhaps with some adjustment lag in the short run). Hicks' book is thus firmly neoclassical, per the dictionary definition. For example, Hicks starts out with this statement (p. 1), "The theory of the determination of wages in a free market is simply a special case of the general theory of value. Wages are the price of labour; and, thus, in the absence of control, they are determined, like all prices, by supply and demand." He goes to say (p. 4), "Wages, say the text-books, tend to that level where demand and supply are equal…. Now this, as I hope to make abundantly clear, is quite a good simplified model of the labour market. So far as general tendencies are concerned, wages do turn out on the whole very much as if they were determined in this manner."[18]

Douglas stakes out a considerably different position. Douglas places far more emphasis on the significance of various market imperfections and non-competitive elements in labor markets. Indeed, Douglas frames wage determination largely in bargaining power terms, which appears to put him close (if not within) the institutional camp. He denies (pp. 85-86, 502), for example, that flexible wages can be counted on to clear labor markets, and he concludes that (p. 90), "The bargaining powers of labor and capital are not equal. This follows not only from the lesser mobility and knowledge of labor as compared with capital but also from the great disparities in the reception of income." For this reason, he concludes (pp. 94-95), "An increased activity by the state in behalf of labor, or further unionization on the part of the wage-earners themseles, would have helped to redress this balance." And, finally, Douglas provides this assessment of the overall validity of neoclassical theory (pp. 95-96), "The method of the marginal productivity school, as indeed the entire school of orthodox economists, has described a portion of reality… At the same time it is dangerous to assume that the neat tidy world of the syllogism is in fact a picture of the real world."

In their article B&S state (p. 210), "One fundamental tenet of basic price theory is that the forces of demand and supply drive all markets into market-clearing equilibrium." They go on to say, "One characteristic of the neoclassical labor economists -- and one that sharply distinguished them from the neoinsitutionalists -- was their dogged determination to find maximizing behavior and equilibrium outcomes throughout the labor market." But, is the latter statement accurate even as a first approximation to Douglas? If not, how then is he "neoclassical?"

Or consider Joan Robinson's book *The Economics of Imperfect Competition* (1933). It is widely considered "neoclassical," for the theory is thoroughly marginalist and in the Marshallian tradition (Feiwel, 1989:22). Yet in it she develops the model of monopsony, which by construction does not yield a market-clearing price nor a market equilibrium (the wage is an administered price set by the firm; since no well-defined labor demand curve exists for a monopsonist neither can a demand/supply equilibrium). Further, she concludes her analysis with this statement (p. 307), "It is customary, in setting out the principles of economic theory, to open with the analysis of a perfectly competitive world, and to treat monopoly as a special case. It has been the purpose of the foregoing argument to show that this process can with advantage be reversed and that it is more proper to set out the analysis of monopoly [including monopsony], treating perfect competition as a special case."[19]

As a third example, it was previously noted that B&S cite Solow's book *The Labor Market as a Social Institution* as "neoclassical." In the Preface (p. xvi) Solow says the following, "Yet in today's preferred style the labor market is usually modeled as just clearing or, more subtly, producing efficient contracts. Bits of realism appear here and there in the literature but have not made much headway. You do not have to be a congenital skeptic to doubt that this sort of map gives a useful picture of the lay of the land." He then describes an alternative model of labor markets that yields multiple equilibria but where wages do not clear the market and involuntary unemployment persists. He then says, comparing his model to the standard market-clearing version (p. 59), "The more institutional point of view suggests that the labor market can be in equilibrium with any one of a range of unemployment rates."

I cite these examples because they illustrate a major lacuna in B&S's account of the evolution of neoclassical thought in labor economics. According to B&S, books written by economists such as Douglas, Robinson, and Solow are neoclassical, but the evidence is clear-cut these economists do not believe that the workings of labor markets can be reasonably approximated in the short-medium run as either market-clearing or "competitive." Is this divergence only a "wrinkle" in the paradigm, or is it a major contradiction in the way B&S define it? I believe the latter is more nearly the case.

Neoclassical microeconomic theory has two fundamental building blocks: the rational actor model of the human agent (*homo economicus*) and some explicit or implicit model of Walrasian-type competitive markets and market-clearing. It was against the former that the early institutionalist economists, such as Veblen, directed much of their fire, but they failed to successfully develop an alternative and the attack was beaten-back. But then in the 1930s came what are widely regarded as two of the three great 20th century revolutions in economic theory, and both were directed against the latter part of the neoclassical paradigm.

The first was the development of theories of imperfect competition by Chamberlin (1933) and Robinson (1933), and the second was the development of a nonmarket-clearing theory of macroeconomics by Keynes (Samuelson, 1977: 890). (The third was the mathematization of theory.) At the time there was great debate as to whether the work of Chamberlin and Robinson represented a fundamental break with neoclassical economics or was better considered an extension and generalization thereof. Over time the latter view won out, in part because the theory was so heavily "neoclassical" in its construction (maximization, marginalism, etc.). But widespread agreement exited at the time, and to a significant degree continues to exist, that Keyne's *General Theory* did indeed represent a genuine break with neoclassical economics and the beginnings of an alternative paradigm. The reason, in turn, that Keynesian economics is seen as non-neoclassical is because Keynes jettisoned in a profound and far-reaching manner the assumption of market-clearing. In particular, Keynes (1936: 257-61) denied that wage rates, *even if perfectly flexible*, can ordinarily restore a balance between aggregate labor demand and supply, leaving open the possibility/probability of persistent involuntary unemployment and underutilized resources. This conclusion strikes at the foundation of the neoclassical paradigm at three levels: on the level of theory it suggests that models should be built around quantity adjustment, not price adjustment; on the level of prediction it suggests that the "invisible hand" mechanism of flexible prices/wages will not be able to automatically restore full-employment equilibrium, and on the level of welfare analysis it suggests that a free market competitive system will not lead to maximum economic efficiency (i.e., not all gains from trade will be exploited) and that government intervention can thus lead to Pareto superior outcomes.

It is the verdict of many modern economists that Keynes' conclusions are valid, but only if constructed on a consistent foundation of imperfect competition (Dixon and Rankin, 1995). Thus, I claim that the "neoclassical approach" that B&S attribute to economists such as Akerlof, Solow, and Frank cannot be considered "neoclassical" in any meaningful sense unless it is used in the Becker "theory of choice" context (or, perhaps, if the term is used to connote analytical model-building or, to paraphrase Jacob Viner's well-known definition of economics, if it is “whatever modern labor economists do”). If neoclassical is defined to mean a statement of how a market economy works, then the various economists and their published works B&S cite actually fall into two groups, one neoclassical and one non-neoclassical. The former is grouped around assumptions of full rationality, competitive markets, and market-clearing; the latter cluster around much the opposite assumptions -- models of imperfect competition, non-market clearing outcomes, and (often) “behavioral” models of the human agent (Kaufman, 1999b).

The neoclassical group, in turn, is centered on the University of Chicago and the work of Friedman, Stigler, Becker, Mincer, and others.[20] It is this branch of neoclassical theory that B&S equate with what they call "modern labor economics." In his review of the Chicago School of economics, Reder (1982:11) states that the Chicago approach is built on one central premise and four auxiliary assumptions. In an effort to come up with a explicit guide as to what separates neoclassical from non-neoclassical, Reder's central premise and four assumptions are arguably the best standard available. The central premise (what he calls "Tight Prior Equilibrium") is "the hypothesis that decision makers so allocate the resources under their control that there is no alternative allocation such that any one decision maker could have his expected utility increased without a reduction occurring in the expected utility of at least one other decision maker." The four assumptions are (stated nearly verbatim): most economic agents perceive prices of the goods or services they buy or sell to be independent of the quantities they transact (prices are parametric, as in perfect competition); prices people use to transact are market-clearing prices consistent with optimization by all decision makers; information is a scarce good that is available at an "optimal" level in the sense of the quantity produced equates marginal benefit and cost; and neither monopoly or government intervention affects relative prices or quantities sufficiently to prevent either marginal products or compensation of identical resources from being approximately equal in all uses.

It is evident that if Reder's standard is used many labor economists that B&S consider "neoclassical" are not in fact practitioners of this approach to economics. Unfortunately, this non-neoclassical group does not have a well-recognized name or self-conscious identity to match the Chicago School. But, to give them a name, I have elsewhere (Kaufman, 1994) called them the "Cambridge Group" in recognition that the intellectual center of gravity has tended to reside at Harvard and MIT. (Their membership spreads far more widely, however.) Illustrative names include Solow, Samuelson, Thurow, Lawrence Summers, and Richard Freeman. This group includes a somewhat more diverse set of economists and ideas (hence my use of the term "group" rather than "school"), but broadly subscribes to the Keynesian paradigm in macroeconomics and, in the study of micro labor markets, to some model that includes in a substantively importance sense different forms of imperfect competition, market failure, and non-market clearing outcomes. They also draw significant insight and inspiration from the work of the postwar labor economists -- per Solow and Freeman's tribute to the influence of John Dunlop on their thinking about labor markets (Solow, 1990: xvi; Freeman, 1988: 219).

The Cambridge Group labor economists follow Samuelson's (1951) dictum that (p. 322), "If each morning people could be hired in an organized auction market, the world would be a very different one -- not a slightly different one, but a substantially different one." The reason is that actual labor markets in many (but not all) cases depart so significantly from the assumptions of the Chicago competitive model that the latter is not by itself an adequate tool for understanding wage/employment outcomes. In this spirit, for example, Thurow (1983: 215) states, "If one were ranking various economic markets along a continuum by the extent to which they reflected the postulates of the price-auction model, financial markets would probably be placed at one end and labor markets at the other," Likewise, Freeman (1988: 209) observes that, "the broad conclusion [is] that competitive theory cannot explain the observed phenomenon [of inter-industry wage differentials] and that labor market analysis must change, accordingly, if it is to deal with the real world."

The manner in which the Cambridge Group has sought to remold labor market theory is to revise and amend various aspects of the competitive model (Solow, 1990; Thurow, 1975; Freeman and Medoff, 1984). Examples include formulating a more behaviorally informed model of the human agent (e.g., incorporating norms of fairness into wage determination, such as done by Solow), including non-competitive and nonmarket-clearing features of labor markets (e.g., Thurow's "job competition" model in which quantity adjustments replace wage adjustments as the equilibrating mechanism), and to recognize the sub-optimal nature of various labor market outcomes due to various forms of market imperfections and failures (e.g., the sub-optimal provision of working conditions in firms due to the public goods nature of employee voice, per Freeman and Medoff's "exit/voice" model).

Labor economists allied with the Chicago School have also, of course, endeavored to revise and extend the competitive market model that forms the heart of the neoclassical approach in order that it more closely describes and predicts reality. Stigler's (1962) model of job search, for example, endeavors to incorporate imperfect information into the neoclassical model, while Becker's (1964) theory of specific on-the-job training provides an explanation for a modest amount of indeterminacy in wages rates and departure of wages from the equality with labor's marginal revenue product. The crucial difference, however, is that the Chicago School continues to believe that these amendments to reality do not as a first approximation invalidate any of Reder's above-mentioned four assumptions.[21] Since my purpose here is to describe, not judge, alternative approaches to theorizing, I note only that this debate ultimately turns on empirical evidence for and against the contrasting positions.

The revised interpretation I offer suggests that there is in fact a meaningful distinction between (broadly defined) Chicago and Cambridge labor economists, that the field of labor economics is best perceived as split into two major schools of thought organized around these two groups, and that the "neoclassical" approach discussed by B&S does not cover the entire field but only the subset of labor economists who view labor markets within the Chicago School paradigm as defined above by Reder. If one looks at the matter in a deeper way than simply the person "has or does not have a commitment to economic theory," the dividing line between the two groups occurs along the boundary defined by Solow (p. xvi, quoted above)-- whether markets clear or, more subtly, whether voluntary exchange leads to efficient contracts among all the parties. At the end of the day, and after all the qualifications and caveats are made, the adherents of the Chicago School and what B&S call "modern labor economics" answer these questions in the affirmative, while the adherents of the Cambridge Group (including fellow-travelers, such as institutionalists and post-Keynesians) answer these questions in the negative. Out of these differences in theory flow, in turn, significant differences on policy issues, with (as a generalization) the former group arrayed against institutional interventions in labor markets and the latter group open to the idea that selective intervention can improve social welfare.

Conclusions

In this article I offer an alternative interpretation of the evolution of the labor economics field. I do not entirely reject Boyer and Smith's account, for it has important elements of truth, but I nevertheless contend it is seriously incomplete and in certain important respects skewed and misleading. In my view, they present an unduly narrow depiction of the institutional approach to labor research and, correspondingly, an overly expansive portrayal of the neoclassical approach. As they describe it, the difference between the two is one of fact-gathering versus theory-building; in my alternative account the fundamental difference rests on theoretical assumptions about human behavior, the operation of markets, and the role of institutions in economic affairs. Further, I contend that a careful examination of the research record of the "postwar labor economists" (e.g., Dunlop, Kerr, Lester, Reynolds) clearly contradicts B&S's assertion that they are best considered as members of the (allegedly) descriptive, fact-gathering "institutional" branch of labor research. Much of their research is oriented toward development of new labor market theories and models, albeit in a non-neoclassical direction. In particular, these economists sought to meld theories of imperfect competition, the Keynesian macro model of non-clearing markets, and social science/business insights from industrial relations.[22]

Looking over the 20th century, B&S see a steady if not very linear trend in the form and content of labor economic research. One end point anchors this line in the early part of the century. Here the field is heavily dominated by the institutionalists and, accordingly, the emphasis is on empirical fact-gathering and a descriptive account of labor market pathologies and institutions. Labor economists of a more neoclassical outlook were few in number and "outliers" in the field. The other end point of the trend line is anchored at the end of the 20th century. Now the field is heavily dominated by the neoclassical approach and, accordingly, the emphasis is on deductive model-building, hypothesis-testing, and general economic principles. The tables have turned and the institutionalists are now few in number and represent the "outliers."

Looking at the same scatter of points (metaphorically speaking), I see a far different pattern in the data. On deeper analysis, the scatter of points cluster around two trend lines, not one. One has its beginning point in the last two decades of the 19^{th} century in the work of "marginalist" economists, such as Walras and Marshall (the former more than the latter). An intermediate point on this line is the work of the young John Hicks in his *Theory of Wages*, while points later on the line are heavily associated with economists of the Chicago School, such as Friedman, Stigler, Becker, Mincer, Rosen, and Lazear. Economists who fall along this trend line (with varying degrees of deviation) are "neoclassical" in that they subscribe to certain theoretical assumptions. These include a rational, utility maximizing model of the human agent, a model of markets that is largely competitive, and an emphasis on equilibrium and efficiency. This is the trend line which "modern labor economics," as defined by B&S, is centered on.

The second trend line also has its beginning point in the last two decades of the 19^{th} century. It is centered around that period's economic "rebels" and reformers, such as Richard Ely, Henry Carter Adams, and Simon Patten, who found classical economic doctrine a sterile exercise in deductive logic and an apology for laissez faire. Their goal was to promote a "new economics" and toward this end they founded the American Economics Association in 1885. Shortly after them is another cluster of points containing the early institutional labor economists, such as Commons, Slichter, and the Webbs. Somewhat later is another point, centered more closely on the line, representing Paul Douglas, while another very prominent point is the work of John Maynard Keynes. Still later in time the work of the postwar labor economists clusters around this line, as does still later work of many contemporary economists, such as Lester Thurow, Michael Piore, Richard Freeman, and Lawrence Summers. Also scattered along this line is the work on labor markets of a number of Nobel laureates, such as the mature John Hicks, Herbert Simon, Robert Solow, George Akerlof, and Joseph Stiglitz (Schmid, 2001). The central point that unites these economists is that the competitive/market-clearing model of labor markets that forms the core of the Walrasian/neoclassical paradigm is for many purposes seriously incomplete and thus needs significant revision -- per the quotes of Commons, Solow, and Hicks at the beginning of this article. These revisions include a more behaviorally informed model of the human agent, micro models of imperfect competition, incorporation of Keynesian principles of effective demand, and deeper analysis of institutions and legal rules.

The dichotomy in labor market theory I am offering here is not new nor my invention. Writing in 1958, Melvin Reder observed (p. 84): "There are two general approaches to the theory of wage structure. One is the market theory, or the competitive hypothesis, the other is what we might roughly term the institutional. Each has its place and, under pressure, most students of labor markets will concede this." In this article I claim no more and no less. This quotation also highlights the three areas of disagreement I have with B&S. Reder frames neoclassical economics in terms of the *competitive hypothesis* which accords with the viewpoint taken here, while B&S define neoclassical as largely coterminous with constrained optimization. Also similar to the position taken here, Reder describes the institutional approach as one involving *theory*, as opposed to B&S who describe it as descriptive and fact-based. And, finally, Reder suggests that both the neoclassical and institutional approaches have a place in labor economics and provide distinctly different, substantively important contributions to the field, while B&S suggest that the institutional approach has largely died-out and been absorbed into an expanded version of neoclassical economics. I readily admit that few studies by modern labor economists explicitly use the "institutional" term to describe the ideas/models therein, so B&S's position has surface plausibility. If one looks instead at the core propositions that define "institutional" – a more behaviorally-informed model of the human agent, models of imperfect competition, non-clearing labor markets, and the important role of property rights and institutions, it is evident that the institutional approach is not only alive and well but also utilized by many leading economists, including a number of Nobel laureates.[23]

References

Akerlof, George, and Janet Yellen. 1990. "The Fair Wage-Effort Hypothesis and Unemployment," *Quarterly Journal of Economics,* Vol. 105 May, pp. 255-84.

Aspromourgos, Tony. 1986. “On the Origins of the Term ‘Neoclassical,” *Cambridge Journal of Economics*, Vol 10, No. 3, pp. 265-70.

Becker, Gary. 1964. *Human Capital*. New York: Columbia University Press.

______. 1974. "A Theory of Social Interaction," *Journal of Political Economy*, Vol. 82, No. 6, pp. 1063-91.

______. 1975. "A Theory of Marriage." In Theodore Schultz, ed., *Economics of the Family: Marriage, Children, and Human Capital*. Chicago: University of Chicago Press, pp.

______. 1976 The *Economic Approach to Human Behavior*. Chicago: University of Chicago Press.

______. 1991. "A Note on Restaurant Pricing and Other Examples of Social Influences on Prices," *Journal of Political Economy*, Vol. 99, No. 5, pp. 1109-16.

______, and H. Gregg Lewis. 1973. "On the Interaction between the Quantity and Quality of Children," *Journal of Political Economy*, Vol. 81, No. 2 (Part 2), pp. S279-88.

______, and Kevin Murphy. 2000. *Social Economics*. Cambridge: Harvard University Press.

Boyer, George, and Robert Smith. 2000. The Development of the Neoclassical Tradition in Modern Labor Economics." *Industrial and Labor Relations Review*, Vol. 54, No. 2, pp. 199-223.

Boulding, Kenneth. 1957. "A New Look at Institutionalism," *American Economic Review*, Vol. 47, May, pp. 1-12.

Bulow, Jeremy, and Lawrence Summers. 1986. "A Theory of Dual Labor Markets with Application to Industrial Policy, Discrimination, and Keynesian Unemployment," *Journal of Labor Economics*, Vol. 4, No. 3, pt. 1, pp. 376-414.

Chamberlin. Edward. 1933. *The Theory of Monopolisitc Competition*. Cambridge: Harvard University Press.

Colander, David. 2000. “The Death of Neoclassical Economics,” *Journal of the History of Economic Thought*, Vol. 22, No. 2, pp. 127-43.

Commons, John. 1905. *Trade Unionism and Labor Problems*. Boston: Ginn..

______. 1919. *Industrial Goodwill*. New York: McGraw-Hill.

______. 1934a. *Institutional Economics: Its Place in Political Economy.* New York: MacMillan.

______. 1934b. *Myself*. Madison: University of Wisconsin Press.

______. 1950. *The Economics of Collective Action*. Madison: University of Wisconsin Press.

______, and John Andrews. 1936. *Principles of Labor Legislation*, 4th ed. New York: Harper.

Douglas, Paul. 1933. *The Theory of Wages*. New York: MacMillan.

______. 1971. *In the Fullness of Time.* New York: Harcourt, Brace, Jovanovich.

Dorfman, Joseph. 1963. "The Background of Institutional Economics." In (no editor) *Institutional Economics: Veblen, Commons, and Mitchell Reconsidered*. Berkeley, University of California Press, pp. 1-44.

Dunlop, John. 1944. Wage Determination under Trade Unions. New York: Kelley.

Eisner, 1967. *William Morris Leiserson: A Biography*. Madison: University of Wisconsin Press.

Ely, Richard. 1986. *The Labor Movement in America*. New York: Thomas Crowell.

Fine, Sidney. 1956. *Laissez-faire and the General Welfare State: A Study of Conflict in American Thought, 1865-1901*. Ann Arbor: University of Michigan Thought.

Frank, Robert. 1985. *Choosing the Right Pond: Human Behavior and the Quest for Social Status*. New York: Oxford University Press.

Freeman, Richard. 1988. "Does the Newer Generation of Labor Economists Know More than the Older Generation.? In Bruce Kaufman, ed., *How Labor Markets Work: Reflections on Theory and Practice by John Dunlop, Clark Kerr, Richard Lester, and Lloyd Reynolds*. Lexington: Lexington Books, pp. 205-32.

______, and James Medoff. 1984. *What do Unions Do?* New York: Basic Books.

Friedman, Milton. 1951. Some Comments on the Significance of Labor Unions for Economic Policy." In David McCord Wright, ed., *The Impact of the Union*. New York: Kelley and Millman, pp. 204-34.

Furobotn, Erik, and Rudolf Richter. 1997. *Institutions and Economic Theory*. Ann Arbor: University of Michigan Press.

Hicks, John. 1932. *The Theory of Wages*. London: MacMillan.

______. 1974. *The Crisis in Keynesian Economics*. New York: Blackwell.

Jacoby, Sanford. 1990. “The New Institutionalism: What can It Learn from the Old?” *Industrial Relations,* Vol. 29 No. 2, pp. 316-40.

Kasper, Wolfgang, and Manfred Streit. 1998. *Institutional Economics: Social Order and Public Policy*. Brookfield: Edgar Elgar.

Kaufman, Bruce. 1988. "The Postwar View of Labor Markets and Wage Determination." In Bruce Kaufman, ed., *How Labor Markets Work: Reflections on Theory and Practice by John Dunlop, Clark Kerr, Richard Lester, and Lloyd Reynolds*. Lexington: Lexington Books, pp. 145-203.

______. 1989. "Labor's Inequality of Bargaining Power: Changes over Time and Implications for Public Policy," *Journal of Labor Research,* Vol. 10, Summer, pp. 285-98.

______. 1990. "Labor's Inequality of Bargaining Power: Myth or Reality,?" *Journal of Labor Research,* Vol. 11, Spring, pp. 151-66.

______. 1993. *The Origins and Evolution of the Field of Industrial Relations in the United States*. Ithaca: ILR Press.

______. 1996. "Why the Wagner Act? Reestablishing Contact with Its Original Purpose." In David Lewin, Bruce Kaufman, and Donna Sockell, eds., *Advances in Industrial and Labor Relations*, Vol. 7. Greenwich: JAI Press, pp. 15-68.

______. 1997. "Labor Markets and Employment Regulation: The View of the 'Old' Institutionalists." In Bruce Kaufman, ed., *Government Regulation of the Employment Relationship*. Madison: Industrial Relations Research Association, pp. 11-56.

______. 1999a. "Emotional Arousal as a Source of Bounded Rationality," *Journal of Economic Behavior and Organization,* Vol. 38, No. , pp. 135-44.

______. 1999b. "Expanding the Behavioral Foundations of Labor Economics," *Industrial and Labor Relations Review,* Vol. 52, No. 3, pp. 361-92.

______. 2000. "The Early Institutionalists on Industrial Democracy and Union Democracy," *Journal of Labor Research,* Vol. 21, No. 2, pp. 189-210.

______. 2001. "The Organization of Economic Activity: Insights from the Institutional Theory of John R. Commons," *Journal of Economic Behavior and Organization* (provisionally accepted).

______. 2002. "Reflections on Six Decades in Industrial Relations: An Interview with John Dunlop," *Industrial and Labor Relations Review*, Vol. 55, No. 2, pp. 324-48.

Kerr, Clark. 1950. "Labor Markets: Their Character and Consequences," *American Economic Review*, Vol. 40, May, pp. 278-91.

______, and Paul Staudohar. 1994. *Labor Economics and Industrial Relations: Markets and Institutions*. Cambridge: Harvard University Press.

Keynes, John M. 1936. *The General Theory of Employment, Interest, and Money*. New York: Harcourt.

Lazear, Edward. 1999. "Personnel Economics: Past Lessons and Future Directions," *Journal of Labor Economics*, Vol. 17, No. 2, pp. 199-36.

______. *2000*. "Economic Imperialism," *Quarterly Journal of Economics*, Vol. , No. , pp. 99-145.

Lee, Frederick., and Warren Samuels. 1992. *The Heterodox Economics of Gardner C. Means: A Collection*. Armonk: M.E. Sharpe.

Lehrer, Susan. 1987. *Origins of Protective Labor Legislation for Women, 1905-1925*. Albany: State University of New York Press.

Lescohier, Don. 1960. *My Story for the First Seventy-Three Years*. Madison: Art Brush.

Lester, Richard. 1941. *Economics of Labor*. (2nd ed., 1964). New York: MacMillan.

______. 1952. "A Range Theory of Wage Differentials," *Industrial and Labor Relations Review*, Vol. 5, No. 4, pp. 483-500.

Lutz, Mark, and Kenneth Lux. 1988. *Humanistic Economics: The New Challenge*. New York: Bootstrap.

Marshall, Alfred. 1890. *Principles of Economics*. London: MacMillan.

Medema, Steven. 1996. "Ronald Coase and American Institutionalism." In *Research in the History of Economic Thought and Methodology*. Greenwich: JAI Press, pp. 51-92.

Moss, David. 1996. *Socializing Security: Progressive-Era Economists and the Origins of American Social Policy*. Cambridge: Harvard University Press.

Okun, Arthur. 1981. *Price and Quantities: A Macroeconomic Analysis*. Washington: The Brookings Institution.

Palley, Thomas. 1995. "Labor Markets, Unemployment, and Minimum Wages: A New View," *Eastern Economic Journal*, Vol. 21, No. 3, pp. 319-26.

Pearce, David. 1999. *The MIT Dictionary of Modern Economics*, 4th ed. Cambridge: MIT Press.

Perry, Arthur Latham. 1878. *Elements of Political Economy*. New York: Scribner's.

Pierson, Frank. 1957. "An Evaluation of Wage Theory." In George Taylor and Frank Pierson, eds., *New Concepts in Wage Determination*. New York: McGraw-Hill, pp. 3-31.

Reder, Melvin. 1958. "Wage Determination in Theory and Practice." In Neil Chamberlain, Frank Pierson, and Theresa Wolfson, eds., *A Decade of Industrial Relations Research, 1946-1956*. Madison: Industrial Relations Research Association, pp. 64-97.

______. 1982: "Chicago Economics: Permanence and Change." *Journal of Economic Literature*, Vol. 20, March, pp. 1-38.

______. 1999. *Economics: The Culture of a Controversial Science*. Chicago: University of Chicago Press.

Rees, Albert. 1973. *The Economics of Work and Pay*. New York: Harper & Row.

______. 1976. "H. Gregg Lewis and the Development of Analytical Labor Economics," *Journal of Political Economy*, Vol. 84 No. 4, pt. 2, pp. S3-8.

______. 1993. "The Role of Fairness in Wage Determination," *Journal of Labor Economics*, Vol. 11, January, pt. 1, pp. 243-52.

Reynolds, Lloyd. 1951. *The Structure of Labor Markets*. New York: Harper.

Robbins, Lionel. 1932. An Essay on the Nature & Significance of Economic Science.

Robinson, Joan. 1933. *The Economics of Imperfect Competition*. London: MacMillan.

______. 1971. *Economic Heresies*. New York: Basic Books.

Samuels, Warren. 1995. "The Present State of Institutional Economics," *Cambridge Journal of Economics*, Vol. 19, No. 4, pp. 569-90.

Samuelson, Paul. 1951. "Economic Theory and Wages." In David McCord Wright, ed., *The Impact of the Union*. New York: Harcourt, pp. 312-60.

______. 1977. *The Collected Scientific Papers of Paul A. Samuelson*, Vol. 4, ed. by H. Nagatani and K. Crawley. Cambridge: MIT Press.

Schmid, A. Allan. 1987. *Property, Power, & Public Choice*, 2nd ed. New York: Praeger.

______. 2001. "The Institutional Economics of the Nobel Prize Winners." In Jeff Biddle, John David, and Steven Medema, eds., *Economics Broadly Considered*. New York: Routledge, pp. 281-311.

Simon, Herbert. 1982. *Models of Bounded Rationality*, Vol. 2. Cambridge: MIT Press.

Skidelsky, Robert. 1992. *John Maynard Keynes: The Economist as Savior*, *1920-1937*, Vol. 2. New York: Penguin.

Slichter, Sumner. 1931. *Modern Economic Society*, 2nd ed. New York: Henry Holt.

Solow, Robert. 1990. *The Labor Market as a Social Institution*. New York: Blackwell.

Stabile, Doanld. 1993. *Activist Unionism: The Institutional Economics of Solomon Barkin*. Armonk: M.E. Sharpe.

Stigler, George. 1942. *The Theory of Competitive Price*. New York: MacMillan.

______. 1962. "Information in the Labor Market." *Journal of Political Economy*, Vol. 70, October, pt. 2, pp. 94-105.

______. 1977. "De Gustibus Non Est Disputandum," *American Economic Review*, 67, March, pp. 76-90.

Taylor, George, and Frank Pierson. 1957. *New Concepts in Wage Determination*. New York: McGraw-Hill.

Thurow, Lester. 1975. *Generating Inequality*. New York: Basic Books.

______. 1983. *Dangerous Currents: The State of Economics*. New York: Random House.

Tversky, Amos, and Daniel Kahneman. 1991. "Loss Aversion in Riskless Choice: A Reference-Dependence Model," *Quarterly Journal of Economics*, Vol. 106, November, pp. 1038-61.

Webb, Sydney, and Webb, Beatrice. 1897. *Industrial Democracy*. London" Longmans, Green.

Williamson, Oliver. 1985. *The Economic Institutions of Capitalism*. New York: The Free Press.

Wolman, Leo. 1961. *Reminiscences of Leo Wolman*. New York: Columbia University Oral History Research Office.

Yoder, Dale. 1933. *Labor Economics and Labor Problems*, 1st ed. New York: McGraw-Hill.

[1] Lester's text is usefully compared with the first edition of Stigler's (1942) economics textbook. The neoclassical orientation of the latter is clearly revealed in the title -- *The Theory of Competitive Price*, and the fact that nowhere in the book are models of imperfect competition presented or discussed. The difference between the two books is not one of fact-gathering versus theory, but of alternative models and theories of markets, people, and institutions. I note that while Lester presents a demand/supply graph of wage determination, Stigler in his chapter on input pricing does not. Lester's attempt to build labor market theory, but in a non-neoclassical direction, is also well illustrated in his article "A Range Theory of Wage Differentials" (1952).

[2] It is with some irony, therefore, that B&S follow the assertion of Chicago economists (e.g., Rees, 1976) and suggest that H. Gregg Lewis be viewed as the "father" of modern labor economics. Lewis' most important publications were almost entirely empirical and, thus, "fact-gathering" in nature (albeit of a very high quality and analytical rigor). Dunlop, on the other hand, is consigned by B&S to the institutionalist wing of "descriptive" economists despite the fact that his models of trade unions are among the most analytically advanced applications of marginal analysis up to that time. As I argue elsewhere (Kaufman, 1988), Lewis is legitimately considered the father of modern labor economics only if that term is used more narrowly to apply to the Chicago/market-clearing branch of the field. For the field as a whole, Paul Douglas may well be considered the father of analytical labor economics, or if not Douglas then Dunlop. Although Douglas was also a faculty member at the University of Chicago (Lewis was his graduate research assistant) and, thus, would seem from a Chicago perspective to be a good alternative choice for "father of the field," in fact Douglas was considered by his neoclassical rivals there to be an institutionalist (Reder, 1982). Thus, Chicago labor economists tend to gravitate toward Lewis as the "father," given that he served as intellectual mentor to Becker and others.

[3] Dunlop has taken an increasingly critical attitude over the years toward the applicability of standard microeconomic theory to labor subjects and, thus, to a degree has distanced himself from the models of unions developed in his 1944 book. As stated in a recent interview (Kaufman, 2002), Dunlop argues that such attempts at modeling are useful but should start at a lower level of abstraction.

[4] The strong link envisioned by the postwar labor economists between labor economics and industrial relations is further suggested by the title of a recent book by Kerr, *Labor Economics and Industrial Relations: Markets and Institutions*, (Kerr and Staudohar, 1994) and the fact that DKLR took the lead in founding the Industrial Relations Research Association and served as presidents of the organization. By way of contrast, Albert Rees (1973) in his more neoclassical-oriented textbook maintains a separation between labor economics and industrial relations, stating that the book (p. viii), "does not pretend to cover industrial relations….Rather, it will concentrate on the application of economic theory and statistics to the problems of labor markets."

[5] Coase has taken a relatively antagonistic position vis a vis the kinship between his work and that of the earlier generation of institutional economists, per the quote of Coase B&S give on p. 201. But, if one looks objectively at the positions taken by Coase they correlate strongly with those of Commons and the early institutionalists (Medema, 1996).

[6] Representative of this viewpoint are these statements by economist Arthur Latham Perry (1878: 198, 200, 204), "Each of these remedies [trade unions, government regulation] is a delusion, and so is every other proposal that ignores the law of wages;" "In this whole sphere of exchange, the just and comprehensive rule always will be, that when men exchange services with each other, each party is bound to look out for his own interest, to know the market-value of his own service, and to make the best terms for himself which he cane make;" and "strikes are false in theory and pernicious in practice … let each make the best terms he can, but let the bargain always be free."

[7] Immersion in the real world of labor markets, such as through participation in the activities of the War Labor Board in World War II and mediation and arbitration of labor disputes, also caused the postwar labor economists to move away from conventional neoclassical theory and toward a more heterodox, multidisciplinary conception. See their personal accounts in Kaufman (1988, 2002).

[8] Part of the reason Commons' *Institutional Economics* runs over 900 pages is that he reviews the work of practically every major and minor economic theorist/philosopher since John Locke. Fellow institutionalist

Wesley Mitchell was reknown as one of the era's great master's of the history of economic thought. Regarding institutional labor economists of the period, the reading list distributed to doctoral students majoring in labor problems at Wisconsin for the Ph.D. comprehensive exam included theory books by Alfred Marshall, J.B. Clark, Karl Marx, and Eugen von Bohm-Bawerk. In a letter (dated January 13, 1910, contained in Box 1, Folder 15, collected papers of John Fitch, State Historical Society of Wisconsin) to Don Lescohier regarding the exam, Commons tells him, "I find for students of labor problems, special emphasis will be laid on Marshall's *Principles of Economics* and the first volume of Marx's *Capital*."

[9] Leo Wolman started teaching a labor course in 1914 at Johns Hopkins University and he says in an oral history interview that (Wolman, 1961: 55), "the labor view [was] first and most effectively developed by the Webbs, where they set out, in a literary way, to develop the whole notion of inequality of bargaining power, and there wasn't a man in the United States – or in the world – who taught this stuff, or any writers of textbooks in succeeding generations, who didn't say this."

[10] In a vivid passage, the Webbs describe the process this way (p., 658), "When the unemployed are crowding around the factory gates every morning, it is plain to each man that, unless he can induce the foreman to select him rather than another, his chance of subsistence for weeks to come may be irretrievably lost. Under these circumstances bargaining …. becomes absolutely impossible. The foreman has only to pick his man, and tell him the terms. Once inside the gates, the lucky workman knows that if he grumbles at any of the surroundings, however intolerable; if he demurs to any speeding-up, lengthening of the hours, or deductions; or if he hesitates to obey the order, however, unreasonable, he condemns himself once more to the semi-starvation and misery of unemployment."

[11] The institutionalists held that not only is free competition incapable of fully protecting worker's interests but it often leads to a progressive lowering of labor standards. Thus, Slichter (1931: 194) states, "This competition [in labor markets], if unrestricted, is likely to result in low wages, a killing speed of work, an excessively long working day, and hazardous and unhealthy shop conditions." The most important reason labor markets lead to this anti-social effect, in the institutional view, is the presence of significant unemployment in the labor market and the downward pressure it puts on labor standards. Slichter explains, for example, that the aggregate supply curve of labor is negatively sloped (implying the added worker effect dominates the discouraged worker effect) and, thus, during recessions and depressions when wages decline the labor supply expands(both in terms of job seekers and in individual work effort), further exacerbating the imbalance between labor demand and supply. Then workers, facing large fixed costs and small variable costs of labor supply, bid down wage rates further to secure work at practically any price.

[12] The concept of administered prices was originally developed by the institutional economist Gardner Means (Lee and Samuels, 1992).

[13] A basic presumption of neoclassical theory is that the labor demand and supply curves are a stable function of the wage (that a wage change leads to a movement along the curves but not a shift in them). But the institutionalists (e.g., Slichter, 1931)concluded that both curves can shift in response to a wage change (the labor demand curve will shift because a wage change effects employee's motivation and hence marginal product; the labor supply curve will shift because employees' work/leisure preferences are referent dependent with respect to the wage level), making attainment of equilibrium difficult. Slichter (p. 627) concludes, therefore, that these interdependencies opens the door to a bargained solution In the postwar labor literature, it was also assumed (e.g., Kerr, 1950) that in a number of more organized labor markets the labor demand and supply curves are disjoint, leading to a separation of the "job market" and "wage market."

[14] The close connection between Keynesian and institutional economics is suggested by Keynes in a private letter he sent to Commons (Skidelsky, 1992:229), stating about the latter, "There seems to be no other economist with whose general way of thinking I feel myself in such general accord."

[15] The origin and evolution of the term "neoclassical" is described in Aspromourgos (1986) and Colander (2000). They note that the term was coined by institutionalist Thorstein Veblen to describe the (alleged) common link between classical and Marshallian economics, which he claimed to be the use of a utilitarian-based model of the human agent. The term was only broadened to include marginalist-based theory and competitive models of markets in the 1940s and 1950s, particularly by Hicks, Stigler, and Samuelson. Colander argues the term has become so amorphous and contradictorily defined in modern usage the best course is to abandon it.

[16] Becker's economic approach is in principle capable of falsification, since it rests on certain restrictive assumptions, such as stable tastes and market equilibrium. In practice, however, these are defined with such

generality or malleability that it is difficult to present discomfirming evidence. Thus, the stable tastes assumption applies not to observed goods and services but underlying object of choice, allowing Stigler and Becker (1977) to claim that even phenomenon such as drug addiction and music appreciation do not violate the "stable tastes" assumption. Likewise, the assumption of market equilibrium implies a balance between demand and supply. This also appears refutable, but then in particular applications Becker shifts to other conceptions of equilibrium that are either true by construction or unobservable, such as the solution value to first-order conditions (Becker and Lewis, 1973), the constrained optima for an individual (Becker, 1974), and equilibrium shadow prices in a non-market institution (Becker, 1975). Finally, in Lazear's (2000) formulation of the economic approach a generalized quest for efficiency among economic agents replaces market competition as the force bringing about equilibrium. I am not rendering a judgment about the merits/consequences of these assumptions but only observing that they entail benefits and costs – great generality of application but latent danger of tautology.

[17] A broadly similar set of six characteristics of neoclassical economics is developed by Colander (2000): a focus on resource allocation, a utilitarian-based "economic man," marginalism, rationality, methodological individualism, and general equilibrium.

[18] Hicks soon thereafter rejected the competitive theory of labor markets espoused in the *Theory of Wages*. Writing in 1974, he now espouses a much different and more Keynesian/institutional view. He says that capitalist economies have two different types of markets, "fixprice" and "flexprice" and that (p.78), "In fixprice markets, prices have to be 'made;' they are not just determined, from day to day, by demand and supply. This applies, most of all, to markets for labor."

[19] Robinson (1971: xiii) tried to distinguish her imperfect competition mode of neoclassical theory from the competitive version be referring to the latter as "neo-neoclassical." Similar to Hicks, but in a more thorough-going way, she later rejected neoclassical theory altogether.

[20] The emphasis given to competitive theory, and relative neglect of imperfect theories of markets, is justified by Friedman (1951:254) in these words, "The question is whether it [competitive theory] gives you the right answer, and I would argue that it substantially does." He goes to say, "The important point is that forces [noncompetitive elements] which bulk large when you look under the microscope at the individual case, but which vary from firm to firm and industry to industry, are likely to bulk small when you look at the aggregate."

[21] The "theory of choice" version of neoclassical theory has been extensively used by Chicago economists to square neoclassical theory with supposed deviant observations. For example, postwar labor economists (e.g., Reynolds, 1951) argued that most workers have poor information about labor market conditions and this in part vitiates the predictions of competitive theory (e.g., that competition should lead to a uniform going wage for a particular type of labor). Stigler (1962) then reformulates the issue as a constrained optimization problem, arguing that information is a scarce good and should be produced only as long as marginal gain exceeds marginal cost. That workers have limited information is thus consistent with "optimal" economizing behavior, leading him to conclude, "From the social viewpoint, the return from investment in information consists in a more efficient allocation of the labor force." Thus, the efficiency property of free markets is preserved and the apparent non-competitive outcome is rationalized as consistent with competition. Of the same genre is this statement of Becker (1964: 28), "Although a discrepancy between marginal product and wages is frequently taken as evidence of imperfections in the competitive system, it would occur even in a perfectly competitive system where there is investment in specific training."

[22] One of the major issues B&S raise in their article is to what branch of labor economics or school of thought the postwar labor economists such as DKLR belong. As I have argued here, they are not "institutonalists" as B&S define the term, since they clearly sought to push forward theory-building. But, if institutional" is defined as I have in this article, then they are in part "institutional" in the sense of having a commitment to models of imperfect competition, nonmarket-clearing, etc. But they are also legitimately called "Keynesian" labor economists, "social science" labor economists, and "neoclassical revisionists" -- which is all to say they are members in good standing of the "Cambridge Group," along with a number of other intellectual fellow-travelers.

[23] Relevant examples include Becker (1991) and his recent book *Social Economics* (Becker and Murphy (2000). In the former, he shows that social influences, such as "bandwagon effects," can lead to an upward-sloping product demand curve, while in the latter he states (p. 5), "We were surprised to discover, upon rereading Thorstein Veblen's influential *Theory of the Leisure Class* (1934), that he anticipated many of

our results, although he does not make a systematic analysis." If "neoclassical" and "institutional" are defined in terms of theoretical propositions about how markets work, as I advocate, it would appear that Becker is in these cases more in the institutional camp. Only if one defines "neoclassical" as synonymous with use of mathematics and constrained optimization, as B&S appear to do at places, can this work of Becker be considered solidly neoclassical. Some readers may feel these distinctions are nit-picking or an un-illuminating source of controversy. In response, I argue that differences in theoretical assumptions lead to markedly different predictions about the behavior and welfare outcomes of labor markets and these paradigm labels – if used in a consistent, well-defined sense – are a useful shorthand way to categorize the most distinctive and important of these theoretical differences.