HIDDEN BY THE INVISIBLE HAND: Neoclassical Economic Theory and the Textbook Treatment of Race and Gender

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The neglect of issues related to the economic status of minorities and women in introductory economics textbooks widely used in the United States is a problem rooted in the most fundamental theoretical propositions of mainstream economics. Despite the fact that the claims of both mainstream methodology and general equilibrium theory have been seriously questioned in recent years, introductory economics textbooks fail to incorporate into the principles curriculum those critical findings which would allow analysis of the economic problems of women and minorities in the United States. This article compares mainstream and radical textbooks' treatments of race and gender issues to show how the radical approach to these economic questions overcomes many of the deficiencies of the mainstream approach.

The economics textbooks most widely used in the United States have a long tradition of blindness toward questions concerning the economic status of minorities and women, and over the past decade, neither the quality nor the

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quantity of attention paid to these issues has improved. Scant attention is paid to questions of race and gender in introductory economics texts, and many types of racial or gender bias are evident. The most common of these biases reflect the race and gender blindness of mainstream economic theory and the concomitant tendency to define the economic status and experiences of white men as the norm. Minorities and women are most frequently portrayed in stereotypical ways, and their socioeconomic experiences are treated as anomalous or deviant (Feiner and Morgan 1987). This article links the academic marginalization of the problems of women and minorities in the United States to the internal logic of neoclassical economics.

In the United States, economics, more than any other social science, is dominated by a single theoretical paradigm: marginalist or neoclassical theory. This approach explains pricing, allocation, and, indeed, all economic outcomes as the result of the constrained choices of rational, utility-maximizing individuals (Wolff and Resnick 1987). For the majority of economists, this paradigm permits analysis of a vast array of situations of human choice, analyses viewed as both systematic and value free (Ferber and Teimani 1981). Both of these perceived virtues of neoclassical economics help explain the minimal nature of the impact made by feminists on the way economists think and teach. The neoclassical commitment to "equilibrium" analysis subtly shapes the form of the questions admitted for consideration, and so this systematic approach becomes a barrier to a more eclectic examination of issues, options, and arguments (cf. Glazer 1987). At the same time, economics seeks to be value free by grounding itself philosophically in the traditional positivist notion of a strict separation between positive and normative statements, and this separation further reinforces the general reluctance of economists to tread in areas where strong normative interests are at stake.

The textbooks typically used in the introductory economics curriculum in the United States share these traits of neoclassical theory. It is this common theoretical paradigm that we see as responsible for the striking lack of discussion of the economic situation of women and minorities in these texts. According to an analysis of 21 major introductory economics texts (Feiner and Morgan 1987), the number of pages that make even a passing reference to economic topics of special salience to women and minorities is remarkably small (see Table 1). Those texts were chosen as representative of the field: Some are regarded as "high level" introductory texts because of the stress on theoretical analysis; others emphasize the goal of being accessible to the broadest possible number of students. All have a claim to be significant in at least some part of the overall textbook market, and taken together, they

TABLE 1: Treatment of Women and Minorities in U.S. Economics Textbooks

Author	Date	Edition	Number of Pages Referring to Minorities and/or Women	Total Pages	Percentage of Total
Amacher	1983	1st	5	725	0.69
Atkinson	1982	1st	5	723	0.69
Baumol and Blinder	1982	2d	16	836	1.91
Bronfenbrenner, Sichel, and Gardiner	1984	1st	15	915	1.64
Dolan	1983	2d	4	773	0.52
Fischer and Dornbusch	1983	1st	21	955	2.20
Fusfeld	1982	1st	6	718	0.84
Gwartney and Stroup	1982	3d	5	766	0.65
Heilbroner and Thurow	1981	6th	12	670	1.79
Leftwich	1984	2d	0	399	0
Lipsey and Steiner	1981	6th	15	958	1.57
McConnell	1984	9th	16	850	2.05
Mansfield	1983	4th	13	877	1.47
Miller	1982	4th	17	830	2.05
Ruffin and Gregory	1983	1st	6	798	0.75
Samuelson	1980	11th	22	861	2.56
Scott and Nigro	1982	1st	18	909	1.98
Spencer	1983	5th	4	868	0.46
Truett and Truett	1982	1st	7	848	0.83
Waud	1983	2d	2	856	0.23
Wonnacott and Wonnacott	1982	2d	9	858	1.05
All books (average)			10.38	810	1.34
First editions (average)			10.38	823	1.26
Revised editions (average)			10.38	743	1.40

account for the vast majority of economics textbook sales in this country (see Table 1).

Obviously, it would be possible for authors simply to expand treatment of these issues without any fundamental change in perspective. But the minimal focus on gender and race is linked to the theoretical perspective the texts employ. We argue that two fundamental characteristics of neoclassical economics unavoidably bias its treatment of gender and race: its philosophical premises, including the positive-normative distinction, and the equilibrium structure of its analyses, which are based on deriving economic outcomes from the rational character of constrained individual choice.

These paradigm premises give neoclassical analysis its distinctive tone, characterized by general reverence for "natural" market forces and reluctance to interrogate social factors constitutive of individual behavior. The result is a standard economics curriculum in which it is inherently difficult to treat the problems of women and minorities as worthy of serious or prolonged study. In recent years, however, each of these twin pillars of neoclassical logic has come under attack, and the critiques provide, we think, both the opening and the justification for alternative approaches. Neoclassical economics is frequently powerful and persuasive in its argument, but it is not and should not be the only option worthy of presentation. It is especially important for scholars from disciplines other than economics who study the intersection of race, gender, and class to be aware of both the nakedness of the emperor and the availability of an entirely different wardrobe.

PHILOSOPHICAL AND THEORETICAL FOUNDATIONS OF THE ECONOMICS TEXTBOOK TREATMENT OF RACE AND GENDER

To understand the way gender and race are treated, and not treated, in economics texts requires an appreciation of both the philosophical and analytical premises that shape the brief references to these topics. Most economics textbooks make an immediate and substantial effort to impress upon the student the distinction between positive and normative economics. Positive economics is generally defined as statements about "what is, was or will be" (Lipsey and Steiner 1981, 17). It involves "questions that can be resolved only by reference to the facts" (Samuelson and Nordhaus 1985, 7) and statements that can "be tested by an appeal to the facts" (Mansfield 1983, 15). By assertion, such statements can be rationally discussed, and these statements, substantiated by the facts, can be regarded as being as objective as the facts themselves.

In contrast, normative economics concerns "statements about what ought to be" (Lipsey and Steiner 1981, 17). Normative statements involve "deeply held values or moral judgments. They can be argued about, but they can never be settled by science or by appeal to facts" (Samuelson and Nordhaus 1985, 7). In normative economics, "the results you get depend on your values or preferences" (Mansfield 1983, 15). While normative statements are relevant to economic policy decisions, they must be "handled with care" lest they infect the positive status of economic science. Economists may make normative statements, but they do so only as individual human beings, not as professional economists: The "advocacy role of the economist as a private, involved, informed citizen should be kept apart from the scientific role of evaluating how the economy works" (Fischer and Dornbusch 1983, 17).

The dichotomy between positive and normative science shapes the goals of economics textbooks in important ways. Typical is the text that announces: "In general the chapters that follow . . . will be concerned with positive economics. However, they will often analyze the positive economic aspects of issues on which strong normative economic opinions are held, such as unionism and poverty" (Truett and Truett 1982, 12). Thus priority is given to the presentation of the positive core of theoretical statements that present the "objective" and verifiable explanation of "what is." Normative issues are then considered in light of that positive theory, in order to distinguish the effects of different normative prescriptions.

Having distinguished normative from positive statements, the texts set out to present a positive theory of economic outcomes. Here there is nearly total unanimity on the broad outlines of what constitutes a satisfactory theoretical position (Frey et al. 1984; Kearl et al. 1979). The position presented by the texts examined for this study is inextricably bound up with the idea that markets tend systematically to a stable position where the quantity supplied equals the quantity demanded at the equilibrium market price. Not merely will each market individually tend toward such an equilibrium, but all markets together are argued to tend systematically toward a long-run, general equilibrium position. This means that neoclassical economists, when given appropriately specified information on individual tastes and preferences; technology; distribution of initial endowments of land, labor, and capital; and the institutional features of the market, can determine all the prices and quantities toward which all markets (including the markets for land, labor, and capital) tend in the long run.

Although an explicit treatment of general equilibrium is usually regarded as too advanced for introductory students, so that little actual space is given to these issues, the logic of the general equilibrium approach permeates the texts. Whether one examines the microeconomic theory of the perfectly competitive firm, or the macroeconomic presentation of aggregate supply and demand, one finds the students being trained in models that treat short-run adjustments as governed by the necessity of a long-run return to a prespecifiable position. For example, in microeconomics, students are taught that the behavior of firms guarantees that consumers get the goods and services they want at the lowest possible prices because market competition forces each firm to a long-run equilibrium in which "zero economic profits" (e.g., a profit rate equal to the normal rate of return on capital) are earned. Similarly, the macroeconomy is said to reach equilibrium only when the "natural rate of unemployment" prevails (i.e., when only the normal frictions of gathering and acting upon information impede the matching of jobs and job seekers).

In the equilibrium model, "real-world conditions" (i.e., the economist's externalities, public goods, and imperfections), are complications regarded as impediments to what is seen as an otherwise perfectly functioning market mechanism that is both efficient and equitable. For the orthodox economist, efficiency means that all available resources are used efficiently to produce just those goods and services consumers most value. Equity means that the income earned by each factor of production (land, labor, and capital) is determined by the contribution to total output made by the last unit employed of each productive factor (this latter is termed "marginal productivity"). Thus the pattern of rewards is said to be equitable when the distribution of income follows the principle of marginal productivity and inequitable when circumstances produce any other result.

Both the positivist philosophical premises and the equilibrium perspective come into play whenever the texts present race and gender issues. All texts recognize the presence of inequality, and all present at least some of the data revealing gender and racial disparities in income or in the frequency or duration of unemployment. However, even those texts that do pursue the reasons for income inequality do so in a way that is preordained by positive equilibrium theory. For example, variables such as "ability, chance and luck, occupational differences and human capital choices" (Ruffin and Gregory 1983, 667) are singled out to explain the differences in marginal productivity that presumably account for inequalities in the distribution of income. Other texts mention genetics, institutional features, and discrimination as part of their explanation of the economic status of minorities and women. Factors such as luck, human capital, occupational choice, and variances in skill and ability generally receive far greater attention than do factors like discrimination, segregation, or inequality of opportunity.

When textbook authors explicitly address these issues they introduce either the "crowding" model or the statistical discrimination model. The crowding model explains occupational segregation as the result of the "typical" skills of female or minority male and female workers, which crowd them into a limited number of jobs. Authors who use this model (Atkinson 1982, 550-51; Gwartney and Stroup 1987, 556) fail to explain why women and minorities so irrationally continue to acquire only "traditional" skills. Ferber and Birnbaum (1977, 21) point out that "the very concepts of maximization and tradition are, in principle, mutually exclusive," since maximization (of one's chances for earning a high income) involves the conscious weighing of alternative choices, while tradition closes off alternatives. The social context responsible for the power of tradition is left undiscussed, even though its results are transparently necessary for an understanding of the choices that create occupational crowding.

The statistical discrimination model explains biases in the hiring process by suggesting that employers generalize about the behavior of all male and female minorities and all White women based on the behavior of statistically significant segments of these groups; such employers do not see individuals, they see only representatives of the group. Users of these models (Lipsey and Steiner 1981, 380-88; Scott and Nigro 1982, 414) fail to discuss the social conditions that allow employers' rational choices to lead to discriminatory (i.e., socially irrational) outcomes. Nor do they discuss the aggregate economic implications of individual employers' biases.

These brief and fragmentary discussions of race and gender in the "micro" sections of textbooks seem substantial in comparison to the nearly complete silence of macroeconomic sections. Most texts do present data showing racial and gender differences in unemployment rates, for example, but little effort is made to explain these data using macrotheory. That business cycles, economic growth, inflation, and monetary and fiscal policy could have different impacts on minorities and women is a possibility conspicuously absent from introductory economics textbooks. Race and gender, if a problem at all, affect only individual decisions in specific (microeconomic) market settings; the results then show up in macroeconomic data, but no macroeconomic explanation is offered.

In sum, virtually all the economics textbooks widely used in U.S. colleges and universities confront the causes of racial and gender inequality via a more or less complete list of exogenous factors—those individual tastes and preferences, technologies, endowments, and market structures—that necessitate equilibrium outcomes in various markets (like labor, housing, health, and so on). If results are unequal, the fault lies with the given circumstances underlying the individually rational choices of the participants in that market. Since neoclassical economics explains all events as the consequences of individuals maximizing behavior on the basis of exogenously given preferences, technologies, endowments, and institutions, racial and gender outcomes are simply a special case of the general theory and do not need further explanation.

As a result, introductory economics textbooks have little to say about so-called normative questions. Although most texts make at least a passing reference to the principle of social equality, noting that greater equity is a goal that many people value, discussion of these value-laden issues is clearly an uncomfortable subject for many textbook authors. In part, the problem seems to be a definitional one: "Equity has no universally agreed-upon meaning . . . a difficulty that did not occur in the case of efficiency. . . . We might wish to establish beyond doubt that a particular meaning of equity is the right one. But to attempt it would take us deep into details of philosophy" (Dolan 1983, 15) or the "completely subjective" (Atkinson 1982, 14) nature of value judgments (Miller 1982, 680).

The most the texts offer are one or two alternative "philosophical" notions of equity that can be contrasted to the outcomes produced by market equilibrium forces. In fact, the only extended discussion of equity issues that most texts present tells the student, in the voice reserved for positive statements of fact, that greater social equity comes about only by deliberately choosing to impose costs injurious to everyone. Typically, authors carefully distinguish the normative and "philosophical" question of "a just distribution of income" from the presumably positive "economic" question of "what specific steps can be taken to alter the distribution of income" (Spencer 1983, 550). But ironically, with the sole exception of Heilbroner and Thurow (1981), no text even discusses such steps, abjuring even those positive statements that could be made about income alteration. Instead of an analysis of the means to greater equity, the texts discuss what the costs would be.

Without exception, the texts stress that steps to increase equity are socially costly due to a "fundamental trade-off between efficiency and equity" (McConnell 1982, 670). Since positive equilibrium theory states that, imperfections and special cases aside, markets gravitate in the long run to a position embodying an efficient allocation of resources, any exogenously imposed change designed to increase equity must result in a deviation from the previously established efficient equilibrium. Students are always informed that "there is often a trade-off between the size of a nation's output and the degree of equality with which that output is distributed" (Baumol and Blinder 1982, 654) By implication, then, "the size of the national pie is reduced if we try to carve it up in a more equitable way" (Wonnacott and Wonnacott 1982, 796). Consequently, "society must decide whether the costs of greater equality are worth the price" (Ruffin and Gregory 1983, 668).

This minimal treatment of race and gender is, in our view, an inevitable effect of the positivist methodology and marginalist equilibrium premises of the texts. In the next two sections we present critiques of the philosophical and analytical foundations of textbooks' treatments of economic outcomes relevant to issues of race and gender and then present an alternative perspective.

THE FALLACY OF THE NORMATIVE-POSITIVE DIVIDE

The positive, objective theoretical statements in economics texts are seen as factual because they conform to the bounds of normal inquiry, the realm that most economists find acceptable. Textbook authors regard the dominant paradigm as having a validated and privileged connection to reality. In actuality, the paradigm's acceptance has led to the perception of its validity; its status as validated did not compel its acceptance. This interpretation emerges from a growing literature critical of the philosophical premises common in neoclassical theory. Although these critiques are not discussed in the textbooks, they have a potentially profound message bearing on the typical treatment of issues like gender and race.

All contemporary critiques of orthodox notions of science owe a debt to Kuhn (1970) and his conception of the textbook as an "exemplar" that buttresses the process of "normal" inquiry. In every discipline, textbooks socialize students into accepting the currently dominant theories (Rider 1984). As Kuhn (1970) has argued:

> Students . . . accept theories on the authority of teacher and text, not because of evidence. . . . The applications given in texts are not there as evidence but because learning them is part of learning the paradigm at the base of current practice. Consequently, only information which neatly fits into the dominant paradigm will be selected for inclusion in any given field's textbooks. (p. 37)

In any field, textbooks define the legitimacy of topic areas, distill the current body of knowledge, and mirror the field's research priorities. The paradigm articulated by the texts gives

> criteria for choosing problems that . . . can be assumed to have solutions. To a great extent, these are the only problems that the community will admit as scientific or encourage its members to undertake. Other problems . . . are rejected as metaphysical, as the concern of another discipline, or sometimes as just too problematical to be worth the time. A paradigm can . . . even insulate the community from those socially important problems that are not reducible to the puzzle form, because they cannot be stated in terms of the conceptual and instrumental tools the paradigm supplies. (Kuhn 1970, 37)

Economists' acceptance of the positivist belief in the separability of "facts" and "values," and of positive and normative statements, blurs "the fact that alternative descriptions are possible in addition to those offered by the results of normal inquiries" (Rorty 1979, 63). The decision of textbook authors to present one set of voices, those that speak the language of the dominant paradigm, as the factual set, hides what is in actuality a normative bias. The dominant paradigm is given a privileged position; all other paradigms are pushed across the positivist divide into the netherworld occupied by normative statements. This favoritism is implicitly premised on the existence of a neutral, value-free, transtheoretical language that can be used to evaluate competing theoretical claims. We argue that there is no conceptually neutral language that would allow one, first, to treat as commensurable, and second, to judge, the heterogeneous sets of theoretical statements possible about economic phenomena. The so-called "theory-choice problem" is insoluble, except on normative — that is, political and ideological — grounds.

The presentation of market-equilibrium economics as the only worthy subject matter in the introductory curriculum has far-reaching consequences. As Rorty (1979, 359) puts it, "From the educational . . . point of view, the ways things are said is more important than the possession of truths." The way things are said in the economics texts devalues comparative critical thinking. The texts would have students divide themselves in two, with the positive and rational knower of true statements held rigorously separate from the subjective chooser of individual and social values, a stance that fosters fatalism about the status quo and discourages criticism and imaginative thinking about alternative ways of producing goods and distributing economic rewards. "If one cannot reason about values, and if most of what matters is placed in the value half of the fact-value split, then it follows that one will embrace unreason when talking about things that matter" (McCloskey 1983, 514).

The way things are *not* said is important, too. The texts' use of the language of positive and objective economics masks an implicit political agenda. The almost total silence of the texts on the economic status of minorities and women speaks louder than words: The student cannot help but absorb the message that these are matters of relative unimportance. Unavoidably, all textbooks have a "political" viewpoint, and "it is better to admit that metaphors in economics can contain such a political message than to use the jargon innocent of its potential" (McCloskey 1983, 508).

THE ANALYTICAL SHORTCOMINGS OF THE EQUILIBRIUM MODEL

The positive economic theory that receives the overwhelming share of attention in the texts is, of course, neoclassical to the core. There is, however, another body of recent critical literature that seeks to problematize that positive theory itself, by disputing the ability of neoclassical logic to produce a consistent and meaningful solution for the economy's long-run equilibrium position.

The orthodox neoclassical model of economic behavior sees all economic outcomes as the result of individual rational choices registered in impersonal market exchanges. Individuals' rational choices, under various constraints, are represented by the economists' familiar supply-and-demand schedules. Together, individual choices in competitive markets determine all prices, all quantities, and the distribution of income. The highly refined version of neoclassical economics found in the introductory textbooks melds the dual logics of market competition and individual choice in a manner that shows them to be the ultimate determinants of economic events. This model tells students that "the consumer is king." The questions of what is produced, how much it costs, and who gets it are all answered by appeal to individual choice—that is, the production, distribution, and allocation of goods and services are what they are because people, acting in markets, choose these outcomes.

To be compelling, the analysis of one market in isolation from others (the "partial equilibrium" approach) must have foundations in a more general model with characteristics that support and justify the premises of single-market models. It is not saying much to note that supply and demand determine the price and quantity of apples if the model does not simultaneously explain, on the same logical basis, the forces determining those supply-and-demand schedules as well as all other supply-and-demand schedules, because both the supply of and the demand for apples are influenced by the supplies and demands registered in all other markets. In other words, the partial equilibrium approach that receives the most attention in the texts is compelling only to the extent that its typical assumption ("all other variables held constant") can be relaxed in a more general model. Because textbook authors believe that general equilibrium models actually do confirm the tendency toward competitive equilibrium in all markets simultaneously, texts typically proceed by means of the partial approach, viewing that approach as merely a simplification of the more complex interactions modeled in general equilibrium theory.

As noted above, textbooks insist that there is an inevitable trade-off between the goals of equity and efficiency. General equilibrium models conclude that competitive markets produce the maximum outputs of the goods and services most desired by the population and at the lowest possible cost. With no wasted resources and the "right" goods being produced, there is, by definition, efficiency. Moreover, such an efficient outcome carries within it, as a necessary component, a particular pattern of income distribution. Logically then, policy decisions that alter that distribution of income must interfere with efficiency. To further describe this trade-off, texts typically invoke the "leaky bucket" analogy: Dollars directed toward improving equity lead to disproportionate decreases in efficiency. And since an efficiency loss is a cost born by all, while equity is assumed to benefit only those receiving income transfers, economics textbooks characterize the call for greater economic equity as at best a costly sort of moral claim.

But if the claims of general equilibrium do not hold, that is, if it cannot be shown that competitive behavior will enforce an automatic and necessary solution for prices, quantities, and income distribution, then the usual arguments against the implementation of economic policies designed to alter the income distribution (or prices or quantities) are no longer so compelling. The literature, pro and con, on general equilibrium theory is highly abstract and mathematical and thus is usually viewed as a province only for specialists. But the consequences of the theory are everywhere in neoclassical economics, and its implications for gender and race issues merit a summary of the theory as groundwork for explaining the critique.

General equilibrium theory provides a system of mathematical relations used to solve for the outcomes of all markets simultaneously. Traditionally, economists have viewed as the appropriate solution the specification of a long-run equilibrium position, one in which prices have adjusted to the point that two criteria are satisfied. First, quantities supplied and demanded must be equal in all markets, including both markets for produced goods and for the services of produced and nonproduced factors of production. Since imbalance of supply and demand would produce ongoing market adjustments, absence of such imbalance is required for equilibrium. Second, homogeneous factors of production must receive uniform rewards, including a competitively equalized uniform rate of return on capital deployed in each alternative use. If a person deploying resources in one fashion can gain increased income by shifting those resources to some other use, then the situation can hardly be considered a sustainable equilibrium. A position fulfilling both criteria can be compellingly argued to represent a "center of gravity" for the short-run adjustments of prices and quantities; thus a theory that can move from initially given data to a solution for such a position can convincingly claim to have specified "where the economy will go."

As Eatwell (1977) has argued, the neoclassical derivation of such an equilibrium takes as data: (a) preferences (utility functions), (b) technology, (c) the size of the initial resource endowments, and (d) the initial distribution of those endowments. The universal principle of behavior in this approach is that, in all markets and at all times, individuals act rationally to maximize their utility subject to these ultimate constraints. All the various supply-and-demand curves employed in neoclassical analysis are derived as aggregate summations of individual choices made in this universal fashion. When these supplies and demands are combined into a general equilibrium model, neoclassical theory claims to derive a simultaneous solution for all the variables of interest: prices, quantities, and a particular pattern of the distribution of labor and capital incomes. Ultimately, all the components of the equilibrium solution are regarded as jointly necessary implications of the given preferences, endowments, and technology that define the situation. What happens in competitive markets is desirable because it is chosen by the aggregate of individual actors.

The problem with all this is that even if neoclassical economics is granted all of the assumptions and restrictions ordinarily imposed, no long-run solution will exist in general, a result that problematizes the claim that market outcomes can be explained as the result of rational individual choice. The specification of resource endowments is at the root of the difficulties that emerge: However one specifies the "capital factor" — as a scalar (a fund of finance) or a vector (a list of heterogeneous capital goods) — unsatisfactory results of one sort or another follow.

If capital is treated as a scalar for purposes of specifying initial endowments (the "production function" approach taken by Samuelson [1962] and virtually every textbook model of production), then, with appropriate assumptions concerning the form of the various functions, a determinate solution emerges that embodies the usual neoclassical propositions. But the result is not general: A scalar magnitude of "capital" (the economists' traditional "K") in the same units as "output" means that the economy is effectively a "one-commodity world." More important, the result is not generalizable: The simplification made possible by the production function fails, in that none of the conclusions about distribution or efficiency expressed by means-of-production functions hold, in general, in a world with more than one produced means of production. It is obviously unsatisfactory if the logical consistency of basic economics depends on a degree of abstraction such that the millions of different consumer and capital goods produced become indistinguishable parts of some homogeneous, all-purpose "stuff." And yet these models must assume just that, since, as Garegnani (1972, 271) has shown, there *is no* production function in labor and "capital" outside of a one-commodity world, and consequently, "no definition of 'capital' allows us to say that its marginal product is equal to the rate of interest."

The alternative to production function exercises is the full-scale "Walrasian" treatment of the capital endowment as a vector of heterogenous capital goods used in production, such as the Nobel Prize-winning "intertemporal equilibrium" model of Debreu (1959). Again, with appropriate assumptions, a solution exists that is, on its own terms, perfectly valid, in that individual decisions produce market-clearing outcomes that are efficient and socially optimal. Problems remain, however, since that solution does not generally fulfill both of the characteristics of long-run equilibrium already mentioned. The system can be solved for meaningful (nonnegative) values for market-clearing quantities and prices only if it is expressed in terms of inequalities, which means that in general, the rate of interest earned on capital within a single time period will not be uniform. Whatever the virtues of such a model, the solution does not represent a position toward which the economy will gravitate, since inconsistent rates of return on alternative uses of capital would provoke changes leading the economy away from the outcomes the model specifies (Eatwell 1982, 223; 1983, 211). To demonstrate the efficiency of free-market outcomes, neoclassical theory has, in effect, assumed away capitalism, since the heart of capitalist production is the profit-maximizing response to opportunities for a higher rate of return. Eatwell states the strong conclusion: "It is not logically possible to solve a neoclassical system for the determination of long run equilibrium" (1983, 210).

Despite these analytical shortcomings, textbook explanations of the data on minorities and women rely on the neoclassical claim to have a consistent and general solution for the perfectly competitive long-run equilibrium center of gravity for all markets, including labor and capital markets. The power of the neoclassical position is based in large part on the simplicity of that claim: The premise of individual maximizing behavior, combined with the requirement for market clearing, enables one to specify a necessary equilibrium outcome, one toward which a competitive capitalist system will gravitate. Since one part of that equilibrium solution is the particular pattern of income distribution viewed as necessary given the exogenous factors taken as data, the theory of distribution within which race and gender issues are treated is explicitly a part of the broader equilibrium theory. But the inability of mathematical microeconomics to back up its claim, even when granted a host of extreme simplifying assumptions, implies weakness precisely where the theory needs to be strong. If neoclassicism is unable to demonstrate the existence of an equilibrium position toward which income, employment, and all other prices and quantities are moving, then it is unable to assert the necessity of any overall distributional pattern. And in that case those, like minorities and women, who occupy the least desirable places in the existing distribution would seem entitled to ask: If preferences, technology, and the endowment structure are not sufficient to explain the long-run distributional pattern in capitalism, how is that pattern determined and what further, presumably social (political and ideological), factors are involved?

While the theoretical critique of neoclassical equilibrium analysis presented above has implications for propositions made in a number of economic fields, it is especially relevant to the one proposition that all texts invariably put forward when considering the possibilities for distributional change: the presence of an inevitable trade-off between efficiency and equity. The inevitability of such a trade-off is defensible only on the basis of a general equilibrium theory asserting the automatic efficiency of competitive markets, at least in the absence of a well-known list of complicating factors. But the necessity of the conclusion depends upon the premise, and if the critique outlined above is correct, then the theoretical basis for any generalized trade-off between efficiency and equity is undercut. There may well still be grounds for the economist's intuition that there must be a price tag attached to efforts to increase equity, but in the absence of a consistent theory of long-run gravitational equilibrium, that intuition cannot be defended in the traditional way.

AN ALTERNATIVE TREATMENT OF GENDER AND RACE

We have argued that textbook discussions of race and gender are shaped by the philosophical and analytical premises of the orthodox paradigm in economics. The form of the discussion is limited by allegiance to the positivist conception of a fact-value distinction; the content of the discussion is then almost exclusively defined by marginalist equilibrium analysis. The neoclassical approach makes a tactical distinction between the underlying abstract theory, in which the sum of individual choices is decisive and factors like gender and race are inherently irrelevant, and the various applications of that theory. In the applications, the phenomena of concern to minorities and women, such as unemployment or earnings differentials, emerge as effects of tastes and preferences or endowments or market imperfections. This distinction has the value-laden effect of devaluing these concerns by treating them as secondary to the "real" tasks of positive economic theory. Discrimination, for example, becomes simply a source of deviations from an otherwise automatic and desirable equilibrium, rather than a historically intrinsic part of the economic system.

The economic effects of race and gender can be handled differently, by using the different philosophical and analytic approach of radical economics. Two texts exemplify the possibilities inherent in this alternative (Bowles and Edwards 1985; Wolff and Resnick 1987).

The premise of radical economics is that every human society produces a surplus (an excess of output over that amount required to reproduce the performers of labor and the consumed means of production) that is then distributed to different groups or classes through the social organization of the society in question. This surplus product is necessarily associated with the performance of surplus labor: If, from the total product of a society, we subtract the goods necessary to replace consumed means of production, then the remainder, the social net product, must be associated with the total labor performed in producing it (since the "contribution" of nonlabor inputs has already been accounted for through the goods set aside for replacement). The total net product can be divided into two portions, one representing the customary claims of the workers engaged in its production (the product of necessary labor) and the remainder representing the surplus product (produced by surplus labor). This distinction between necessary and surplus labor then can be applied to the labor of individual workers as well.

These basic categories permit the specification of two types of class arrangements. First is the set of social arrangements within which surplus is produced and appropriated. The poles of this relationship are the class of direct producers (those who perform necessary and surplus labor) and the class of direct extractors (those who directly control the product of surplus labor). The performance of surplus labor by direct producers and its appropriation by direct extractors is, however, only the beginning of the story, for once a surplus has been successfully produced, it is distributed in a variety of complex ways to groups that may have no direct involvement in the generation of the surplus. The second sort of class arrangement refers to those groups whose incomes represent claims on the already produced surplus. These groups can be called indirect extractors (since they receive what are effectively redistributed shares of previously extracted surplus labor). Thus, in a capitalist economy, the surplus labor of productive workers is initially appropriated by the capitalist firms that employ them, but it is then redistributed via competition, negotiation, monopoly extraction, debt, taxation, and so on.

Gender and race have no a priori bearing on an individual's economic position or behavior, but in particular historical circumstances, race and gender distinctions may become significant variables in the processes through which surplus labor is performed, appropriated, and redistributed. A radical analysis does not use information on preferences, endowments, and similar factors to specify the results of individual rational choices. No distribution has the status of an equilibrium made necessary by exogenous forces. Rather, the object is to understand the flows of surplus, including the patterns of its distribution, that result from current political and economic struggles and the balance of power among groups with contradictory interests. Every distribution is a contingent result that is continually called into question by class conflicts, group interests, and individual choices. Not only is the destination of the surplus an issue of conflict, but so is the form of the process. Participation in the decisions governing the production and distribution of the surplus is as open to contest as are the rewards themselves. Lack of participation is central to what the radical tradition means by "exploitation," which is quite different from the neoclassical notion of inequity or quantitative disparity in rewards. Radical analyses are much more concerned with the form of the social processes through which rewards are determined. Consequently, groups that are excluded from participation in decision making are subject to economic inequity, irrespective of the size of the incomes they receive (Feiner and Roberts 1986, 1990).

The issue of discrimination starkly illustrates the contrast between radical and neoclassical analyses. Neoclassicals view market competition as the means by which equilibrium prices and quantities are established. The orthodox texts argue that competition should undercut discriminatory pay differentials:

> If an employer could really hire women who were willing and able to do the same work as men for 35 percent less, the profit motive would provide the employer with a strong incentive to do so. . . . Of course, as more and more employers substituted women for men workers, the earnings ratio of women to men would move toward parity. (Gwartney and Stroup 1987, 564-65)

But since "this is not what is observed in the real world" (Gwartney and Stroup 1987, 564), the cause of pay differentials must be located in gender-based differences in preferences and the choices that result:

> Married men and women have different areas of traditional specialization within the family. Married men typically pursue paid employment aggressively because they are expected to be the family's primary breadwinner. . . . In contrast, married women have generally had the primary responsibility for operating the household and caring for children. . . . Thus, women seek different sorts of jobs than men, jobs with less travel time, flexible hours, and those that are complementary with household responsibilities. . . . Viewed in this light, it is not particularly surprising that women find nursing, teaching, secretarial, and other jobs with easily transportable skills highly attractive. (Gwartney and Stroup 1987, 564-66)

In this view, since the possible range of such child-care-compatible occupations is restricted relative to the occupational range open to men, crowding and low pay are inevitable results of women's job preferences.

In the radical approach, competition is not a means to any particular outcome, but is instead an economic dimension of a much broader and inherent set of class and nonclass struggles. This different view of competition makes visible further dimensions of discrimination. A radical text states:

> Conventional economics argues that discrimination is costly and hence competition for profits will eliminate discrimination. But . . . when employers discriminate, it may be precisely because discrimination is profitable and indeed competition may drive (nonprejudiced) employers to discriminate. . . . [Thus] capitalism affects discrimination in two ways – one way weakens it and the other strengthens it. Discrimination is weakened when firms compete with one another by attempting to minimize costs through hiring the best person at the lowest wage. . . . On the other hand, discrimination is perpetuated when capitalists try to use discrimination in their conflict with workers over wages and the pace of work. . . . Capitalists did not invent racism or sexism, but they have used pre-existing prejudices or biases among workers to divide and weaken workers. (Bowles and Edwards 1985, 190-91)

As for job preferences, while it is not false to point out that some women do choose traditionally female jobs, the radical approach socially locates that choice, since "the gender system – the way our culture determines what is 'male' and what is 'female' – heavily influences these choices" (Bowles and Edwards 1985, 229).

Radical economists' awareness of the social and cultural context for economic activity emerges from a historical perspective absent from neoclassical theory. For example, while most orthodox texts briefly mention occupational segregation and the theories of dual or segmented labor markets that seek to explain it, the radical text explicitly discusses the way the occupational structure emerges from the historical evolution of concentrated hierarchical firms, unionism, and the expanded scope of governmental policies (Bowles and Edwards 1985, chaps. 10 and 14). The neoclassical inclination to treat current inequities as the effects of millions of constrained maximizing choices effectively obliterates history by admitting it only in the form of exogenously given preferences, endowments, and institutional imperfections. In a curious way, history comes to look like destiny, since equilibrium concepts obscure the open-ended historical process that has enmeshed gender and race in a wider pattern of class and nonclass alliances and conflicts (Acker 1988; Hartmann 1976; Williams 1987). In a similar vein, those few orthodox texts that discuss the economic structure of the household do so through the Becker model of gender specialization based on individual choice and "comparative advantage." It is only in another radical text that a student will find a full-fledged alternative, an extended discussion of the class dimension of historically traditional household gender roles (Wolff and Resnick 1987, 218-22).

These analytical differences affect the importance granted to race and gender discrimination in the United States economy. Neoclassical economists admit the reality of such discrimination, but question its significance by stressing the many factors other than discrimination that can generate inequality (preferences, abilities, luck, and so on). Radical economists, in contrast, treat discrimination as an unambiguous part of the contemporary economic system.

The contrast is perhaps most apparent in what the texts consider appropriate reactions to inequality. Every neoclassical text cautions the student to be aware of the allegedly unavoidable trade-off between equity and efficiency. The trade-off is presented as a positive statement of fact; on that basis, the student is left to determine, on the basis of personal normative values, whether greater equity is worth its inevitable price. Little is said about what values one might use as criteria for judgment or what practical options might be open to someone with, say, feminist values. The radical alternative confronts the neoclassical textbook logic:

> Many economists have come to see the amount of inequality in a capitalist society as simply a choice based on a trade-off between more equality and more output. Their reasoning is as follows: if the government is democratic, then the voters can simply decide how much equality they want. But if the capitalist economy is efficient, voters will have to "pay" for more equality, [and] . . . the more equality they vote for, the less output or economic growth they will get. (Bowles and Edwards 1985, 382)

The *ifs* make it clear that the trade-off is a theoretical conclusion and not a statement of fact. Indeed, "there are many reasons to believe that the capitalist economy is not efficient," and there are "serious limits to the democratic choices that the voters may make, because in a capitalist system capitalists are free to invest elsewhere (or not at all) if they do not like what the voters do" (Bowles and Edwards 1985, 382-83). Radical economists buttress their argument that the United States faces no such inevitable trade-off with international data on growth and distributional possibilities of a sort absent from neoclassical texts. Moreover, Bowles and Edwards offer an explicit statement of the values that underlie their analysis (equity, fairness, and democracy) and apply those values in suggesting prescriptions to implement in pursuing the goals on both sides of the neoclassical trade-off.

The differences between the two approaches are partly, though not simply, a result of radical economists expressing a commitment to social change and neoclassical economists deliberately avoiding or suppressing discussion in the interest of maintaining the intellectual and social status quo. More important are the underlying differences between the theoretical perspectives themselves. Gender and race take on a new economic significance when approached in the radical way, based on the rejection of positivist philosophy and the use of historical class categories in place of individual utility and equilibrium. Like the practitioners of every other discipline, economists of every stripe can only "see" what their chosen theoretical categories permit to be seen. Unfortunately, only one theoretical vocabulary, together with its implicit and explicit values, is offered to most economics students in the United States.

CONCLUSION

Perhaps one of the most far-reaching contributions of the recent scholarship on the intersection of race, gender, and class is the repeated demonstration that theory and methodology are never neutral. Indeed, "feminist challenges reveal that the questions asked—and even more significantly, those that are not asked—are at least as determining of the adequacy of our total picture" (Harding 1987, 7). We have focused on the "picture" presented by economics textbooks to U.S. students initially coming to terms with economics. But the theory and methodology of orthodox economics has implications that are important for feminists in other disciplines, especially those in which an "economic" perspective is often invoked.

One of the common tasks of much feminist scholarship is the delineation of differences, distinctions, or asymmetries that have been painted out of the picture visible to the "normal science" of different disciplines. The neoclassical approach is no exception; it too enforces a particular and deliberate homogenization of human experience: Different individuals may make different choices or undertake dissimilar actions, but we all supposedly choose and respond in the same way, through the same calculus of maximization. The "economic problem" is always the same; technology may vary, endowments and institutions may evolve historically, and preferences may be unique to the individual, but the form of the question is constant. It is, What choices express rational utility maximization (subject to constrained resources and a particular institutional setting), and what equilibrium is established by the aggregated choices of individual agents? All the interactions and the particulars of a social situation that may give rise to "different realities," including gender, are swept from a constitutive place and viewed instead as information exogenous to a uniform reality of choice. The seductive simplicity and universality of this approach have contributed to the inroads made by economics into fields across the disciplinary spectrum, including not only the social sciences but also areas as disparate as biology and law. Feminists in any of these fields who are interested in expanding the diversity of insights into the causes and effects of gendered identity have good reason to be wary of economists bearing the gift of rational choice models.

Not only does orthodox economics deliberately homogenize human behavior, it does so through conceptual metaphors that have a masculine content: the isolated individual rationally using free will, without emotional constraint. Ever since Adam Smith's celebration of the "invisible hand" of the marketplace, orthodox economics has touted the virtues of the competitive market as the institutional solution to the dilemma posed by separate individuals, all seeking maximal opportunities to exercise their rights to self-interested behavior. Faced with social problems, the neoclassical instinct is to create markets where none exist in order to harness the benefits of competition, where competition is viewed as an automatic effect of the autonomous individual's freedom to buy or sell at will. This vision of the separateness of individuals as agents in the marketplace has made exchange the universal metaphor for interpreting all human behavior: If one either "supplies" or "demands," alienates or acquires, then every aspect of human activity can be interpreted as, in essence, a species of supply or demand behavior. The very activity of production itself becomes little more than a market transaction in which "inputs" are exchanged at a price for final "output." In contrast, radical economics sees the process of production as a fundamentally social interaction structured by social roles, relations, and attachments among human beings. This focus on relations and attachments, power and responsibilities, is closer to feminist analysis in recognizing that what happens in the economy is partially the result of conflicts among people with different interests and different values.

Ultimately, any evaluation of textbooks presupposes some vision of what education ought to be, and in our view, an economics education should not be merely instruction in the tools and results of normal inquiry. While more attention to gender and race issues is needed, the problem is not simply one of quantity. Progress will be made when the texts present alternatives and become open to the arguments that will inevitably follow. Only where the possibility of disagreement is acknowledged is it possible for students to be challenged to critical thinking. At present, that is not the case, and for one interested in race and gender issues, the obstacle is an orthodox approach that, in effect if not intent, is closed to the dialogue of conflicting values. The sad result is that at present, race and gender are hidden by the invisible hand.

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