

**ON THE NEED FOR
INTEGRATING OCCUPATIONAL SEX
DISCRIMINATION THEORY
ON THE BASIS
OF CAUSAL VARIABLES**

By

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ABSTRACT

The purpose of the paper is to set the foundation for an interdisciplinary model of occupational sex discrimination (OSD). The present fragmentation of OSD theory within and among disciplines is unfortunate since it impedes the development of a complete understanding of OSD.

In order to progress toward an interdisciplinary model of OSD the following steps were undertaken: (a) a taxonomy was developed for grouping OSD theories espoused by different disciplines; (b) within each group of OSD theories, key causal variables were identified; (c) by analyzing the role of key causal variables in OSD theories, key analytical dimensions were identified; and (d) then, OSD theories were linked on the basis of common bonds of causation, subject to the constraint that the integrative model encompassed all identified analytical dimensions. This process yielded the linking of statistical discrimination theory, human capital theory, prejudice theory, and role orientation theory.

Whereas individual theories of OSD focus on a narrow band of causation, the proposed integration of OSD theories provides a broader and more balanced base for analyzing the problem of OSD.

INTRODUCTION

The majority of complaints filed with the Equal Employment Opportunity Commission under Title VII of the Civil Rights Act involve sex discrimination. Complaints of sex discrimination pertain mainly to pay discrimination, promotion (and transfer) discrimination, and occupational discrimination. Occupational sex discrimination (OSD) is particularly serious since other forms of sex discrimination are, to a large degree, symptomatic of a lack of female access to "male" occupations--those occupations that pay good wages, that are connected to long job ladders (that provide opportunities for vertical mobility via job promotion), and that offer positions of responsibility.

The phenomenon of OSD, the uneven distribution of occupations by sex, is well documented (though the causes of the problem are neither well documented nor understood, unfortunately). Evidence indicates that nearly 70 percent of the female (or male) labor force would have to change occupations to achieve a sex mix within each occupation equal to the sex composition of the labor force (Meyer and Maes). Specifically, women are seriously underrepresented in the crafts, professional-technical jobs, and the managerial-administrative area (Osterman). On the other hand, women are overrepresented in the clerical, service (except private household), and private household areas. For example, nearly 80 percent of all clerical workers are women (De La Vina).

OSD appears to be deeply ingrained in the institutions of our society (Carey; Beller; Odendahl; Angle and Wissman). To combat OSD effectively, we must know and understand its causes. Unfortunately, no consensus has emerged on this troublesome issue. A review of the literature in the fields of psychology, sociology, economics, philosophy, and history reveals a wide variety of explanations of OSD, each reflecting the relevant "looking glass" of the particular discipline (or school of thought).

The purpose of this paper is to distill and integrate key aspects of the diverse theories of OSD, using the best of what each has to offer. The scope and methodology of the model set forth in this article represent an attempt to go beyond traditional disciplinary boundaries to provide a more complete understanding of OSD.

SCOPE AND METHODOLOGY: AN HISTORICAL PERSPECTIVE

The author approaches the subject of OSD as a formally trained economist who believes that contemporary orthodox economic models are overly restrictive in both scope and methodology. The spirit, scope, and method of this study go well beyond the confines of traditional theory. It is more in keeping with early (pre-neoclassical) stages of the discipline when the broader notion of political economy guided researchers. This study is also in keeping with the current (non-mainstream) work of social economists and institutional economists, who are committed to expanding the boundaries of the discipline to make economic analysis more meaningful.

Below, I briefly trace the evolution of the scope and methodology of economics. This is important background information for understanding and appreciating the need both to broaden economic analysis and to integrate it with work in other relevant disciplines.

Early political economists believed that social, cultural, psychological, and political factors were as much a part of their discipline as were economic factors. In fact, such a distinction made no sense to them, for they saw these factors as being tightly interwoven. For example, political economists believed that consumer behavior in the market could only be explained when all aspects of the environment, as well as the dynamics of the environment itself, were taken into account. By contrast, modern economic orthodoxy takes the environment as a "given."

A broad, integrative research methodology was characteristic of economics from about the time of Aristotle (who is believed to be one of the first known economists) through the early generations of Classical economists, who dominated economics from the mid 1700's to the late 1800's. We may include much of Greek and Roman economic thought, medieval economic thought, mercantilism, physiocratic thought, and early classical thought as part of the heritage of economics as political economy. While this heritage is preserved today in the work of institutional economists, social economists, and radical economists, it is no longer characteristic of mainstream economics.

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Orthodox economists in the late 1800's attempted to transform political economy into a "hard" (rigorous, determinate, and precise) science. They abandoned the imprecise and indeterminate, but highly relevant, models of political economy. Political economy was whittled down to "economics proper" via the notion of "economic man," the assumptions of perfect competition, the exclusion of normative issues from economic investigation, and the application of Newtonian mechanics to economic analysis. In the words of Professor E. Ray Canterberry (p. 122):

In the skillful hands of the neoclassical economists, the political economy of Adam Smith became just plain "economics." Certainly economics looked more like a science. The rigorous defining of the economic man and the assumptions behind perfect competition added greatly to the precision of economics.

Economic man (or woman; the sex is not at issue) was assigned behavioral characteristics that yield a predictable and determinate (exact) mode of economic behavior. Everything economic man does is intentional and deliberate. Economic man never acts impulsively. Economic man knows the consequences of his actions, and acts accordingly so as to maximize net benefits. Economic man always acts rationally and is a pure maximizer of his own utility (satisfaction). Economic man, also, is perfectly mobile and, thus, all change is costless to him.

The assumption of economic man is essential to the notion of a perfectly competitive market. Perfect competition requires perfect product homogeneity, perfect knowledge, perfect resource mobility, and rational behavior that is maximizing, and determinate among all participants in the market. Also, the number of participants must be so great that no single participant can influence the market (supply or demand or both), and there must be no collusion among market participants. (While this may seem unduly unrealistic, positive/orthodox economists would argue that one does not evaluate the merit of a theory by the realism of its assumptions; rather, one evaluates it by the empirical accuracy of its predictions.)

In perfectly competitive markets, economic man, thus, has perfect information and free access to all markets. Given a particular (assumed) preference map, his behavior is totally predictable. For example,

economic man would not hesitate to move to a new job (any job, for they are all alike) located in another part of the world (in any culture, for all people are alike) as long as the net benefit of the new job exceeded the net benefit of his present job.

The introduction of economic man and free markets in economic models eliminated the problem of irrational, indeterminate behavior. This was an important step toward making economics a "hard" science, but it was not enough. Economics also had to be "value free;" that is, it had to become a "positive" (as opposed to a "normative") science.

Positive science deals only with "what is," and ignores issues of "what ought to be." Its goal is to discover the causal relationships of a particular phenomenon. These relationships are codified as general laws of nature, and are used to predict and control the course of nature. This was achieved in the physical sciences with Isaac Newton, wherein positive science, perhaps, reached its purest form. (Perhaps a cultural lag besets traditional economics in the sense that it has been trying this century to emulate an outmoded--mechanistic, pre-quantum--model of scientific theory.)

For economics to become a positive science, all ethical and moral issues had to be expunged from the discipline. Modern orthodoxy accomplished this by taking society's ethics as a "given," as lying outside economic models. Also, as a positive science, orthodoxy must ignore all issues that are (that it regards as) empirically unverifiable (Friedman 1966 is the classic statement of the nature of positive economics.). Thus, positive economics, for example, has nothing to say about the welfare effects of taxing the rich and giving to the poor, for this act would necessarily involve moral judgments. The net welfare impact of the tax cannot be empirically verified, for there is no way to measure the loss of satisfaction experienced by the rich and the gain in satisfaction received by the poor. The orthodox solution to such problems is to define them as being outside the scope of economics.

To achieve the goal of positive science, orthodoxy borrowed the (physical science) tools of Newtonian mechanics. It relied heavily upon the concept of Newtonian equilibrium--Newton's laws of motion regarding the equilibrium path of heavenly bodies. Newton's notion of equilibrium as a state of balance of opposing forces or actions was transferred to economics via the development of economic equilibrium models. This emulation process was so complete that modern orthodox economics is essentially equilibrium economics.

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Economic equilibrium requires determinancy--a unique and predictable outcome. This requirement is met by the behavioral postulates of economic man, the assumptions of perfect competition, and the exclusion of all ethical and moral considerations. Such is the nature of "economics proper."

This narrowing of the discipline was done in order to obtain the status of a "hard" science. However, critics maintain that the costs are too high--that now economics, with its "elegant," mechanically determinate models, is a "discipline of tools without relevance" (Whalen).

Orthodox economic theories of OSD are vulnerable to this criticism. These theories take as given (ignore) many of the key causal dimensions of OSD. They offer a very incomplete and unpersuasive explanation of the problem. It is interesting to note that in a major sex discrimination test case, involving Sears Roebuck and Company and its employees, the expert witnesses were historians, not economists (Milkman). Historians understand the importance of long-run institutional forces in causing and perpetuating OSD, an area neglected by most economists.

In order to understand OSD better, we will go beyond the narrow confines of traditional economics. We will broaden the analysis to include both the larger dimension of political economy and relevant work in related disciplines.

The first step is to develop a taxonomy of OSD theories. Then we will identify the central principles of each component of the taxonomy. This involves distilling and synthesizing the broad range of existing OSD theory. The components of our taxonomy will be developed only in broad terms, for it is beyond the scope and purpose of this paper to explore each in detail. What we are striving for is manageability--how to get a "handle" on the broad range of current OSD thinking.

As with any taxonomy, the one presented in this article is somewhat contrived and arbitrary in nature. However, it suits our purpose; it seems to capture the key elements of current thinking in the area of OSD and it facilitates comparative analysis.

ORTHODOX ECONOMIC THEORIES

Orthodox economists have not decided upon a single explanation of OSD. Their theories tend to fall into four sub-categories: (1) monopsony exploitation theory, (2) human capital theory, (3) statistical discrimination theory, and (4) prejudice theory. While these sub-categories tend to be more complementary than conflicting in nature, there are important differences among them.

Monopsony Exploitation

According to the microeconomic theory of monopsony, the pure monopsonist, as a single buyer of a particular type of labor, faces an upward sloping labor supply curve with marginal labor cost lying above the supply curve for employment levels beyond the first worker hired. The profit-maximizing monopsonist, who hires labor up to the point where marginal labor cost equals marginal revenue (or marginal value) product, pays workers a wage less than their value contribution to the firm. The wage-value contribution differential is taken as a measure of worker exploitation in the sense that workers are not paid what they are "worth" to the employer.

A macroeconomic application of the above (micro) theory of producer monopsony power is used to explain OSD. It is argued that men collude in sex discrimination because they gain from doing so (Luksetich). To the extent men behave on the basis of a perceived common bond regarding the benefits of OSD--primarily less female competition for well-paying male jobs--they collectively achieve monopsonistic power over women (Bergmann, 1983; Madden, ed. by C. Lloyd). That is, men are able to act as if they are a monopsonist and exploit female workers. (The situation is analogous to individual producers achieving monopoly power in the product market via collusion, and using this power to exploit consumers.)

The model assumes that men, in their role as husbands, employers, workers, consumers, and legislators, have power over female occupational choices. Place of residence that is dictated by the husband's job, legislation that bars women from certain jobs, male workers who refuse to work alongside female workers, male consumers who refuse to transact business with female employees--all are examples of how men limit female occupational choices (Jacobs). Because of these restrictions placed

on women by men, it is as if women faced a single male employer--a monopsonist (Of course, the existence of female employers, female consumers and the like keep men from achieving pure monopsony power.)

While it is not the purpose of this paper to evaluate the strengths and weaknesses of the different theories of OSD, an important trouble spot regarding monopsony exploitation theory should be noted. Male cartel behavior, as in the case of any cartel behavior, can be expected to break down over time as individual members give in to the temptation to maximize their own position at the expense of the cartel. The monopsonistic cartel runs counter to the interests of families with both spouses working when the objective is to maximize family income. These families are likely to break from the cartel, undermining its influence. (This problem is discussed below in connection with male dominance theories of OSD.) Keeping in mind that each of the individual theories of OSD contains significant gaps and fails to explain the problem satisfactorily, let us continue our exploration of the prominent theories of OSD.

Human Capital Theory

While monopsony theory focuses on the demand side of OSD, human capital theory offers a supply-side explanation of OSD. Each worker is viewed as a combination of native abilities and raw labor power plus specific skills acquired through education and training. The latter component is commonly referred to as human capital (Becker, 1975: Chapter 1).

The human capital theory of OSD focuses on the relatively high mobility and intermittent nature of employment women tend to experience (Polacheck). Because of domestic responsibilities, women tend to be in and out of the labor force more frequently than men and thus acquire less on-the-job training (OJT) than their male counterparts. This, it is argued, adversely affects female occupational opportunities in two ways. First, fewer women than men acquire sufficient human capital for jobs which require substantial previous experience. Second, while women are out of the labor force, their job skills depreciate. It is thus rational for women who anticipate intermittent employment to choose occupations which require relatively little time to acquire the necessary job skills and which require job skills that do not depreciate rapidly from nonuse. The combined impact of reduced job experience and the incentive to minimize depreciation of job skills results in women's being concentrated in

service, sales, clerical and labor jobs and underrepresented among operators, managers, and professionals.

Also, there is a third related factor at work here. Due to high labor force mobility (and discrimination), women, as a group, can expect a lower rate of return on their investment in education and training than their male counterparts can (Mincer; Blakemore). Thus, there is less of an economic incentive for women to undertake the extensive training necessary for managerial and professional jobs. This illustrates how discrimination can become a self-perpetuating, vicious circle.

In summary, the human capital theory of OSD holds that economic incentives lead women to segregate themselves into female occupations. It is economically rational for women to continue to pursue traditional female jobs.

As mentioned before, it is not the purpose of this paper to evaluate each theory of OSD; however, a few observations are of interest. The human capital theory of OSD is bound to be controversial since it implies that OSD is largely the result of choices that women make regarding home responsibilities and career commitment; that is, it tends to "blame the victim" for OSD. The theory takes as "given" those institutional forces that condition and limit the range of viable options open to women (England).

Also, there is the empirical side of the issue. The data are incomplete and somewhat mixed regarding two key presuppositions of the human capital theory of OSD: (1) that job skill depreciation (and the associated wage penalty) is less in predominantly female occupations; and (2) that women who anticipate intermittent employment are more apt than other women to enter female occupations. These are important issues which deserve more study.

Statistical Discrimination

Statistical discrimination exists when an individual is evaluated on the basis of the average characteristics of the group to which he or she belongs, rather than on his or her own personal characteristics. The evaluation is factual and objective in a macro sense when the group actually has the characteristics attributed to it. However, the judgments are incorrect in a micro sense to the extent that particular individual worker's characteristics deviate from those of the group (Thurow, 1975: Chapter 6).

This macro-micro distinction can be made even stronger by introducing a related form of discrimination--error discrimination, which is based on false stereotypes and assumptions about group characteristics (Heilman). In this case, the evaluation process is not objective or factual in either the macro or the micro sense.

Consider the case where employers prefer men over women because of the higher turnover costs associated with female employees. This is statistical discrimination in that the hiring decision is based on actual group data. Most studies indicate that women's job turnover rates are higher than men's. Employers are using sex as a predictor of applicants' productivity-linked characteristics. Producers in industries where recruitment and OJT costs are relatively high would be particularly prone to avoid hiring females (Aigner and Cain).

Statistical discrimination exists, presumably, because its benefits to the employer outweigh its costs. The main benefit is the money the employer saves by not having to screen each job applicant individually. Group characteristics become the screening mechanism--level of education, sex, age, and so on. It takes less time and money to screen credentials than it does to screen people. The main cost of statistical discrimination is that employers are not likely to get the optimally qualified pool of employees (Phelps). This is to be expected since not all college graduates are more productive than high school graduates, not all women have a higher job turnover rate than men, not all prime-age workers are more productive than the young and the elderly, and so on.

Linking this to OSD, it is argued that in the case of male jobs--particularly managerial and professional jobs--statistical discrimination against women is profitable. This is because of the high individual screen cost and the importance of OJT associated with male jobs. It is no coincidence that female occupations tend to be those where high job turnover imposes relatively low costs on the employer (Fraher).

Prejudice Models

Prejudice models of discrimination are based on the notion that some employers indulge their own sexual prejudices (or the prejudices, real or perceived, of their employees and customers) in making hiring and other personnel decisions (Becker 1975: Chapter 1). Some employers have a "taste" for discrimination that is not economically motivated. Indeed, employers may actually have to pay for their "taste" for

discrimination to the extent that it is more economical to hire women than men (or nonwhites than whites). By hiring only men, the employer's wage costs will be greater than it is for employers who hire only women or both women and men (assuming women and men are equally productive), since females tend to receive lower wages. This suggests that competitive markets would reduce discrimination resulting from prejudice because firms which discriminate would be at a cost disadvantage and not able to compete effectively.

To link the prejudice hypothesis to OSD it is necessary to argue that tastes adverse to hiring women and tastes for hiring men only pertain to certain jobs. The link is that sex role socialization helps form the tastes (Terborg and Ilgen 1975: June). For example, if employers tend to believe that women can not and/or should not do hard physical work, women would tend to be underrepresented in such jobs as heavy construction and fire-fighting. Supposedly, by adding other dimensions of sexual prejudice, such as women "can't handle responsibility," we can explain the present pattern of OSD.

Summary

Within mainstream economics, several different explanations of OSD have been put forth. Monopsony exploitation theory focuses on the collusive behavior of male employers in discriminating against females. Human capital theory focuses on the supply characteristics of females--particularly their education and training levels--in explaining OSD. Statistical discrimination models emphasize group (rather than individual) characteristics of female job applicants. It is female group characteristics that make women a poor choice for risk-adverse employers. Finally, we have prejudice models where the male employer doesn't hire women because of his own tastes or preferences for female discrimination.

Each of these theories offers a highly restrictive and incomplete explanation of the causes of OSD. As argued above in the section on scope and methodology, it is important to broaden the analysis to include both the larger dimension of political economy and relevant work in related disciplines. It is in this spirit that we explore below other prominent theories of OSD: class conflict theories, institutional theories, sex role orientation theories, and male dominance theories.

CLASS CONFLICT THEORIES

There are several variants of class conflict theories (Spaulding and McQuire). However, we do not need to explore them individually since they are quite alike for our purposes. Class conflict theories have two key common bonds. First, employers must create a reserve army of the unemployed to insure a readily available pool of low-wage workers for industry. Second, employers need to take action against the possible collective rebellion of workers which threatens capitalism. The latter, which helps explain OSD, is achieved via labor market segregation.

While early Marxist class conflict literature assumed an increasing homogeneity in the conditions of the working class, more recent class conflict literature emphasizes labor market segregation and depicts a world of "worker haves" and "worker have nots" (Bowles and Gintis; Goldberg, ed. by Gordon; Lutz). Workers in low-paying unpleasant, unsafe, deadend jobs are unable to enter labor markets where the good jobs exist. Job segregation is seen as a strategy to limit the extent to which workers with good jobs identify with those in bad jobs--that is, as a strategy to limit overall class consciousness among workers.

Linking this to OSD, it is argued that segregation by sex (and race) inhibits any development of class solidarity among workers (Dahrendorf). Women end up with the less desirable jobs because their history of subordination makes them more likely to accept unrewarding work, (Note that class conflict theories tend to take pre-existing sociological differences between men and women as a given; it is exogenous to the model.)

In sum, according to class conflict theories of OSD, some workers--women in particular--are channeled into less desirable jobs and segregated from other workers to keep workers in general from developing a class consciousness and acting collusively to overthrow capitalism. Here, OSD is seen as a necessary act in preserving the institutions of capitalism.

INSTITUTIONAL THEORIES

The institutional school emphasizes the rigidities of accepted practice--culturally formed institutions--in explaining OSD (Kanel). While the institutional school has much in common with class conflict theories of OSD, important differences do exist. Like class conflict

theorists, institutionalists view labor markets as being segregated (Blumrosen). Some institutionalists subscribe to the theory of dual labor markets; others pursue more complex models of labor market segmentation. Since the more complex models do not alter the basic conclusions of the dual labor market hypothesis regarding OSD, we can focus on the simpler case of dual labor markets without doing harm to the analysis.

According to dual labor market theory, there are essentially two types of jobs, primary jobs and secondary jobs (Piore). The key attribute of secondary jobs is that they are menial and thus worker attachment to the job is relatively unimportant. In secondary jobs, employers accept high turnover rates. Secondary jobs are usually the "crummy" jobs in our society, but, more important, they are rarely connected to institutionalized mobility ladders. Primary jobs are exactly the opposite in nature--they provide good pay, good working conditions, good vertical mobility, and good employment stability.

This sounds much like the way class conflict theorists view labor markets. However, institutionalists add an important factor not emphasized in class conflict theories: the distinction between external and internal labor markets. External labor markets comprise the interplay of the forces of supply and demand for labor and the institutions that influence those forces. In contrast, internal labor markets consist of the administrative rules and customs that determine wages and personnel policies within the firm (or some other administrative unit) (Magnum, Mayall and Nelson). The two markets are linked by "ports of entry" through which workers from the external labor market enter the firm to fill positions at or near the bottom of the job hierarchy of the firm. Nearly all other jobs are on institutionalized mobility ladders from the ports of entry, meaning that the firm's internal labor market determines the opportunities of workers to advance within the firm from the ports of entry.

Internal labor markets have several advantages for employers (Bergman 1974). By promoting from within, by promoting workers who are "known quantities" to management, information and error costs are reduced in filling key positions. Also, internal labor markets reduce training and turnover costs. Workers considered for promotion are already familiar with the firm, and worker retention is enhanced by the promise of advancement (Olson and Becker).

Linking this to OSD, institutionalists distinguish between three different types of ports of entry: (1) jobs that are not attached to job ladders--absolutely dead-end jobs, (2) those that are attached to "short" job ladders, and (3) jobs attached to "long" ladders. Jobs in the third category tend to be those where high turnover would be very costly to the employer--skilled and professional jobs.

If employers perceive women to have higher turnover rates, the logical place for them to engage in (statistical or error) discrimination is at ports of entry (Palomba and Palomba, 1982:45-46). Segregation at ports of entry, where women tend to be placed in categories 1 and 2 above, leads to continued occupational segregation since most port-connected jobs are on pre-defined mobility ladders.

Women thus have access only to secondary jobs (where employers accept higher turnover) and have little hope of moving up the ladder to male dominated primary jobs. Sex segregation at entry to firms is perpetuated over time, and done so without the need for further overt sex discrimination.

SEX ROLE ORIENTATION THEORIES

Sex role orientation or socialization theories of OSD focus on the problem of pre-labor market discrimination (Terborg and Ilgen 1975: August). It is argued that women undergo a process of socialization different from men which, in turn, is directly reflected in their occupational structure. Female socialization encourages the acceptance of responsibility for domestic work, and a nurturant and helping orientation for child care (Chadorow; Stanfield). Female socialization on the other hand, discourages authoritative or aggressiveness, physical prowess, and quantitative or mechanical aptitude.

It is argued that sex role orientation produces different traits in females, and employers use their knowledge of these traits to decide what jobs should be "female" jobs (Kovach). Evidence of such employer behavior supposedly exists when the sex composition of occupations corresponds to what is predicted by the attributes of traditional sex role orientation. (Of course, there is the problem here of distinguishing between correlation and causation.) We shall briefly review some of the evidence offered by sex role orientation theorists.

Evidence indicates that women are greatly overrepresented in nurturant occupations--social work, teaching, nursing, counseling, child care, and the like. For example, one study (which defined an occupation to be nurturant if the worker's main task was to provide a service to an individual on a face-to-face basis) concluded that women comprise approximately 75% of all workers in nurturant occupations (Greenwood).

Women are underrepresented in occupations which require the exercise of power (which may be defined as one's ability to persuade another to accept a position that is in one's own interest). Sales work offers an interesting case. In commission-based sales work, persuasion is an important determinant of rewards. In wholesale sales, where pay is usually tied to a commission pay system, women are greatly underrepresented; but most retail sales work, which usually does not involve commission pay, is done by women (Fox and Hesse-Biber 1984; Chapter 6).

As sex role orientation theory would predict, women also are underrepresented in jobs which involve authority over other workers (primarily supervisory and managerial jobs), jobs requiring out-of-town travel (such as time-consuming professional and executive jobs), jobs which require substantial quantitative or mechanical skills (such as engineering, accounting, economics, and statistics), and jobs which require substantial physical strength (firefighting and heavy construction, for example).

In summary, role orientation theorists argue women are raised differently than males, developing different occupational attitudes and attributes. This, in turn, is mirrored in the sex composition of occupations. While OSD may be reinforced in the marketplace, it happens long before workers enter the market, according to sex role orientation theorists.

MALE DOMINANCE THEORIES

While sex role orientation theories focus on the early stages of OSD (pre-labor market discrimination), male dominance theories focus on the motives men have for perpetuating OSD (Huerta and Lane). "Male" occupations tend to be the elite occupations regarding pay, status, nature of the work, and opportunities for advancement. Men thus have socio-economic motives for maintaining the status quo regarding the sex structure of occupations.

The main avenue for male labor market dominance is the "assignment" of domestic activities to women. This benefits males in two major ways. First, home responsibilities make it difficult for women to meet the demands of elite male occupations--time-consuming professional and executive jobs (Monk-Turner). This overlaps with the above discussion regarding the difficulty women have competing for jobs requiring out-of-town travel, long hours, odd work schedules, and considerable geographic mobility. Secondly, the assignment of domestic responsibilities to women reinforces a problem discussed earlier--statistical and error discrimination. That is, it strengthens employers' view of women as being risky applicants regarding job turnover and work commitment.

The central precept of male dominance theories of OSD is that men have socio-economic incentives to continue monopolizing their privileged status in the labor market, and that they can best do this by maintaining the traditional male-female division of household production.

It is interesting to note that the male "cartel" scheme comes under internal tension when males have a vested interest in the ability of their wives to get a good-paying job. However, male dominance theorists argue that the macro rewards of male monopoly status in the labor market dominates the microeconomic benefits of improved female occupational choices for husband and wife wage-earner families (Lundahl, 1984; Cotton, 1988). Unfortunately, little empirical work has been done on this issue. Male dominance theorists simply assume that noncompliance with the male cartel will cost males more in terms of their own lost pay and status than it will benefit them via better jobs for their working wives, and thus result in a net loss to men.

THE NEED AND THE BASIS FOR AN INTEGRATIVE MODEL OF OSD

In this section it is argued that there is a need to develop an analytical structure that goes beyond the individual theories examined above--that there is a need to develop an integrative, interdisciplinary model of OSD. We may refer to this argument as the micro (specific) case for interdisciplinary analysis. There is also a macro (more generic) case for such research. We will first briefly explore the macro argument and then proceed to the micro rationale for developing an interdisciplinary model of OSD.

Much has been written about the meaning of and the advantages of interdisciplinary research (IR). Professor Raymond C. Miller states that the concept of interdisciplinary "includes all activities which juxtapose, apply, combine, synthesize, integrate, or transcend parts of two or more disciplines" (p. 8). It is important to pursue these IR activities, Miller argues, because the real world is not neatly divided up in the same manner as individual disciplines. Intra-discipline research is not likely to yield a complete understanding of problems. Miller states that "Economists have learned this lesson the hard way, for many of their recommendations to the less well developed countries have proven irrelevant or erroneous due to their failure to consider the social and political context or the applicability of their culture-bound models" (p. 10).

Closely related to the concept of interdisciplinary is the notion of "border-interdisciplinary," which exists "when two disciplines have approached each other to the extent that an overlapping area is created between them in which both disciplines, each with its own methods and concepts, can make a (productive) contribution to the solution of a problem, because each has worked in the area" (Voskamp). Here, the value of IR lies in integrating existing ideas, concepts, and tools that have been individually developed in particular disciplines in an attempt to solve the same problem.

In light of these arguments, it appears that the problem of OSD is a good candidate for an IR approach. OSD is a problem that a number of disciplines have separately analyzed, yet it is a problem of such complexity and breadth that its division among individual disciplines leads to incomplete and naive views.

Another important advantage of IR is that it can yield a "higher" understanding of a problem. Professor Un-chol Shin states that "Since interdisciplinary knowledge is formed on the basis of wholes which are already well established in disciplines, it takes place at a higher level than discipline knowledge in the ascending process of knowing" (1986:99). This implies that IR yields a positive learning synergy wherein the sum of knowledge is larger than the parts (contained within each discipline). Closely related to this argument, Professor Julie Thompson Klein speaks of the traditional claim for interdisciplinarity as "seeing the whole instead of the disciplinary parts" (1983:44) Combining these two points, IR may lead to more complete understanding by providing a dynamic, holistic view of a problem.

There are other claims for IR. Professor Vosskamp argues that it can lead to "creative ways of approaching problems" (p. 17). Creativity is limited within disciplines by the "looking glass" of each discipline. For example, the orthodox economic equilibrium looking glass restricts analysis to those questions that can be stated in terms of a state of rest, a balance of opposing forces. It cannot deal with disequilibrium (Marxian) dynamics.

Robert J. Williams argues that IR can help uncover "basic concepts and underlying principles" that may not emerge from a narrow, discipline view (p. 105). In this respect, IR is conducive to an understanding of cause and effect. This is particularly important regarding the problem of OSD for without understanding the causation of OSD we will not be able to combat it effectively.

On the other side of the fence, there are strong critics of IR. Indeed, the IR debate is a vital and interesting one; much of which has been given excellent summary by Stanley Bailis (p. 27-41). But that debate is beyond the scope of the present study, which is less concerned to establish a case for IR per se (though one might exist), than to establish a case for using IR to explain OSD.

As argued above, OSD is the kind of problem that has the potential to benefit from IR. Additionally, there is a strong micro case for an IR methodology in the study of OSD. Let us see why this is so.

Our survey of OSD theories indicates that they can be grouped in terms of four main analytical dimensions: demand-side causation, supply-side causation, pre-labor market discrimination, and labor market discrimination. An important conclusion which emerges from the analysis of OSD theories is that at present there is no balanced treatment combining these analytical dimensions. Turning to Table 1, we can see that theories of OSD, with the exception only of human capital theory and role orientation theory, emphasize demand-side (instead of supply side) causation. Also, theories of OSD tend to stress labor market (instead of pre-labor market) discrimination, with role orientation theory, class conflict theory, and male dominance theory being the exceptions here. Thus, most OSD theories cluster around two analytical dimensions: demand-side causation and labor market discrimination.

Table 1. Theories of OSD, Key Causation Variables, and Interdisciplinary Linkages

Theories of OSD	Causation Variables				Primary Interdisciplinary Linkage
	Demand Side	Supply Side	Pre-Labor Market	Labor Market	
Role Orientation		x	x		Statistical Discrimination
Human Capital Theory		x		x	Role Orientation
Monopsony Exploitation	x			x	Male Dominance
Prejudice Models	x			x	Role Orientation
Statistical Discrimination	x			x	Role Orientation
Class Conflict	x		x	x	Institutional Theories
Institutional Theories	x			x	Class Conflict
Male Dominance	x		x	x	Monopsony Exploitation

(TABLE 1. Theories of OSD, Key Causation Variables, and Interdisciplinary Linkages is shown here.)

This narrow band of causation among OSD theories is troublesome, since it indicates a neglect of important variables. Consider

that only class conflict theory and male dominance theory treat both pre-labor market and labor market discrimination. Furthermore, none of the individual OSD theories come to grips with both demand-side and supply-side causation. This represents a serious gap in OSD theory to the extent that important feedback relationships may exist between pre-labor market discrimination, labor market discrimination, and demand-side and supply-side discrimination. For example, suppose role orientation (pre-labor market discrimination) causes women to have less education than men; and, furthermore, labor segmentation (labor market discrimination) results in a lower rate of return on investment in education for women, lowering the incentive for women to undertake education. This would take us full circle in the chain of causation: less education, less desirable job opportunities for women, higher participation in household production (due to the low opportunity cost of doing so), reinforcement of traditional values regarding domestic responsibilities, and thus, less education.

If we focus on only one or two dimensions of OSD, as most theories do, we fail to capture such important feedback relationships and we miss some of the important ways in which discrimination perpetuates itself. We fail to capture the negative synergism of OSD and we end up with an incomplete and flawed understanding of the problem.

To obtain a more complete understanding of OSD, we need to assimilate the best of what various disciplines have to offer. We need to integrate existing OSD theories. Ideally, an integrative model would yield important new insights from existing thought, open up new research avenues, and provide a means for capturing and synthesizing future work in the various disciplines.

In working toward this ideal, the linking of OSD theories should at least meet the following two methodological principles: (1) a balanced representation of the main dimensions of OSD (labor market, pre-labor market, supply-side, and demand-side discrimination), and (2) the existence of at least one common bond of causation among the different component theories of the integrative model. The former is needed to present a complete view of OSD and to capture its negative dynamic (as argued above). The latter is the methodological "glue" of the model—that which binds the model together (as explained below in the discussion of Table 2).

Table 2. Linking OSD Theories--
The Primacy of Role Orientation

OSD Theories	Role Orientation
Statistical Discrimination	Domestic Responsibilities High Labor Force Mobility
Human Capital Theory	Domestic Responsibilities Low OJT
Prejudice Models	Female Stereotypes "Tastes" for Discrimination

(Table 2. Linking OSD Theories--The Primacy of Role Orientation is shown here.)

Our survey of OSD theories suggests that the linking of statistical discrimination theory, human capital theory, prejudice theory, and role orientation theory holds promise for meeting these conditions and thus providing the foundation for an integrative, interdisciplinary model of OSD. Statistical discrimination theory (which emphasizes demand-side and labor market discrimination) links well with role orientation theory (which focuses on supply-side and pre-labor market discrimination). That is, the relatively high labor force mobility of women is (at least partially) caused by role orientation regarding domestic responsibilities which, in turn, leads to statistical discrimination. Furthermore, human capital theory (which stresses supply-side and labor market discrimination) also links well with role orientation theory. Recall that human capital theorists hold that women tend to be in and out of the labor force more frequently than men and thus acquire less OJT (human capital) than their male counterparts. Finally, prejudice theory (which is demand side and labor market oriented) also links well with role orientation theory. According to prejudice theory, sex role socialization helps form the

"tastes" that men have for sex discrimination. Table 2 summarizes these interlocking relationships.

It is clear that the methodological glue for integrating the above OSD theories is the concept of sex role orientation or socialization. As the last column of Table 1 indicates, no other concept (as a primary interdisciplinary linkage) cuts across as many of our OSD theories as does role orientation.

The proposed clustering of statistical discrimination theory, human capital theory, prejudice theory and role orientation theory appears to offer a good foundation for developing an integrative OSD model, given the causal variables identified and the two methodological principles required of the model. By including in the model the social, cultural, historical, and psychological forces that help shape human behavior, we are better able to see OSD as a problem so ingrained in society that individuals can become and remain victims from the time of birth on. Furthermore, the demand-side, labor market models of OSD become more meaningful when integrated with the supply-side, pre-labor market models, emphasizing role orientation. The proposed integrative model yields the insight that it is not demand-side forces that cause OSD and it is not supply-side forces either; rather, it is the interaction of the two. By analogy, it is like the workings of a pair of scissors in that one blade acting alone cannot cut paper, but the two blades working together can. Our broader model captures both the interaction of and the feedback relationships among the key causes of OSD.

What about the four remaining types of theories—class conflict, male dominance, monopsony exploitation, and institutional theory? While they do not share a common bond of causation either with each other or with the proposed cluster, they do have an important implicit role to play in the analysis. These theories further flesh out the primary sources of OSD causation contained in the integrative model. Monopsony exploitation theories illustrate how collusion can be used to cause and to perpetuate the problem of OSD. Class conflict theories and institutional theories point out the importance of going behind the dichotomy of pre-labor market and labor market OSD to consider the impact of intra-market forces that influence OSD via the segmentation of women and men in the labor market. Finally, male dominance theories call attention to the vested interest forces which help perpetuate OSD.

In sum, our methodology for linking OSD theories yields four interlocking sources of OSD. They are demand-side, supply side, pre-

labor market, and labor market causation. The logic of these types of causation and how they interact is captured in the linking of role orientation, human capital, statistical, and prejudice theories of OSD. The remaining components of our taxonomy play an implicit (and no less important) role in the analysis, providing additional understanding of how OSD is caused and perpetuated over time.

The above methodology for linking OSD theories is only one among many possible alternatives. Other methodologies may well result in the linking of a different and more comprehensive set of OSD theories than the above. Certainly, methodological experimentation is needed to develop an integrative model of OSD that both satisfactorily explains the causes of the problem and points the way to how it can be successfully combatted.

SUMMARY AND CONCLUSION

At present there exists a wide range of OSD theories, each reflecting the particular methodological "looking glass" of such disciplines as psychology, sociology, economics, philosophy, and history. OSD theory within a particular discipline tends to focus on those problems that can be treated by the established tools of that discipline--that is, those problems that lend themselves to "normal science" investigation. For example, sociologists tend to focus on the role of the socialization process in explaining OSD, whereas economists focus on such concepts as market power and cartel behavior to explain OSD.

While the separate theories of OSD yield important insights, none offer a complete explanation. There is much that we don't understand about OSD. Most importantly, we lack an understanding of how the many sources of OSD interrelate and to what extent they are mutually reinforcing. We need to know this to combat OSD successfully.

By developing an interdisciplinary model we are able to work toward a more complete understanding of OSD. Furthermore, an interdisciplinary model can help researchers assimilate new developments contributed by different disciplines. Without an interdisciplinary perspective, the importance of new discoveries may be lost due to fragmentation among disciplines.

In an attempt to move toward the integration of OSD theories, the following steps were taken:

- 1 For the purpose of manageability, OSD theories were grouped into the following taxonomy: (a) orthodox economic theories of OSD (which were divided into four sub-categories), (b) class conflict theories, (c) institutional theories, (d) role orientation theories, and (e) male dominance theories.
- 2 Within each group of OSD theories, key causal variables were identified--for orthodox economic theories we have market power, labor force mobility, job turnover, human capital, employer screening, and prejudice; for class conflict theories, market segmentation and group consciousness; for institutional theories, market segmentation, external and internal labor markets, and institutional rigidities; for role orientation theories, socialization and sex stereotyping; and for male dominance theories, cartel behavior.
- 3 By analyzing the role of these causal variables in OSD theories, four main analytical dimensions emerged: (a) demand-side discrimination, (b) supply-side discrimination, (c) labor market discrimination, and (d) pre-labor market discrimination.
- 4 Finally, theories of OSD were linked on the basis of two key methodological requirements: a balanced representation of the main analytical dimensions of OSD, and a common bond of causation among the component theories of the integrative model. This methodology yielded the clustering of statistical discrimination theory, human capital theory, prejudice theory, and role orientation theory.

This clustering of OSD theory (though incomplete) appears to hold promise for providing a broader, more cohesive view of OSD than can be obtained from the present fragmentation of OSD research among disciplines.

While this paper has attempted to articulate the common bonds of causation which exist among OSD theories, more theory development is needed before a satisfactory integrative, interdisciplinary model of OSD will emerge. It is hoped that the above analysis will be useful in such work.

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