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Social status and economic performance: A survey

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Abstract

This survey combines ideas and results from sociology and economics, recognizing that economic decisions are often shaped by social concerns and influences. Based on the sociological literature, we define social status and describe its measurement. We then describe the role of social status in economic analysis of saving and consumption, wages, and economic growth. We review recent work on status determination in equilibrium, including evolutionary models. We conclude with some remarks on the need for further interaction between sociology and economics. © 1998 Elsevier Science B.V. All rights reserved.

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1. Introduction

Individual actions within a society are regulated by a complex system of rewards and punishments. Economists focus on monetary rewards that are exchanged through a market system. Sociologists consider a broader class of rewards, which includes social status as an important component. Social status,

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which has been a cornerstone of sociological analysis, is a relatively new concept for economists. In this survey, we first present the main ideas from sociology and then summarize some recent applications of these ideas to economics.

Social status is a ranking of individuals (or groups of individuals) in a given society, based on their traits, assets and actions. Different members of society may each have a different ranking of other individuals, but the interest in social status as a factor explaining behavior stems from the empirical observation that there is substantial agreement among different members of society about the relative position of a given individual (or social position). It is this concordance of rankings which gives social status its force as an incentive mechanism. A person of high social status expects to be treated favorably by other individuals with whom he might engage in social and economic interactions. This favorable treatment can take many forms: transfer of market goods, transfer of non-market goods (through marriage, for instance), transfer of authority (letting the high status person be the leader), modified behavior (such as deference or cooperation) and symbolic acts (such as showing respect). Because of these social rewards, each individual seeks to increase his social status through group affiliation, investments in assets (including human and social capital) and an appropriate choice of actions.

There are several special features of social rewards that distinguish them from private rewards, such as money. Typically, there is no clear quid pro quo. Individuals seem to care about their ranking and the esteem of others, even if they derive no clear economic benefits, and are willing to pay respect to others and to modify their behavior accordingly, without receiving any direct benefit. An individual may have several status rankings, depending on whom he associates with and the reference group in which he is evaluated (e.g., within his profession or in society at large). Social status is often gained by association with a particular group, and shared by all members of the group, regardless of their individual characteristics. This collective good aspect implies that the actions or traits of each member in a status group affect the social status of all other members. Therefore, status groups have an interest in regulating entry and behavior of individual members.

Why do the two kinds of rewards, money and status, coexist, and what is the relation between them? One answer, associated with the functional view, is that social rewards are used to regulate productive and trading activities, when for some reason (e.g., externalities or transaction costs) markets fail to exist or to perform efficiently.

The role of status in the presence of externalities is familiar. Consider, for instance, basic research which, if successful, generates knowledge that is useful and easily duplicated. If exclusion is not feasible, then each of the beneficiaries will try to free ride and avoid paying the researcher for his efforts. They may be willing, however, to give the innovator recognition and esteem, which require no direct transfer of resources on their part. The innovator may enjoy this

appreciation and be motivated by it even if he receives little or no payment as a result. However, recognition often entails tangible benefits, especially if researchers differ in ability and success raises the probability of subsequent successes. In this case, successful researchers will be sought after and command some monetary return for their ability. Thus, status may act as a signal which is privately and socially useful.

Status has an important role in thin markets, where one meets trading or production partners only occasionally and at a cost. In this context, social status is useful public information that can be used to predict behavior and outcomes in small group interactions within a given society. For instance, it has been established experimentally that individuals with attributes which are generally associated the high status attain a leadership position in performing group tasks. In addition, status may regulate the allocation of goods which, by convention, are not traded in the market, such as marriage partners or friendships.

It is a debated question whether or not social status is a corrective mechanism whose function is to raise efficiency. Some view social status mainly as an instrument to restrict entry and to impose modes of behavior which help to maintain the advantage of privileged groups. Entry is restricted by requiring members to exercise individually costly activities, such as conspicuous consumption or avoidance of gainful work (noblesse oblige). Obedience to the group's goals is enforced by the threat of expulsion or ostracism. Of course, such punishments are more effective if individuals care about their relative position. To the extent that the wealthy care (or are taught to care) more about status, an equilibrium emerges in which status groups are stratified by wealth. Although the equilibrium is socially inefficient, status still has a functional role, because it serves the collective interests of a particular group.

One may replace the notion of efficiency by the notion of fitness as a driving force of status rankings. Preferences for social status may spread because individuals, who care about their relative position, may do better in economic interactions and thus gain fitness. Although such individuals who care about status do not maximize fitness, they may end up with higher fitness, in equilibrium, because those with whom they interact are induced to react favorably. To the extent that individuals can choose their society, or whom to interact with within a society, societies with some emphasis on status are more likely to survive, because they attract both those who care about status and those who do not care but wish to benefit from the chance to interact with those who do. Such an equilibrium need not be socially efficient, but can be 'evolutionarily stable'.

Whatever the explanation for the existence of status rankings, the desire to attain high social status has important implications for saving, occupational choice, investment in skills and risk taking. These changes in behavior may influence economic efficiency, growth rates and the distribution of income. The direction of these effects is not clear, however. Since social status is inherently relative and one person's gain is another's loss, status seeking may lead to

excessive effort, as all try to climb up without any change in relative positions. At the same time, the status motive may be conducive to efficiency or growth if effort or investment in human capital are suboptimal because of externalities or monitoring problems. In a competitive labor market with free entry, individuals must pay for higher status in terms of reduced wages. The willingness to pay for status is likely to increase with wealth. Therefore, the distribution of wealth influences the impact of status seeking on economic performance.

2. Some lessons from sociology

2.1. Status defined

Max Weber was the first to introduce social status as an important source of power. He defined status as: 'an effective claim to social esteem in terms of negative or positive privileges' (Weber, 1922 [reprinted, 1978, p. 305]). In his view, such claims are based on life style, formal education, hereditary and occupational prestige. Weber considered 'status situation' (claim for honor) and 'market situation' (claim for money income) as two interlocked systems of rewards. Money brings status and status brings economic power. Yet, the two are quite distinct: "The market and its process knows no physical distinctions: 'functional' interests dominate it. It knows nothing of honor. The status order means precisely the reverse: stratification in terms of honor and style of life peculiar to status groups as such. The status order would be threatened at its very root if mere economic acquisition and naked economic power could bestow ... the same or greater honor as the vested interests claim for themselves" (Weber, 1922 [reprinted, 1978, p. 936]).

Weber also introduced the concept of *status groups* which are organizations which generate and preserve status. Members of a status group share similar status in society at large, based on their common occupation, life style or descent. Status groups adopt special conventions, which are intentionally non-pecuniary (abstaining from manual work and from hard bargaining, for instance) which serve for exclusion and maintenance of monopoly privileges: 'Every society in which status groups play a prominent part is controlled to a large extent by conventional rules of conduct. It thus creates economically irrational conditions and fetters the free markets through monopolistic appropriations and by curbing the individual's earning power' (Weber, 1922 [reprinted, 1978, p. 307]). On the other hand, the development of the market economy tends to weaken status distinctions: 'Every technological repercussion and economic transformation threatens stratification by status' (Weber, 1922 [reprinted, 1978, p. 938]).

Modern sociologists refine the definition of status and distinguish between status entitlements, based on objective measures such as occupation, education

and life style and the subjective evaluation of individual actions and traits. According to Shils (1968, p. 104), 'In every action of one human being towards another there enters an element of appreciation or derogation of the 'partner' towards whom the action is directed'. These feelings generate a *deference* relationship between the partners, which manifests itself in the manner of association and communication. The relative positions in this relationships are determined by an 'evaluative judgement regarding positions in the distribution of objective characteristics' and can vary by context. As noted by Coleman (1990, pp. 131–132), the opinions of peers may be more valuable than those of others members of society. Correspondingly, giving respect to one's colleague is costly, as it may detract from one's own status; however, giving respect to a distinguished member of the society at large need not be demeaning. Despite these refinements, the crucial feature is that 'Social status rests on collective judgement, or rather a consensus of opinion within a group. No one person can by himself confer status on another, and if a man's social position were assessed differently by everybody he met, he would have no social status at all' (Marshall, 1977, p. 198).

2.2. The measurement of status

Modern sociologists applied Weber's notions of status and status groups to the ranking of occupations. It has been found that individuals who are asked to rank occupations according to their 'general standing' or 'prestige' respond in similar fashion. The individual rankings are uninfluenced by individual attributes such as education, age and income and are stable over time and similar across countries (see Treiman, 1977). There is a systematic dependence of prestige rankings on occupational attributes, and occupations with high average income and high average schooling obtain high ranking. Generally, average schooling is more important than average income as a determinant of occupational status.[1]

Based on such findings, sociologists view the status ranking of the individual's occupation as a quantitative measure of his social and economic status. Blau and Duncan (1967) developed a statistical model which combines intergenerational and life-cycle transmission of status through the intervention of schooling. They find that, in the US, the direct impact of parental status is small and that

[1] Following Duncan (1961), Featherman and Stevens (1982) used US data on prestige ranking of 426 occupations and regressed them on measures of average education and income in each occupation. A typical regression is $P = 0.307\text{INC} + 0.623\text{ED}$, with $R^2 = 0.881$, where P is the percent of individuals providing an excellent or good prestige score, ED is the percent of male workers with 1 or more years of college and INC is the percent of males with income of \$10000 or more in 1969, standardized for age.

the main vehicle of status transmission is through schooling.[2] Similar results hold in other developed countries. In under developed countries, however, education is less important as a vehicle for intergenerational transmission of status (see Treiman and Ganzeboom, 1990).

Generally, there is greater intergenerational mobility in earnings than in status. However, much depends on when in the life cycle the correlations are measured. Parental characteristics have about the same effect on earnings and on status if they are measured late in the son's life. However, early in son's life, status is more affected by parental characteristics than income. Thus, status can be viewed as a measure of *permanent* income which is flatter over the life cycle and less subject to measurement error (see Lillard and Reville, 1997).

There is some debate concerning the interpretation of occupational status measures and, in particular, whether they reflect some independent factor such as esteem and claim to deference, or rather the totality of rewards that individuals expect in an occupation, including both honor and income (see Shils, 1968; Goldthrope and Hope, 1972; Hodge, 1981).

There is another line of empirical research which examines directly the power structure in *small group* interactions. Imagine a group of previously unacquainted people gathering in a conference room to decide a jury case. It has been observed that some talk more, are listened to more, and eventually have a stronger impact on the outcome. How is such ranking generated? It is argued that members of the group form expectations of performance in a particular task, based on observable general characteristics, and then during the interaction defer to the one judged more competent. Thus, personal characteristics associated with social status, such as sex, race, education, and occupation are used to predict performance within the group. This 'expectation hypothesis' has been verified in classroom and jury situations and in laboratory experiments (see Webster and Foschi, 1988; Lockheed, 1985). Moreover, when status is assigned experimentally, those who were randomly chosen to obtain high status perform better. Those who are assigned low status and a minority position within the group are the worst performers (see Jemmott and Gonzalez, 1989).

2.3. The determinants of status

Although much has been achieved in the measurement of status attainment, there is no theory of status determination which is generally accepted by sociologists. Davis and Moore (1945) proposed a *functional* theory of social

[2] This is seen from the following regressions: $U = 0.279X + 0.310V$, with $R^2 = 0.26$ and $W = 0.433U + 0.214X + 0.026V$, with $R^2 = 0.33$, where V and X are the father's education and occupational status, and U and W are the respondent's education and the occupational status of his first job (see Blau and Duncan, 1967, Table 5.2).

rewards. They start from the premise that inequality is necessary to motivate the most qualified individuals to perform the most important tasks. Because the performance of such tasks requires effort or investment in skills, individuals must be compensated in terms of salary, prestige and leisure. Thus, high rewards are associated with positions that are important to society and difficult to fill. This approach has been criticized for lacking an operational definition of what is 'functionally important' and for its silence about which type of reward is a more effective inducer (Tumin, 1953), as well as for its presumption of efficiency (Coleman, 1994).

The functional approach is essentially a theory of prices, where monetary and social rewards are jointly determined by demand and supply. There is an alternative view of status which emphasizes its role as a mechanism to promote trust and cooperation within organizations (see Stinchcombe, 1986). Members of a status group may enjoy high status in society at large because of economic success based on internal arrangements, such as credit relations. Status groups have the power to hold their members to ethical standards because of the threat of expulsion. Because of a common life style, deviations are easier to detect and expulsion is more painful. This line of argument may explain why some ethnic groups (e.g., Jews, Chinese, and Indians) often do better as minorities abroad than in their own country, because they act as status groups.

One may view status as a substitute for money, both as a medium of exchange and store of value (see Coleman, 1990, Chapter 6). In a bilateral transaction, the receiver of services may pay with a promise of unspecified services or privileges in the future. The recipient of such a promise attains a special status which is an asset on which he can draw in the future. What distinguishes this transaction from a simple quid pro quo is the general unspecified form of future returns. This idea may be extended to indirect or multilateral transactions. For instance, a sports star who helps the favorite team win provides services to a large group of fans. The status which he attains helps him draw on his fame in a variety of unspecified ways. Just as money requires a social contract, where each individual accepts it only on the expectation that others will, so is status an effective claim only if its holders expect to exchange it for valuable services or showing of deference. However, the question remains: why do members in society at large confer honor or provide services to those with high status?

3. Some applications to economics

3.1. Status and incentives

Economists have long recognized that honor and esteem are important motives in human actions, including economic decisions. In the context of occupational choice, Adam Smith (1776 [reprinted, 1937, p. 107]) notes that

'public admiration which attends upon distinguished abilities... makes a considerable part of the reward in the profession of physic; a still greater perhaps in that of law; in poetry and philosophy it makes almost the whole'. Marshall (1890 [reprinted, 1962, pp. 19–20]) adds: 'The desire to earn the approval, or to avoid the contempt, of those around us is a stimulus to action which often works with some uniformity in any class of persons at a given time and place. A professional man, for instance, or an artisan will be very sensitive to the approval or disapproval of those in the same occupation, and care little for that of other people; and there are many economic problems, the discussion of which would be altogether unreal, if care were not taken to watch the direction and to estimate pretty closely the force of motives such as these'. Yet, it is only recently that economists have tried to incorporate such considerations explicitly. These attempts can be generally classified into two different strands. The most common approach is to recognize the role of social rewards and examine the economic implications. A more ambitious program is to explain the determination of social rewards.

The introduction of social considerations into economic analysis requires some preliminary knowledge, part of which must come from *outside* of economics. First, one would like to know how status is gained. For example, social status based on individual traits has different implications than status that can be gained through individual actions or group association. Second, the benefits from status need to be specified. One may put such benefits directly into the utility function, or specify explicit channels by which status shifts the opportunity set.[3] These distinctions have implications as to how personal attributes, such as wealth, influence the demand for status. Third, one needs to understand the individual costs associated with acknowledging the status of others. Finally, one needs to specify the precise form of the social interaction and determine the reference group. Based on such information, it is possible to incorporate status considerations in an economic model in which individuals maximize something and some notion of equilibrium is imposed. One can then go on and investigate how status varies with market and social conditions. We shall first discuss some applications of status considerations to economic analysis and then discuss applications of economic analysis to status determination.

3.2. Status and wealth

A major unsettled issue in economics is the motive for saving and accumulation. The fact that saving rates decline only slightly with wealth and that saving

[3] This is reminiscent of the problem facing monetary economists of whether to put money into the utility function or rely on an explicit mechanism, such as economizing on transaction costs. In practice, economists use both the reduced form approach (in which money provides abstract services) and the structural approach (in which money provides specified services).

continues at old age (even in the absence of children) suggest that saving behavior cannot be fully explained by the desire for future consumption. Among the additional motives that have been mentioned is the status that one derives from one's (relative) wealth in a given society. As stated by Veblen (1899 [reprinted, 1934, p. 31]), 'The end sought by accumulation is to rank high in comparison with the rest of the community in point of pecuniary strength'. Although this added saving motive is consistent with the facts mentioned above, and also with the large variability in saving rates across different societies, the explanation is dangerously close to a tautology. The main restrictions of interest derive from the relative nature of the status ranking. In particular, equilibrium savings may be excessive since only relative wealth positions matter. This suggest a potential justification for the taxation of saving. In the context of uncertainty, if one assumes that utility is concave in money but *convex* in status (getting first prize rather than second is more satisfying than getting the second rather than the third) then the reduced form relation between utility and wealth may be first concave and then convex in wealth, allowing for both gambling and insurance (see Robson, 1992, 1996). This model suggests externalities associated with gambles, which may justify regulation of gambling.

A richer situation arises if one follows the other tenet of Veblen (1899 [reprinted, 1934, p. 36]) that: 'In order to hold the esteem of men it is not sufficient merely to possess wealth or power. The wealth and power must be put in evidence, for esteem is awarded only on evidence'. This leads to signaling in the form of *conspicuous* consumption and leisure. At first sight, the need to signal seems to imply excessive consumption and suboptimal saving. But as noted by Corneo and Jeanne (1996) much depends on the timing of the comparisons between individuals. If comparisons are delayed and made late in the life cycle, saving may be encouraged.

Status consideration may reduce saving if status is a substitute for wealth. Such a situation may arise in the context of allocation of non-market goods such as in marriage markets. Cole et al. (1996) consider an intergenerational model, in which bequests influence marriage decisions and match quality. Because matching is a positional game, where relative ranking affects the outcome, there is a tendency to over-save. The authors show that a social norm, whereby individuals marry not by present wealth but by status (determined by birth or *initial* wealth) can mitigate this inefficiency and support equilibria with lower saving rates. In equilibrium, marriage by class is maintained because of the threat of demotion of deviants (or their descendants) into the lower class.

Wealth is not only a potential source of status but may also influence the demand for status. This may come about in two ways. To the extent that the achievement and maintenance of high status requires expenditures, the wealthy are more able to afford it. In addition, wealth can reinforce preferences for status through education, habit formation and group interaction (see Bourdieu, 1984; Veblen, 1899 [reprinted, 1934, Chapters 5 and 6]).

3.3. Status and wages

The theory of compensating wage differences, first developed by Adam Smith, suggests that high status occupations will pay low wages for workers of a given ability and skill. Smith has argued that 'honor makes a great part of the reward in all honorable professions. In point of pecuniary gain, all things considered, they are generally under compensated' (1776 [reprinted, 1937, p. 100]). This proposition rests on the premise, commonly accepted by economists, of considerable freedom in occupational choice. Sociologists often deny this premise and view high status as 'the basis for claiming high incomes, control of wealth, and power in the social system' (Stinchombe, 1986, p. 257). Whether or not high status is associated with low wages is hard to determine empirically, in part because ability is unobserved.[4]

The existence of wage differentials for workers of the same skill implies that the marginal product of identical workers differ and output is not maximized. Moreover, if all workers in a given occupation share the same status, the competitive equilibrium will be inefficient, as entrants into a high status occupation do not internalize the change in status of the incumbents. To the extent that high status employment requires a sacrifice of wages, one would expect individuals with high non-wage income to be more inclined to choose high status occupations.[5] This creates a link between the distribution of wealth, occupational wage differentials and economic performance (see Fershtman and Weiss, 1993).

Concern about status may explain some degree of wage rigidity. On the supply side, individuals who lose jobs are reluctant to accept temporary low paying (and low status) jobs (see Blinder, 1988). On the demand side, a norm of 'fair wage' may prevent firms from reducing or raising the wage, because deviation from the norms of fairness may cause loss of status (see Hicks, 1974, Chapter 3; Akerlof, 1980). In this context too, the reference group is quite important. For instance, 'guest workers' and immigrants are less reluctant to accept low status work, partially because they do not compare themselves with local workers.[6] In addition, it is considered less 'unfair' to pay them low wages, given their low wage in the country of origin.

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[4] It is well documented, however, that wages for workers with a given level of schooling and in a given occupation are substantially lower in academia than in private industry (Weiss and Lillard, 1978).

[5] Evidence for such a process is the positive impact of parental income (or correlates of it) on the status attainment of sons, holding schooling constant (see Treiman and Ganzeboom, 1990; Lillard and Reville, 1997).

[6] The recent large emigration from the former USSR to Israel illustrates this point. These immigrants found work quickly, but in low status jobs. Within 5 years, only 30% worked at the same level of jobs as in their country of origin. They also report almost no *social* contact with native Israelis.

The demand for status can also affect the distribution of wages within occupations (Frank, 1985, Chapter 2). If individuals are concerned with their 'local' status rankings (e.g., within firms) then wage inequality across firms will tend to exceed wage inequality within firms. Within each firm, productivity differences will exceed wage differences, as some of the reward comes in the form of higher status. Workers with the highest preference for status will work for firms with steeper wage profiles, but lower average wages.

3.4. Status and growth

The large variability in growth across different economies is a major puzzle for economists. Often, such differences are attributed to cultural factors, including attitudes toward acquisition of personal wealth, work habits, sanctions on market practices (such as usury) and tolerance of inequality in market outcomes.[7] Here we shall discuss only one aspect of culture which may influence growth, the importance that a society gives to social status distinctions.

The first economist who paid attention to this issue is Hirsch (1976). He notes that the relative nature of status rankings creates a 'social scarcity': only one person can be at the top, and if two or more are at the top, 'congestion' reduces the value of being there. He argues that during the growth process, demand for positional goods rises. The competition for *positional* goods is essentially a zero sum game and thus resources invested in this competition are socially wasted. This process limits growth.

A similar argument can be applied to signaling models, such as conspicuous consumption. Beyond the possible effects through reduced saving, conspicuous consumption creates a situation where utility depends on *relative* consumption of luxury goods. There is no satiation for such goods, as long as everyone raises his consumption equally. Therefore, if costs of innovation are low, there is a potential for sustained growth. However, innovation will be biased towards luxury goods and the steady state growth equilibrium with status may be inferior to the stationary equilibrium with no status (see Funk, 1996).

Although many authors emphasize the waste associated with positional goods, it should be clear that status can be socially beneficial if awarded to activities which directly enhance growth, such as investment in schooling or research. However, even in this case, some complexities arise because of the collective nature of the status ranking. If all individuals who acquire schooling enjoy high status irrespective of their (unobserved) ability, then wealthy and

[7] These considerations were emphasized by Weber in his analysis of the emergence of capitalism and its relation to religious ethics (see Weber, 1922 [reprinted, 1978, pp. 1181–1204]). Zou (1995, Chapter 2) provides a survey of related literature.

incompetent individuals may choose schooling and enjoy high status, possibly reducing the growth rate. Moreover, since the wealthy are more willing to exchange wages for status, there is a link between the *distribution* of wealth and the pursuit of status enhancing activities. Generally, an increase in inequality raises the number of low ability individuals who acquire schooling, causing a reduction in growth. Similar effects arise under imperfect capital markets with borrowing constraints (see Fershtman et al. 1996; Chiu, 1996).

To the extent that parents care about the status of their children, this would influence the nature of intergenerational transfers. In particular, parents will be more inclined to invest in their children's education than in other forms of bequest. This idea is consistent with the findings that intergenerational correlation in status generally exceeds the correlation in wages (see Lillard and Reville, 1997). This bias may encourage growth, if indeed schooling is growth enhancing. However, as noted by Treiman and Ganzeboom (1990), the intergenerational transmission of status weakens as countries become more developed.

4. Equilibrium models of social status

Individuals in society take the status associated with different assets, positions or actions as given and can only change their status by changing their behavior. However, the *aggregate* behavior of individuals can change the status structure in society. For instance, if occupational status depends on the proportion of educated workers, entry of such individuals can increase the status of all members of an occupation. Economic theory is particularly useful in the analysis of such feedbacks.

Harsanyi (1966) proposes a model in which status in society at large depends on status within smaller groups which individuals may join, such as professions or communities. The status within groups is described by an asymmetric deference relationship, and a person has higher status the more members are willing to defer to him. (Deference consists of yielding authority and the provision of minor services.) Applying the theory of n-person bargaining games, Harsanyi considers an equilibrium, in which no coalition of members can improve its position holding the position of outsiders fixed. The bargaining approach explains the willingness of some to pay respect to others, by the threat of a break in a mutually beneficial relationships, because of disagreement or walking away. Therefore, high status is awarded to those who are valuable to some members of the group and have high opportunities outside. In particular, if person a is highly valuable to person b, person c may be willing to pay respect to a just to please b. Since individuals can be rewarded in variety of ways, one needs to justify the use of status in addition to money. Harsanyi argues that status provides some service which money cannot buy, such as a sense of security within the group and a better chance to associate with other groups.

Weiss and Fershtman (1992) and Fershtman and Weiss (1993) consider a model of occupational choice, in which status depends on the *average* education and wages in each occupation. They show that if productive sectors can be ranked by their skill requirements and workers are free to choose their employment and schooling, then the sector with high skill requirement *must* have higher status in equilibrium, although its wage for a given level of skill will be lower.[8] Equilibrium theory can explain the stability of status ranking, by similar considerations to those which were used to explain the long-term stability of wage differentials by skill.

Bernheim (1994) develops a model for the adoption of preferences for status, based on popularity. He assumes that status is not directly derived from actions, but from preferences over actions (which represent personal motivation and traits that may help predict future actions). However, preferences are not directly observed and must be inferred from current actions. This situation creates a signaling problem. Selfish individuals are induced to act socially, provided that there is a sufficient proportion of socially minded, to give credence to the hypothesis that a person acting socially is socially minded. With sufficient concern for status, this model generates *conformity* (a pooling equilibrium) where individuals of different true types act in the same way.

A limitation of these equilibrium models is that they take as given that individuals care about status and the *function* which relates status to individual actions or traits. The next logical step is to investigate the formation of such preferences and social norms.

5. The evolution of preferences for status and status rankings

For status to be an effective reward, individuals must care about status and be willing to pay respect to whoever is deserving. How do such norms and preferences arise? More generally, what are the dynamics by which the preference for status and the determinants of status change over time?

The main forces which influence the formation of preferences and norms are reproduction, learning, imitation, and immigration. In each case, the main issue is whether a *positive feedback* exists, whereby some norms or preferences are

[8] The proof is as follows: A sector with higher skill intensity employs a higher proportion of skilled workers at any wages. Therefore, it can have lower status only because it pays lower average wages. In equilibrium, a fixed wage ratio must be maintained across skill groups, to compensate for the forgone earnings associated with skill acquisition. Thus, lower average wages in the high skill occupation imply lower wages for both skilled and unskilled workers. But if both wages and status are lower in the high skill occupation then no one will choose it, contradicting the assumption of equilibrium.

reinforced and are, therefore, more likely to spread in society and to survive over time. One may distinguish two general processes of cultural change. The first dynamic process occurs *within* societies, as the distribution of types of individuals and their social preferences change over time together with the social norms and the social status structure itself. The second dynamic process occurs as a result of interaction *between* societies, in the form of immigration and cross cultural influences. Let us first discuss the changes in the composition of types within a given society.

Evolutionary theory analyzes the process of *natural* selection, in which some particular 'phenotypes' (traits) are more likely to enhance the survival or reproduction of their carriers, because they are more adapted to the environment than competing types (see Maynard Smith, 1982). Social biologists have applied this idea to social behavior. They argue that feelings which influence social behavior, such as sexual attraction, altruism and jealousy are 'hard wired' and that programs which increase fitness tend to spread. For instance, altruism spreads if individuals are programmed to care about relatives, who are more likely to carry the same genes (see Hamilton, 1964; Frank, 1987; Bergstrom, 1995). An alternative approach is *cultural* evolution, in which children imitate, or adopt through education, the cultural values of their parents and of other individuals whom they meet later in life. Reinforcement occurs because one is more likely to interact with types which are more prevalent in society (see Boyd and Richardson, 1985). One can extend this approach by letting parents (and schools) spend resources to influence the preferences of the next generation.[9] These approaches have been applied for the analysis of social norms and individual preferences. We shall consider here some applications to social status.

The first question for analysis is the emergence of individual preferences for social status. Fershtman and Weiss (1998a, b) apply an evolutionary approach to this problem. They assume that: (i) the distribution of types in one generation depends on the *economic* success of these types in the previous generations, (ii) individuals are randomly matched into economic interactions (games), in which the chosen effort and economic payoffs depend on the *preferences* (social or self-centered) of the players. They show that it is possible to have an evolutionarily stable society in which all individuals care about their social standing in the community, even though such individuals do not maximize fitness. This outcome reflects the advantage, in terms of fitness, that one derives from an interaction with socially minded individuals. Bisin and Verdier (1996) apply the cultural evolution approach to the same problem, allowing parents to optimally invest in the preferences of their offsprings. They show that

[9] Becker and Mulligan (1997) demonstrate empirically that parents influence the time preference of their children. In particular, children of wealthy parents are more patient and, therefore, more willing to save.

a stationary distribution of types emerges, in which the proportions of social and asocial individuals depend on the private costs and benefits from status enhancing activities.

The second question for analysis is the emergence of a social status function which determines the norms according to which status is awarded. Akerlof (1980) considers a model in which status (reputation) depends on obedience to norms (such as 'fair wage'). The difference in the proportions in the population of those who 'believe' in the norm and those who *act* according to it determines the change in the proportion of believers. One may look for the steady state in which beliefs and actions coincide, on the average. In this long run equilibrium, customs which are not too costly to follow are sustained by the fear of lost reputation. In a related model, Okuno Fujiwara and Postlewaite (1995) consider the joint determination of prescribed actions and loss of status by deviants and define status equilibrium, requiring stationarity of the status distribution and no individual gain from deviations. They show that *any* individually rational behavior can be achieved as a norm equilibrium.

The third question for analysis is the efficiency of equilibria with status rewards. It is clear that norms *can*, and sometimes do, correct inefficiencies arising from externalities and market failure (see Arrow, 1971). However, many prevailing norms do not appear to promote efficiency, and for those that do the question remains of how they emerged (see Elster, 1994). Several authors have suggested mechanisms which give rise to efficient norms. Young (1996) describes the adoption of norms as a meta-game, where individuals are allowed to select the rules for subsequent games. This meta-game is modeled as *coordination* game, where the outcome is enforced only if all agree. Because of this feature, the selected norms are efficient and egalitarian. Becker (1996, Chapter 11) considers the establishment of norms as an outcome of an explicit attempt by an interest group (e.g., the 'upper class') to inculcate in other groups preferences that benefit the upper class, such as honesty and respect of property. This is done by contributing resources to subsidize activities such as church attendance. If joining the church is voluntary, and members of the upper class act in coordination, then the established norms will be efficient, as argued by the functionalists. However, the norms will be *biased* in favor of the upper class. In the evolutionary model, where survival depends on fitness, the equilibrium is generally inefficient. However, *some* gain of efficiency occurs when individuals care about status (see Fershtman and Weiss, 1998a,b).

The dynamics arising from social interactions across societies are more complex and we distinguish the diffusion of ideas or norms from the migration of people.

The adoption of cultural values of other societies is an important and intriguing process. For example, in many European and Asian countries, local citizens (and institutions) freely adopt some attributes of American culture. One issue that has been studied is the voluntary adoption of foreign language skills.

Of particular interest, in this context, is the creation of cultural centers and the degree of convergence to an equilibrium with only few languages (see Pool, 1991; Selten and Pool, 1991). This issue is closely related to increasing returns due to agglomeration in the formation of cities (see Krugman, 1995). So far, these ideas have not been applied to the analysis of social status.

If migration is free, individuals will move if, given their preferences and skills, they would be better off in a different society with possibly different social norms. Combining this process with the evolution of types within societies, one can define the dynamics for the size and composition (in terms of social preferences) of different societies. As a consequence of such interactions, societies with 'unattractive' cultures or norms may shrink and even disappear. These considerations yield a theory of *social* selection in which an underlying force is the voluntary migration of individuals.[10] It is important to emphasize that this approach is different from a *group* selection approach which stipulates that changes of the relative size of groups is determined by the relative *average* fitness of each group. Fershtman and Weiss (1998a) provide a brief discussion of the relationship between migration and the 'social reward function' which specifies the social status awarded to above average effort. They show that societies in which social rewards are too high or too low cannot survive. If social status is too high, individuals who care about status will exert effort to an extent that is more beneficial, in terms of fitness, to the asocial individuals with whom they interact than to themselves. If social status is too low, matched individuals of both types will exert insufficient effort. Therefore, the socially minded can survive only in societies with an intermediate level of social reward. Migration allows individuals of both types to move into societies with a larger proportion of socially minded. However, in the long run only those with social preferences survive.

Migration has interesting implications for efficiency. On the one hand, immigrants may not internalize their impact on the status of other individuals and on the 'status function' which emerges. On the other hand, emigration can quickly eliminate social arrangements which are patently inefficient. Bowles and Gintis (1996), who study the interaction between migration and norms of cooperation, show that society will segment itself into communities (i.e., clusters of individuals with frequent interactions). Segmentation is efficient because within communities it is cheaper to identify which individual is a 'cooperator' and which one is a 'defector' and thus support equilibria with 'nice' behavior. In their model, migration implies that communities will be too large (and too few) because individuals of both types will try to move into societies with a large proportion

[10] This idea can be extended to incorporate modifications of norms as a consequence of migration and changing composition of the population. One possible mechanism for such change is political voting (see Cukierman et al., 1997; Lindbeck et al., 1997).

of cooperators. Corneo and Jeanne (1977) argue that segmentation can increase the effectiveness of status rewards by reducing the inequality between individuals who compete for status, raising the marginal returns of investing in social competition. In this context too, free migration may imply insufficient segmentation.

6. Concluding remarks

Our brief survey demonstrates that preferences for social status *can* affect economic performance in several different ways. However, it is difficult to determine the importance of such considerations in modern societies. First, it is necessary to establish the existence of a status ranking and to identify its contours. High mobility and the feasibility of instant fame, based on the mass media, suggest that individuals can gain and lose social status quickly. The individual payoff from gaining status could be very high, but may last for only a brief time. The status awarded to groups, such as the professions, and the status of individuals *within* such groups are probably more stable, but it is necessary to establish empirically the economic gains that one derives from such distinctions. Finally, while it seems intuitively plausible that individuals care about their social standing, the importance given to such considerations relative to monetary returns must be demonstrated empirically. It is quite clear that progress can only be made through interdisciplinary effort, involving economics, sociology, social biology and social psychology.

The recent studies on which we reported demonstrate the feasibility of cross field fertilization. We have seen that economists build on the sociologists' findings concerning the stability of status rankings and their dependence on observable characteristics such as education and income and have contributed to sociology, applying their ability to model the feedbacks between individual and aggregate behavior. These contributions have produced new results in both fields, such as an explanation of the long-term stability of status rankings and the suggestions of additional links between income distribution and economic growth.

Despite the large overlap in subject matter and the potential for mutual gains, the amount of interaction between economics and sociology is surprisingly small. There are some genuine methodological differences. Economists emphasize individual choice, rational behavior and equilibrium, while sociologists emphasize (social) constraints on individual choice, limited rationality (charismatic authority, for instance) and evolving institutions and norms which determine (rather than being determined by) individual action (see Coleman, 1994; Baron and Hannan, 1994; Swedberg, 1990, pp. 3–23). But the separation is also maintained by 'territorial' considerations, such as the fear of 'economic imperialism' (see Swedberg, 1990, pp. 317–340). General arguments concerning the

'correct' approach to social research will do little to remedy this situation. It seems that it would be best to follow Kenneth Arrow's modest advice. Referring to the failure of the life-cycle hypothesis in explaining the new micro-data on saving, he remarks: 'the key thing when it comes to the relationship between economics and sociology is the willingness to look at new data, like in savings. I think that once you do that, you are automatically going to be forced to consider social elements. Just ask different questions, and I think that you are going to be forced into considering and drawing upon sociology. And you will probably be contributing to sociology as well'. (See Swedberg, 1990, p. 150.)

Social status is a complex phenomenon, which economists have addressed without giving sufficient attention to its many dimensions and manifestations. Successful incorporation of social status considerations in economic analysis requires not only the recognition and evaluation of their importance but also a tighter conceptual framework.

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