Nordic Journal of Political Economy

Volume 30 2004 Pages 121-128

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Jon Reiersen

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By exploring problems of risk, asymmetric information and missing markets, development microeconomics have made progress in explaining the underlying rationale and consequences of different contractual arrangements often observed in poor agrarian economies. But the recent theoretical literature has left little room for influences arising from cultural values and norms. By recognizing that individual behavior is socially embedded it is possible to reach a fuller understanding of agrarian organization in the Third World. This point is illustrated by using the land-lease market in Bangladesh as an example. By incorporating a quest for status into a model of sharecropping I seek to explain the well documented fact that landless farm-workers are almost excluded from the land lease market in Bangladesh.
JEL Classifications: 017, Q12, Q15
Keywords: social status, incentives, sharecropping

In recent years, economists have returned to the role of institutions in economic development. By exploring problems of risk, imperfect information and missing markets, development microeconomics have made great progress in explaining the underlying rationale and consequences of different economic institutions often observed in poor agrarian economies.[1] Recent theoretical literature has, however, left little room for influences arising from cultural values and norms. In this respect development micro-economics differ sharply from sociological and anthropological analysis which emphasize the overwhelming importance of cultural constraints, leaving little room for individual freedom of choice. While I think that valuable insight can be lost by not recognizing the fact that individual behavior is socially embedded, I also agree with Bardhan and Udry when noting that: "*Development economics is full of examples of how apparently irrational behaviour may be successfully explained as an outcome of more complex exercises in rationality, particularly with deeper probes into the nature of the feasibility constraints or the preference pattern.*" (Bardhan and Udry, 1999 p. 5). The main argument of this paper is therefore that by not denying that people are rational, a fuller understanding of agrarian organization in the Third World requires that the social and cultural contexts in which people operate

* Vestfold University College, School of Business, P.O. Box 2243, N-3103 Tønsberg, NORWAY, E-mail: jon.reiersen@hive.no
** I thank Richard Brooks, Kalle Moene and an anonymous referee for helpful comments. The paper is part of the project "Institutions, Norms, and Development". Financial support from the Norwegian Research Council is gratefully acknowledged.
1. For examples and overviews of this literature, see Stiglitz (1988), Bardhan (1989) and Bardhan and Udry (1999).

must be taken into account. This point will be illustrated by using the land-lease market in Bangladesh as an example. By introducing the concept of social status my aim is to show that it is possible to reach a deeper understanding of some observed features related to the market for land in Bangladesh.

The majority of the 100 million people who live in rural Bangladesh depend on agricultural activities for their income and employment. There is, however, an extreme scarcity of both land and opportunities for employment, and it is for these two sources of income that people compete. It is estimated that about 48 percent of rural households in Bangladesh are landless, or have so little land that they are dependent on leasing in land or working as wage laborers in order to maintain their material standard of living. Land leasing is an important feature of agriculture in Bangladesh. About 23 percent of the total cultivated land is farmed under various tenurial arrangements (Januzzi and Peach, 1980). The most common tenancy arrangement is sharecropping, which accounts for nearly 90 percent of the total leased land.

The competition for land to sharecrop in Bangladesh is fierce. Empirical evidence reveals that it is almost impossible for a landless farmer to obtain land on a sharecropping basis. According to the Bangladesh Land Occupation Survey (1984) less than 2 per cent of the total leased land is cultivated by landless tenants. Tenants are drawn mainly from the group of farmers possessing some land on their own. This observation has been explained by landlords' reluctance to lease out their land to tenants with little to contribute other than their labor. Land-owning tenants have a comparative advantage over landless tenants in the acquisition of farm assets such as draught animals, irrigation equipment etc., and they generally have better access to credit. In addition, landless tenants may lack the necessary skills required to cultivate the rented land properly (e.g. choice of crops, proper land and water management, selection and timely application of inputs, etc.).

I do not question the importance of these factors. My aim is rather to show that increased productivity due to land ownership is not the only reason why landlords prefer land-owning tenants. Land ownership contributes to what Bowles et.al. (2001) have termed *incentive enhancing preferences*. Land ownership, coupled with a concern for status, gives rise to individual traits that reduce problems of work incentives, making landed tenants more attractive to landlords.

The next section presents some empirical evidence concerning social organization in rural Bangladesh. A simple model of the sharecropping relationship is then formulated, showing that when effort is unobservable variations in preferences, created by concern for status, affect tenants' choice of effort, the income of the landlord, and hence the landlord's selection of tenants.

Some evidence from rural Bangladesh

Bangladesh is an agrarian society where the vast majority of the people are dependent on agriculture for survival. In such a society, the distribution of rights in land is not only crucial for how production, exchange and consumption take place. The distribution of rights in land is also important in determining the structure of status in society.[2]

2. The concept of status has always been an important part of sociological thinking. Status involves a ranking of people according to specific characteristics and it is the economic and social rewards following from status which

Rural Bangladesh is dominated by small family farms operated predominantly by family labor. There are very few big farms in Bangladesh (Jannuzi and Peach, 1980). The narrow range of landholding size is often cited as evidence of the classless nature of Bangladesh rural society. However, as Wood (1994) notes: "*Absolute smallness in farm size should not obscure the importance of small differences in landownership, and associated economic activities associated with them as these reflects clear variations in class, status, lifestyle and power.*" (Wood, 1994 p. 46 quoting Bertocci, 1972).

A number of field studies carried out in rural Bangladesh have documented that ownership of land is a variable people attach great importance to when ranking themselves and other in their own local stratification system (Jannuzi and Peach, 1980; Hartman and Boyce, 1983, Rahman, 1986; Wood, 1994). Wealthy landowners can expect to be treated with respect and honor from fellow villagers and in many cases they serve the role as local leaders in social, political and economic affairs. Because of these social and economic rewards, wealthy landowners continuously seek to maintain and increase their social status through appropriate choice of actions and investments in land (Jansen, 1986).[3] At the other end of the social ladder, smallholders enjoy superior status compared to wage laborers. There is strong social stigma attached to being a wage laborer in rural Bangladesh. Working as a wage laborer in the casual labor market means being socially derogated to the bottom rung. Hence, smallholders usually do not regard wage employment as an acceptable alternative, at least in the short run. Since working as a wage laborer means loss of status as owner-cultivator, a smallholder will supply his labor at the casual labor market only under very stressful circumstances.

At the same time, the great majority of smallholders in Bangladesh have too little land to secure a subsistence income. Two acres is regarded as the minimum amount of land needed by an average rural family to maintain a subsistence level of income, while those with more than four acres can be defined as surplus farmers. Over 80 per cent of the farms are less than four acres in size in Bangladesh. This means that the bulk of smallholders have too little land relative to their endowment of labor power. They therefore face the problem of an excess of labor power that cannot be gainfully employed on their own land. A solution to this problem may be to lease in land for sharecropping. Land leasing is attractive for at least two reasons. Firstly, cultivation of leased land provides a solution to the problem of employing excess labor power. Secondly, land leasing is a socially acceptable solution, because by being a sharecropper you keep your social status as an owner-cultivator. Ahmed

gives it its force as an incentive mechanism, in turn shaping human action and social outcome. More recently several economists have also been preoccupied with analyzing how the quest for status shape economic action. Fershtman and Weiss (1998) give a review of some of the sociological and economic literature, while more recent work includes Cole et.al. (1998), Brekke and Howarth (1999), Corneo and Jeanne (1999), Fang (2001), and Fershtman, Hvide and Weiss (2001; 2003).

3. Even though landownership constitutes an important variable in the determination of a family's status, ownership of land is far from the only indicator of status in rural Bangladesh. The relationship between landholding and social status is complex. Family background (e.g. a position in the revenue collection system of the pre-independence government administration) or a particular occupation of present members of the family (e.g. position as a religious leader) are other examples of factors that give rise to social status. See Jansen (1984) and Wood (1994) for a further discussion of these matters.

and Taslim (1992) provide direct evidence that such status effect indeed exists. Based on a survey of two selected villages in Bangladesh, where all households that participated in the lease market were included (a total of 277 households), they note that: "*Households that are well endowed with family labor relative to their holdings (...) may be reluctant to employ the excess family labor in the agricultural wage labor market because of the social stigma attached to such employment. (...) Excess family labor can be gainfully employed, however, if the household succeeds in leasing land. (...) Cultivation of leased land is usually not regarded as socially demeaning.*" (p. 618). More indirect evidence, indicating that smallholders do not regard wage employment as an acceptable solution, come from several studies that find that the average tenant hardly gets more, and sometimes even less, return on his labor than he would get alternatively by selling his labor on the market at the prevailing wage rate (Hartman and Boyce, 1983; Jansen, 1986; and Rahman 1986). Still, "(…) *sharecroppers hang on to the system (…) as they derive some psychological satisfaction from being krishaks (farmers).*" (Rahman, 1986 p. 163).[4] In sum, the studies referred to above illustrate that the socio-psychological pressure to remain in cultivation rather than become a wage laborer is strong in rural Bangladesh.

However, as Ahmed and Taslim (1992) point out, having access to a sharecropping contract does not necessarily represent a long-term solution for a tenant: "*In order to ensure that the tenants do not cultivate the land too thinly (…) negligent tenants are penalized by termination of their lease contracts. To make such termination possible, landlords usually rent land on short-term lease only.*" (p. 619).[5] The threat of eviction can thus be seen as an endogenous enforcement mechanism that secures the landlord's objectives in the relationship. However, this enforcement mechanism may work very differently for a land-owning and a landless tenant. For a land-owning tenant, eviction does not simply deprive him of the opportunity to earn an income from the sharecropped land. He may also be forced to enter the casual labor market in order to meet his minimum subsistence need. Because of the social stigma attached to such work, this represents an additional social cost for the landed tenant. In contrast, a landless farmer who has already worked as a wage laborer will generally have no objections about taking up wage employment as an alternative to sharecropping. He has no social status to defend. A landed tenant is therefore likely to work harder in order to avoid being evicted, all else being equal. Hence, a landlord will prefer a landed rather than a landless tenant.

In the next section the argument will be clarified with the aid of a simple model.

4. This observation is also supported by Scott (1976) who notes that: "*The conventional hierarchy of status among the rural poor is usually smallholder, tenant, wage laborer. These are not, of course, mutually exclusive categories, since it is common to find cultivators who simultaneously own some land and farm additional land as tenants (...). Yet, (...) these categories have had a social reality in preferences and in status in the countryside despite the fact that the categories could and did overlap considerably in terms of income. Marginal smallholders, for instance, were often poorer than tenants who could rent large plots; marginal tenants, in turn, were often poorer in a good labor market than wage workers.*" (p. 35).
5. Jansen (1986) reports that sharecropping contracts generally are of a short duration in Bangladesh, usually one year. He also notes that: "*Through interviews (…) we received the clear impression that sharecropping contracts lasted much longer a few decades ago (…). The consequences of the shortening of sharecropping contracts are that more plots for sharecropping are on the 'market' (…). There is little doubt that a tenant who feels he is competing hard on an open market to obtain a plot for sharecropping, will increase his effort to produce a good crop.*" (p. 174).

Status and incentives in sharecropping

Consider a non-cultivating landlord leasing out a given plot of land on a sharecropping basis. At harvest time, the crop (X) is divided between the tenant and the landlord, with the tenant receiving $y = \alpha X$ and the landlord receiving $\pi = (1 - \alpha)X$, where $0 < \alpha < 1$. The size of the crop depends on the tenant's work intensity and the care he invests in the tasks involved in the cultivation process (summarized in the variable L), i.e. $X = f(L)$ with $f'(L) > 0$ and $f''(L) < 0$.

The lease is closed for a period of at least one crop season and is repeated infinitely so long as the landlord is satisfied with the tenant's performance. If the tenant's performance is not satisfactory to the landlord, the contract is not renewed and the tenant is evicted. The probability (p) that the tenant's performance is not found satisfactory by the landlord depends on the amount of labor input supplied by the tenant on the sharecropped land, i.e. $p = p(L)$ with $p'(L) < 0$ and $p''(L) > 0$. Hence, $p(L)$ is the probability of eviction, which is decreasing with the amount of labor supplied by the tenant.

The decision structure is as follows. First the landlord chooses the share (α) to maximize his own income, then the tenant chooses how much labor (L) to supply on the sharecropped land.[6]

At the level of effort expected by the landlord, work is subjectively costly for the tenant to provide. We assume that the utility of the tenant depends positively on income and negatively on labor input in the following way

$$U(y, L) = \alpha f(L) - cL \qquad (1)$$

where c is the tenant's disutility of labor (assumed for simplicity to be constant).

When choosing how much labor to supply on the sharecropped land, the tenant must consider both short- and long-term costs and benefits. Working less hard today means more time is available to dedicate other activities, but a higher probability of eviction (and hence less income) later. The value of having a sharecropping contract can thus be defined as the present value of the tenant's future income, taking into account the probability of eviction. If r is the tenant's rate of time preference, the present value (V) of expected utility of starting out as a sharecropper is given by

$$V = \frac{U(y, L) + (1 - p(L))\ V + p(L)Z}{1 + r} \qquad (2)$$

where income and disutility of effort are both evaluated at the end of the period.
Z is the tenant's fallback position, i.e. the tenant's best available utility from alternative activities.[7] As Hayami and Kawagoe (1993) note; "*In the village community everyone is watching everyone. Gossip about one's misconduct is circulated by word of mouth faster*

6. Models of this type are analyzed in Shapiro and Stiglitz (1984) and Bowles and Gintis (1990), both studying the employer-employee relationship. An alternative formulation of the problem is to assume that the landlord decides the share as well as the tenant's labor input. But a tenant's labor input is not easy to verify in a complex and uncertain agricultural environment, and hence cannot be determined by contractual agreement. Instead the landlord has to rely on an imperfect measure of the tenant's work intensity. Field studies from rural Bangladesh also support the view that labor input is controlled by the tenants: "*[L]andlords stipulate neither the cropping pattern nor the inputs to be supplied by the tenant. The tenant are apparently quite free to rent land from several landlords and cultivate it as they wish.*" (Taslim, 1989 p. 246). This observation is also supported by Singh (1988).
7. For simplicity we assume that income and disutility of effort are both evaluated at the end of the period.

than any modern means of communication." (p.167). In such an environment, tenants who have been evicted for poor performance will soon become known and landlords will not hire them as sharecroppers. The alternative activity for both the landed and the landless tenant is thus casual labor employment. Z can then be interpreted as the lifetime utility of a tenant when he becomes a casual laborer.[8] Equation (2) then says that the tenant receives U during this period plus the present value V if not evicted, that occurs with probability $(1 - p(L))$, plus the present value if evicted, that occurs with probability $p(L)$.

The tenant chooses labor input L to maximize the present value of expected utility, given in (2). Solving for in (2) gives

$$V = \frac{\alpha f(L) - cL + p(L)Z}{r + p(L)} \qquad (3)$$

Maximizing (3) with respect to L gives the following first order condition for the tenant

$$\alpha f'(L) - (V - Z)p'(L) = c \qquad (4)$$

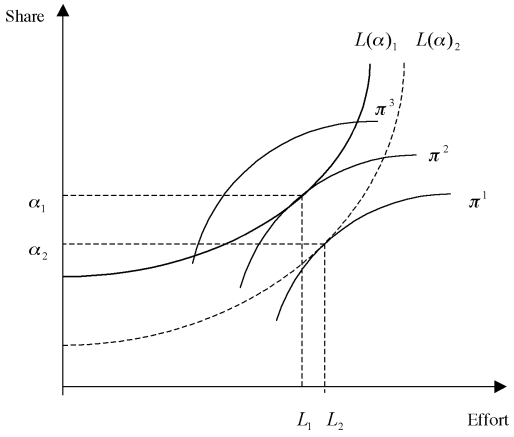
The first term of (5) shows the tenant's direct gain from higher income when labor input on the sharecropped land is increased (his share of the marginal product of labor), while the second term shows the expected indirect gain arising from increased labor input. $p'(L)$ indicates the decrease in the probability of eviction by increasing labor input, and $(V - Z)$ is the value of holding a sharecropping contract (the difference between the value of utility from being a sharecropper and the value of utility from being a casual laborer). The quantity $(V - Z)$ can thus be interpreted as the *cost of losing tenancy*, a cost which the tenant seeks to avoid through hard work.[9] Accordingly, equation (3) says that, for any given share, the tenant will determine how hard to work on the sharecropped land by trading-off the direct gain from increased labor input plus the effect that additional effort has on the probability of retaining the contract, against the marginal disutility of effort.

Equation (3) defines the tenant's reaction function $L(\alpha)$, which shows the level of effort by the tenant for any given share. This effort response function is increasing in α as figure 1 shows.[10] The landlord determines the value of the share α as to maximize his own income $\pi = (1 - \alpha)f(L)$, knowing that a higher share for the tenant induce him to put in more effort. Hence, when making an offer to the tenant the landlord has to balance two effects working in opposite directions. An increase in the share will enhance the tenant's effort, raising output on the sharecropped land and thus the landlord's income. But at the same time an increase in the share also reduces the landlord's income. As long as the indirect gains from an increased share exceed the direct loss ion income of the increase, a higher share will be offered and the cost of loosing tenancy will be positive.

The resulting equilibrium pair (α_1, L_1) is illustrated in figure 1. The iso-income curve

8. Recall that the typical landed tenant has too little land to secure an income over the subsistence minimum. He is therefore dependent on alternative activities to employ his excess labor power.
9. Clearly, the landlord's threat of eviction is credible only if $V > Z$. If $V = Z$, the tenant is indifferent between being a sharecropper and alternative employment opportunities and it makes no sense for the landlord to supervise the tenant's labor input. The tenant would not care about the supervision, since he is in a position to shift to other activities at no cost.
10. Assume that the second order condition for a local maximum is fulfilled. Differentiating (5) totally with respect to α and solve for $dL/d\alpha$ verifies that L is increasing in α.

Figure 1.
Equilibrium share and effort levels for the landlord and the effect of a reduction in the tenant's fallback position.



π^2 represents share/effort combinations yielding the same income for the landlord. Preferred iso-income curves lies to the right, i.e. $\pi^1 > \pi^2 > \pi^3$.

Both the landed and landless tenant will choose labor input so as to satisfy the first order condition, given by (3). Graphically this means that they will choose an effort level along their reaction function $L(\alpha)$. However, the structure of social relations in which the landed tenant is embedded enhances his work incentives compared to the landless tenant. If evicted, the landed tenant may be forced to enter the casual labor market, which means being socially derogated. In contrast, the landless tenant has no social status to defend. If evicted, he loses the contract rent, but has no objection taking up waged employment as an alternative to sharecropping. The quest for social status will, in other words, increase the desirability of retaining the contract for the landed tenant. If the landed tenant can secure a renewal of the lease, he can make a fuller utilization of his otherwise unemployable labor power. If the lease is terminated, part of his labor power will remain under-utilized, alternatively he may be forced to enter the casual labor market and be socially derogated. The stream of utility for the landed tenant in alternative activities is thus lower compared to the landless tenant. This can be modeled as a reduction in Z for the landed tenant, raising the cost of losing tenancy. When the cost of losing tenancy increase, the tenant will work harder in order to keep the contract (for a given share), i.e. the tenant's reaction function shifts to the right. This makes the land-owning tenant more profitable to hire. Increased income for the landlord follows directly from the fact that he gets more effort from the tenant for each share offer.

Figure 1 shows the effect of a decrease in Z. The new equilibrium pair (α_2, L_2) is illustrated by the tangency point between the iso-income curve π^1 of the landlord and the new effort response curve, leading to a reduction in the tenant's share and an increased effort. Clearly this is in the interest of the landlord. Hence, the landlord will get a higher return if he leases out the land to a landed rather than a landless tenant.

Concluding remarks

Social concerns and influences, which include social status as an important component, are important in shaping human action. Yet, it is only recently that economists have tried to incorporate such considerations explicitly. As Fershtman and Weiss (1998) document, these attempts have for the most followed the strategy of simply recognizing the role of social rewards followed by an examination of economic implications. This is also the strategy followed in this paper. A more ambitious program is to explain how preferences for status arise, and how such preferences change over time. It is far beyond the scope of this paper to explore this question

in its full depth. It is interesting to note, however, that Jansen (1986) finds that, due to the extreme poverty in rural Bangladesh and the insecure situation many people find themselves in, the gap between ideal and actual behavior seems to increase in many situations. When a choice has to be made between exploiting an economic opportunity and behaving properly, more and more seem to opt for the former. The great majority simply cannot afford to practice and live according to established social norms if this means sacrificing material rewards. As a consequence, many seem to have developed subtle double moral standards, or as one man puts it: "*If I acted like I talk and preach, my children would starve. (…) Poverty forces us to be ruthless. If we are not clever and cunning we have no chance of eating rice every day and we will leave our children without land.*" (Jansen, 1986 p. 71). This observation indicates that in the long run, and as long as Bangladesh stays poor, social norms loose its "grip on the mind" among the rural population in Bangladesh. The struggle for survival will dominate people's behavior. In the contexts of this paper the consequence may be that a poor smallholder will opt for wage employment and loss of status, if this increases his chances of "eating rice every day". He will not hang on to sharecropping if this means a loss in income.

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