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Wealth ranking in a caste area of India

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• Abstract

Collecting and analysing information in order to understand social behaviour requires a variety of methods and techniques. These techniques are developed from conceptual frameworks of social organisation. As the need for culturally appropriate frameworks becomes recognised it follows that the tools of the social analyst should also be culturally appropriate. Using a technique of data collection that has proved effective in one location could give inaccurate results in another, especially when it is based on a cultural definition by the society undergoing analysis. The testing of the technique discussed in this paper emerged from these considerations.

• Introduction

The following discussion concerns a technique of ranking communities by wealth. While it has been successfully tried and tested in parts of Africa and Mexico (de Walt, 1979; Grandin, 1980, 1983; Herren, 1988; Plattner, 1974; Young, 1987) its applicability to other societies remained unclear. Here I examine the use of the technique in one part of India.

For a variety of reasons, development projects and research work often require some knowledge of differences in wealth within a community. Such reasons include sample selection, identifying groups, finding out which project activities are relevant to particular groups, and understanding the dynamics of resource use and control within the community. Wealth Ranking is a technique which enables ranking of a community in a relatively short period of time compared to many other means of stratification. By using locally defined indicators of wealth it also avoids elements of ethnocentricity on the part of those seeking the information influencing the outcome of the ranking exercise.

The type of Wealth Ranking carried out in the present study is that outlined by B E Grandin in her publication Wealth Ranking in Smallholder Communities: A Field Manual (Grandin, 1988). It is not the purpose of this paper to reiterate the details of how to carry out this type of wealth ranking, but to describe the results of the technique in a society spatially and culturally distant from the ones where it has been applied before. A brief description of the technique is, however, needed if the rationale for and findings of the testing are to be fully understood.

Before Wealth Ranking can be carried out it is necessary to select the community in which the information gathering is to be done. Selection of communities depends on the purpose of the data collection. The community to be ranked then has to be defined as does the local concept of household. A representative cross section of the defined community is then selected from a listing. As Grandin notes "100 households or less is desirable". Once the households to be ranked have been selected, the name of each household head is written on a separate card. Informants are then chosen, reflecting any different fractions or groups that may exist in the community. It is recommended that 3-5 informants are selected who are then approached individually. After a discussion with each informant of the local definition of wealth the informant is asked to sort the cards into piles representing the wealth of each household. Informants are advised that households they consider to be of roughly equal wealth should be grouped together in one pile. The piles are reviewed and verified at the end of this stage and notes made of the position of each household. From the responses of the various informants an average

score is computed. The scores are then grouped and ranked.

This means of information gathering is dependent on respondents' perceptions of members of their communities ability to have 'access to and control over important economic resources' (Grandin, 1988). Although the correlation between responses and the final average scores was high in Kenya and Nigeria (Grandin, 1980, 1983), it was unclear whether the same high degree of uniformity between the responses of informants would be found in a highly stratified society.

In the village in which this wealth ranking technique was tested, situated in North Bihar in India, caste plays a major role in the relative resource wealth of households. Caste is not simply an economic phenomenon. Bound up with the ascribed status and occupational position of the household is a strong ideology of social order which is shared by the majority of community members. It seemed reasonable to assume this ideology concerning the hierarchical nature of social organisation could influence the responses obtained from informants of different castes. For example, a house might be ranked as poor or wealthy according to its relative (low or high) caste position vis-a-vis the informant. It was this possibility that the testing of the technique in Bihar sought to address. In addition, the interesting possibility of comparing the 'Wealth Rank' of households with more conventional indicators of wealth was offered through previous and detailed research carried out in the village (Grosvenor-Alsop, 1988).

The first question this paper sought to answer was the degree of correlation between the responses of different social groups. The second was how well the wealth ranks corresponded to a previously drawn up stratification based on income. The final question concerned the relationship between wealth rank and other aspects of a household's resource position. The particular aspects, or assets, used for analysis were access to livestock (type, number and tenure), access to land (type, amount and tenure), and the number of household members in employment. These were recurrent and common to all respondents' definitions of

wealth. A further aspect considered by all informants was the source of income. Unfortunately data were not available in a suitable form to test the relationship of this with wealth rank.

The setting

The village in which the field testing took place is situated about one and a half hours drive north of the State capital of Patna. Of the eighty-seven households in the village, seventy are involved in some way in agricultural production. The village is divided into ten social groups. Three are scheduled caste, four are backward caste, two are caste Hindu and one group is Muslim. These social groups have a tendency to live in separate hamlets.

The community is dominated economically, socially and politically by one of the caste Hindu groups. Strong patron-client relationships are found between this dominant group and other Hindu households. These relationships are important in determining poorer and lower caste households' access to factors of agricultural production. A strong degree of correlation was found between the per capita income of a household and its social group.

Wealth ranking by different social groups

Five respondents were selected to wealth rank the 87 households resident in the village. Of these, 2 were from high caste households (one of which was the richest and most powerful in the village), 1 was from a lower caste household, 1 from a very low caste household and, 1 from a Muslim household. The correlations between the responses of the five different informants were found to be high with coefficients ranging between 0.86 and 0.94 where the critical values were 0.19 and 0.22 at a 5% significance level for 1 tail and 2 tail tests respectively.

The greatest difference in scores was noted between the two high caste households and the Muslim informant. Higher levels of correlation were evident between the lower caste groups and the informant. The powerful high caste respondent's scores showed the least degree of

correlation with the averaged scores. However, none of the differences in scores are statistically significant. Apparently intra household differences in social status did not affect the responses of different informants. Therefore Wealth Ranking is an appropriate tool to use for social analysis in a stratified society such as found in this village in Bihar.

Income and wealth rank

Income data for a sample of 38 households in this village had been collected for the cropping year June 1985 to May 1986. Income .was divided into four categories.

(i)   Agricultural production,
(ii)   Wages, salaries and remittances,
(iii)   Manufactured Goods and Processed Foods; and,
(iv)   Capital assets.

Income was assessed using a value added technique, taking into account all possible costs of production, including equipment wear, maintenance and replacement. Family and unremunerated labour were not accounted for. Agricultural production covered income and costs of both crops and livestock. Surveys were applied to all sample households at appropriate times during the year, for example post sowing for seed input information, post harvest for yield information etc.

Five income strata were drawn up based on the per capita annual income of households. using Spearmans Rho test to ascertain the correlation between income groups (based on per capita income) and wealth ranks a coefficient of 0.49 was obtained where the critical values were 0.28 and 0.33 at a 5% significance level for one tailed and two tailed tests respectively. There was thus a relationship between the two methods of stratifying the village, if not a particularly strong one.

To examine this further, income data was aggregated and the community stratified according to households' annual income. A Spearmans Rho test carried out on this new income stratification and the ranked responses of informants gave different results from those obtained using a per capita based income stratification. A coefficient of 0.80 was obtained at the same significance levels and critical values as the above.

The closer correlation between how informants ranked households and a households' aggregate income, as opposed to a households per capita income, indicates that informants do not take the number of residents in a household into account when considering its relative wealth. Household wealth is perceived as a function of the unit, not of its contributory members.

Assets and wealth rank

The assets for which wealth rank were tested for correlation included land (type, amount and tenure), animals (type, amount and tenure), and number of people engaged in paid employment.

Land

The two types of tenure were considered - owned and sharecropped. In this village sharecropping terms were such that half the gross value of produce accrued to those owning the land. Five different land types were broadly recognised by cultivators. For the purposes of this paper it is not necessary to discuss the relative value of each land type, and I have examined those factors informants take into account when they rank households according to wealth. It is therefore enough to ascertain whether a relationship exists between the assets mentioned above, and whether the relationship is significant at an aggregated or disaggregated level. Table 1 records the correlation coefficients.

Table 1. The relationship between wealth rank and land

Land type	Wealth rank	
Owned		
1	- .38	
2	- .45	
3	- .58	
4	- .52	
5	- .50	
TOTAL	- .77	critical values
Sharecropped		(1 tail, 0.05) = .26
1	- .02	(2 tail, 0.05) = .31
2	.01	
3	.23	
4	.29	
5	No type 5 sharecropped	
TOTAL	.12	

Because of the way in which ranking is carried out by the particular computer package used in this instance a high Wealth Rank was accorded a low numerical value. A min s sign preceding the coefficient indicates that high values of on variable tested are associated with low values of another. A minus sign thus actually means a positive relationship between t e two variables. For example when testing the correlation between Wealth Rank and Land Owned, a coefficient of -0.38 actually indicates that the wealthier a household (i.e. it has been given a low wealth rank score) the larger will be the area of land it owns.

The initial observation to be made is that there exists a positive relationship between the wealth ran attributed to households and the total amount of land that a household owned. The apparent negative relationship between total amount of sharecropped land and wealth rank cannot be considered significant. Neither is it possible to draw any significant conclusion from the positive relationship observed between wealth rank and ownership of type 1 sharecropped and. The fifth landtype was one on which fruit tree crops (main ly for domestic consumption) and rough grass for grazing or building purposes grew. Few households in the village owned such land. This factor would affect the figures shown above.

It is reasonable to suggest that informants took the total amount of land that a household owned into account when ranking households. Ownership of all land types is significantly, if not strongly, related to the wealth rank ascribed to households. The results above are not conclusive enough to state that individual landtype was considered by informants in their assessment of a households' wealth rank, although given the relatively equal figures for four of the landtypes a consideration of this factor is implied. The amount and type of land sharecropped did not appear to be a consideration for informants.

Livestock

Similar to the above, livestock was divided into that owned and that which was held on a share basis. With livestock the share is in the final revenue obtained from the sale of the animal. The terms are 50:50 to the owner and person caring for the animal.

The correlation coefficients for animals owned taken on share (shown in Table 2) indicate that the higher the wealth rank the more animals they are likely to own, and the fewer they are likely to have on a revenue sharing basis. The coefficients for shared animals are, however, too low to be considered significant in this analysis. The relationship expressed in the table between animals owned and wealth rank

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suggests that informants did take into account the number of animals owned by a household. The figures indicate that ownership of buffalo and oxen were related to the wealth rank of a household, but the association is not strong enough to imply a causal relationship in wealth ranking.

Persons employed and wealth rank

The results of carrying out a test of correlation between the wealth rank ascribed to households and the number of people in waged employment was not significant. However, when the value of income accruing to households from those persons in employment was tested a figure of -0.36 was calculated. Although not a particularly strong relationship this was above the critical value for both one and two tailed tests at a 5% level of significance. Assuming that the value of income was related to the source of earned income this figure would indicate that informants took into account the type of employment household members were engaged in rather than the number of persons employed.

Table 2. The relationship between wealth rank and livestock

Livestock

Owned		
Cow	- .26	
Buffalo	- .55	
Goat	- .02	
Ox	- .41	
TOTAL	- .42	critical value
		(1 tail, 0.05) = .26
Share		(2 tail, 0.05) = .31
Cow	.31	
Buffalo	.07	
Goat	.06	
Ox	.02	
TOTAL	.26	

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• Summary and conclusions

A concern over the cultural appropriateness of the technique of Wealth Ranking gave rise to the need to test it in a setting both spatially and socially distant from that in which it had been applied before. The results were conclusive in that Wealth Ranking is a useful technique of stratification for the area of India in which it was tested. It is reasonable to assume from this that the technique could be used in other parts of India.

Statistical tests were carried out comparing the results of the Wealth Ranking exercise with household attributes identified by informants as relevant to their assessment of a households. wealth. Only one aspect of the household used as a wealth 'indicator' by respondents, namely the number of household members in paid employment, initially did not appear to bear any relationship to their ranking of households. However it became clear through further testing that respondents were implicitly applying additional criteria to the one that they explicitly identified.

It also became apparent that local definitions of wealth were dependent on many more aspects of a households' resource position than were discussed during the definition of wealth sessions. The consistency of informants' responses suggests that these 'other' variables were concepts and perceptions common to all informants. These elements are ones that field workers, as outsiders, cannot appreciate in the short period of time usually available for an exercise in community ranking.

Wealth Ranking is a technique that can be used with confidence in India. It provides a quick, accurate and non-intrusive means of ranking a community. If a cautionary note is to be sounded it is not to use those household attributes identified by informants, in their definitions of wealth, as discrete indicators of wealth. In this instance perceptions of wealth took into account variables other than those discussed by informants in their definition of wealth.

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