2-1-2010

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Comment: Intergenerational Wealth Transmission and Inequality in Premodern Societies

Inheritance and Inequality of Wealth
A Comment

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The essays under review provide a model analysis of a sadly neglected topic, the distribution of wealth and inheritance in nonstate societies. They define three different types of wealth, measure the inequalities of holdings and inheritance arrangements within four groups of societies with the same economic systems, and then analyze similarities and differences between the four groups. This research procedure allows us to gain a broad perspective on the topic. The statistical methods employed are sophisticated, and the exposition of the results is clear. Nevertheless, I am uncomfortable with the interpretation of the statistical results, and the comments below present a different perspective on these calculations.

The Relationship between Gini Coefficients of Wealth and Inheritance β’s

The β coefficient represents the percentage change of an offspring’s wealth associated with a 1% change in the wealth of his or her parents. As noted in the introductory essay by Bowles, Smith, and Borgerhoff Mulder (2010), (1 − β) represents a regression toward the mean; that is, in the very long run, with other things remaining equal, wealth will be equally distributed if β is less than unity, which is the case for every society in the sample. The lower the β is, the faster this equality will be achieved. Other things equal, we have reason to suspect, therefore, that lower β’s will be associated with lower Gini coefficients of wealth, a conjecture that can be easily tested with the data for the 44 societies.

Unfortunately, the results of a regression analysis do not support this conjecture. More specifically, if we examine the relationship between the Gini coefficients (dependent variable) and β’s (independent variable) with an ordinary least squares regression, we find a negative but statistically insignificant relationship (.05 level) for the foraging (hunting and gathering) and horticultural societies, a positive but statistically insignificant relationship for the pastoral societies, and a positive and statistically significant relationship only for the agricultural societies. These results are not changed if we add the relative importance of the different types of food production activities (the α’s) or a dummy variable indicating whether the calculated β is statistically significant. If we arrange the data according to the type of wealth (embodied, material, or relational) and rerun the regressions, we find a negative but statistically insignificant relationship between the Gini coefficients and the β’s for embodied and relational wealth and a positive but statistically insignificant relationship for material wealth. Adding to the regression, the α’s or a dummy variable indicating whether the calculated β is statistically significant also does not change the statistical insignificance of the results. So what is happening?

Explanations of the Disappointing Regression Results

Two easy explanations for the disappointing regression results can be offered. (1) Several of the papers mentioned differential shocks to individual wealth holdings—cattle are stolen or die from disease, climate changes nullify certain types of embodied wealth, or people die so that relational wealth evaporates. But, as conceded in the papers, no empirical evidence is available to determine whether such shocks actually had any impact on the Gini coefficients of wealth holdings. (2) The β coefficients are not a good measure of inheritance practices and, moreover, cannot be accurately calculated: slightly more than half are not statistically significant at the .05 level. If wealth is not equally inherited by a person’s children or if parents with the same wealth have a different number of children, then the ratios of a child’s wealth to that of his or
her parents can be greatly different for parents with the same
wealth, and an average ratio or a ratio calculated through a
regression technique may not tell us very much if we consider
only a few families. More specifically, in a society where each
set of parents has only two children and each child inherits
an equal share of the family’s wealth, the \( \beta \) may equal 1, while
in the same family situation with primogeniture, the average
\( \beta \) may equal 0.5 because one child inherits nothing. With
different numbers of children per family, there may be a wide
variation in the ratios of wealth of children to that of parents,
and the meaningfulness of the \( \beta \) is open to doubt, especially
in small samples. In the regression experiments described
above, I included a dummy variable to see whether the lack
of statistical significance of the \( \beta \) had any effect on the major
results, but it did not. Such a test, however, does not ade-
quately measure the bias of the wide variations of the ratios
of children’s wealth to parent’s wealth for parents in a given
wealth class. The inheritance rule, not the calculated \( \beta \), is the
key variable to examine.

Inheritance and Wealth Inequality:
Alternative Explanations

What are the major mechanisms linking the inequalities of
wealth and the calculated \( \beta \)'s? Three seem to be particularly
important and, in the various papers, are informally discussed
but not seriously analyzed.

1. One crucial mechanism is demographic. In this regard,
consider the following situation: a society starts with an initial
distribution of wealth among individuals, the adults marry
according to certain rules (e.g., the degree of assortative
marriage according to wealth), people earn income by labor and
the use of their wealth according to certain rules (e.g., labor
income varies according to some rule), the income received
from wealth varies according to another rule, or there is a
certain sharing or redistribution of income in the society),
people save according to some rule, they have children ac-
cording to their income (if they are wealthy, they have more—
or fewer—children), they die and their wealth is redistributed
according to certain rules (e.g., primogeniture, equal division,
or some children receive more than others), and then the
process then begins anew as the children marry. Although
this process cannot be easily modeled analytically, it can be
easily simulated by computer and run for many generations.
The simulation results show that the distribution of wealth
asymptotically approaches an equilibrium that depends on
the various societal rules specified in the model, which also
influence the speed at which this equilibrium is achieved (sim-
ulations discussed in Pryor 1973). In such a situation, the
long-term inequality of wealth may have little relationship to
the inequality of wealth in the first few periods of the process.

Unfortunately, the papers in the special section focus only
on the short term because the available data deal primarily
with only two adjacent generations and they did not discuss
changes in inheritance arrangements or wealth inequalities in
the past. The \( \beta \) coefficient in the model is indirectly specified
by the inheritance rule and its interaction with the other rules.
Such a model provides a direct mechanism linking inheritance
rules and wealth inequality, which the various papers in the
special section discuss only in an informal manner.

2. The wealth distribution is also influenced by nonde-
ographic societal rules and institutions. In those societies
with slavery, wealth may be quite unequally distributed be-
cause a certain segment of the society is not allowed to have
any (material) wealth. Inequalities may arise because of limit-
ated access to certain resources necessary for food production,
for example, fertile land for agriculture or foraging rights for
particular tracts of land, river bank rights for fishing, water
rights and pastures for cattle herding, and so forth. Several
of the papers discussed these influential societal rules in
passing.

3. Finally, societies differ in the degree to which food and
tools for food production are shared between family members,
friends, or others, and this also has an important impact on
the distribution of wealth. Clearly, a family in a society with
extensive sharing is less likely to experience a downward spiral
of income and wealth if misfortune strikes, and this suggests
that societies with more sharing should have more egalitarian
wealth distributions. This conjecture can be tested in several
ways.

Some cross-cultural data from a large sample show that
both reciprocal exchange and gift giving (one-way transfers),
which represent a type of relational wealth, are more likely
to be found in foraging and horticultural societies than in
pastoral and agricultural societies at higher levels of economic
development (Pryor 1977, chaps. 7, 9). We would predict,
therefore, that the differences in the Gini coefficients of dif-
ferent types of wealth would be lower (more equal wealth
distribution) in the former than in the latter societies. Looking
at the Gini coefficients for the various types of capital for
foraging and horticultural societies in comparison with those
for pastoral and agricultural societies, I find that such a hy-
thesis is confirmed to a statistically significant degree. Con-
fining ourselves to the individual types of capital, we see that
the hypothesis is significantly confirmed for relational wealth
but not for embodied or material wealth.

Final Words

Despite my reservations, I believe that the comparative ap-
proach employed in these papers represents an important step
forward. Moreover, their focus on inheritance represents re-
search on a topic that has, up to now, been shamefully ne-
eglected in the literature on economic anthropology. I can only
hope that the leads provided in these papers serve to encourage others to follow in their footsteps.

References Cited