Journal of Comparative Economics 40 (2012) 457–475

Contents lists available at SciVerse ScienceDirect

Journal of Comparative Economics

journal homepage: www.elsevier.com/locate/jce

The correlation between human capital and morality and its effect on economic performance: Theory and evidence

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ARTICLE INFO

Article history:
Received 17 August 2010
Revised 20 December 2011
Available online 20 January 2012

JEL classification:
A13
O12
Z13

Keywords:
Morality
Appropriation
Rent-seeking
Economic development

ABSTRACT

Balan, David J., and Knack, Stephen—The correlation between human capital and morality and its effect on economic performance: Theory and evidence

In this paper we analyze the relationship between the *correlation* between morality and human capital ("ability") on the one hand and aggregate economic performance on the other. Morality is defined as an aversion to consuming goods obtained through appropriative rather than productive activities. In our empirical analysis we adapt the well-known regression framework of Rodrik et al. (2004), using the World Values Survey as a source of proxies for morality. Using our preferred proxy, we find evidence that higher within-country correlation between morality and ability, holding constant the levels of morality and ability, increases per-capita income levels. Under our preferred specification, a one-standard-deviation increase in the correlation between morality and ability raises the log of per-capita income by about one-fourth of a standard deviation, equal to approximately $3600 for the median income country in our sample. Results are robust to correcting for endogeneity and to changes in sample and specification. Results are mixed when we use alternative morality proxies, but the coefficient on the morality–ability correlation is still usually positive and statistically significant. We also develop a simple static general equilibrium model to serve as a possible framework for understanding the empirical results. *Journal of Comparative Economics* **40** (3) (2012) 457–475. Federal Trade Commission, Bureau of Economics, 600 Pennsylvania Avenue NW, Washington, DC 20580, United States; The World Bank, Development Research Group, 1818 H Street NW, Washington, DC 20433, United States.

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1. Introduction

Some economic activities are productive, while others are appropriative. The performance of an economy is affected by the choices that economic agents make about whether to be producers or appropriators. In this paper we consider that these choices may be influenced by the agents' "morality" (which we define as an aversion to consuming goods acquired through appropriation rather than production),[2] and that the effect of differences in morality may depend on the agents' human capital (hereafter

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[2] Economists have traditionally been wary of assuming that tastes (such as a taste for morality) vary across individuals, preferring to assume that tastes are homogeneous and to explain differences in outcomes as the result of differences in endowments, incentives, or constraints (Stigler and Becker, 1977). Naturally, an explanation based on heterogeneity of tastes is more justifiable (all else equal) the more firmly it is established empirically that tastes do in fact vary in the relevant ways. Caplan (2003) summarizes the psychology literature on this point, which appears to confirm that personalities can be categorized into distinct types, and that these types differ from each other significantly. Of particular importance for the present paper is the finding that, all else equal, criminals tend to have lower levels of certain personality factors than do other people. This is consistent with the common sense notion that some people are more moral than others, and lends support to the approach taken in this paper.

0147-5967/$ - see front matter Published by Elsevier Inc. On behalf of Association for Comparative Economic Studies.
http://dx.doi.org/10.1016/j.jce.2011.12.005

referred to as "ability"). Specifically, we examine the effect on country-level economic performance of differences in the within-country *correlation* between morality and ability, holding their aggregate *levels* constant. Put another way, this paper is about whether and how a country's economic performance is affected when the moral people in the economy are more likely to also be the talented people.

There is a vast empirical literature on the determinants of country-level economic performance. We use the well-known regression framework of Rodrik et al. (2004) as our baseline. This framework was originally constructed to measure the relative importance of three "deep determinants" of per-capita income levels; namely institutions, geography, and trade. To this framework we add measures of morality, ability, and the correlation between them, using the World Values Survey as our source of proxies for morality. This allows us to examine the effects of these variables, controlling for the deep determinants that have previously been identified as of primary importance.

We find that higher within-country correlation between morality and ability, holding constant the levels of morality and ability, increases per capita income levels. This effect is both robust and of a substantial magnitude: using our preferred proxy and specification, a one-standard-deviation increase in the correlation raises the log of per-capita income by about one-fourth of a standard deviation, equal to approximately $3600 for the median-income country in our sample. Controlling for the correlation between them, the level of morality and level of ability are also associated with higher per capita incomes. These findings are robust to correcting for endogeneity and to changes in sample and specification. Results are mixed when we use alternative morality proxies, but the coefficient on the morality–ability correlation is still usually positive and statistically significant.

We also develop a simple model that may serve as a framework for understanding the empirical results. To see the main idea of the model, imagine two countries, both with the same total morality and ability. Country A is dominated by a corrupt aristocracy, whose members tend to have high ability (they were sent to the best schools), but low morality (they were raised either not to notice the harmful effects of appropriative activities or not to care). Country B, in contrast, is dominated by a benevolent aristocracy, whose members also have high ability, but who are educated to have a sense of "noblesse oblige." That is, in Country A there is a low or negative correlation between morality and ability, whereas in Country B there is a positive one.

Now consider what would happen if Country A became more like Country B. Some high-ability agents would be changed from low to high morality, and an equal number of low-ability agents would be changed from high to low morality. Any high-ability agent who was already a producer will remain a producer, so the increase in morality will have no effect. But those high-ability agents that started out as appropriators will get less utility from appropriation than before, which will cause some of them to switch and become producers. The effect on the low-ability agents will be the opposite, those that were already appropriators will remain appropriators, and some producers will switch and become appropriators. So increasing the correlation between morality and ability causes some high-ability agents to switch into being producers, and causes some low-ability agents to switch out of being producers.

This substitution of high-ability producers for low-ability ones tends to cause the total amount of ability employed in productive activity to increase, which improves economic performance. This is intuitive, and can be thought of as the "main" effect in our model. This effect is larger in magnitude the greater is the difference in ability between high and low ability agents.

But the fact that the number of agents changed from high to low morality is equal to the number changed from low to high morality does not necessarily mean that the number of *switchers* from appropriation to production will be equal to the number of switchers from production to appropriation, or that the switchers in each direction will be identical in other relevant respects. These differences can generate secondary effects that can reinforce or oppose, and can even on net overbalance, the main effect.

The above thought experiment involves increasing the correlation between morality and ability within a country. But the same reasoning can be applied to cross-country comparisons. All else equal, the effect of increasing the correlation between morality and ability within a country is the same as the difference between the performances of countries with correspondingly different correlations.

The cross-country interpretation of the model predicts either an empirical finding that higher within-country correlation between morality and ability (controlling for the levels of both) has a positive effect on economic performance in a cross-country regression (which is what we find empirically), or a finding that over the relevant range the sector choices of high-ability agents are much less sensitive to morality than those of low-ability agents (i.e., that the secondary effect works against the main effect and is of sufficient magnitude to overbalance it).[3]

The main contribution of the formal model is to show that even if the estimated relationship between the morality–ability correlation and economic performance were zero or negative, it would not necessarily mean that the basic idea behind this paper (economic performance is influenced by agents' choices between productive and appropriative economic activity, which in turn are influenced by morality and ability and the relationship between them) is incorrect. Before reaching that conclusion, it would remain to investigate whether at the margin the choices of high-ability agents are substantially less responsive to morality than are those of low ability agents. But given the positive empirical finding this possibility, and hence the formal model itself, are of secondary importance.

[3] It is trivial to show that in the model economic performance is always increasing in the level of morality. The model also generates results regarding the effect of changes in the level of human capital, but discussion of this is confined to footnote 24 below.