

[Introduction to Social Macrodynamics. Compact Macromodels of the World System Growth](#) by Andrey Korotayev , Artemy Malkov, and Daria Khaltourina. Moscow: Editorial URSS, 2006. Pp. 87–91.

Chapter 6

Reconsidering Weber: Literacy and the Spirit of Capitalism

In his classic *The Protestant Ethic and the Spirit of Capitalism*, Max Weber suggested that Protestantism stimulated the development of modern capitalism in Europe and North America. Weber disregarded the wide-spread explanation of economic success of Protestants in Europe in the Modern Age as a result of their religious minority position. He pointed out that German Catholics did not achieve the same results despite being a religious minority in many parts of Germany.

Weber explained significant differences between Catholics and Protestants in their social status and economic success through the different world views inherent in the doctrines of these two confessions. He suggested that a decisive role was played by the formation of a special "spirit of capitalism", which included the devotion to one's business, the desire to increase one's wealth in an honest way and so on. According to Weber, the spiritual basis of capitalism was grounded in the vulgarized versions of the theology of Calvinism and some other Protestant sects. It was, above all, the belief in predestination and (in vulgarized versions) in the possibility of obtaining the signs of whether one is predestined to salvation, via perfection in one's profession.

Many of Weber's followers tended to exaggerate the effect of religious ethics on the economic dynamics. Yet, Weber himself wrote:

"... however, we have no intention whatever of maintaining such a doctrinaire thesis as that the spirit of capitalism... could have only arisen as the result of certain effect of the Reformation, or even that capitalism as an economic system is a creation of the Reformation." (Weber 1972: 109).

Yet, this doctrinaire thesis is still frequently attributed to Weber (see, e.g., Maddison 2001: 45). At the same time Weber, to our opinion, showed quite convincingly that the processes of religious evolution can produce some independent effect on socioeconomic development. On the other hand, the special extended macromodel considered above suggests another explanation for the correlation between the spread of Protestantism and some increase in economic development, which has been noted by Weber.

As has been mentioned earlier, human capital development has been suggested as one of the most important factors of economic growth, whereas education is considered to be one of the most important components of human capital

(see, *e.g.*, Schultz 1963, Denison 1962, Lucas 1988, Scholing and Timmermann 1988 *etc.*). We tested our special macromodel in Chapter 5, and one of the assumptions of this model was a significant positive effect of literacy level on economic growth. The model based on this condition corresponded well with the historical data on the demographic, economic, and educational dynamics of the World System. Consequently, this hypothesis has passed preliminary testing. Let us test it again using cross-national data.

In the 20th century mass literacy spread around the globe, and nowadays differences in literacy levels between different countries tend to disappear. At the same time, according to our hypothesis, the differences in economic developments of various countries are rooted in the period of the beginning of modernization era. Therefore, it seems reasonable to explore the connection between such indicators as GDP per capita at present and the literacy level in the early 19th century.¹ For the data on these variables, as well as on GDP per capita in the early 19th century, see Table 6.1:

Table 6.1. GDP per capita in the Countries and Regions of the World in 1800 (international \$ 1980, PPP²), GDP per capita in 2000 (international \$ 1995, PPP) and % of literate population in 1800

Country/region	GDP per capita in 2000 (international \$ 1995, PPP)	GDP per capita in 1800 (international \$ 1980, PPP)	% of literate population in 1800
USA	31338.3	690	58
Great Britain	22652.5	1030	55
Germany	23912.6	790	55
France	23225.2	750	38
Israel	18894.5		(35)
Japan	23828.1	420	33
Italy	22874.8	670	30
China	3547.4	500	20
Mexico	8182.2	690	11
Brazil	6780.7	580	8
Russia	6643.6	488	8
India	2229.3	440	5
Indonesia	2807.3	425	5
Egypt	3253.4	325	3
Sub-Saharan Africa	1557.3		(1)

NOTE: The source of the data on GDP per capita and literacy rate in 1800 is Meliantsev 1996; on GDP per capita and the literacy rate in Russia in 1800 see Meliantsev 2003; on GDP per capita in

¹ Since the indicators of educational level are strongly correlated with each other, the percentage of literate population seems to be a good integral indicator of the level of education for the early modernization period.

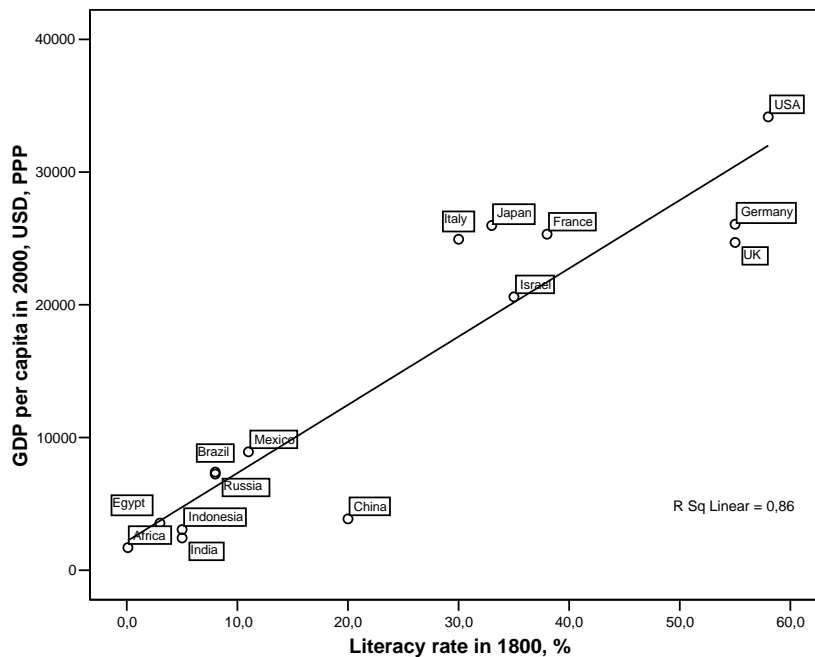
² Purchasing power parity

the countries and regions of the world in 2000 see World Bank 2005. Our estimates are in parentheses.

The data in Table 6.1 show that the level of economic wealth in the early 19th century in various regions did not differ greatly enough to be considered the leading factor of economic differentiation between the regions later on. Thus, per capita GDP in Mexico was approximately equal to that in the USA. However, the literacy rates differed significantly.

The correlation between literacy rates in 1800 and per capita GDP in 2000 is presented in Diagram 6.1:

Diagram 6.1. Scatterplot of Literacy Rates in 1800 (% of literate people among the adult population) and per capita GDP Levels in 2000 (international \$ 1995, PPP)



NOTE: $R = 0.93$; $R^2 = 0.86$; $p = 0.0000003$ (one-tailed).

Diagram 6.1 shows that there is a strong and definitely significant linear correlation between the literacy rate in 1800 and GDP per capita at present. R^2 coefficient indicates that this correlation explains 86% of the entire data dispersion.

Therefore, the hypothesis that the spread of literacy was one of the major factors of modern economic growth gains additional support. On the one hand, literate populations have many more opportunities to obtain and utilize the achievements of modernization than illiterate ones. On the other hand, literate people could be characterized by a greater innovative-activity level, which provides opportunities for modernization, development, and economic growth.

Literacy does not simply facilitate the process of perceiving innovation by an individual. It also changes her or his cognition to a certain extent. This problem was studied by Luria, Vygotsky, and Shemiakin, the famous Soviet psychologists, on the basis of the results of their fieldwork in Central Asia in the 1930s. Their study shows that education has a fundamental effect on the formation of cognitive processes (perception, memory, cognition). The researchers found out that illiterate respondents, unlike literate ones, preferred concrete names for colors to abstract ones, and situative groupings of items to categorical ones (note that abstract thinking is based on category cognition). Furthermore, illiterate respondents could not solve syllogistic problems like the following one – "Precious metals do not get rust. Gold is a precious metal. Can gold get rust or not?". These syllogistic problems did not make any sense to illiterate respondents because they were out of the sphere of their practical experience. Literate respondents who had at least minimal formal education solved the suggested syllogistic problems easily (Luria 1974, 1976, 1982: 47–69).

Therefore, literate workers, soldiers, inventors and so on turn out to be more effective than illiterate ones not only due to their ability to read instructions, manuals, and textbooks, but also because of the developed skills of abstract thinking. Some additional support for this could be found in Weber's book itself:

"The type of backward traditional form of labor is today very often exemplified by women workers, especially unmarried ones. An almost universal complaint of employers of girls, for instance German girls, is that they are almost entirely unable and unwilling to give up methods of work inherited or once learned in favor of more efficient ones, to adapt themselves to new methods, to learn and to concentrate their intelligence, or even to use it at all. Explanations of the possibility of making work easier, above all more profitable to themselves, generally encounter a complete lack of understanding. Increases of piece rates are without avail against the stone wall of habit. In general it is otherwise, and that is a point of no little importance from our view-point, only with girls having a specifically religious, especially a Pietistic, background" (Weber 1972: 75–6).

We believe that the above mentioned features of the behavior of German female workers in the late 19th–early 20th centuries simply reflects a relatively low educational level of German women from labor circles at that time. The spread of female literacy in Germany, as elsewhere, lagged behind that of male literacy (see Chapter 7). In the early 20th century the majority of women could write and read only in the most developed parts of Germany (Meliantsev 1996). More ra-

tional behavior of German workers from Pietistic circles could be easily explained by the special role of education in the lives of Protestants.

The ability to read was essential for Protestants (unlike Catholics) to perform their religious duty – to read the Bible. The reading of Holy Scripture was not just unnecessary for Catholic laymen, for a long time it was even prohibited for them. The edict of the Toulouse Synod (1229) prohibited the Catholic laymen from possessing copies of the Bible. Soon after that, a decision by the Tarragon Synod spread this prohibition to ecclesiastic people as well. In 1408, the Oxford Synod absolutely prohibited translations of the Holy Scripture. From the very beginning, Protestant groups did not accept this prohibition. Thus, Luther translated in 1522–1534 first the New Testament, and then the Old Testament, into German, so that any German-speaking person could read the Holy Scripture in his or her native language. Moreover, the Protestants viewed reading the Holy Scripture as a religious duty of any Christian. As a result, the level of literacy and education was, in general, higher for Protestants not only than it was for Catholics and for followers of other confessions that did not provide religious stimuli for learning literacy (see, for example: Malherbe 1997: 139–57).

In our opinion, this could explain to a considerable extent the differences between economic performance of the Protestants and the Catholics in the late 19th – early 20th centuries in Europe noticed by Weber. One of Weber's research goals was to show that religion can have independent influence on economic processes. The results of our study support this point. Indeed, spiritual leaders of Protestantism persuaded their followers to read the Bible not to support the economic growth but for religious reasons, which were formulated as a result of ideological processes that were rather independent of economic life. We do not question that specific features of Protestant ethics could have facilitated economic development. However, we believe that we found another (and probably more powerful) channel of Protestantism's influence on the economic growth of the Western countries.