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# **Social Macroevolution and Changes in the Human Value Systems. How has Modernization Affected Human Values?**

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## **ABSTRACT**

*The transition to expanded production and the exit from the Malthusian trap, two of the most important components of modernization transition, lead to a long-term trend of per capita GDP growth, and hence of the level of income and material well-being of the population. The question whether the factor of wealth affects the structure of individual human values and, if so, what are the directions of this impact, has been a subject of rather intense scholarly discussion. Two of the most developed theories in this respect are those developed by Richard Easterlin and Ronald Inglehart. However, the scope of these theories is still being discussed as well. Using mean country values, Inglehart shows that the growth of per capita GDP leads to an increase in adherence to secular-rational values and values of self-expression at the country level. In this paper, we test whether there is a correlation between the income level of individuals and their commitment to secular-rational values and post-materialist values at the individual level as well. The article was prepared in the framework of a research grant funded by*

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Modernization has been one of the most important macroevolutionary processes of recent centuries. Modernization can be viewed as a socio-evolutionary process of transformation of a traditional society into a modern one, and includes the following main components:

- development of the commodity sector and money circulation;
- development of industry;
- urbanization transition (from societies with an absolute predominance of the rural population to societies with an absolute predominance of the urban population);
- modernization of agriculture ('green revolution' including mechanization, chemicalization, practical application of the achievements of biological science such as varietal seeds, scientifically bred livestock, *etc.*);
- development of the system of modern mass education;
- formation of a modern healthcare system;
- significant changes in the demographic model of development = demographic modernization (the so-called first and second phases of the demographic transition);
- transition to the economic model of expanded reproduction;
- modernization is closely related to escaping from the Malthusian trap;
- ultimately, modernization requires very significant political-legal and political-social changes (*i.e.*, political modernization, which is primarily a transition from developed to mature statehood) (see Grinin, Korotayev 2012: 184–185; see also Rostow 1960; Apter 1965; Bellah 1965; Lerner 1965; Eisenstadt 1966; Levy 1966; Black 1975; Bondarenko 2011; Poberezhnikov 2014; Grinin, Korotayev 2015; Korotayev, Goldstone *et al.* 2015; Rozov *et al.* 2019; Grinin 2022).

Thus, the integral components of modernization are the transition to expanded production and the exit from the Malthusian trap, which leads to the emergence of a fairly stable trend towards the growth of per capita GDP, and hence the level of income and material well-being of the population. The question of whether the improvement of material well-being makes people happier is of considerable interest in the modern global world, given the enormous increase in the volume of the world economy in the second half of the twentieth and early

twenty-first centuries. A more general question of whether the factor of wealth affects the structure of individual human values has been attracting the attention of researchers for quite a long time. The two most developed theories in this area are associated with the names of Richard Easterlin and Ronald Inglehart.

### **INCOME AND LIFE SATISFACTION: THE EASTERLIN HYPOTHESIS**

Back in 1974, Richard Easterlin provided some evidence for a seemingly paradoxical statement: an increase in average income does not lead to an increase in the average level of subjective well-being. This observation became known as Easterlin's paradox. Some other scientists also argue that modern societies should not expect a significant improvement in the level of subjective well-being of the population from economic growth (Easterlin 1974; Easterlin *et al.* 2010; Bartolini and Sarracino 2015).

However, in recent years, new and more complete data have allowed for Easterlin's assumption to be tested more closely, and a number of studies have come to exactly the opposite conclusions:

- there is a stable positive relationship between subjective well-being and income across countries and over time (Deaton 2008, 2017; Stevenson and Wolfers 2008; Sacks *et al.* 2012; Inglehart *et al.* 2008; Veenhoven and Vergunst 2014),
- people in richer countries report higher levels of life satisfaction than people in poorer countries (Ng and Diener 2019),
- the wealth of a country increases the impact of individual wealth on life satisfaction (Diener *et al.* 2013; Ng and Diener 2014).

Some researchers advocate a modified version of Easterlin's hypothesis, recognizing the existence of a link between income and well-being among a population whose basic needs are not met, but arguing that after a certain threshold level, further income growth is not associated with any increase in subjective well-being. Easterlin himself in his recent work also notes that the relationship between economic growth and subjective well-being depends on whether the country is developed, developing, or is in transition (Easterlin 2009). This assumption is confirmed by other researchers, who show that economic growth does not correlate with life satisfaction in non-transitional countries. However, in countries with economies in transition, people's satisfaction with their lives is positively and significantly associated with economic growth (Mikucka *et al.* 2017; Bartolini *et al.* 2017). The role of the time factor is also noted, as economic growth

and trends in subjective well-being are related in the short term, but this correlation disappears in the long term (Easterlin 2003; Easterlin *et al.* 2010; Bartolini, Sarracino 2014).

At the same time, other researchers have shown that there is a rather complex relationship between GDP per capita and subjective happiness. On the one hand, there are a fairly large number of countries (particularly in Latin America) where low per capita GDP values are combined with very high levels of subjective happiness. On the other hand, in rich countries the level of subjective happiness may be somewhat lower than in some low-income countries, but there are no economically developed countries with very low indicators of subjective well-being. This situation is captured in the title of the research ‘One can be poor and happy, but one cannot be rich and unhappy?’ There is a fairly pronounced correlation between relative economic dynamics and subjective well-being, as economic downturns have a pronounced negative effect on the subjective feeling of happiness. At the same time, economic recovery in all countries, both poor and rich, correlates with an increase in the subjective sense of well-being (Korotayev and Khaltourina 2008).

Mikucka and Sarracino identify two conditions that, over time, make long-term economic growth compatible with subjective well-being. These conditions include an increase in social trust and a decrease in income inequality. Their methodological contribution is to combine micro- and macro-level data from the World Values Survey and the European Values Survey for a large sample of developing, transitioning, and developed countries from 1981 to 2012. The study shows that in the long run, economic growth improves subjective well-being when social trust does not decrease, and in wealthier countries when income inequality decreases (Mikucka and Sarracino 2014). Other researchers also note the importance of the inequality factor, concluding that people with higher incomes have a higher life satisfaction score than those with lower incomes, but this effect is stronger in countries with lower levels of economic inequality (Ng and Diener 2019). With regard to trust, it was shown that, in a sample of 46 countries, changes in the level of trust in society are positively and significantly correlated with life satisfaction. This result confirms previous research conclusions showing that, in the long term, social capital is one of the main predictors of life satisfaction (Bartolini and Sarracino 2014). Moreover, an increase in social trust correlates more strongly with life satisfaction in rich countries than in poor ones. Across a sample of countries, it has been found that when economic

growth is accompanied by an increase in social trust, GDP growth is positively correlated with life satisfaction (Mikucka *et al.* 2017). The combination of rising incomes with a narrowing of their distribution could, within about two decades, lead to significant changes in the levels of social trust. Income inequality is negatively associated with social trust (Kemp-Benedict 2013). A reduction in regional income leads to a deterioration in trust (Ananyev and Guriev 2019).

### **INCOME AND TRANSITION TO POST-MATERIALIST VALUES: THE INGLEHART HYPOTHESIS**

Ronald Inglehart suggests an evolutionary pattern wherein the unprecedented level of well-being in today's post-industrial societies has fundamentally changed the way citizens achieve happiness. Thanks in large part to rising living standards and the widespread belief that existential security can be taken for granted, there is a fundamental change in value priorities, from materialistic values of survival to post-materialist values of self-expression, as well as from traditional values to secular-rational values:

Per capita GDP shows a significant impact on traditional/secular-rational values, for five of eight cultural zones (using a dummy variable for each cultural zone in a separate regression). Moreover, per capita GDP shows a significant impact on survival/self-expression values against controls for each of eight cultural zones. The percentage of the labor force in the industrial sector influences traditional/secular-rational values even more consistently than does per capita GDP, showing a significant impact in seven of the eight regression analyses (Inglehart and Welzel 2005: 66–67).

It is then quite possible that existential security has altered the 'recipes' for people's happiness accordingly. This is partly evidenced by the well-known curve of happiness change with international income: richer societies tend to have happier populations than poorer countries, but the curve flattens out at higher levels of wealth. This means that at very high income levels further growth of income leads to a rather insignificant increase in subjective happiness. At the same time, a comparable increase of income in poor countries leads to a much greater increase in subjective well-being (Inglehart and Klingemann 2000). In order to test those hypotheses, Inglehart uses mean country values of human values as the dependent variable. In our previous research we also use mean country values of human values as

the dependent variable, and GDP per capita in the corresponding countries as the independent variable (Korotayev and Zinkina *et al.* 2019; Korotayev and Slinko *et al.* 2020). But if the growth of per capita GDP leads to an increase in adherence to secular-rational values and values of self-expression at the country level, then it should be expected that at the individual level there should be a correlation between the income level of individuals and their commitment to secular-rational values and post-materialist values as well. Thus, the evolutionary transformation of values should be observed both at the macro and micro levels. In this work, we test this hypothesis.

### **INCOME AND INDIVIDUAL HUMAN VALUES**

The influence of income on the structure of individual values has been studied unevenly. Some aspects, such as the ratio of income and the level of satisfaction with life, or income and the level of happiness, have been studied quite thoroughly\* (although scholars have not reached full consensus on the nature of these relations as well). However, the influence of income level on many other values has not been studied sufficiently. In this paper, we attempt to systematically describe the picture of individual values that change to some extent under the influence of income.

We consider multivariate models in which the variables describing values are dependent on income and are controlled by age and cohort, gender, education level (numerical value from 1 to 8), marital status (categorical variable), labor market position / employment (categorical variable), income level (numerical variable). We also control for fixed effects in all country-waves using the corresponding dummy variables.

We evaluate econometric models for a wide range of individual values on the data of the World Values Survey, taking into account the data of the 1<sup>st</sup> to 7<sup>th</sup> waves of the survey. Our dataset includes more than 350,000 observations collected in more than 250 country studies in more than 100 countries around the world. Table 1 in the Appendix presents estimates of the impact of income on values at the global level (variables are ranked by the strength of the coefficient of the regression model – in other words, values that are most influenced by income are higher in the table).

First of all, the influence of material well-being corresponds to the theoretical expectations laid down by Inglehart – the higher the income, the more the individual is committed to the values of self-expression. Thus, some basic variables of the survival/self-expression value axis strongly and positively depend on income. These variables

include: (1) feeling of happiness (A008); (2) the level of trust in people (A168A, A165); (3) post-materialistic values being chosen over economic security and security (E003\_3/4, E005\_3/4, E003\_1/4); (4) acceptability of homosexuality (F118 and A124\_09); and (5) active citizenship expressed in greater participation in public organizations (A104, A099, A100, A105, A103, A101), signing petitions (E025), and joining demonstrations (E026).

In general, the same result is obtained if we look at the correlates of the basic values along the survival / self-expression axis identified by Inglehart and Welzel. Income is positively and significantly associated with the individual's commitment to self-expression values, among which it is worth highlighting those most affected by income:

- subjective health (A009)
- greater importance of leisure and friends (A003, A002);
- higher tolerance (for example, towards prostitution (F119) or suicide (F123), as well as towards possible neighbors – A124\_07, A124\_06, A124\_05, A124\_12, A124\_02);
- desire for individualism (E037) and a sense of freedom of one's own choice (A173);
- support for gender equality ideas (C001\_1/3, D059, D060, C001\_2/3; D057);
- support for the expansion of market relations (E036) and highlighting the democratic political system as the best (E117);
- emphasis on imagination as an important quality in children (A034).

At the same time, it is worth noting some interesting patterns arising from the basic attitudes of survival / self-expression which were not considered by Inglehart and Welzel. So, along with trusting other people more, rich people have greater trust in large companies (E069\_13), supra-governmental organizations like the European Union (E069\_18) or the United Nations (E069\_20), the media (E069\_04, E069\_10), as well as political parties (E069\_12), government (E069\_08, E069\_11) and parliament (E069\_07). Trust in political and state organizations can also be explained by the more intense involvement of rich people in politics (E023), which is already an indicator of their commitment to secular-rational values. However, wealthy people have less trust in unions than poor people (E069\_05), which is somewhat of an exception to the overarching trust phenomenon described above.

It is also important to note that rich people are more likely to justify accepting bribes (F117) or, for example, avoiding fare on public

transport (F115) than people with lower incomes, which is not explained by theory and is quite an interesting phenomenon.

In addition, rich people tend to believe that human rights are well protected and respected (E035), which is somewhat at odds with the theory of self-expression/survival values (according to this theory, rich people, on the contrary, should be extremely concerned about the observance of human rights due to their propensity for post-materialist self-expression values). However, such an interesting deviation from the theory can be partly explained by the influence of tertiary factors, primarily country effects. The richest population is concentrated in developed countries, where human rights are relatively better protected than in developing countries. In other words, such a striking difference between high- and low-income people in terms of concerns for human rights in their own country may be due to the fact that a notable proportion of low-income people participating in the survey come from developing countries.

Another observation is that, as noted above, rich people tend to be more tolerant, which is expressed in their willingness to coexist with different social or ethnic groups: homosexuals (A124\_09); people who have AIDS (124\_07); Jews (A124\_10); immigrants (A124\_06); Muslims (A124\_05); or people of a different confession (A124\_12) or race (A124\_02). However, this does not apply to emotionally unstable people: rich people do not want to live next to them (A124\_04).

As already mentioned, an individual's income primarily affects values that are somehow related to self-expression values. Indeed, all the top positions in Table 1 are taken by either 'core' self-expression values, or their correlates. At the same time, income also exerts impact on the traditional/secular-rational values, even though it is less pronounced. Thus, rich people tend to be more tolerant to abortion (F120), which is part of the core of secular-rational values. The same dependence is observed in relation to suicides (F123) and divorces (F121). However, at the same time, rich people are still committed to family values, which is at odds with the ideas of Inglehart and Welzel. Indeed, they suppose that among people who are committed to post-materialist values of self-expression, marriage should be considered an obsolete institution (D022), while in reality the rich tend to have more positive attitudes toward marriage than the poor. The family still plays a more significant role for rich people than for poor people (A001), which is also a marker of adherence to traditional religious values rather than secular-rational ones. However, respect for parents is not the goal of life for rich people (D054), which is in contrast to



supporters of traditional religious values. In addition, wealthy people pay less attention to work, which is evident from their positive views on the decrease in the importance of work in the future (E015) and tend to consider it a less important element of life (A005), which is also more characteristic of people who share secular-rational values.

Also, rich people are generally less religious: religion plays a less significant role for them (A006), they are less likely to believe in Hell (F053) and God (F050), they think less about the meaning of life (F001), and they are also less likely to trust the church (E069\_01), although they are more often more active members of church organizations (A098), which is partly due to their greater activity in any organization, but deserves further attention.

Another important factor in the difference between the wealthy and the less-off people is their approach to parenting, which also correlates with the traditional/secular-rational value axis. Thus, wealthy people more often mention independence (A029) as important childhood quality, but not obedience (A042) or religiosity (A040), which is a marker of adherence to secular-rational values. Also, wealthy people do not emphasize thriftiness (A038) or diligence (A030) as important child qualities, but they pay attention to responsibility (A032) and believe that hard work brings a better life in the long run (E040), which partly diverges from the theory that the rich should give less importance to work in general.

Also a characteristic feature of richer people is their greater interest in politics (E023, A004) and greater participation in political organizations (A102), which reflects their commitment to secular-rational values. However, wealthier people consider themselves to be on the right side of the political spectrum (E033) and advocate competition (E039) and inequality as a stimulating factor (E035), which is contrary to the study of Inglehart and Welzel, where supporters of secular-rational values define themselves as leftists and rather stand for full equality. In addition, wealthy people, although more inclined to consider themselves citizens of the world (G019), are proud of their national identity (G006) and consider themselves citizens of their country, but at the same time do not see a good trend in greater respect for the authorities (E018).

## CONCLUSION

Among all the values covered by the World Values Survey, the relationship of income with happiness and subjective well-being, as well as with the level of trust in other people, is the most well studied.

A detailed study of the relationship between income and subjective well-being began with the work of Easterlin, who showed that an increase in average income does not lead to an increase in the average level of subjective well-being. To date, a significant block of studies has been accumulated in which this conclusion is confirmed or refuted under various conditions. In terms of happiness, while poor countries can have both very low and very high average subjective happiness, rich countries do not have low average levels of subjective well-being. At the same time, when a certain level of income is exceeded, the level of happiness ceases to increase. There is also a notable body of research showing the relationship of income with levels of trust; the level of inequality also plays an important role in this regard.

Our study confirms several provisions of Inglehart's theory, showing that at the global level, incomes primarily affect the dichotomy of survival/self-expression values. In general, richer people tend to adhere to self-expression values to a significantly greater extent than poor people. For example, wealthier people in general tend to have higher levels of trust in people, are more likely to opt for post-materialist values versus economic security and safety, tend to have more tolerant attitudes towards homosexuality, more actively participate in public organizations, are more likely to sign petitions and participate in protests (this correlates very well with recent research suggesting a very strong and significant relationship between per capita GDP and the intensity of protests [see, *e.g.*, Bilyuga *et al.* 2016; Korotayev, Bilyuga *et al.* 2016, 2017a, 2017b, 2018; Korotayev, Vaskin *et al.* 2017, 2018; Korotayev, Sawyer *et al.* 2020, 2021]).

In addition, wealthier respondents demonstrate greater adherence to such correlates of post-materialist values of self-expression as greater attention to leisure and friends, higher tolerance for prostitution and suicide, greater tolerance for neighborhood with homosexuals, Jews, immigrants, Muslims, in general with people of other denominations or races, as well as those with AIDS.

At the same time, there is no such pronounced commitment of rich people to secular-rational values as opposed to traditional-religious values. On the one hand, wealthier people are more inclined to adhere to such secular-rational values as greater tolerance to abortion, suicide, divorce; less focus on work in their life. On the other hand, richer people are more likely to adhere to certain traditional religious values. For example, they are more positive about marriage, more active in church organizations, more likely to believe that hard work brings a better life in the long run, more likely to position themselves on the right side of

the political spectrum, more positive about inequality and competition, and tend to be proud of their national identity, which, according to Inglehart, is an indicator of adherence to traditional religious values. All this suggests that the evolutionary processes of value modernization may not proceed as unilinearly as Inglehart's theory implies.

#### NOTE

\* Inglehart's hypothesis is supported by some studies based on Gallup survey data as well. Those surveys distinguish between categories of emotional well-being and life satisfaction. Emotional well-being (sometimes called hedonic well-being or experienced happiness) refers to the emotional quality of a person's daily experience, such as the frequency and intensity of experiences of joy, passion, anxiety, sadness, anger, and attachment that make a person's life pleasant or unpleasant. Life satisfaction rating refers to a person's thoughts about their life. Research on subjective well-being has traditionally focused on assessing life satisfaction.

One of the studies based on Gallup data shows that across all measures of emotional well-being, individuals in the lower income groups had, on average, lower scores than those in the higher income groups, but the scores were almost the same for those in the top two income groups. This observation implies that emotional well-being is reaching saturation levels, and for income above about \$75,000 per year, there is no improvement in any of the three measures of emotional well-being (Kahneman and Deaton 2010). Another study, also based on data from the worldwide Gallup poll, comes to similar conclusions and shows a decrease in the marginal impact of income on subjective well-being. Income turns out a moderately strong predictor of self-reported life satisfaction, but a much weaker predictor of positive and negative feelings (Diener *et al.* 2010).

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