Chapter 11

Education and Theory of Psychological and Cognitive Barriers: Human Capital as Driver of Stable Economic Growth

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ABSTRACT

The author identifies the psychological and cognitive barriers (PCBs) in the students’ consciousness in schooling as the very important factor of the contemporary education system crisis. Focusing on the unresolved “how to learn” problem, the author reveals the essence of PCBs, their causes, and models for overcoming them. At the same time, the main attention is paid to the social aspect of insurmountable PCBs at school. It is about the education failure of schoolchildren, which predetermines their life and professional failure. And this, in turn, predetermines their negative value orientation in social exchange. As a result, the society receives a low-quality educational component of human capital, which is less and less in demand on the labor market due to the technological challenges of the future. The PCBs overcoming creates conditions for the success of schoolchildren as future carriers of high-quality human capital, able to ensure stable economic growth thanks to the activities of highly educated and intellectually autonomous professionals.

INTRODUCTION

The stable growth of modern national economies is usually associated with a certain quality of human capital as its driver. This is due to the fact that only an appropriately formed human capital is able to realize a new stage of technological progress. According to the author, this scenario can be realized only if there is adequate institutional support for an individual vital activity, in particular, in the process of his education and further implementation of his learning output in the profession. The theory of basic
values of S. H. Schwartz (Schwartz, 1994), as well as the developments of his followers (Magun, et al., 2015a) allow the author to link the fact that an individual forms his human capital with confessing certain values as desired cross-situational goals as guiding principles in his life (Schwartz, et al., 2012).

To understand the value orientations of carriers of human capital, one should use the oppositely related pairs of value categories identified by S. Schwarz (1994) at the first level as follows: Saving vs Openness to changes; Self-affirmation vs Caring for people and nature. V. Magun, M. Rudnev and P. Schmidt (Magun, et al., 2015b) add to this structure the additional two pairs of broader second-level value categories: Individualistic orientation vs Social orientation and Self-defense vs Growth. As a result, it becomes possible to arrange the carriers of human capital on each of the above value axes, depending on their individual preferences. Then the latter can be estimated using the differences in the values of the corresponding value categories. While taking the “Individualistic Orientation - Social Orientation” value axis, then, according to V. Magun, M. Rudnev and P. Schmidt (2015b), each of the opposing values has a dual nature, which can be interpreted using the principle of social exchange (Homans, 1961; Gouldner, 1960). Then the formation and use of the human capital capable to become a driver of the social and economic progress under certain conditions is associated with the value orientations of its carriers as participants in social exchange.

Unfortunately, experts estimate the current state of education of individuals as future carriers of human capital as a crisis (WDR, 2018). Out of the variety of factors that predetermine this result, the author distinguishes the feeling of “failure” of students, caused by the poor learning of the material in the process of schooling, its unsatisfactory reproduction and the lack of necessary skills. And, meanwhile, it is education that serves as a factor in the formation of high-quality human capital. This process builds the foundation for the value orientation of the individuals, which predetermines the specifics of social exchange with the society. And the phenomenon of the “unsuccessfulness” of the schooler becomes an external manifestation of the modern education crisis, which has fundamental reasons due to the laws of development of the learning process itself. They can be determined on the basis of the last century work of A.A. Pinsky (1978), who formulated his triad related to schooling: what to teach? – how to teach? - how to learn? (how to learn to learn?). The “unsuccessfulness” of the student as an external sign of the crisis of modern education, and the essential cause of the latter, has the same objective nature. It is due to the unresolved nature of the last component of the Pinsky triad - how to teach a student to learn. Abstraction from the problems faced by the student himself in the schooling process, insurmountable barriers in the students’ consciousness predetermine the essence of the modern education system crisis. And this, in turn, largely explains the educational “unsuccessfulness” of students in schooling and their future unwillingness to devote their human capital to serving the community.

The author has developed approaches to solving the “how to learn” problem based on the psychological and cognitive barriers’ (PCB) theory (Pilipenko, 1997; Pilipenko, et al., 2019). It is focused on identifying the objective obstacles of a schooler in acquiring educational output and on methods and mechanisms for PCBs overcoming. This makes it possible to raise the level of students learning, which will determine their “success” in school as well as in professional activities. In fact, the modern educational system result should associate with the graduates’ learning as “intellectually autonomous” individuals able to fully realize their human capital potential in an uncertain external environment and innovative digital future (WEF, 2015).

However, along with the success of graduates of educational structures who are able to use their human capital as a driver of sustainable economic growth, they must achieve vital “success” in order to realize this value orientation. In practice, this scenario is realized when well-educated (and successful) graduates