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The human as capital? A contribution to the critique of the theory of human capital*

Abstract

In modern economic theories, human qualities are treated as autonomous production factors, which are called "human capital". However, these theories provide no description of the relationship between human capital and the man who is its "bearer", nor an explanation of the formation process of that capital.

In the thesis, the author tries to justify it as follows: human qualities, including knowledge and skills, are an integral part of a human being, that is, they are involved in every human act. It is, therefore, wrong to analyse their economic significance in isolation from the whole structure of human activity. Through his or her action, man discovers the potential in things and relationships in the form of the possibility of using them for a particular purpose. Capital is thus realized by the human potential of things that form a system for transforming the world.

In the first part of the article, a general description of human capital will be provided. In the second part, it will be criticized, while in the third part, there will be an attempt to show the proper relationship between man and capital from the perspective of personalism.

Keywords: capital, human capital, person, personalism

JEL Classification: A13, M54, Z13

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1. Introduction

In modern economic theories, human traits are considered autonomous factors of production, which are referred to as human capital (hereafter: HC). Within the scope of these theories, however, no attempt is made to describe the relationship between human capital and the person who is its "bearer", nor to explain the process of generating this capital. Human qualities are seen as stand-alone material that is transformed not only by the bearers themselves but also by other entities with whom they interact, under the influence of stimuli coming from the outside, in order to maximize utility and profit or contribute to economic growth. Since the qualities cannot be separated from a human, his or her person becomes—deliberately or not—reduced to the level of capital and is treated as a means to an end.

The author of this article will seek to support the following thesis: human qualities, as well as knowledge and skills, are an integral part of a human-person, which means that they are involved in every human act. Thus, their economic significance should not be analysed in isolation from the entire structure of human activity. Through his own actions, man becomes aware of the potential that lies in things and relationships and that can be used to achieve specific goals. Human capital is, therefore, the fulfilled potential of things that create the system for transforming the world.

What is more, the question of human capital helps us realize that, at the basis of every theory of human action, there is a specific vision of human nature and it determines how a human being is perceived. In the case of economics, it is necessary to adopt the concept of a human-person, which does not justify any type of belittling and manipulations, as opposed to the human-machine concept.

2. Human capital in economic theory

The economic significance of humans and their traits has been a subject of systematic research since the 1950s and the early 1960s. These studies have changed the way we look at numerous economic, social and political phenomena. Nonetheless, it should be noted that at that time, HC was no longer a new concept. Many economists had previously suggested that the human and his or her skills constitute capital. Due to the limited length of this work, only a general outline of the concept of HC will be presented.

Before the revolution in the way of thinking about human qualities took place, such economists as Petty, Smith, Say, J.S. Mill, McCulloch, Marshall and Fisher were already pointing out that people or their qualifications and skills are components of capital (Kiker, 1966).

Systematic research on HC was undertaken by Schultz, Mincer and Becker. Their study reveals that people spend money on themselves in various ways, and are not only driven by present-day pleasures, but also by future financial and non-financial returns. In other words, expenditures on education, health care, the

search for a job, migrations, and raising professional qualifications are investments, not consumption, whether incurred by the individuals themselves or by the society acting on their behalf (Blaug, 1976, p. 829). The concept of HC was applied in three particular research areas: the analysis of the labour market, the analysis of factors determining economic growth and the analysis of factors affecting the length and quality of life.

Through the prism of microeconomics, HC is generated, accumulated and multiplied at the level of an individual in order to achieve maximum income or maximum usability. And while from this perspective HC ceases to exist the moment the person dies, it never disappears in macroeconomic terms, as it is reproduced by the living population as well as by subsequent generations. On a macro scale, the value of HC cannot be zero because the process of its accumulation is continuous. During this process, both the accumulation and depreciation of capital take place simultaneously (Domański, 1993, pp. 134–135).

In the neoclassical model, an enterprise is associated with the production function, which indicates the volume of production obtained from various combinations of labour and capital. It resembles "a black box" since the model does not specify how labour and capital are combined to reach a certain level of production. In this model, capital is an aggregate and measurable value, while labour is a measurable but non-differentiated value. Investments in HC lead to an increase in employee productivity regardless of the level of (physical) capital, and thus to an increase in the number of produced units of goods or services. In other words, an increase in the human capital of employees resulting from additional education or training entails an increase in the number of labour units. Simultaneously, higher productivity brings about an increase in employees' wages (Blair, 2011, p. 59).

While neoclassical economics links HC with efficiency and remuneration, transaction cost economics (hereafter: TCE) considers it in terms of organization, placing a special emphasis on the type of HC which is generated while performing the work and which is not movable, or not easily movable, and requires protection in the management structure. TCE is one of the trends of the new institutional economics which looks at an enterprise as a system of relationships whose coordinator is not a price mechanism, but an entrepreneur (Coase, 2013, pp. 32–38). In TCE, an enterprise is seen as the management structure whose purpose and outcome is to save on transaction costs. The basic unit of analysis is the transaction whose type depends on such features as uncertainty, frequency and specificity, determining the creation of transaction costs (Williamson, 1998, pp. 29–65). Williamson puts HC in the context of asset specificity. The specificity of human assets is one of the factors diversifying contracting practices. Investments in such assets allow transaction costs to be reduced. Yet, they are risky since they cannot be moved without incurring a loss on their production values. It should be noted that according to this theory, the mere acquisition of qualifications by an employee is a necessary condition but it is not sufficient for the specificity of human assets. They also have to address the needs of a given company. Otherwise, there

is no point in managing and maintaining a lasting relationship between the employee and the company. The employee can get a different job and the employer can exchange the employee for another without lowering the production value.

Yet another approach to HC is grounded in behavioural economics, which combines the concepts of many schools and hence, it is difficult to find within it one common idea about the issue of HC. Tomer puts forward his presentation of the subject matter. He asserts that the conventional understanding of HC is too narrow. In this approach, HC is the non-physical capital that is embodied or possessed by people. This non-physical capital is to be found in particular individuals, in groups, as well as in the relationships between individuals or groups. It is made up of the conventionally understood human capital, social capital, personal capital, and partially of intellectual capital and numerous overlapping categories, such as organizational capital, moral capital, ethical capital, cultural capital, consumer capital, etc. (Tomer, 2008, pp. 14–15).

Tomer also notes that conventionally understood investments in HC implicitly formulate a certain concept of human development. Thus, there is a need for a broader understanding of HC and to integrate it with human development (2016, pp. 5–19). At the same time, he demonstrates that human development is multidimensional and occurs on a social, emotional, psychological and biological plane. The graphical presentation of this approach is the so-called human development pyramid, which consists of three integrated, multi-level development pathways, corresponding to its three different dimensions: the pathway of educational and cognitive development, the pathway of psychosocial and biological development and the pathway of brain development. As stated by Tomer, the existing scope of investment in HC should be reconsidered (2016, pp. 19–38).

3. A critique of the human capital theory

Given the above-mentioned theories of HC, taking into account the broad behavioural approach, it can be concluded that HC is the stock of the mental, social, physical and personality traits of a human being that are developed and embodied by him or her, and therefore are non-transferable, and contribute to the increase in his or her productivity and, consequently, his or her income. This approach to the significance of human qualities poses the following problems:

(1) the theory multiplies entities beyond necessity;
(2) the theory reduces a human to the level of capital;
(3) the theory considers as capital things that are not capital.

The theory sees human traits as the production factor that is separate from labour and capital. Investing in it leads to increased productivity of both labour and physical capital. The authors of this concept, however, do not take into consideration the fact that the "source" of labour and of HC is the same person. Even the simplest work requires knowledge and skills that are not necessarily of organized character. And isn't it that unorganized knowledge which constitutes HC? The

same applies to physical capital—in order to use it, both its bearer and the person with whom it is shared must possess the knowledge and skill of its application. And isn't it a manifestation of the simultaneous use of labour together with knowledge and skills, aiming at the utilization of physical capital in the production process? Hence, Tittenbrun is right to claim that human capital is "a conceptual parasite, unnecessarily duplicating the content of other existing and well-fulfilling concepts. [...] Hidden behind the misleading term of human capital is, in fact, labour force [...] all the physical and mental personality traits that are necessary to carry out specific work" (2014, p. 11). And so, discussing HC in isolation from labour and the production structure seems to be quite pointless.

The creators of the HC theory were and still are aware that they reduce man to the level of capital. Though admitting that they are aware of the conflict between such a perspective and the widely-acknowledged dignity and freedom of a person, they provide no justification for the adopted approach. What is more, they try to demonstrate that it ennobles a person, because an average worker becomes a capitalist (Schultz, 2014, pp. 94–96).

In the author's opinion, the lack of justification for reducing man to the level of capital or separating people from their attributes and treating these attributes as capital results from the fact that economic theories do not have any guidelines that would limit such a reduction. That is why the human is depicted in them as a "black box", which after accepting some data input will produce the expected kind of behaviour as an output. Programmed to maximize utility and profit, he or she works in accordance with the rules imposed by the market game. In this machine-like portrayal, human qualities appear to be a raw material that is processed for purely economic reasons. And since they cannot be separated from the human, he or she is subject to the processing as well.

Lastly, the HC theory considers to be capital things that are not capital. Capital is perceived in two ways: either as a set of diverse resources used in the production process or as a homogeneous value fund that flows between the alternative possibilities of using it in order to set a flat rate of return (Kurek, 2011, p. 12). Nevertheless, as asserted by Dobija (2011), what prevails is the belief that capital is of an abstract nature, or more precisely that capital is as an abstract ability to perform work. This view is the effect of looking at capital through the prism of physics and recognizing it as the equivalent of energy. Capital is no longer identified with matter, but it is an abstract, dynamic entity, the ability to do the work included in physical and non-physical assets. Labour is the transfer of capital (of the ability to do the work) to the product.

To sum up, in a static representation, HC is seen either as one of the forms of capital (heterogeneous capital) or as a certain fund (homogeneous capital), whereas in dynamic terms it is seen as the energy (homogeneous capital) transferred from product to product.

In each of these approaches, by way of abstraction, a part has been torn away from the whole, and a category has been created which was elevated to the status of something that exists independently. It was presumed that since human attributes have production capacity, they exist as separate entities, which can be

summed, quantified and subjected to any modification, or that there is some energy in them that can be transferred. It is difficult to agree with this approach. Human qualities are an integral part of human beings and they cannot exist on their own. The possibility of using them in the production process should be seen not just in the context of the production process itself and of its structure, but first and foremost, in the context of the totality which is made up of a human being as well as the role that the production process plays in the context of this totality. The next chapter will be devoted to this subject matter.

4. The human and capital

Attempts have been made to explain the causes of human actions with theories so as to control them. At the basis of these theories, there is always the concept of human nature, frequently unwritten. The problem of human capital also stems from the adopted vision of human nature, or rather the lack of it.

In the book entitled *The Blank Slate: The Modern Denial of Human Nature*, Steven Pinker explains that in Western culture and in social sciences, there is a widespread conviction that a human has no nature. Such n belief was influenced by three Enlightenment concepts: the blank slate, the ghost in the machine, and the noble savage. Pursuant to the "blank slate" theory, any differences that exist between races, ethnic groups, genders and individuals derive from distinct experiences, not from the diversity of the innate construction of people. Then, it is enough to change the experience in order to change a person. The theory of the "noble savage", on the other hand, holds that in their state of nature, people were gentle, unselfish and carefree, while everything evil, such as violence or greed, is a product of civilization. The "ghost in the machine" theory suggests that the soul and the body are two separate worlds. Each has its own nature. The human body is an automaton in which the soul resides, and the human being, having free will, can freely improve the human condition (Pinker, 2012, pp. 17–31). Owing to these three theories, people denied the existence of human nature and presupposed that culture is independent of the human mind. In HC theory, there is a hidden argument that in a culture dominated by economic processes, humans are like modelling clay and they can be reshaped by the "social mind" so that they might help to attain socially just goals, such as economic growth or maximum profit. As a consequence, various initiatives at a national as well as European scale are undertaken which are meant to build awareness about the need for *lifelong learning* and to enable people to do so. The Human Capital Operational Programme, implemented in 2007–2013, can serve as an example of such an initiative.

Pinker claims, however, that recent achievements in the study of the mind, brain, genes and evolution contradict these theories and confirm the existence of human nature, creating a bridge between biology and culture.

In his view, research in the field of cognitive science produces the following concepts (Pinker, 2012, pp. 55–68):

(1) the world of ideas can be set in the physical world with the use of such concepts as information, computation and feedback—beliefs and memories are information sets, thinking and planning are the systematic transformation of these patterns (calculations), and desires and endeavours are feedback loops;
(2) the mind cannot be a blank slate for blank slates are not capable of doing anything—the part of the mind that perceives the world of physical objects, draws on the content of a sentence and interprets the behaviour of people must be innate;
(3) an unlimited variety of behaviours can be produced by a limited range of combinatorial programs of the mind—there is something in the mind that produces highly systematic combinations of words;
(4) universal mental mechanisms may lie behind the superficial variations between cultures—stimuli and reactions may vary depending on culture, but mental states are the same;
(5) the mind is a complex system made up of various interconnected parts—the mind is not a homogeneous sphere equipped with the same abilities and universal features, but it contains separate data processing systems.

The second bridge between culture and biology is built by cognitive neuropsychology. The research in this area indicates that the activity of processing information by the brain causes the creation of the human mind. In other words, the impression that man's behaviour is controlled by some isolated "I" is an illusion arising from the work of the brain. By learning, the brain changes throughout the whole life, yet these changes occur within a limited and genetically conditioned brain structure (Pinker, 2012, pp. 69–74).

Another bridge between matter and spirit is behavioural genetics. Studies show that the information about the ability to think or learn is contained in the DNA of a fertilized ovum. Genetic variation diversifies people's behaviour because it affects the size and shape of individual parts of the brain, the distribution of neurons, as well as the nanotechnology of releasing, binding and processing of hormones and neurotransmitters. Many mental traits are shaped under the influence of not one but numerous genes. Genes, therefore, determine the human mind down to the smallest detail, but this determination depends on the environment (Pinker, 2012, pp. 74–83).

Evolutionary psychology builds the fourth bridge. Research reveals that the mind was formed in the course of evolution to be a universal and complex construct. Hereditary systems for thinking or learning have the same structure as the one that ensured survival and more effective reproduction in the environments in which our ancestors evolved (Pinker, 2012, pp. 83–93).

While in the Enlightenment philosophy a human is the product of all social relationships, the four above-mentioned areas of science demonstrate that man is a product of his brain, which—determined by its genetic structure—works in response to external stimuli, adapting to the environment. Then, in the light of

such an approach, what is capital? If the claims of Thomas Metzinger in his book *The Ego Tunnel* (2009, p. 4) are true and the human mind has a certain body model (*phenomenal self-model*, PSM) which is activated by the brain and which enables humans to think of themselves in terms of "I" and "mine", then capital is solely an idea which emerges due to the response of our brain to stimuli and their transformations by PSM. The capital becomes the idea that gives meaning to things that people do not have direct access to, but which the brain deems useful in the larger process of adapting to the environment, namely the production process.

In each of these two approaches, the human is only a material, deprived of the freedom to choose goals and action measures, and which can be considered as the means in itself if it serves society or the processes of adaptation. Neither of the presented human concepts has a built-in fuse that would protect the human from instrumentalization. If human consciousness is only the product of evolution, dependent on the construction and work of the brain, with the use of existing medical and pharmacological technology, it should not be hard to interfere in the states of consciousness, adapting them to specific goals, including economic ones.

Even though reductionism lays the foundation for natural sciences, economics should adopt a holistic perspective because it generally deals with a human being, who is a complex creature and in whom cultural and biological elements clash. On the one hand, economics cannot remain oblivious to the results of neuroscience research, and on the other hand, it cannot limit itself only to those.

The author of this article believes that personalism provides economics with a holistic perspective, being grounded in the classical theory of a human being as a person and in the phenomenological concept of human actions. The said personalist approach employs the realistic notion of physical nature and the true-to-life notion of human nature. Nature exists in real life and is the subject of human cognition—the intellect does not produce it but gets to know it. A human as a person is a substantial entity of a spiritual nature, who is endowed with reason, freedom and self-awareness. He or she is open to the totality of existence thanks to the ability of the soul (mind and will) to establish an intentional relationship with all things (Possenti, 2017, p. 38). Having a soul, the human can work inside the body and, using the body, get to know, love and create. What takes place in the brain might be a physical manifestation of what happens in the soul. The soul, and so the mind and the will, cannot be the work of nature alone since human actions transcend matter.

The human is a contingent being, and thus a potential one. Contingency makes humans experience incompleteness. For this reason, human actions must have a cause, the thing people are attracted to or desire. That thing is goodness. In the decision-making act, the human learns the content of this goodness, and by this cognition determines the action. The phenomenological analysis of human action demonstrates that an act is the expression of man's self-determination. Self-determination uncovers the structure of self-ownership and self-control that is specific to a given person, and which shows that through their actions, people not only transform the world around them but also become the object of these actions

themselves. And though being complete and independent entities, humans actualize their potential—they "create themselves". Hence, people find fulfilment in their deeds, i.e., through their own actions, they develop or destroy themselves.

Assuming the spheres of human activity are divided into getting to know (*theoria*), doing (*praxis*) and creating (*poiesis*), economic studies should focus not only on *poiesis*, but first and foremost on *praxis*. If the essence of human *praxis* is what allows self-realization and, at the same time, what prompts people to make the external reality more human-like (Wojtyła, 2009, p. 384), the field of economics should aim its attention at the problem of human development, while the development should be applied as a criterion for the economic evaluation of obligation or value. And so, the process of creating (production) should be considered in the context of "creating oneself" by a person.

In line with the personalist approach, a company that is supposed to foster human development appears as a community of action, which is always conditioned by the community of existence. It has both objective and subjective dimensions. The objective dimension of an enterprise is manifested in specific actions seeking to achieve the purpose of its creation, namely production. The subjective dimension is reflected in the participation of people, so the ability to act in relation to others. A person participates, i.e. acts together with others, when he or she chooses what others choose or chooses something because others choose it, and if he or she sees in this choice a value that will allow him or her to "create oneself". Not every action undertaken with others is cooperation and, accordingly, there is a difference between a society and a community. This difference is determined by the attitude to the common good, which is the principle of proper participation—by means of which a person acting together with others develops.

The work performed by a human being in an enterprise, regardless of the function he or she fulfils, also has an objective and subjective dimension. The objective dimension is reflected in the activities specified for a given production process, whereas the subjective dimension is expressed in the fact that through actions specific to a given production process, a person realizes his or her humanity, developing himself or herself. In this view, human qualities, whether innate or acquired, are an integral part of the human being who participates in his or her decision-making acts. Thus, the whole human being participates in an action, not just some part of him. In decision-making acts, a person does not create, but he recognizes the potential of things and interpersonal relations. The potential is perceived in the context of the goal—the transformation of the world (production), which will serve the development of not only the people who transform it, but also those who will benefit from the effects of the production. Capital is, therefore, the creative potential of a thing that is fulfilled by a human. It is an act that lasts as long as there is a concrete, purposeful, creative system of things that is developed and managed by a human. A thing or a relationship does not constitute capital in itself. They take on the character of capital the moment they become part of a system whose creator and doer is a human being, the system which transforms the world so that it favours human development.

5. Conclusions

The discussed problem of treating human qualities as production factors is only one of the manifestations of perceiving a human as the sum of his or her constituent parts. Modern market practices in the field are far more sophisticated (Carney, 2014). Furthermore, one should also remember about the contemporary transhumanist ideologies which entertain hopes that human limitations will be overcome, and the human condition will improve by means of technology and the re-evaluation of cultural taboos. There is an apparent need to base economics on such a philosophy of man which, together with ethics, would reveal the personal dimension of economic processes and would change the course of their analysis. Economics has to realize that a human is the source and the purpose of economic processes which are supposed to foster people's development. Such a possibility is created by placing economics on the personalist plane.

Finally, the need for economics to adopt a holistic perspective, which emerges as a part of the HC discussion, brings up the question about the possibility of finding common ground for the personalist-phenomenological approach and the one presented within the scope of neurosciences.

As noted by Hayek, social sciences (including economics) deal with the relationships between things and people and the relationships between people themselves (2013, p. 19). The things mentioned here are not described in physical terms but are presented according to how they are perceived by acting people. An example of this is how capital is understood. Machines, devices, knowledge and skills are not described by pointing to their physical characteristics, but to the way they serve a human being in the production process, i.e. indicating their sense, functions and the meaning they have to the person who makes use of them. Thus, social sciences examine phenomena occurring in the minds of individual people—and those are mental, not physical phenomena.

From the point of view of neurosciences, such terms as market, price, economy, capital, money, etc. stand for imagined reality. They are elements of the imagined order that is meant to ensure human survival. Harari upholds that "the modern economic system would not have lasted a single day if the majority of investors and bankers failed to believe in capitalism" (2014, p. 142). This imagined order creates culture. In agreement with neurosciences, culture is an established structure that allows people to endure, develop and prolong their existence (Pinker, 2012, p. 95). The purpose of the myths created within its scope—such as economic myths—is to retain faith in the imaginary reality. As long as this faith persists, the imaginary reality has an impact on the real world.

In the personalist-phenomenological approach, culture is constituted by the human *praxis* and just like from the standpoint of neurosciences, it is considered to be a construct. Yet, culture is to serve not only such a transformation of the world that will allow people to survive, but above all, a transformation that will allow people to become more human, to develop not only in the biological but also in the spiritual sense. The formulation of the principles regarding human

behaviour should be preceded by an answer to the question of who a human is. In search of the answer, the personalist-phenomenological approach is open to things that result from the neurosciences, but it does not limit itself only to that. It also acknowledges the dimension of man which neuroscience tries hard to reduce to the level of matter. As a result, analysing the human *praxis*, one can become aware not only of what is transitory in the human act, i.e. what is expressed in some creation existing outside of man, but also of what is non-transitory in it, i.e. what stays inside of people, making them good or bad. In-depth knowledge about people, stemming from the analysis of their *praxis*, permits us to create a theory of a human being, and the more adequate this theory is to human *praxis*, the better it can be used for the transformation in which the world will become more human-like.

The personalist-phenomenological theory holds that consciousness is the "awareness of" objects, and not, as in the case of neurosciences, the enclosed space. Then, contact with the real world is not an illusion. The postulate of "returning to things themselves" that is connected with phenomenology presupposes that a researcher is confronted with these things as with something to be discovered. The discovery can be made by directly experiencing a given thing. Following the phenomenological method, a human discovers the thing as it is, but also discovers him or herself as its recipient, someone before whom it appears.

Returning to the original question about the possibility of finding common ground for the personalist-phenomenological approach and the approach presented within the scope of neurosciences, it should be clearly stated that, at present, such a possibility does not exist. Neurosciences broaden the knowledge about the human, about the physiological mechanisms conditioning personal abilities, such as thinking, recalling and acting consciously. Yet, they are full of sketches of more or less philosophical interpretations of researchers' own study purposes and they do not say anything about the experiences of people but about the organic way they conduct themselves.

Modern economics, driven by a utilitarian spirit, fits well with the current understanding of science as a tool which makes it easier for people to undergo their real-life experiences and helps them to control the nature. Not only does the alliance of economics and neurosciences favour the utilitarian approach to the world, but above all to the human. It seems necessary for economics to build a solid theoretical foundation in which the human will not be limited solely to the physical dimension.

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