The Anthropological Determination of Pedagogy
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Abstract—Pedagogy has always been open to other disciplines that reflect about the educational process (philosophy, sociology, psychology, anthropology, technology, etc.). Its interdisciplinary openness puts education, as the subject of pedagogy within a broader context of the community, enabling the knowledge of other disciplines to contribute to a better understanding of the fundamental pedagogical notion of education. The purpose of pedagogy as a science serves humans, strives towards humans, must be for humans, and this is its ultimate goal. Humans are essentially dependent on education, which is also considered as a category of humans’ being, because through education an entire world develops in humans. Anthropological assumptions of humans as “deficient beings” see the solution in education, but they also indicate a wealth of shortcomings, because they provide an opportunity for enrichment and formation of culture, living and the self. In that context, this paper illustrates the determination of pedagogy through an anthropological conception of humans and the phenomenon of education. It presents a review of anthropological ideas about education, by providing an analysis of relevant literature dealing with the anthropological notion of humans, which provides fruitful conditions for a pedagogical reconsideration of education.

Keywords—Pedagogy, education, humans, anthropology, culture.

I. PEDAGOGY AS A SCIENCE ABOUT EDUCATION

The most general attribute of pedagogical science lies in defining pedagogy as a science about education. Education is a very complex phenomenon that affects humans from the day of their birth until the day of their death. It occurs in different life situations and affects all parts of their being by manifesting in various forms. That is why the science about education is related to other sciences that deal with humans and the patterns of their physical, psychological and social development [1]. When it comes to a phenomenon that is as complex as education is, the complexity of everyday life requires an interdisciplinary dialogue and interconnection of notions made by different sciences. The field of study of only one science is too narrow for solving today’s complex life problems. For this reason the reaches of other sciences help pedagogy understand humans and the phenomenon of education. In the same way pedagogy, with its scientific contribution, helps all other sciences that use its notions in studying their subjects.

The phenomenon of education is an act or a process of defining a man as a human being. This is the subject of pedagogical science. In no way can we level it with the organization of the educational system and social activity that should accomplish educational tasks and that has its legal, economic, political, sociological, psychological and other aspects. These aspects are in the reach of other sciences that study, comprehend, and think about their subject, but not the phenomenon of education [1]. They are interested in the activity of education only as in the means that can help them perceive their subject of study, and they do it by analyzing specific situations. Just like sociology of education does not study educational phenomena, but the sociological aspect in the field of education, psychology studies the psychological aspect in the same field; anthropology studies the anthropological aspect in the field of educational system. This means that they do not study the phenomenon of education and its patterns, but follow the manifestations of their patterns in the field of education. This task and subject belong exclusively to pedagogy as an integral science about education. Therefore, pedagogy has a noble goal—the education of humans. Humans have not reached their fullness by being physically born and brought to this world. The process of growing and developing is in front of them. This is the task of education—to create a human [2].

Almost all great figures in human intellectual history (Plato, Aristotle, Locke, Rousseau, Kant, Humboldt, Dilthey, Durkheim, Dewey, Tolstoy) wrote about education. In spite of this, the term education still has many references like: “permanent and controlled attempt of affecting the growing generation in educator love in order to control it” [3], or “the overall process of developing a man as a human being” [4], that is the process of developing man’s personality to “social acts with which people try to permanently improve the set of psychological dispositions of other people with psychological or sociocultural means, or they try to keep their components considered to be valuable”[5] to planned activity of adults to define the mental life of young people [6]. Education includes all possible measures that help young people become humans. This lasts until the student is considered to be mature [7]. This tells us that the student is not considered to be human, but his humanity is filled with his maturity. This term contains an anthropological assumption according to which humans need education because they are still not “the real humans”. Education is equally important in the life of an individual and in the historical development of mankind. These different definitions that can be seen when defining education come from the dependence on the view of the one who uses it and the scientific conception that is represented. In this context, it would be important to observe education, the subject of pedagogy, in an integrative way.

Anthropologically traditional question “What is human?” is opposed to relatively modern anthropology that does not talk about its essence anymore. Instead different sciences (biology, psychology, medicine, cultural anthropology, philosophy, theology) deal with it from different aspects [8]. Pedagogical anthropology as a scientific discipline makes the transition...
from the high-level theory (philosophical anthropology) to pedagogical theory and practice possible [9]. It makes questions about humans suitable for science about education, still trying to observe them pedagogically. The initial premise of pedagogical anthropology is to consider how humans are formed thanks to education.

The paper is focused on anthropological definition of education starting from the notion of humans as naturally enabled beings “open for the world”. The fact that humans develop and grow from a helpless baby to a mature and grown man confirms this. The process of development and growing enables them to grow in complex social circumstances and productively contributes to personal development and the development of others.

II. ANTHROPLOGICAL THOUGHTS ON EDUCATION
(BIOLOGICAL AND PHILOSOPHIC ASPECT)

Contemporary anthropological notions refer to the conclusion that in specific circumstances phylogensis and ontogenesis are necessarily based on education. Human existence is most directly dependent on education which is one of the most important characteristics of mankind [10]. Therefore, humans are the only beings that need to be educated; the only beings that need discipline and education, beings open for the world.

Understanding human openness leads to optimistic and pessimistic thoughts. On one hand there is human openness and freedom to shape their being and environment, while on the other hand human openness can be observed pessimistically as their deficiency. If compared to animals, humans are “deficient beings” [11], [12] that miss instinctive and organic equipment that animals have (they do not have an organ for escape, strong teeth as a natural weapon, without fur they are not protected from cold, they do not have good hearing or sense of smell), that is, “morphologically observed, humans have no specialties [12] or in Nietzsche’s words, humans are “unfixed animals”. Despite that fact, humans need to substitute biological insufficiencies and adapt the naturally encountered world to their nature or culture [13].

The thesis that justifies humans’ special position is their physiologically premature birth that Portman [14] explained as a premature transition from the protected area of the mother’s womb into the open and unprotected world. After being compared to other developed mammals whose time of being carried inside a womb depends on different stages of development, comparative analysis has shown that humans should be carried for 21-22 months. The development that gives the young basic abilities and life independency ends with birth. That is why the biologist and philosopher Adolf Portmann called the first year of human life “ectopic year of the embryo”. In this year humans, faced with the surrounding world, develop typical human characteristics (consciousness and the ability to learn, walk upright, and speak). These are also the indicators of the high potential of human development and the adult need to educate. The meaning and functional purpose of this anomaly in the early period of human life lies in the fact that this provides safe cultural and social “carrying” of the child. Here we see that the child is referred to and dependent on parental education.

Furthermore, human generic and historical development (phylogensis) points to the human increased ability to study. In order to survive, humans take advantage of the knowledge of former generations. They are open for the world, overwhelmed by stimuli and many impressions they need to overcome, and that is a big burden for them. Gehlen’s law of unburden humans relieve themselves by acting and, by doing so, turn their deficiencies into their advantages [12]. Gehlen talked about habits that turn human behaviour into habitualised behaviour as one of the ways of relieving [14].

Human habits are animals’ instinctive reactions.

Deficiency in human instincts is seen in the lack of instincts with which animals control their behaviour. Instinct (urge) is “some kind of a force of an animal organism with which it performs activities whose goal is to maintain and multiply a particular animal without noticing that teleology” [15]. Instinctively satisfying their needs of self-preservation, animals do everything from their own genetic potential, using a simple mechanism “stimulus-reaction” that is enough for the optimum of “regular” activities. It is crucial that an animal does not have to learn what reaction in a particular situation has the biggest purpose. It already knows what to do; it behaves as if it knows particular schemes of actions. Therefore, uniformity that is taken from the reservoir of instincts and elementary patterns of behaviour is crucial [16].

The difference between humans and animals lies in the human ability to set a kind of hiatus between stimulus and response. Hiatus is an interspace where humans find their place to think and decide freely [17]. The ability and urge to act like this have to do with the purpose that does not necessarily have to follow the main purposes of life such as preservation of species. That is why humans can deny reproduction or consciously put their life at stake or even end it.

Since humans do not have developed instincts and urges like animals, they compensate the instinctive deficiency by having reason and by “opening themselves to the world” and to the process of learning in order to preserve themselves. They are the only living creatures that need to create their own nature because no surrounding is adequate enough for them to survive without education. Because of the instinctive insecurity humans would fail without the activity of the previously educated people. This leads to the notion that there is an unbreakable bond between the one who educates and the one who is educated.

Social reaction to human development refers to the social acceptance of education by forming the structures, functions and institutions that support education in the mankind. Institutions are like guidelines that use many impressions and stimuli that overwhelm humans open to the world [14]. By doing so, they alleviate the development and burdens caused by stimuli that humans face while being open for life challenges. Patterns provided by institutions, such as habits, language, division of labour, guarantee human safety in these circumstances. Institutions can also be a way of shaping humans [14], beings shaped by education. The process of
shaping and forming patterns of behaving and acting that create human’s other nature is created through institutions. Therefore, humans without education and institutions would be like animals without nature. In other words, they would be lost.

Philosophical thoughts about humans were partly formed before biological ones where Kant, as the first philosopher who talked about pedagogy from the anthropological base, said: “Humans can become humans only by education” [18]. There is even a later thought by Rousseau: “Humans are what education makes of them” [19]. Unlike animals, humans have to make their plan of behaviour, which, in that sense, makes education as one’s possibility to shape himself [20]. Further on, Scheller [21] believed humans to be reflexive beings, beings of spirit “open for the world”, self-conscious beings. What makes humans human is the principle opposite to life-the spirit that encompasses the notion of mind, opinion and ideas, maturing of the praphenomenon, a certain kind of emotional and volatile acts. He said “humans are creatures whose being is an open decision on what they want to be and become” [22]. Humans have the freedom to shape themselves; they form, determine, change and direct themselves. This freedom hides human possibilities and development provided by education. Glasser thought in a similar way [23]. He presented the possible degrees of human self-realization in five human figures of different size. These human figures go from unfulfilled possibilities to the situation in which a person fulfils their human possibilities by emphasizing that humans choose their behaviour themselves. This also confirms human freedom and openness to the world.

Humans are motivated to act by the basic needs among which he mentions the need to belong, love and cooperate, the need for power, competition and appreciation, the need for play, creativity and fun, as well as the need for freedom and the ability to choose. Anthropologist and philosopher H. Plessner [24] believed humans to be eccentric beings. He thought that distancing from one’s self, that is elevating from the spirit that encompasses the notion of mind, opinion and ideas, maturing of the praphenomenon, a certain kind of emotional and volatile acts. He said:

Humans can become humans only by education (they do not come finished to this world). Therefore, education is necessary to upgrade humans as imperfect beings. From human imperfectness and from their need to be educated comes the need for social reaction and educational practice with which humans get their substantial determination. It directs to thinking about free, versatile capabilities of individuals who can, know, and have the ability to actively participate in contemporary social circumstances. In this concisely presented essence of education we can see the need for wide and diversified improvement of a young man, forming his valuable dispositions and entering the cultural reality. Humans are, therefore, educated by culture and as such put effort into survival and the development of culture. That is so because culture is the one that gives them an authentic way of surviving. Two tendencies are opposed in culture: the tendency to promote individualism or, on the other hand, collectivism. Individualism is based on the concept of freedom, while collectivism is based on the concept of equality [26]. This collectivistic catches enculturation as a process of entering a cultural area and accepting cultural achievements, introducing new generations into the cultural area [1] that, together with socialization and individualisation (key term individualism), help the process of shaping a human to the level of autonomous and self-conscious being. It is important to point out the role personalization has in the process of shaping a human and developing an individual to his complete personality. Besides that, personalization is one of the main tasks of education.

Paradoxical and controversial question that is imposed when transferring from biological to pedagogical thought is: how can the relation of helplessness, dependence and reference to others develop independence in an individual? The answer lies in the pedagogical view of education; dependence and reference to others in the process of education does not mean action that does not include participation and communication. Otherwise, it is a manipulation that deprives an individual of freedom. Culture can be transmitted to a child by manipulation, but only as historically stiff and dead because it necessarily loses the creative charge which carried it through history [27]. In other words, the true mediation of culture is possible only by educating that nourishes and develops man’s creative and free possibilities, enabling him not only to be a consumer and transferer of cultural legacies, but to be a creator of culture [27]. The freedom of an individual is an important factor of the process of education.

III. CULTURAL ASPECT OF ANTHROPOLOGICAL DETERMINATION

There are no humans without culture and education. Education and culture are closely related. Education is a cultural fact, and culture reproduces and develops through education. Culture, carried by certain guides and ideas, means development, spreading and strengthening of the entire human psychological and physical nature and the forming of human life. It is also human attempt to transform what is gained for a particular purpose, direct and transfer it to humans [25].

Phylogenetically, as well as ontogenetically, humans are given “the fact of development” (they do not come finished to this world). Therefore, education is necessary to upgrade humans as imperfect beings. From human imperfectness and from their need to be educated comes the need for social reaction and educational practice with which humans get their substantial determination. It directs to thinking about free, versatile capabilities of individuals who can, know, and have the ability to actively participate in contemporary social circumstances. In this concisely presented essence of education we can see the need for wide and diversified improvement of a young man, forming his valuable dispositions and entering the cultural reality. Humans are, therefore, educated by culture and as such put effort into survival and the development of culture. That is so because culture is the one that gives them an authentic way of surviving. Two tendencies are opposed in culture: the tendency to promote individualism or, on the other hand, collectivism. Individualism is based on the concept of freedom, while collectivism is based on the concept of equality [26]. This collectivistic catches enculturation as a process of entering a cultural area and accepting cultural achievements, introducing new generations into the cultural area [1] that, together with socialization and individualisation (key term individualism), help the process of shaping a human to the level of autonomous and self-conscious being. It is important to point out the role personalization has in the process of shaping a human and developing an individual to his complete personality. Besides that, personalization is one of the main tasks of education.

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Education as a set of activities that support child’s freedom and personality brings freedom and purpose. However, education cannot function like that if child’s desires and needs are not respected. Here we see the role and importance of the educator who turns that kind of action into a process. The educator does not shape the student for a social function or a desirable role like a manipulator does to a child. He helps a child shape himself, that is, to stand on his feet, to be free or, simply, to become a person, a human. To be human means to ‘be yourself or independent and act as an autonomous being’ [28]. There are two purposes realized by education: the purpose of the student that is manifested in executing the previously mentioned important existential values, and the purpose of the work done by the educator that is manifested in the tendency to turn the student into the educator. This proves education to be as a true existential skill with which the divided reality is cancelled because every educator has once been a student, just like every true student will once be an educator.

While acting, the educator has to see a child as a subject that has all the rights and freedom. Therefore, he needs a certain pedagogical tact. It is a way of estimating and deciding that is typical only for the pedagogue-educator who takes into account individual situations and cases. As a holistic consciousness [29], pedagogical tact is necessary to make the art of transferring into the culture of the person being educated a free process of child’s engagement and development of personality, independence and autonomy. That is originally a pedagogical term that confirms a unique pedagogical scientific formation of the phenomenon of education.

From earlier anthropological settings of human imperfection and deficiency we can see the need for education and practice that enables humans to define themselves. Benner [11] proposed general determinations of that kind of educational practice emphasizing human education. Benner did that being led by the principles of productive freedom; the need for human self-activity; transfer of the social determination to pedagogical determination in the sense that social influence has to be pedagogically controlled; orientation of human practices to the final goal—the development of the humanity of man. By doing so Benner generalised educational orientations that fit the possibilities and activities of a person being educated, which also goes in the favour of the previously mentioned problem of contradictiveness that questions the dependence of the person being educated, reference to others and the development of his independence.

IV. THE POSSIBILITIES OF EDUCATION

Anthropological foundations of education, and thoughts about and the need of education shown here ask questions that has to do with educational possibilities and educational power that attracted and still attract attention of those who tried to conceive this phenomenon to improve the results of education itself.

Educational pessimism gives advantage to inner factors ignoring educational power. Educational success is, if achieved, very small and lasts for a short period of time. Educational pessimists perceive humans as beings that cannot be educated and they give advantage to heritage and inner factors. Theoreticians of heritage think that education makes no sense. What kind of a man someone will become depends on their heritage; on what nature gave them and what inherited characteristics an individual has when he is born. Education makes no sense and it is in vain to juxtapose it to inherited characteristics. The founder of this kind of philosophical thought is German philosopher Schopenhauer who is also a philosophically oriented pessimist and who believes in the invariance of character.

Italian anthropologist Cesare Lombroso (work “Crime, Its Causes and Remedies”) did not believe in the possibility of educating humans because he gave too much attention to parental heritage [30]. A person born with inherited burdens carries them all their life without the possibility to improve. American pedagogue Stanley Hall [31] supported biological determinism with his theory of nativism. Kretschmer [32] studied the typology of the human body thinking that physique determines human life and education. Psychologist S. Freud explained human psychological life and consciousness as his instinctive determination. His psychoanalysis gives very little to freedom and education. Therefore, the main thought of pedagogical pessimism is that human development is determined beforehand and based on biological factors of heritage. Outer factors and education cannot change that human code that determines his destiny.

Further on, science (biological anthropology) cannot accept the dictation of biological determinism. Pessimism is based on wrong assumptions that claim that the person being educated is born determined. Hereditary biology presents us with the notion that not finished characteristics but only dispositions are inherited. These dispositions can be controlled if they are not valid [33]. Practical consequences of pedagogical pessimism would be horrific for the man’s social life and life in general because pessimism brings back to the animal stage of development and causes repeated return to animal. This makes humans lose their own perfect sense of openness to the world and the sense of possibility to learn and progress.

Pedagogical optimism is a view opposed to pedagogical pessimism. It opposes the negating attitude and the power of pessimists by believing in unlimited powers of education. Many historical aspirations, from antic thoughts on education, gather around this positively directed influence. Philosopher Plato implemented education into the foundations of his ideal Republic, and Aristotel’s educational aspirations confirmed the importance of education. Humanistically oriented pedagogues F. Rabelais, M. de Montaigne, E. de Rotterdam gave education the biggest credit in shaping an individual. English philosopher John Locke said that a child is “tabula rasa” when he is born. By doing so, he confirmed the optimistic educational thought that the birth of a child does not give anything but the possibility of shaping. Social environment and education are the most powerful means that determine the development path of the person being educated. J. A. Komensky, J. H. Pestalozzi, A. Diesterweg had that kind of trust in educational possibilities.
Humans as "deficient beings" need education in order to function as members of the mankind. Pedagogues relate to research of anthropological views on the necessity to use man’s own advantages if the survival of the mankind does not want to be questioned. Here we primarily refer to human advantages and the possibility of their further development and learning. Pedagogues take into consideration human deficiencies such as insufficiently developed instincts, insufficient biological qualities, and premature birth, and share the opinion of behaviourists. Moreover, in literature we can find examples of inhuman behaviour of people who were deprived of having relations with people similar to them (more in: Feral Children and Autistic Children [34]). The theory of empiricism, led by the omnipotence of education, supports the idea that nothing is innate and given to humans beforehand, but that everything is gained. In addition, it states that humans need to be educated.

Contemporary sociologists also support pedagogical optimism. They think that outer and social factors are much more powerful that inner predetermined factors in the person being educated. Home, school, work environment, material and social conditions always win. From the perspective of pedagogy, sociologists are criticized for thinking that the goal of education is to adapt an individual to the society. Pedagogy goes much further here, not ignoring the humanistic opinion and individual aspect of one's developing aspirations to be active in realizing their personal interests and aspirations and to be productive for themselves and for the social (cultural) community one lives in.

The will to overcome the one-sidedness of complete opposites, pedagogical optimism and pessimism, is realized in pedagogical realism. "Education is not impotent, but it is not omnipotent as well" [35]. It is powerful within certain boundaries that are set by the human nature. "Within the frames of our human nature there are many educational variants, but the nature itself cannot be changed" [36]. Further development of psychology and genetics in the 19th century allows further comprehension of heritage. Hereditary dispositions are a prerequisite of development. However, what will develop out of them and in what manner it will be developed depends on the outer stimuli, social environment and education. Synchronization of both and their infusion will give education the best perspective and remove inefficient usurpations and unconvinced competition. In other words, inherited genetic bases become manifested characteristics only by outer educational influences. Therefore, it is very important to take inner and outer factors of human development into account. This primarily refers to certain biological, physiological, and psychological qualities of every individual, but also other factors such as the environment in which someone is educated, social relations, family atmosphere, customs and norms, economic, living and cultural conditions, etc. W. Stern used these factors as foundations for his convergence theory. It brings together inner and outer factors of human development, but humans are then passive, left to the natural-and social influence and organized educational act.

It is necessary to take into consideration the contemporary views that, apart from pedagogical optimism, pessimism and realism, point out another factor related to education. It is the active attitude and conscious activity of the person being educated, his freedom and the possibility of individual self-determination. Therefore, contemporary pedagogy observes education in an activist manner. In the process of forming the personality the activity of students implies that every student, observed as the subject of education, needs to actively participate in education. That is the prerequisite of his development or stagnation.

Along with previously mentioned factors such as heritage, social environment and upbringing, activity, work and learning are necessary to develop acquired dispositions into active abilities. Thinking in this way gives us a better explanation of human development on which the contemporary multifactor theory is based. It is also important to mention that the characteristics, heritage and self-regulation of a person interweave. The effects of sociocultural influences depend on characteristics, heritage and self-regulation; effects of characteristics and heritage depend on the effect of sociocultural environment and the type and way of self-regulation; the type and way of self-regulation depend on the genetic predispositions of the person being educated and sociocultural environment; the same genetic characteristics and the same sociocultural circumstances will influence differently because of the human freedom to act; the same genetic characteristics and the same practice of freedom of the person being educated under different sociocultural circumstances will have a different effect; the same type and way of practicing of freedom of the person being educated will have different effects on the educational act of an individual [37]. Therefore, we could say that today human ontogenesis is seen as a result of not only social, but biological, psychological and pedagogical factors.

V. CONCLUSION

According to anthropological theses, the need for education is unquestionable. Taking into consideration Nietzsche’s definition of humans as "unfinished animals", Portman’s general perception of humans as "premature babies", Gehlen’s thesis that defines humans as "deficient beings", we come to the understanding that, when born, humans are incomplete and unformed beings, especially in the child phase. That is why they need the help of adults; they are referred to them in the process of their hominization. This is possible only with education. Humans are, therefore, naturally deficient beings that need to walk upright, feed on their own, speak, think, act deliberately, control their environment with the developed ability to learn and acquire new ideas, values and skills. Humans acquire the mentioned assumptions by education. They are not subject to firm mechanical and biogenetic norms. They are not animals trapped by their instincts and urges, which would prevent them from being educated. Anthropologically observed, humans are limited beings, developing creatures that are subject to certain living conditions, but also subjects that have free use of mind and
free will. Humans can be educated and educate themselves. In that case they adapt the natural environment to themselves; they organize it creating a culture. New members of a community acquire a culture developing the ability to learn and act in a certain community. In that case the activity of the student is one of the assumptions (along with heritage and the influence of outer factors) of successful education, but also an assumption of the development and progress of a cultural community. Therefore, education makes reproduction and development of a cultural community possible. While doing so, humans are closely related to culture, but they are not closed by it. They are people, the ones being educated and the ones who educate. In other words, humans are givers and takers of certain values. Particularly in the latter model the structure of complementarity of anthropological and educational becomes prominent.

Therefore, taking its anthropological foundations into consideration, the phenomenon of education is understood as a unique, necessary and irreplaceable process of humanization and man’s becoming a human. The science about education, pedagogy, whose subject is precisely education, requires further consideration of its anthropological determination. By doing so, it contributes to pedagogy’s scientific dignity.

REFERENCES