MILITARY PEDAGOGY – FOCUSING ON THE FOURTH GENERATION WARFARE

The world is continuously changing. These changes are followed by the applied sciences with more or less differences but in many cases they justify them. Here, in correspondence with the subject, I am thinking of the pedagogy and the military science, which continuously have to provide answers for the challenges and questions of the age. We cannot forget about the philosophy and the philosophers, who in many cases predict the changes in society and the world. In 2010, in the USA, in the Strategic Studies Institute (SSI) they held a conference titled „Defining War for 21st Century”\(^1\) during which professionals and researchers who deal with the theory and practice of war, attempted to define the concept of the XXI. Century war, among other things. New concepts are introduced in the military encyclopedias, like the „new war”, the „hybrid war” etc. However the general description of today’s potential war is yet to be defined. One thing is certain, the definition of war changes in the XXI. Century and this change has to be taken into consideration in the areas of the general theory of military science, strategy development and the art of warfare, and the education, training, coaching and preparation.

„Success is not final, failure is not fatal: it is the courage to continue that counts.”
(Sir Winston Spencer Churchill)

The changes of the essence of war and of the methods of warfare are closely related to the changes in the theory and practice (used methods) of military pedagogy.

Before I would share in detail my views in relation with the topic, I consider it necessary to record a few concepts (definition). These include the age determination for which period the findings may apply, the defining of military pedagogy, and a kind of outlining of the fourth-generation warfare’s content, since nowadays military science does not have a precise definition for this concept.

THE AGE, IN WHICH WE LIVE

While studying the relevant literature, people interested in the topic will basically face two concepts. As age determination we meet with the application of both of the postmodern\(^2\) and contemporary expressions. According to the generally accepted views the beginning of the postmodern era is calculated from the last quarter of the XX. Century. However the contemporary expression perfectly covers today’s happenings also. In my opinion it is appropriate to use both concepts.

ABOUT MILITARY PEDAGOGY

The following is the age appropriate definition of military pedagogy as an applied science. The Encyclopedia of Military Science defines military pedagogy as follows: „(A) military pedagogy, (a) theory of military training and education, the applied science of pedagogy (science of education), military field that deals with the education, training and combat preparation.”

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2. Postmodern as a concept comes from French philosopher Jean-François Lyotard. First, he used it as an age determination in his book called „The Postmodern Condition”, published in 1979. Since then it is often used as the determination of the present age by various social science researchers, especially in the Western culture.
training of soldiers. Its subject is the history, theory and practice of military training and education. Military pedagogy studies and applies the results and experiences of pedagogy research by taking into account the particular military objectives, requirements and conditions. At the same time it researches and explores the all-time purpose, content, process, methods and tools, organization framework and major regularities of the pedagogy-education-training within the army...

Unfortunately in my English-speaking military science areas of research, I did not find an exact definition for military pedagogy. The two most common definitions are the following:

1. Pedagogy: the method and practice of teaching, especially as an academic subject or theoretical concept.
2. Pedagogy is the holistic science of education. It may be implemented in practice as a personal and holistic approach of socializing and upbringin

People participating in military higher education seemingly do not fit into these definitions at all at first reading. However, if somebody is interested in the topic, they will face an abundance disorder when he begins to address the issue of content. One may find a significant amount of book, essay and other publications covering the areas of military education, training, coaching and preparation. However a determining part of this specifically focuses on adult education. It does not deal with education as a pedagogy field or only marginally.

While studying the available literature the question may arise: How long does the education take while preparing the next generation of officers? When will it be completed? Who may educate and what? Furthermore, how long can a person be educated, can he be educated at all? Among other things, these were the questions for which Dr. Ildikó Szelei (ZMNE) sought answers for already in 2005. Well, according to the generally accepted views, education in the pedagogical sense may be predicted until people enter into the labor market, i. e. until an average of 23-25 years of age – looking at the European standards. We may consider this as the upper limit of the pedagogical competence. However, due to the purpose of the study, I will only focus on the professional (contractual) officer corps. Whereas the army officer field is a career and the committed practice of the career requires a life-long learning, ongoing training, preparation and training, in my opinion it is expedient to mention the science dealing with adult education, andragogy. The expression itself was created by Alexander Kapp in his work titled „Plato’s Educational Ideas”, with on chapter discussing adult education. Then, after long scientific debates and following many published theories, andragogy increasingly gained ground by the 1950’s and 1960’s, it became more and more recognized. At the major international forums (here I am particularly thinking of the UNESCO) it increasingly became the science of adult education. It’s essential function: to explore the theory of adult teaching, education and training, define its basic principles and look for applicable procedures, methods. Previously we have mentioned that theoretically the lower age limit of andragogy coincides with the upper age limit of pedagogy (23-25 years). Nevertheless, social development and life have practically overwritten this, therefore this clause should be treated with flexibility. If as a principle we accept that the lower age limit of andragogy is the time one enters into the labor market, then the age of the adult involved, in most European countries, is 18 years and in certain Anglo-Saxon countries it could be 17 years. In case of this study, concerning the contractual military personnel it is interesting, since in their case the entry age into the labor market (army) – in case of the enlisted men – is 18 years of age under optimal conditions. Therefore, in my opinion the „overlap” of pedagogy and andragogy in the field of military education, training, coaching and preparation can be made for about 5-7 years. Andragogy has a lot of very important

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4 http://www.oxforddictionaries.com/definition/Pedagogy
5 basic on: Petrie et.al.(2009) Pedagogy – a holistic personal approach to work with children and young people across service (http://eprints.ioe.ac.uk/58/1/may_18_09_Ped-BRIEFING_PAPER_i
6 Dr Ildikó Szelei (2005): The paradigms of education. Human Inspection, 2005. 4. number pp.54-61
7 Andragogy or Education in the man’s age. Kapp (1833) Plato’s Education Ideas, pp. 241-300 (http://www.andragogy.net)
followers both in the international and domestic academic life. Among them – due to space limitations – in my present work I will refer to the work of M. S. Knowles.\(^8\) In 1984, Knowles had defined andragogy as follows:

> Andragogy is the art of science of adult learning. It is to be distinguished from the strict definition of pedagogy, which is the science of teaching children.\(^9\)

This is a rather sharp formulation. We must acknowledge that andragogy is actually the science of adult education, however it is an interdisciplinary science: the majority of its theses are based on the results of other sciences (pedagogy, psychology, sociology, management and organizational science etc.). According to Knowles the principles that distinguish andragogy are the following:

- the adult is an independent, self-steering personality;
- given his self-steering ability, the responsibility of successful learning does not only charge the teacher (instructor) but also the student. (Thus continuous feedback and personal evaluation are necessary methods);
- the adult student has some experience of life, which is useful on the one hand, but could make acceptance of new knowledge difficult on the other hand. In this case – usually due to adult life – the nature of dialogue in education is important, and its group method for group members mas also learn from one another;
- the education of adults is generally „need based”, so it is important that the curriculum (knowledge to be acquired) is life-, task- and problem-oriented to develop problem-solving skills;
- adults (also during the course of education, learning and training) are essentially motivated by internal factors, such as self-realization and adequacy to self-esteem and challenges.

These principles apply to the participants in adult education, but I am convinced that they already begin to develop in the later stage of childhood, and in the late teens (teenager) age group they only strengthen. As previously outlined, it is difficult to draw the line between pedagogy and andragogy.

In addition to these Knowles criteria the subject of military practice pedagogy (participants in higher military education) have other distinctive characteristics as a result of their career motivation. This is the demand to pursue professionalism, which is greater in case of this group for they would like to become a member and leader of a professional organization on a voluntary basis. The essence of professionalism in a military sense: commitment (loyalty), the voluntarily and consciously accepted discipline, the need to learn over an entire life cycle, and the pursuit to acquire higher levels of qualifications and skills. It goes without saying that we cannot acquire knowledge, ability or skill without effective education, training, coaching and preparation. However, a key element of the effectiveness of the training is self-discipline. Self-discipline naturally assumes a sense of vocation and commitment.

Whereas the age limit to prepare for a military (officer) career is 22-25 years, therefore in relation with the education, training, coaching and preparation of young (entrant) officers, in my opinion, we are clearly talking about pedagogy, while during the post gradual and education, training, coaching and preparation necessary for military advancement related to a further military career we can talk about andragogy. In this paper I wish to focus mainly on the questions relating to the preparation of future officers, therefore hereinafter I will use the terminology of military education.

ABOUT THE FOURTH-GENERATION WARFARE

The Anglo-Saxon military science (Western) theorists basically agree in the generational distribution of the war periods. According to the generally accepted views the periods (warfare) of war are allocated into four generations (periods) as follows:

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\(^8\) Malcolm Sheperd Knowles (1913-1997) was very influential expert of adult education field. He was an associate professor at Boston University (1959-79). From 1979 he was also associated with North Carolina State University as Professor Emeritus.

— the first-generation warfare: the spreading of usable fire weapons (especially the muskets) and the age of line-tactics for which the beginning is generally marked in the middle of the XVII. Century (1648, The Westphalia Treaty). More or less there is consensus that this period lasted until the end of the XIX. Century.

— the second-generation warfare: the age of the concentrated and indirect firepower and the battle of the materials. Basically this can be put on the period of the I. World War.

— the third-generation warfare: the period of the maneuver warfare, by the well-known phrase of „Blitzkrieg“. In my opinion this covers the period from the 1920’s until the end of the second Gulf war. In this period several recognized military theorists’ works have written down the major content items. They represented different views and positions in many issues but they agreed in some common principles, such as speed, flexibility and mobility, and the concentration of forces in the right time and place, the temporal coordination of activities, the success and the development of success (basically the victory). Initially the period was defined by the military theorists of unrestricted air war and the maneuverable (mechanized) warfare, and then this has been extended in the last quarter of the XX. Century with the theory of the air-land operations, which was considered as the modernized synthesis of the previous two. This period closed at the end of the XX. Century. In our present time – as a result of the events played out in the world politics and recent history – there is no foreseeable possibility of this type of warfare forms.

— the fourth-generation warfare: the warfare criteria of this period – in my opinion – have not been defined in an exact way until today. People professionally dealing with the theoretical questions of military science in our, time more or less agree in one thing: Currently there is no definition that would describe the content and appearance of the fourth-generation warfare in an exact way. In my opinion the biggest problem is that basically we only understand it now that the battle and the warfare is not completely as we theoretically would like to see it.

When we are talking about the fourth-generation warfare – „shockingly“ since September 11, 2001 – we tend to forget about a few questions. In relation to this period of warfare (as previously described it can also be called the postmodern period warfare) several concept „exists“ side by side. Without entirety: the guerilla-war, the effect base of approach operations – EBAO –, the network centric warfare – NCW –, and the expression „cyber war“ also often appears. In my opinion the biggest problem is that the context has changed between the „belligerent“ parties. In the previous generations of warfare the states, as well-defined social organizations, were facing each other due to the formal declarations of war. In our time – especially after September 11, 2001 – this has changed. Nowadays not exactly the states are the belligerent parties, some states (states, alliances) are in conflict with non-state formations (organizations) that reaches the level of war. Who are oftentimes in armed affair (at times of civil war) and conflict even with their own state. Every form of the contemporary (postmodern) warfare is often created between social formations with different ideological, ethnical or core cultural values. There are very large differences between the parties involved, both in their field of applied technologies (primarily the military equipment), training, coaching and preparation. Among other things this is why we call is asymmetric warfare. Unfortunately these militant groups do not really know, and often do not want to recognize the internationally accepted norms of war (Geneva conventions), thus inherently making it difficult (complicate) to plan, organize, implement and lead the military operations in the classical sense. Visually the combatant and the non-combatant mix, which – as so often found in the postmodern period of warfare – can lead to undesirable tragic events. This may be another reason why this is called an asymmetrical form. We must also not forget that the military events of our time – in the age of the informational society – thanks to the media, are implemented beside the public. I think that to solve these problems we will be looking for the answers for a long period of time.
THE MILITARY PEDAGOGY IN THE XXI. CENTURY

The military pedagogy as a scientific theory was not very widespread until the end of the XVIII. Century, but we can say that since then it continues to develop. It continuously follows the changes of the warfare generations, analyzes them and continuously develops them and constantly updates the necessary didactic principles and methods. We can conclude that its development as an applied science was uninterrupted in recent times. However, the present time that is called the age of the fourth-generation warfare in the military science shows numerous challenges and questions. What is the content of military pedagogy in the XXI. Century? What possible methods can we use? How should we look for answers for the challenges of the period? What will be the soldier of the future like? And we could ask many other questions.

In my opinion, the military pedagogy continues to develop on new ways after the expiry of the Cold War. I think that in our time it became an integral part of the military thinking that the role of the soldier as an individual has increased on every operational level. The expressions, with which we can describe the soldier of the present and future times, are: thoughtful, creative, multi skilled, furthermore adaptive, able to adapt, and he is a person who has above the average problem-solving skills. In this postmodern age there are more and more talks and suggestions about the transformation of the defense capabilities, and about the creation of the necessary and sufficient defense capabilities. The postmodern world sets new eligibility requirements, which should respond promptly and flexibly for the constantly and sometimes very dynamically changing situations and environments.

The transformation process required by the postmodern age, which mostly means the transformation of thinking in the military, will only be effective if the soldiers will be able to learn and understand the new way of thinking, will be able to develop their skills according to the requirements of the present age, will be able to adapt to the new challenges, unexpected situations and to the rapidly changing circumstance in an effective and quick manner.

The transformations should mainly be realized in the following areas:
— the area of military (organizational) culture;
— the area of organizations and skills transformations;
— last but not least the area of individual skills transformation.

One can easily see that the transformation is not an easy (simple) process. According to my view: the organizational culture is the system of values and beliefs accepted, declared and interpreted together by the members of the organization that is present in the organization’s daily life as a generally accepted value system and it essentially determines the behavior of the members, their relationship to each other and at times to other organizations. The members of the organization accept this as valid, they follow these, and they transfer it to the newcomers at the organization as the possible model to overcome problems and as a more or less desirable way of thinking and behavior mode. Put in another way: the concept of (organizational) culture means the way of pursuit (action), the way of thinking, the way of realization of values and the way of professional life through their synthesis.

The military organizations and the skills possessed by the organizations should be examined in a complex and critical way: In my opinion the organizational restructurings in the present and near future (say in the postmodern age) should specifically be planned, organized and carried out in the spirit of transitioning for the military organizational formations, based on capabilities that are able to meet the challenges of the period. This sometimes can be painful to the „overwhelming, capable to do everything” advocates of the military; however this paradigm shift must take place.

I believe that the “ruling forms of warfare” of the postmodern period will be the operations of peace enforcement, peacemaking, peace keeping and peace supporting. Of these only the first mentioned form shows some similarities with the traditional military operations, the rest – primarily because of their characters, numerous governmental and non-governmental organizations involved, and because of the virtually complete media coverage they significantly require a
different approach. At the international arenas, in the near future this is what the soldiers of the future should be (expedient) prepared for, especially their potential leaders. However, we should not forget about the classic military literacy and the military history knowledge, because we all know that “those who do not know their history’s mistakes, are doomed to repeat them”.

The military pedagogy – as an applied science – must also investigate in numerous other areas of science. Among others, these include – without entirety – philosophy, culture, cultural anthropology, didactics, management and organizational science. The synthesis based on these research results ensures the development of the foresight vision, the determination of the goals to be achieved and the methods that ensure this, the elaboration of military education, training, coaching and preparation methods and technologies, once and for all the definition of the methodology of teaching and learning and through all this the development of future soldiers (military leaders).

However, as a result of the social changes that occurred in the postmodern age, the military pedagogy must also renew and change itself. As for what justifies the change, the changes of certain parts of our views about the education, training and coaching:

- the social environment, the cultural and environmental changes;
- changes in the nature of wars, warfare, crisis and peace operations;
- changes associated with the development of weapon systems (primarily the changes that took place in the technologies of high-precision weapon systems, and IT and communication systems).

Learning, as a deliberate, conscious human activity, which is essentially based on (and implies the need for a continuous training, through this the ability that somebody can be developed) the necessity of human self-realization, may be one of the primary areas of examination (of interest) of military pedagogy. It is clear for all of us that humans are the most complex beings, who in general can be described by physical, mental, social and ethical competencies. The examination of suitability for conscious activity, also known as competence, could be the one of the basic concepts for military pedagogy. This means the ability of people to carry out actions with responsibility in the present and future. This is present in both the personal and social levels to become more complex by meeting the challenges (changes) of the age.

The military service, the soldiering in the postmodern age is one of the forms of human social existence, what individuals spend at the armed forces. The basic factors of soldiering: professionalism that is characterized by knowledge, skills, cognitive capacity, problem-solving skills, psychological and physical fitness, furthermore the voluntary identification with the organizational (technical) culture, furthermore the full respect of the political culture accepted by society.

In our age, when it is not much longer possible to delay the transformation of the armed forces into being skill-based, despite the existing financial and economic crisis, temporarily the states should expend more resources and for protection and restructuring so that they could become more flexible and efficient, thus enable them to address the new threats. In addition, however, on the soldiering level the more resources mean more and higher level of ability to act that we can call human resource development. However, this does not only mean the change in the nature of military operations, as the starting point for transformation is the change of our contemporary societies and cultures. These processes of change and their consequences should be largely considered in the area of military education and training development, while determining future methods of military pedagogy. We have to think about the soldiers of the future, army of the future and must place this organization in the postmodern society. In our contemporary world, when in order to solve the military tasks ahead of us we are creating task ability oriented battle groups on the basis of the traditional

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10 koncentráló, érzékelő és információ-feldolgozó képesség
military organizations, we seriously have to ask: Who and what will be the soldier of the future like? What kind of society will he come from? What kind of identity, ideology, morals and what motives will he have?

Many books have been written recently and today about postmodernism and the authors use many, sometimes conflicting definitions. According to a common formulation the postmodern society is an informational society; a post-industrial society, crisis and globalization society. In this light society and the ways of life are simply "commodities", privatized, entirely individual, so they are different and yet flexible. The postmodern world does not seem to be a whole; it is seemingly fragmented and the conventional hierarchies, classes and borders collapsed. The postmodern world is more about cooperation and "high tech", then about collective participation and the common values.

We can say that the digital culture of the postmodern world and the "artificial intelligences" that were created through the development of genetic engineering technologies have fundamentally changed the nature of man. In particular, the explosive expansion of the computing tools has complicated our thinking about being human. Sometimes, we have this futuristic vision appear before us as if a piece of software would be running in the human brain, which predicts the symbiotic existence of humans and machines, washing away the differences between them.

Hopefully this will happen rather later; in the meantime those who deal with military pedagogy within the army have to find the best possible answers, develop the appropriate methods suitable for the challenges of our age and apply them during the education, training, coaching and preparation of the next generation of soldiers and military leaders.

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