

Feyerabend's Critique of Scientism

Enver Halilović

Universitat de Tuzla

Summary

Introduction	Capital and Technology
Western enlightenment Today	The Dogmatism of Modern
Scientism of scientific method	Literatura

Introduction

Dogmatism as a spiritual principle becomes reality when one class of principles, knowledge or methods is taken as universal, as a sole origin, as the only form of knowledge and as the only methodological class, etc. in order to reach Truth, Righteousness and Intelligence.

Feyerabend, like other critics in all spheres of scientism, from the scientific-methodological to the socio-political sphere, talks about the dangers towards which a dogmatism of scientific mind and methods is leading. According to Feyerabend «the conception of one unique system of criteria which has always been leading towards success and is still leading towards it», with no concern to its pragmatism and utility, creates the basis for spiritual monolithism and totalitarianism. Just like other forms of dogmatism, this form in its incorporation by a state becomes a state ideology. As such, it becomes inauspicious for further development of science, because it prevents the existence and development of other spiritual contents, i.e. spiritual and theoretical pluralism. Non-existence of spiritual-theoretical pluralism has unfavourable spiritual-scientific, socio-political, ethical and other consequences. The road towards the strengthening of science opens towards all possible spiritually theoretical and methodological approaches to reality which have been researched. Scientific dogmatism and sectarianism are eliminating alternative forms of knowledge and centuries-long traditions of non-western nations and civilisations; all of «seething complexity» (Peter Sloterdijk) is being thought of in one way, contrary to its real ontological heterogeneity.

This methodology of thinking has and has been producing specifically adequate political philosophy and social reality of «a conflict of worlds», «a conflict of civilisations» (S.P. Huntington), civilised and nationally cultural elitism, political monism, totalitarianism and aristocraticism.

A modern unity of science and the state is safeguarding the western hegemony. This is the method and the instrument of a specific «political» occupation, the occupation «void of blood». «Tribes are not just physically oppressed, they are forced to accept religion of brotherly love - Christianity» (Feyerabend, p. 397). Both tradition and contemporaneity in non-western nations are marginal in every aspect; the strong west-centralist subjectivism has been created. The Non-western has become the Other in the entire meaning of that concept, «The Other» (Martin Buber), «The Other Is Hell» (J.P. Sartre), Irrational, Oriental, Unreliable, Weak, Impure, Undeveloped, Unhistorical, Foreign, Other Me (Fichte), Non-intellect, etc. «Europe has to learn so much more in order to establish a dialogic community. But the world as a whole is, nevertheless, going to succeed one day, because it is going to be forced on it. As a matter of fact, all world's cultures, including those which sprang from different religions than ours, are, so to speak, sewn into each other through the influence of the world economy. That is the reason that we have to learn to communicate. It has never been like that before» (Hans George Gadamer).

«The end of history» (F. Fukuyama) as an Ideology, Power, the contrast between Subject and Object, Damnation of the Other, «Anthropogenic Craving» (A. Kojev), includes implicitly and asks for non-scientific intellect, intellectual, methodological and every other pluralism.

The condition of a possible future of the human being is in rethinking of our attitudes «towards all ideas which the rationalists would like to see wiped out from the face of the Earth» (C. F. von Weizsacker), thinking about myth, magic, religion, metaphysics; rethinking of our attitudes towards «Subjectum» who is an European, but in the last 200 years a white American as well, towards a «computer intellect», and «technology» as to the only progress, towards the world of «technology as to the completed metaphysics» (Heidegger), towards «the power of thinking» (Bacon), towards «the scientific-intellectualism and the power of thinking where there is no place for ironical thinking» (R. Rorty), or for the Other in any shape or form. «Intellect cannot be universal, and Un-intellect cannot be excluded.» (Feyerabend)

In the work «Against the Method», as in other papers, articles and essays, Feyerabend subjects to criticism:

- a) the relationship of scientific method and reality, theory and facts, and
- b) totalitarian character of scientific method.

Feyerabend with his criticism of rigidity and strictness of scientific method, is striving to present, at the worst, its metaphysical aspiration and desire to discover unchangeable principles and facts of everything that exists or of existing parts which are explored. Objectivity and rationalism of science pre-

sent chimera according to Feyerabend. He is longing to direct a plea for epistemological relativism and pluralism.

Western enlightenment Today

The need for enlightenment is strongly present even today. At times that need was demonstrated and related in connection with church institutions and religion, but today it is demonstrated and related in reference to writer's scientism, to the reign of experts and to the method of natural sciences. «Today the triumph of science is something like religion, something that is understood by itself, the illusion which is blindly worshipped.» The social status of science, which is fully expressed in positivism of all versions, determines and conditions the new contemporary contents of enlightenment. Nowadays, the self-solution of a man and society in regard to their self-blamed immaturity, consists of their aspiration to free science from fetishism and its spirit of rationalism. However, the process of coming out from self-blamed immaturity is not simple or effortless. It is not simple or effortless for many reasons:

- 1) because of strength and force of scientism's fetishism, and
- 2) because the contemporary enlightenment does not possess a unique and common attitude about the way out of today's self-blamed immaturity.

The main question for today's enlightenment is not: «Is there a need to free scientism from fetishism or not?», but «How to do it?».

All in all, one thing is certain and sure, which is that the spirit of today's enlightenment is not anti-scientism, the rejecting and questioning of science and rationalism. The senselessness and reactionary nature of anti-scientism are absolute and certain. Science is an indispensable condition of man's contemporary existence. Today the spirit of enlightenment is not and it cannot be pleading and the recommendation of ignorance, opposition to knowledge or the protection of ignorance. On the contrary, the spirit of the contemporary enlightenment is in estimation and evaluation of knowledge and science, considering that they are broadening human possibilities, and making human life worthy, but also considering what the man is receiving from them.

Many contemporary philosophers with various views of the world, as E. Husserl, J. Habermas, W. Dilthey, M. Heidegger, H. Marcuse, P. Feyerabend, J. Franklin, G. Frey, H. Gadamer, Z. Bauman, C. Taylor, R. Rorty and many others, have informed us that science is not the only knowledge, and that next to it and together with it there are other forms of knowledge —although less powerful and with weaker social authority and influence. They have pointed out that science has numerous advantages in relation to other forms of perception, but at the same time it carries with itself various and numerous defects. They are opposed to the contemporary scientific and social mythology of science and its rationality, placing us in front of the question of mutual relationship and of connection between some contemporary forms of evil, mysticism and irrationalism, and of «rationalism of science».

In a particular way, they are criticising the contemporary absolutism of science, which has been based and produced from rationalism, as the only real measure of Freedom, Truth and Justice. They are opposed to the contemporaneous social and national absolutism and to the mythology of science, which make the science into an ideology. By pointing out to the present pluralism of perceptive forms, which is at the same time unavoidably necessary, they are making scientific knowledge relative by criticising science as an ideology, and by diverting the attention to the relationship between rationalism —as a methodical perception of the foundation of knowledge— and some forms of evil: Non-freedom, Injustice, Untruth...

In this contemporary period, knowledge has become the most powerful and the most effective ideology because the state and science have become united. Not only with the state's control of science in different ways, but also with the finding in science by western state the only certain foundation of one's own survival and strength, and that science and the state have become assimilated—that is, that science have become dogmatized. Science, in the contemporary period in the West, has gained the same socio-national status which religion had at one time. With the transformation of science into an ideology, with its development as an ideology, which had been acquired by its assimilation with the state, science has become «the latest, the most aggressive and the most dogmatic religious institution». Science is, according to its essence, the culmination of the western rationalism. The western civilisation, with its scientifically technical domination in the world, has achieved a reign of the West. In other words, the reign of the West, and of its science —scientifically technical and technocratic science— have for its consequence the exclusion of non-western nations and their cultures. Feyerabend shows, with his analysis of West's rationally dogmatic contents and character of science, that science is in its essence a reign, and that it is limiting human freedom and human creative spontaneity. Science is power.

The power of science has been shown in a social and in an individual existence of man as well. Science with its practical knowledge, in its striving for application, practicality and usefulness, aspires towards a distinctive organisation of social as well as individual human life. In the contemporary period, both man and society believe in a power of emancipation and satisfaction of science without criticism. An aspiration of man and society to arrange and structure each segment of their existence on scientific foundations and principles, is general and strongly manifested. It is certain that science brings and contributes to the humanisation of man and society, that it contributes to human progress and prosperity, and that science is an integral part and a primary source of the human's emancipation in the new century. Today, science has established such a place in the man's life and in his culture, and has been achieving that more and more with each day, that nowadays every attempt to question science seems impossible, and in the future it will be even more impossible.

Nowadays science is present in the life of man and society, not only in the sense of perception, in the sense of discovery of the World, Nature, Man, and

Society, but also in the sense that «everything today is functioning according to the scientific organisation». All critics of contemporary science and of the scientific method value highly all that, and that is the reason that they do not support anti-scientism; not because its possibility to be realised is practically unachievable, unrealistic, and impossible, but because they estimate that science is a way of emancipation of man and society. However, those critics are supportive of the demystification of science and of its socio-national authority. In their perception of the relationship between science and the man, they do not have for their starting point the unconditional and uncritical absolute belief in an emancipatory function of science, but a rationally critical perception of the formerly mentioned functions and of science's tyrannous and conquerable consequences for the man and the society. Together with a belief which has been created on the basis of practice that science has an emancipation function in the society, they have comprehended another real factual condition that is showing the possibilities to contort science, to misuse it, to turn it against the man and to humiliate him, to somehow take away his freedom and dignity, to turn him in a personal caricature and «an unpleasant strong machine with no attraction or humour». The contemporary criticism of science does not propagate anti-scientism, it does not intercede in favour of obscurantism and ignorance, but contemporary criticism offers us a criticism of «science's religion», and questions it. The religion of science identifies the technological prosperity with the prosperity of humanity. The religion of science is not capable of thinking of itself critically, to think against its own schematics and metaphysics. Its suicidal narcissism, that transfers into a special sort of irrationalism, is based on the fetish of technological progress, and from that to the progress in general —to the social progress. That scientific uncritical acceptance of itself and of its consequences gives the motive to the contemporary criticism of scientific method to talk about modern «religion of science». All contemporary critics of scientific method lead down to the critique of scientifically-theoretical methodism, to the idea of a single universal and a commonly accepted methodology.

Their critique of the contemporary scientific methodology and ideology has a general character. All of previously mentioned thinkers hold the same position for their starting point, although they have different views of the world; that position is in the assumption that if nothing absolute exists, whether in anthological or in gnostic sense, then anything could become possible in every sphere. The general relativism has opened the space for human's unrestricted activity, but epistemological relativism prevents rational or any other dogmatism. Their criticism of the scientific rationalism is at the same time the critics of its dogmatism. The rationalism and dogmatism of science converge. They are the base of the contemporary totalitarianism. The pragmatic instrumentalisation of science takes away its emancipatory dimension and transforms it into a power of maltreatment and tyranny of various forms and contents. The science is, with the pragmatic instrumentalism, transformed into a power of reign and rule. Taking under the consideration not only the

emancipatory but also the social dimension of science, contemporary critics of scientific method and science as of an ideology, are using their influence for breakdown of method and of cognitive course of the governing sciences, and for demythologising of the sense of wholeness, Progress, cognition, confinement...

Scientism of scientific method

The main reason for science to be science and the reason for which science is what it is, is scientism (of scientific knowledge and of scientific methodology) toward the way that leads to knowledge and of the way through which knowledge is acquired.

Science is most generally, most broadly, which means most indefinitely, determined as an assembly of methodically acquired and systematically ordered knowledge. According to that, science is understood as:

1. on the one hand, a scientific way, mode, and method of acquiring knowledge, and
2. on the other hand, a sole knowledge that is acquired and reached through a scientific way.

Science is the sole scientific methodology through which the knowledge is acquired, and also is the sole knowledge which is acquired by the scientific methodology.

A possibility of practical or scientific verification and a possibility of practical application of knowledge are the things that shape the scientific methodology and the scientific knowledge. A possibility of verification of science's accuracy and authenticity, on the one hand, and a possibility of practical application, on the other hand, represent the main characteristics and the main quality features of the scientific knowledge. For all that, the practical use of the scientific knowledge is the main, today maybe even the only, meaning of the scientism of knowledge, and even the only meaning of knowledge as knowledge in general.

Consequently, the «*differentia specifica*» of the scientific knowledge and of other sorts of knowledge is practically a material applicability, and a possibility of technically practical verification of the scientific knowledge. Scientific knowledge includes implicitly and denotes practical applicability, and also the possibility of its scientific verification. The scientific verification of the scientific knowledge has become more expressive and present with the development of science. The faster development of the scientific knowledge is achieved by more expanded, more expressive, higher and more comprehensive verification of scientific knowledge, and inversely, with the development, and the enlargement of the scientific knowledge, the scientific verification of the scientific knowledge in the same way has become more comprehensive and more present. The presence of science in a scientific cognition and methodology

presents «*conditio sine qua non*» of knowledge itself, of the scientific knowledge itself. The scientific knowledge itself indirectly and directly depends, on its way to the scientific knowledge on the applicability of knowledge. Therefore, it becomes understandable and clear to what purpose and how is the development of the scientific knowledge accelerated during the application of science into science; in other words, that is the reason that the enlargement of scientific knowledge itself is nowadays very present and extremely expressed with the application of technology as an applied knowledge in scientific researches and cognition.

Therefore, when we talk about science we should differentiate, for pedagogical and educational reasons:

1. on the one hand, the scientific knowledge itself, and
2. on the other hand, scientific methodology with which the scientific knowledge is acquired.

For all that, it is important to emphasise their mutual dependence and connection, the scientific knowledge includes implicitly in itself the scientific methodology, while the scientific methodology includes scientism implicitly in itself.

A long time ago and with valid arguments, Hegel pointed out that a unity and homogeneity between knowledge and its method is present in science and in other shapes of human's spiritual creativity. Science is a science according to its method and method's scientism, and according to its knowledge and knowledge's scientism. Philosophy is philosophy according to its way of manifestation, shape and existence, and according to its shape and a sort of knowledge which is acquired and manifested. It is the same with art and religion. An artistic cognition is expressed by art, a philosophic cognition is expressed by philosophy, a mythical cognition is expressed by myth, and a scientific cognition is expressed by science. Mythical knowledge is contained in myth itself, religious knowledge is contained in religion, philosophical knowledge is contained in philosophy, and in the same way, scientific knowledge is contained in science. Philosophy is contained in philosophising, religion is contained in preaching, art is contained in writing, painting, and in other expressive forms, and science is contained in the scientific research.

Amongst all these various forms of knowledge there are mutual differences, and similarities as well. Differences make them mutually independent, and similarities make them mutually connected. Their mutual independence has being developing itself since the human origin till today.

The weaker or stronger domination, and the weaker or stronger presence of certain forms of knowledge have been manifested during the various times of human's social existence. Therefore, the human consciousness is divided into three periods —«three epochs»—, considering which sort of knowledge was dominant in those periods up till now, following numerous west European standards:

1. a period during which the dominant knowledge and reinstalled consciousness is mythology,
2. a period during which the religious knowledge is dominant, upon which an individual and social consciousness are based, and
3. a period which is characterised by the domination of scientific knowledge, upon which an individual and socio-collective consciousness is based.

The whole history of man and society in European spiritual history has been divided into three epochs, considering the basic reigning shape of social consciousness, and considering on what sort of knowledge society was and has based its existence, its social organisation, and the organisation of life and work of its man:

1. mythological,
2. religious and
3. scientific.

Chronologically observed, the mythological epoch of man's and society's history was the period that had finished with the ancient world, as historians of anthropology and other Western scientists call it in its widest sense. The religious epoch of man's and society's history was not formed by the inception of religion, but by the fact of its «hipostasis» as the only form of human's spirit, collective consciousness and state's ideology. The religious epoch determines and encircles a part of man's history known as the Middle Ages. In those times the religious epoch formed fundament of not only man's consciousness but also of social consciousness of that period and of the whole social organisation. Many western scientist, especially naturalists, are saying that the mythological and the religious epochs are pre-scientific, in contrast to their mutual differences, specific qualities and even their contrast. However, together and parallel with these scientific and pre-scientific forms of cognition in history of society and of social history of an individual, and together and parallel with scientific knowledge, the non-scientific form of cognition exists as well. Philosophy and art are usually implied in those non-scientific forms. Philosophy and art have existed, and they still do exist parallel and together, as to pre-scientific so to scientific forms of cognition. They cannot be called pre-cognitive, although they had existed and originated, in formal disciplinary sense of thinking and existence, even before the inception of science. That is because, on the one hand, a certain level of scientism cannot be negated to them, and on the other hand, because these forms of cognition are still present parallel and together with scientific cognition.

A new modern era is the era of science. That is the fundamental shape of knowledge and a spring of an individual consciousness of the new era, and of a social consciousness as well. The way that myth represented the basic form of human and social thinking and cognition in the old age, and religion in the Middle Ages, in the same way science, in the modern world, has become the

basic regulation of individual and social consciousness and of their organisation. In the modern world science has not only gained the status of a citizen, but has also become a dominant shape of consciousness, behaviour, functioning and organising of man, and of his society as well.

In the new era the scientific cognition has gained and has a social, and individually anthropological and ontological status; that is the same status which the mythological cognition had in the old age, and the same status that the religious cognition use to have in the Middle Ages. The scientific cognition has become not only a spring, but also a retreat for all modern, individual and social functioning and thinking. It has become if not the only than surely the primary criteria of cognition in general. The validity of each form of cognition is measured and determined in regard to the scientific cognition. In the modern world, the foundation of the relationship between man and nature is an aspiration of man to master nature in any way and with any means. The modern world, does not only express (substantially the most meaningfully and the most completely), but it also determines Bacon's identification of knowledge and power and of human happiness and life, with the power of reign and control of nature. A practical and material knowledge was then, and has become since then the basis of human power, while power was and has become the basis and a condition of human happiness.

Bacon's thought: «*tantum possumus quantum scimus*» —how much we know is how much we can— most fully expresses and determines a spirit of the Modern world. Scientific research and theoretical interest in anything, and even in nature, is motivated and determined by the aspiration towards an acquisition of some kind of knowledge. Therefore, the modern world differs from the ancient world and the Middle Ages in its sense and motif of knowledge. In this new era a completely different concept of knowledge has been developed. An expansion of its practicality and of its field of practical applicability has been reached. Up till then, knowledge was applied only in a field of acquisition of morally psychological satisfaction and happiness. The practicality of knowledge was restricted to that. It had a sense of instructions, tuition, and a sense of leisurely, attractive and pleasant life. In the modern world the practical application of knowledge relates, in the first place, to the practically material, sensuous, appropriate activity of man.

Because of sensuously material neutrality of knowledge in the ancient world and the Middle Ages, Bacon called those times the childish times of humanity, which were represented, determined and reigned by, so called, «child's science» that was based on «prattle». According to Bacon, only «child's science» had existed up till that time. Because of its materially sensuous impracticality he called it prattling. Bacon wrote: «With regard to the usefulness we have to say openly that it is wisdom, which we have mainly acquired from Greeks, and child's science which makes a man more agile and prattling (which are the characteristics of children), but is unable and immature for creation». Up till then, the purpose and the aim of science was in the acquisition of wisdom. Bacon rejected wisdom and philosophy of ancient science slightly

and with the indignation, because of its sensuously material uselessness and inapplicability. Bacon did not demand or expect from knowledge to be a wisdom; he did not think that science and philosophy were ways and methods of acquisition and invention of wisdom. For him knowledge is knowledge only if it is useful. A sensuously practical usefulness is the main and only principle of knowledge.

Bacon had carried on the classification of theoretically scientific fields following the principle of classification of intellectually psychological activities of man. According to him, memory suits to history, fantasy suits to poetry, intellect suits to philosophy and science. Philosophy and science have the same intellectual principle, they are based on the same intellectually psychological power of man. They are dealing with a study of God, man and nature. Therefore in Bacon's opinion an intellect has a natural right over nature. But, up till now this has not been realised. In the introduction to the planned but not finished work «Great Restoration» (*Instauratio* man) Bacon wrote: «The state of science is not a happy one and it has not made a big progress; a human intellect has to have an open way, completely different from the one that has been known till this moment, and another additional means of help should be acquired in order for intellect to use its right on nature».

According to Bacon the main reason that intellect has not achieved its natural right to reign over nature is that, on the one hand, the intellect itself is burdened with delusions and false representations, with so called idols, while on the other hand nor science or philosophy have created a real scientific method. The limitations of intellect and of unfinished scientific method are mutually connected and conditioned by the state of spirit of science. A liberation of intellect from all its idols and an establishment of a scientific method are simultaneous processes, processes with the same contents. The right of intellect over nature in its essence means possessing and ruling over nature.

In the 20th century, and especially after the Second World War, science has become a totalitarian power. Certain philosophies of Marxist provenance and philosophers of critical rationalism have had an expressively intensive contempt for unscientific tradition, for unscientific forms of life and for other traditions. Society and state have found in science the means of ruling and controlling of individuals. By criticising a totalitarian social role of contemporary science, philosophical critique and other critiques of contemporary science have pointed out that science had had an emancipatory function before it has become a state ideology, in contrast to its today's tyrannical function.

Numerous western thinkers are comparing the ancient and the modern world according to their relationships toward the basic forms of spirit of these times. They think that science nowadays has a social function and status which religion use to have. The essence of Spirit and Life of man and of society in the Middle Ages was in the spirit of religion. Everything was determined by religion, and everything was put in service to religion. The basic criteria of evaluation of everything that exist: individual and social, material and spiri-

tual, past and present and future, of everything that should be and that should not be, is religious knowledge.

Uncritical acceptance of man and society in the Middle Ages resulted from, appeared, was consisted of, and was conditioned by the character of essence and by the uniqueness of religious knowledge, as much as a collective, individual and social sense was conditioned by the relationship of man and society of that time toward religion and its knowledge. Historically observed, but observed from the aspect of man's knowledge of that time, the religious knowledge presented the highest and practically the most utilitarian shape and contents of knowledge for the times when it had appeared, just like the scientific knowledge today. According to that, knowledge was accepted wilfully under the influence and pressure of spiritual surrounding of its social environment, and when it was socially institutionalised and earthly embodied its protector was personified into the characters of spiritual and worldly leaders and protectors.

Capital and Technology

The point of view according to which there is an organic connection between Modern and technical rationality in the contemporary philosophy has become totally and generally accepted. For many contemporary philosophies, independently of their ideologically political provenance, the basis of understanding of the contemporary society and of man, and the basis of understanding of further movement of civilisation and of its meaningfulness, is in technology and in its rationality. A mutual inner dependency exists between Capital and Technology.

The transformation of means of work into the machine represents an event of a special historical importance. That event has created a new «modern» man and a new «modern» society. That is why the question of Modern is inseparable with the question of «modern technology», and because of that philosophy of technology has become a planetary opinion, as K. Akselos has noticed.

Technology as a fundamental expression of modern science has been analysed and examined first of all in its special meaning. Before all that, the written documents were created, and they examined the special problems of application of technological means on special fields: industry, agriculture, service trades, and so on. These researchers of technology are: A. Furguson, H. Aleksandrinus, J. Beckmanne, A. Urea, and others.

The consideration of technology, and by the concept of technology it is not only meant of the modern technology, but also of industry, technology, machines, means of work and so on, and the consideration of its essence and assumptions, represent not only the revealing of the origin of epoch in which we live, but also the revealing of the origin of history. Technology is not a phenomenon which is the same, similar or a bit more specific to others, not for any epoch in history, nor for history itself, and certainly not for our epoch —its nowadays history and its future. Technology is an essence and a foundation

of each epoch and especially of our epoch. The spirit of a time and a way of life of a man from that time are expressed in technology, while on the other side technology produces the content of a spirit, the way of life, a man's whole social organisation following its historical essence in every given moment.

Since the historical happening of technology is the foundation of a possibility to understand historical happening, then technology is an unavoidable subject of interest of each contemporary philosophy and of its consideration of a man, society, their nature, present and future. If it is known and if the fact that technology and contents of problems that are close to or compatible to technology, are considered to be a subject of philosophical works of Greek philosophers (we could give an example of ancient Aristotle's philosophy in which technology had a distinguished place among so called poetical sciences), and when the present civilisation of Europe and the world was at its conception, then it has become totally obvious that the question of technology later on and especially nowadays is unavoidable and compulsory for any more serious consideration of man's and society's and history's past, present and future, and of any historical phenomenon.

The contemporary consideration of technology has for its foundation not only a history as history, but a history of technology. The history of technology has its theoretical and its practically pragmatic base as well. The theoretical base of modern technology is the exact science, while the practical base of technology, of its origin and of its rapid and revolutionary development is the capital on which the whole organisation of a man's life, of his social community, of the way of his production and reproduction of life is established.

J. Habermas calls the 19th century a time where the systematic coupling between the modern science, capital and technology was established, and during the 19 century there was a separation of technology into a separate and independent research field. When the application, the development and the improvement of the technology has become enlarged and revolutionised in the 20th century, parallel with that the question of technology has provoked interest and has become theoretically and practically more important.

The interest for the observation of technology from different aspects has been intensely expressed amongst contemporary philosophers in the philosophy of life of Bergson and Spengler, in the philosophical anthropology of Gelen and Seler, in the philosophy of existence of Jaspers and Heidegger, in the critical theory of society of Horkhajmer, Markuze and Adorno, in the scientism of L. Koleti, M. Rosi, U. Ceroni, L. Alister and N. Pulankas, by Heidegger's followers K. Akselos, K. Kosik, by existentialists J. P. Sartre and M. M. Ponty, by Freud's followers E. From and V. Rajh, and so on. For some of them technology is man's salutary origin, and for others it is jet another invention in the line of human inventions which are oppressing, dehumanising and enslaving a man.

The Dogmatism of Modern

In comparison to the religious Middle Ages, the modern world, Modern, and the world of the scientific knowledge differentiate from the religious knowledge of the Middle Ages only because of the character of knowledge.

But, besides the important differences between the religious and scientific knowledge by which the Spirit of the Middle Ages and the Spirit of the modern world are distinguished, and besides this fundamental difference, there is a great similarity between them. That similarity is in the first place consisted from the relationship between man and society of the Middle Ages, and their prevailing shape of knowledge on the one side, and on the other side from the relationship between man and society of the modern world, and their reigning knowledge. There are almost no differences between the relationships of man and society in these historical periods following their dominant shapes of knowledge that all forms and contents of human life and spirit, and a method of their whole social organisation and institutionalisation which they are based on. Both in the modern world —Modern, and in the Middle Ages, man and society in all manifested forms and institutions and in their entire organisation and establishment following their specific and established form of knowledge have a dogmatic and uncritical relationship. As the man and the society of the Middle Ages had planned and based all of their spiritual, theoretical, imaginative and practical activities on the religious knowledge, so the modern man and society of the modern world has searched for, has found and has taken the scientific knowledge as their starting point and retreat of all individual and social action and evaluation. Accordingly, the modern world differs significantly from the Middle Ages because of the form of knowledge that is based upon —the modern world is based upon the scientific knowledge, while the Middle Ages are based upon the religious knowledge, but at the same time they do not differentiate a lot following the relationships of man and society, of the modern world and the Middle Ages, and the knowledge upon which man and society of these periods are based and founded. The distinction between these periods considering their foundation and the knowledge is directly proportional to their almost the same relationships towards the knowledge that they are based and rested upon. As much the difference between their dominant knowledge is important, the difference between their relationships towards those knowledges is not so important.

A belief in power, practicality, and in one word, in utilitarianism of the religious knowledge in the Middle Ages, and of scientific knowledge in the modern world represents a unique foundation of the relationship between these two periods following their determined forms of knowledge, and without taking under the consideration that the practicality of these two forms of knowledge is revealed, verified and consisted of different forms.

The practicality of the scientific knowledge widens the volume and space of the practicality of the religious knowledge. It also includes the field of man's work —activity that has in a true sense been formed only with the appearance

of this knowledge, that is with its becoming as a dominant form of knowledge.

Although the contemporary philosophical anthropological and other approaches to technology, to its relationship towards man, nature and the society, are approached differently in their ontological-theoretical, ethnical-axiological and ideological-political views, the very important is their common consideration of the modern world, the man and the society from the aspect of technology and of its influence on other phenomena or on other influences on technology.

A technical practicality of the scientific knowledge represents a specific difference, and at the same time practicality in comparison to the practicality of the religious knowledge.

A widening of the practicality of the scientific knowledge in technology in comparison to the practicality of the religious knowledge represents a significant difference in practicality and reality of these forms of knowledge. The practicality of the religious knowledge is more narrow than the practicality of the scientific knowledge.

The practicality of the religious knowledge relates in the first place to the socio-ethnic practice. The applicability, the area of validity of the religious knowledge is consisted of the organisation and regulation of social relation in a more narrow sense, and of institutionalisation and organisation of politically-legal and moral life of the man and his society.

The practicality of the scientific knowledge, in distinction from the practicality of the religious knowledge, includes not only politically-legal and moral practice of man and his society, but also the practice of the material production. The scientific knowledge is a base and a support of the whole practice of man's and society's activities and thinking.

Accordingly, the religious and the scientific knowledge do not differentiate only in their qualitative sense, but also in the volume of practicality of these two sorts of knowledge.

The Middle Ages and the modern world both individually and socially have the same, completely uncritical relationship towards their forms of activity, contrary and independently from the mentioned differences between them and from the periods of their validity.

An uncritical and dogmatic relationship towards the knowledge of one's own time, both the Middle Ages and the modern world are creating a false, inaccurate and alienated —so called Ideologised individual and social consciousness according to the character and meaning of these knowledges as for an individual so for the community that they are reigning over and on which they are established. The existing social belief in the power and progression of these knowledges, has marginalised, excommunicated and proclaimed the heresy of the attempt to critically observe and consider their roles. These knowledges are proclaimed to be the only criteria and the only base of evaluation of all forms of the individual and social activities and existence. They are taken as the basis for living and for all practical activities as of the individual so of the social community.

Science has its stiff and schematised methodological rules of concept's formation. In it, as a rule, «the one class of principles is taken as a universal, and as the only starting point in order to reach the truth, Rightness and Intellect. Everything else is taken as unwanted, unfit and unclear». Science creates and aims to create a specific rationality. Respectively, science itself is one unique rationality. But, science is a rationality which exist parallel to and together with the other forms of rationality, independently from the fact that science is very instrumental and powerful. The aspiration for disputing and questioning of any other forms of rationality, and by becoming the measure of rationalism in general, the science cannot sincerely become all embracing rationality. By denying of other forms of rationality, the scientific rationality is not really abolishing them. Science, according to its forms of manifestation, is presenting a strong level of intolerance and exclusiveness in relation with other forms of rationality or irrationality. Thomas Kuhn and Paul Feyerabend, amongst others, have opposed that hard and intolerant attitude of the scientific rationality in relation to other rationality which differentiate in their forms and contents. They are trying to take away the meaning of the scientific rationality's scientific hypostasis by its relativism on the pluralist scene of rationality which are based on different cultures and traditions.

Thomas Kuhn and Paul Feyerabend are relativising and oppressing the scientific rationality by observing the scientific rationality historically, that is in the time and space in which it exists, considering the tradition from which it originates, considering that the scientific rationality modifies itself constantly, and together with its development and with the development of technology, changes its forms and the contents of manifestation more rapidly. They are observing it without taking under the consideration its technical power and utilitarianism, like the scientific rationality does itself by creating on the basis of that a picture of its priority and absoluteness in comparison with the other forms of cognition, knowledge, life and rationality, but form the aspect of its existence in the entire pluralism of scientific and unscientific forms of cognition and life.

Feyerabend is not observing the scientific rationality and knowledge from the aspect of their technical power, as the knowledge does itself. He considers knowledge as one of many instruments of the man's relationship with his environment, and with the World. As such the knowledge is not the only and without mistakes. With its instrumentalisation in technology and by it, the knowledge has become a significant social authority and the well of power and omnipotence.

Literatura

- MORICE MERLEAU PONTY, *Fenomenologija percepcije*, Logos, Sarajevo, 1979.
— *Struktura ponasanja*, Nolit, Beograd, 1984.
J.P. SARTRE, *Kritika dijalektickog uma*, Nolit, Beograd, 1983.
MARTIN HEIDEGGER, *Kra; filozofije i zadaca misljenja*, Zagreb, Naprijed, 1996.

- *Bitak i vrijeme*, Zagreb, Naprijed, 1985.
- Herbert MARKUZE, *Kultura i društvo*, BIGZ, 1977.
- *Hegelova ontologija i teorija povijesti*, Logos, Sarajevo, 1981.
- Dr. Abdulah SARCEVIC, *Iskustvo i vrijeme*, Sarajevo, 1982.
- *Iskustvo i vrijeme*, Svjetlost, Sarajevo, 1984.
- P. FEYERABEND, *Protiv metode*, V. Maslesa, Logos, Sarajevo, 1987.
- L. FRIEDRICH VON WEIZSACKER, *Jedinstvo prirode*, V. Maslesa, Logos, 1988.
- F. FUKUYAMA, «The end of history?», *The Nacional interest*, 16. Summer 1989.
- H. BURGER, *Filozofija tehnike*, Naprijed, Zagreb, 1979.
- A. ULE, «Znanost i realizam», *Filozofska istrazivanja*, Knjiga 83, Zagreb, 1996.