

LESSONS IN MARXIAN GNOSEOLOGY I

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I. FOREWORD

This document is part of a five- part investigation that seeks to systematically build the historical and theoretical foundations of gnoseology in the work Marx , which is not limited solely to *Capital* .

The first part consists of a study of the work *The problems of dialectical logic in "THE CAPITAL" by Marx* by Mark Rosental, the second part by the study of the work *Principles of Dialectical Logic* also by Mark Rosental, the third part by the study of the work *Marxist Dialectical Method* whose authorship also responds to Mark Rosental, a fourth part made up of the study of the work *Introduction to Dialectical Logic* by Eli de Gortari and, finally, a fifth part made up of the joint study of *A Response to Orzack and Sober : Formal Analysis and the Fluidity of Science* by Richard Levins and *The Value of Imprecise Prediction* by Alkistis Elliott-Graves.

On occasions, study notes are interpolated to the research, which the reader will know how to differentiate as such text does not refer to any bibliographic source and is not enclosed in quotation marks (except when another bibliographic source is cited within the notes in order to complement the reflection that is being studied); however, this is not the generality of the five investigations mentioned. The spirit of this gnoseological study is animated, among other things, by the firm conviction that, as Herbert von Karajan mentioned , "The art of conducting consists of knowing when to abandon the baton so as not to disturb the orchestra" and, precisely For this reason, the proportion of notes that are interpolated in relation to the total content has tried to be made up of strictly by notes rigorously necessary and sufficient to achieve gnoseological congruence and expository clarity.

From the above, this series of documents are called *Marxian Gnoseology Lessons* , a name that is not animated by a grotesque pedantry of the author, but because it is indeed the great gnoseologists of Marxism studied here who make a masterful exposition on the foundations of the Marxian gnoseology . The author of this research hopes that his interpolated notes have some cognitive value for the reader or, in the worst case scenario, that they do not represent an obstacle in the understanding of the gnoseological foundations exposed here.

The purpose of these documents is that, after the elaboration of a sixth document in which all the gnoseological notions of the five aforementioned documents are harmoniously amalgamated, the trace of how that sixth document was prepared is not lost, specifically from what sources it was taken. Each thing and what material within this sixth document is original of the investigation as such. For this reason, the five aforementioned investigations partially or totally share the index (whose entirety is the one exposed in the first research document entitled *Lessons in Marxian Gnoseology I*), which reflects that there is a general index of contents in this series of investigations, the result of combining the particular content indexes, which contains the particular indexes that make it up.

The investigations consist of a synthesis of the content of each of the works, reorganized based on the themes indicated in the aforementioned general index. Each of these investigations are nurtured with the *Grundrisse*, *Capital*, *Contribution to the Critique of Political Economy*, the Philosophical Dictionary edited by Rosental and Iudin [published in the Soviet Union in 1965, although the editorial version (and consequently the year of publication) of that dictionary used here is another; This dictionary has the characteristic, as it is openly pointed out in it, of being the first philosophical dictionary elaborated in the Soviet Union with an anti-Stalinist vision of reality.[\[1\]](#)] and other complementary sources such as Hegel's *Science of Logic*, the second chapter of *Marx's Theoretical Production: a commentary on Enrique Dussel's Grundrisse* entitled *The dialectical method from the abstract to the concrete*, the *Dictionary Philosophy* edited by Frolov (also of Soviet origin), the *Abbreviated Philosophical Dictionary* also edited by Rosental and Iudin [which has deeply Stalinist leanings and it is precisely for this reason that the quoted paragraphs do not appear in their entirety as in the original source, since they are eliminated when its components referring to the cult of personality are cited and, of course, any quotation that contains references to a work by Stalin [\[2\]](#) (in addition, comments are interpolated

when pertinent in case the elimination of the aforementioned components is not enough)] and other bibliographic material collected on the web through discussion forums and web pages in general.

It is worth mentioning that, during the use of the aforementioned Stalinist dictionary, it was broadly clear how Stalin's deformation of Marxism had occurred. This deformation does not use the lie, at least not immediately, so that the specific type of deformation before which it is present does not seem to be, at least not in general terms, a falsification of the theory, but a distorted interpretation of the same, which could only happen fundamentally because of the unfinished state of the Logic proposed by Marx and because of the level of complexity of said logic, which allows the masses to be more easily manipulated in their interpretation. At the theoretical level, as will be seen later, the scientific categories must reflect the general historical conditions and if these conditions change then, if those categories were scientific, they must cease to be valid (because they corresponded to the determined historical reality).

Thus, any criticisms that Marx made in *Capital* to the society of his time (the European society of the nineteenth century) and that "some ill-considered" might consider valid for the Soviet Union (Eurasia, twentieth century), were not applicable to the Soviet Union because what was in the USSR had already built socialism and what Marx analyzed was capitalism, so criticism from such an approach became invalid. A first analysis would make the above reasoning seem intricately robust, to the point of seeming impossible to see the logical hole in the argument. Except, of course, that at that time the entire political validity of the Soviet model was questioned, which is precisely what that ideology disconnected from science (because they always go together, but there can also be ideology without science - but not science without ideology, albeit at an almost imperceptible level-) was intended to strengthen, that is, the previous reasoning intended to strengthen the

political validity of the Soviet model through its ideological validation, which, since it is really (but not formally) disconnected from the sciences, reduces simply to a political-ideological manipulation of the psyche of the people.

The foregoing is affirmed since, in consideration of this research (which would surely not be shared by the Soviet authors referred to here), in the USSR the socialist mode of production did not exist [the above can be expanded in (Nabi, On paper and the viability of violence in the social struggle of women in particular and in social struggles in general, 2021)], but a very specific historical version of State capitalism, which is a significantly different concept and that even in the concrete case of the USSR, exhibited certain elements in its social dynamics that in principle will make up the next mode of production, *ie* , the socialist mode of production.

The above interpretation is a variation of what is often known as a *non-Leninist radical interpretation* , specifically a version of the so-called *non-Leninist communist left* . Something important must be said about the above. Leninism as gnoseology does not have problems, but it does have problems in the so-called "Marxism-Leninism", which is what is actually understood when one speaks of "Leninism". The problem with Marxism-Leninism is that it never existed or, at least, it never was neither Marxism nor Leninism, because it was a name that Stalin coined (after the death of Lenin, who by the way in his last political memoirs said that Stalin was dangerous , that he had amassed war power within the party and that one had to be careful with him) to give more ideological robustness against the party and the masses to "Leninism", which was Leninism ideologically manipulated (along with Marxism) by him.

Here it is convenient to explain the reason why emphasis is placed on the word "Marxian" and not on "Marxist". According to Néstor Kohan, " **Marxism-Marxian-Marxist**: Marxism is a critical theory of capitalist society that promotes throughout

the world a political practice of emancipation, rebellion, resistance, liberation and revolution. It presupposes a conception of the world and of life, of history and of the subject, expressed from the point of view of the oppressed and the exploited. As a critical theory it constitutes an open knowledge. It is scientific, philosophical, ideological, ethical and political at the same time. The Marxian term is more "technical." It refers to texts written exclusively by Karl Marx. The term Marxist refers to the writings, thought and political traditions not only of Marx but also of his later followers and supporters, up to the present day. " (Kohan & Brito, 2009) .

However, the above definition does not quite capture the essence of the differences and distinctions between "Marxian" and "Marxist". As verified in (Fundación del Español Urgente, 2021) , the suffix denoted as - *iano* has English as its source language and, in that language, it is a termination that is usually applied to some place names (proper name of a place) and gentilicios (said of an adjective or a noun: Denoting a relationship with a geographical place) , for example (cited in the mentioned source), *Darwinian* . On the other hand, as verified in (Fundación del Español Urgente, 2021) , the suffix denoted as - *ista* "(...)" is added to nouns and also to adjectives and verbs to form concrete nouns and adjectives that denote profession, trade, habit or occupation. Applied to people who follow a person or ideas, it is very productive today. " What these two definitions of suffixes is clear is that the word *Marxian* refers to theories that continue with the development of the Dialectic-materialistic philosophy (this philosophy consists of a logic of epistemology and its application in this or which context results in a theory) initiated by Marx in consonance with the fundamental architecture of said logic, while a *Marxist* does not necessarily, *ie* , its logical, gnoseological and theoretical compatibility in relation to the work of Marx and Engels is, at the level of the essential, incomplete. However, this raises a question, what is essential in Dialectical-Materialistic Logic? In this regard, it must be said that here it is considered equivalent to speak of Classical Marxism and Marxian Theory.

That a slope is classical (which is what is considered here to express with total fidelity a truly Marxian theory -ie, a theory whose philosophical foundations emanate unequivocally from the work of Marx and Engels-) does not mean that it does not evolve, everything On the contrary, since all the fundamental principles of Marxism involve the dynamic and complex process of incessant transformation of reality. This implies that the base and superstructure categories, alienation, exploitation, historical materialism, means of production, ideology, class consciousness, mode of production, political economy are indispensable in any analysis carried out by the researcher, which were defined by Marx and Engels, as well as by other Marxians, among whom stand out the philosophers of the Soviet philosophical school (mainly in its post-Stalinist stage - who despite never leaving the Soviet Union at the political level, did, by all means, abandon the academy philosophical-), Trotsky, Lenin, Rosdolsky , Gramsci, Ernest Mandel , Alan Freeman, Rafael Menjívar Larín, Carlos Mariátegui , Dagoberto Gutiérrez and Andréi Kolmogórov ; Of course, that they are Marxians does not necessarily mean that the totality of their contribution is epistemologically valid (nor that the epistemological validity of the works of the aforementioned Marxian authors is uniform - the same for all -), they are human, not perfect beings (at the same time just as it is human who has the pleasure of addressing the reader at this time), and it does not mean that other authors (even if they are not even Marxists) do not make contributions partially compatible with Classical Marxism, the epistemological reality is rich in its complexity .

In this sense, many authors do not fully understand the work of Marx. For example, Fröhlich notes that “It is therefore typically considered to be the state of the art and even prominent Marxian authors claimed that labor values“ play no role in the discussion of exchange and price ”(Roemer , 1981, p. 200). The different views that held that the transformation problem is probably insignificant did not

prevail. " (Fröhlich, 2012, pp. 1107-1108) , implying that there may be Marxian authors who study prices of production without considering value. Despite the fact that the quotation should be an automatic verification of their misunderstanding of the set of investigations produced by Marx and Engels, it is convenient to remember (some observations will be made later) , that "Many economists situated in the environment of Marxism or in its surroundings consider that there are many important things in Marx's thought that must be preserved, such as his theory of exploitation, class struggle or historical materialism, his approach to social conflicts, his historical perspective, his interdisciplinary or socio-economic sensitivity, his concern for the institutional, and so on. But they do not realize that the defense of each of these elements, together or separately, is perfectly compatible with the maintenance of neoclassical economics as a theoretical skeleton. In fact, if all this is defended, but the labor theory of value is rejected, the essence of Marx's economic thought is betrayed, and the resulting product will therefore have to be considered an impossible reading " (Guerrero, 1997, p. 107). First of all, it is not about loyalties or betrayals here, it is about what is intuitive, logical and plausible in satisfactory proportions given the available evidence. Second, the theory of exploitation is not compatible with the neoclassical framework, since in the long run the economies of the neoclassicals (with more inspiration in the land of Mickey Mouse than in economic reality) converge to the steady state and, with This is due to constant returns to scale, which is a technological performance scenario in which the product is exhausted in factor remuneration and, therefore, exploitation does not exist (this is mathematically guaranteed thanks to the homogeneous functions of degree one and Euler's theorem related to this type of functions); In the absence of exploitation, the concept of class struggle loses an objective and technical foundation, so there is also no historical need to replace classes (except for some whim of the "incompetent" -since the factors are remunerated according to their participation in the productive process-), so that the concept of social justice would also seem to

vanish, the same happens with social conflicts and in the case of historical materialism as well, since the word "materialist" has a deep philosophical meaning that enters into frank antagonism with the subjectivism of the neoclassical theory of value. Despite this, what Guerrero raised (although not due to the logical reasoning that he believed and, in fact, precisely because it was the antithesis of it) derives from Fröhlich's notion that there may be "Marxians" who do not agree with Marx's labor theory of value denotes a terrifying ignorance of the theory that, according to him, he is studying. This does not mean, obviously, that a Marxian approach is necessarily correct, it means that correct or incorrect, it cannot be detached from Marx's theory of value-labor.

On the other hand, it is necessary to mention that this research, by its very nature, does not take sufficient advantage of the material prepared by Rosental in relation to the passages that address agricultural and monetary issues, although of course several reflections of Rosental are cited in this regard. , since the present investigation deals specifically with gnoseological aspects and the neighborhood (in its topological sense) of issues related to such aspects, which can be approached more efficiently (greater clarity with less effort) when studying the characteristic aspects of the developed capitalism without fully entering into the study of the sphere of circulation (not to mention also that a complete scientific description of the connection between the sphere of production and that of circulation would be a novel contribution in Marxian theory, since which is one of the unfinished tasks of Volume III of *El Capital*) . However, what ends up causing the relative scarcity of such aspects (d the agricultural and d the monetary in relation to the other aspects) in this extraction of gnoseological reflections of Rosental's work is the fact that these gnoseological investigations have as The purpose is to serve as the basis for a general study on the creation and destruction of value in political economy systems, for which the aspects related to prices (production or commercial) are of complementary importance.

Finally, it is appropriate to combat a fallacious notion, insofar as it only partially represents the truth, about the motivations in Marx's work. In (Guerrero Jiménez, 2018, p. 2) , the author points out , regarding the positions on Marxism held by a particular Marxist, that “ (...) his criticism of the dominant Marxist interpretations in the field of economics is related to with the position that Marx himself adopted in his time in relation to the first Marxists and with the majority of non-Marxist socialists, who (as many as others) did not know how to interpret, according to him, the reality that arose before their sight , precisely because they used a theoretical arsenal that was not the most adequate, instead of using free thought only committed to the search for truth and the unmasking of commitment and eclecticism. ” Marx was not only committed to truth, but also to justice, for this reason his philosophical system also implies an ethics and a morality. In his own words, expressed to Sigfrid Meyer on April 30, 1867:

“ Dear friend: You must think very badly of me, and even more so when I tell you that your letters not only gave me great pleasure, but were a real comfort to me, since they came to me at a time of great distress. The knowledge that a capable man, à la hauteur des princes^[3], it has been won for our match, it is compensation for me for the worst. Furthermore, your letters were filled with such warm friendship to me personally, and you will appreciate that I, who am engaged in a fiercest struggle with the (official) world, cannot allow myself to underestimate such things. So why didn't I answer you? Because I was at death's door all the time. Therefore, I had to take advantage of every moment in which I was able to work to complete my book, to which I have sacrificed my health, my happiness and my family. Hope this explanation is sufficient. I laugh at the so-called "practical" men and their wisdom. If one wanted to be an ox, of course, he could turn his back on the sufferings of humanity and take care of his own skin. But I really should have considered myself impractical if I had left my book unfinished, at least in manuscript. ” (Marx & Engels, Karl Marx and Friedrich Engels Collected Works,

1987, p. 366) , which responds to a letter from Marx sent to S igfrid Meyer, based in New York, on April 30, 1867.

For this reason, we want to close this prologue with the definitions of ethics and morals constructed by the Soviet Marxian school of philosophy, regardless of the verification that may be made of their application in the Soviet region. Regarding morality , both R&I and Frolov state that:

" (From the Latin" mores ": customs). Form of social conscience, in which the ethical qualities of social reality are reflected and fixed (good, goodness, justice, & c.). Morality constitutes a set of rules, norms of coexistence and human conduct that determine the obligations of men, their relationships with each other and with society. The character of morality is determined by the economic and social regime; its norms express the interests of a class, of a social layer of the people. Since , in class society, their interests are contradictory , there are different morals in class. If a class becomes reactionary, its morality loses its justification and it becomes extremely selfish, it ceases to correspond to the course of history. On the other hand, if it translates the needs of social development, its moral is progressive. Morality is presented not only as a system of norms of conduct, but also as a characteristic peculiarity of the spiritual profile of people, of the ideology and psychology of a class, of a social layer, of the people. Objectively good and just conduct is moral; the bad, unfair, is immoral. However, people can fall into error taking the bad for good and vice versa. This is why morality includes in itself an assessment. The estimative attitude is revealed not only in the judgments (ideology), but also in the emotional and volitional reactions, in the affects (customs). The relationships between individuals expressed in ethical value judgments about behavior, gender of life, are moral relationships. Morality appeared when human society was formed, that is, before the State and the law emerged, and it has traveled a long historical path in its development, changing its character by changing the mode of production and the social regime. In class formations, the struggle between antagonistic classes also

finds its expression in the sphere of morals. We have, then, that moral norms and relations are not something given once and for all, as metaphysicians think, nor are they a pure spawn of reason, of the spirit, as idealists and theologians claim. Religion defends the morals of the exploiters. The spirit of private property pervades bourgeois morality. In bourgeois principles and customs selfishness, individualism, and hostile attitude towards men are evident. The conduct of the imperialist bourgeoisie, its way of life, is immoral, it collides with the general interests of humanity, with the course of history. Imperialist morality has found its most consistent and reactionary manifestation in fascism. With the annihilation of the capitalist regime, bourgeois morality is replaced by socialist morality, which has its sources in proletarian morality - already created under the old regime - and in the progressive moral principles accumulated by the workers in the struggle against its yoke and social injustice. With the victory of socialism, morality becomes that of all the people; In the period of transition to communism, morals and moral principles acquire paramount importance, relations between individuals and between man and society are governed more and more by moral principles, while the role of regulation is gradually reduced. administrative. The basic principles of the moral of the man of the socialist and communist society, are formulated in the program of the CPSU in the Moral Code of the builder of communism. " (Rosental & Iudin, 1971, pp. 324-325) .

" (Lat. Mores: customs): form of social conscience, social institute that performs the function of regulating the conduct of men in all spheres of social life, without exception. Morality differs from other forms of regulation of mass activity (Law, administrative-productive order, state decrees, popular traditions, & c.) By the way in which its requirements are founded and carried out. In morality, social necessity, the demands and interests of society or of the classes are expressed in the form of prescriptions and evaluations formed spontaneously, recognized by all and backed by the force of the example of the masses, uses and customs and of public opinion.

For this reason, the demands of morality take the form of impersonal duty, of an order equally directed to all, but which has not been dictated by anyone. These requirements are relatively stable in character. They are distinguished from simple custom or tradition, which are maintained by the force of ingrained order, because they receive theoretical argumentation in the form of notions of how man has to live and proceed. Morality differs from Law by the fact that, firstly, compliance with each of the moral requirements is controlled by all, and the moral prestige of one or another individual is not linked to any official attributions and, secondly, compliance with the demands of morality is sanctioned only by the forms of spiritual influence (social evaluation, approval and condemnation of the acts carried out). This conditions a relatively greater role of conscience in morality than in other forms of social control, and this conscience can be expressed both in the national form of concepts and judgments and in the emotional form of feelings, motives and inclinations. In addition to social conscience, individual conscience plays no less a role in morality. Relying on the moral notions developed by society and assimilating them in the educational process, the individual himself can considerably regulate his behavior and judge the moral meaning of everything that happens around him. Thanks to this, the individual is not only an object of social control in morality, but also its conscious subject, that is, a moral personality. Being a complex social formation, morality includes: moral activity from the point of view of its content and motivation (procedures accepted in one or another society, role models of many people, customs); the regulatory moral relations of this activity, which are manifested in various forms of duty, of demands that are presented to man (moral standard, duty, responsibility, conscience); the moral conscience that reflects these relationships in the form of the corresponding representations (norms, principles, social and moral ideals, concepts of good and evil, of justice and injustice). All these forms of moral conscience are united in a logically ordered system, which allows not only to prescribe, but also to motivate and value moral actions in a certain way. In relation to the various spheres of social life, specific rules are formulated in morality

(labor morality, professional and party ethics, existential and family morality), which are only relatively independent spheres of morality, which have a single foundation. Morality is a historical phenomenon. Arising in the early stages of the formation of society, it develops in the course of changing social relations, including economic ones, and the progress of the material and spiritual culture of humanity. In addition to general human concepts, morality includes norms, principles, ideals, & c., Class and historically passing. In society divided into classes, morality inevitably takes on a class character, reflecting the class struggle. In any society divided into antagonistic classes, in addition to the system of morality that justifies existing social relations and strengthens the interest of the ruling exploiting class, the morality that denies the former is formed. It is made by the oppressed class, which, by rising up to fight for the transformation of society, divests itself of the spiritual power of the dominant morality and creates its own morality, the basis for the formation of the morality of the future society. In this sense, communist morality has a fundamental specific feature, consisting in the fact that, by emerging as a class morality of the proletariat, it then becomes the morality of all the people of socialist society as a whole and later, the morality of the entire society. humanity." (Frolov, 1984, pp. 298-299) .

In turn, regarding ethics, they affirm that:

" (From the Greek ἠθικὴ ἡθική : relative to customs). Science of morals. It is divided into normative ethics and moral theory. The first investigates the problem of good and evil, establishes the moral code of conduct, indicates what aspirations are worthy, what conduct is good and what is the meaning of life. The theory of morality investigates the essence of the latter, its origin and development, the laws to which its norms obey, its historical character. Normative ethics and moral theory are inseparable from each other. Lately metaethics has been developed, which investigates ethical statements, their relationship with the truth, the structure and

constitution of ethical theory. Metaethics is a fruit of the current era, in which the sciences have resorted to the logical analysis of their means. Ethics should not be identified with current, "practical" morality, with morality; ethics is science, the theory of morality and morality. Morality arose before ethics, it already existed in the regime of the primitive community, while ethics appeared when the slave society was formed. Ethics has been an element of philosophical doctrines, of philosophical theory. Since it appeared, there has been a struggle between the materialistic and idealistic conceptions of morality. The pre-Marxist materialists could not understand the real objective laws of the development of morality. But they fought against theological conceptions in ethics, they subjected to criticism the idea that theologians and idealists maintained of the meaning of life, they defended the criterion that the origin and sources of moral norms are "earthly". In antiquity, contributed to that reached an ethical conception of reality Charvak (India), Chu Yan and Lao - tse (China), Democritus, Epicurus, Aristotle (Greece) and others. A great contribution was made to the development of ethical ideas during the period in which the bourgeois regime was formed and consolidated. The ideologues of the bourgeoisie, at that time revolutionary, such as Spinoza, Rousseau, Helvetius, Holbach, Diderot and Feuerbach, attached great importance to solving the problems of ethics. Although philosophers like Kant and Hegel defended the idealistic conception of morality, they expounded several valuable ethical conceptions. Russia's revolutionary democrats, especially Belinsky, Herzen, Dobrolyubov, and Chernishevsky, made a serious contribution to ethics. Like the utopian socialists of the West (Fourier, Saint-Simon, Owen and others), the Russian revolutionary democrats, dreaming of a just society, tried to predict and sketch the new moral relations between people. Marxist ethics endorsed all that was valuable in the ethical theories of the past. Its appearance constituted a turning point in the development of ethics. The preceding ethical theories were idealistic. The philosophers of the past supposed that it was enough to modify the level of the conscience of the people, to instruct them, or to change the form of state direction to spread the morality that

they advocated. Marx and Engels showed that morality was determined by the economic and social regime, and that it had a historical character. With their theory of communism, they pointed out what are the true paths of happiness, justice and freedom. The new stage in the progress of ethics is linked to the name of Lenin. They also contributed to enriching the Marxist ethics Plekhanov , Lafargue , Bebel, Nadiezhda Krupskaya , Anton Makarenko and others. Great attention has been devoted to ethical problems corresponding to the period of socialism and the formation of communism, in the XX and XXII Congresses of the CPSU. The construction of communism has raised new problems before ethics, which is becoming more and more a independent science. The moral code of the builders of communism, formulated in the program of the CPSU, is of great importance for the further development of Marxist ethics (Communist Moral). Contemporary bourgeois ethics is in crisis. The principles of bourgeois ethics are based on idealistic and metaphysical theories. Neotomists and existentialists write a lot about ethical questions. On the other hand, the neopositivists abandon their same ethical problems and cultivate the logical-semantics. The dominant tendency in bourgeois ethics is that which places questions relating to humanism, justice and the good on an abstract and metaphysical plane, without taking life into account; it seeks "absolute" ethical values whose sole purpose continues to be, as before, the defense and preservation of the capitalist regime. They are peculiarities of bourgeois ethics, the propaganda of individualism, the struggle against the principle of collectivism. Parallel to the spread of neotomist moral dogmatism, moral relativism intensifies, which attempts to demonstrate the impossibility of scientific ethics. " (Rosental & Iudin, 1971, pp. 159-160) .

" (Greek ethos: custom.) One of the oldest theoretical disciplines, whose object of study is morality. Ethics arises in the period of establishment of the slave regime, dissociating itself from the spontaneous moral conscience of society as one of the main integral parts of philosophy, as a "practical" science of how to proceed, as

opposed to purely theoretical knowledge about reality. Subsequently, ethics itself is divided into the theoretical and practical fields, into philosophical ethics and normative ethics. In modern bourgeois ethics, this historically justified division has reached a total rupture (Linguistic analysis in ethics, Logical positivism, Metaethics), to the mutual alienation between science and morality. The traditional contrast of theory and practice in the history of ethics also hampered the solution of its fundamental problem: that of the source and basis of moral ideas. Ordinarily, morality was deduced from an extrahistorical principle - God, the nature of man or the laws of the Cosmos (Naturalism, Theological Ethics) -, from some a priori principle or an absolute idea in self-development (Kant and Hegel) or from a certain authority (Approving Ethics). In the 20th century, the crisis of these traditional modes of deduction of morality found its expression in the thesis of modern bourgeois ethics on the impossibility of theoretically grounding moral ideas, as well as in the division of said ethics into two mutually opposite currents. (irrationalism and formalism). Only Marxism, which completely overcomes the opposition of theory and practice, clarifying their socio-historical nature, allows scientifically deducing the moral ideas of the modes of production in historical development, of the types of social life, which they characteristically substitute. logical to each other, and of the progress of the material and spiritual culture of society, and to clarify the nature of morality and its place in social life and the specificity of the reflection of social being in moral consciousness. Respectively, the question of the object and tasks of Marxist ethics is also resolved, which encompasses a series of research spheres. One of them is the study of the history of the development of the morality of the human race, which takes place in the form of struggle and change of the morality of the various socioeconomic formations and classes, as well as in the form of the history of ethical doctrines, which reflects This process. As for our time, this task of ethics consists in historically establishing the higher morality of humanity - communist morality - and in subjecting bourgeois morals and ethics to criticism. In this way normative ethics becomes the natural development of the conclusions of

the historical theory of ethics and ceases to be an independent doctrine, opposed to theoretical ethics. Moral principles are not established by certain philosophers, supporters of one or another current, but are formed in the process of social practice, reflecting the experience treasured by many generations, by all the people and the different classes. Marxist ethics also analyzes the nature and mechanism of action of morality and investigates it as an aspect of man's social activity, as a specific form of social relations and consciousness. At the time of the building of communism, the theoretical tasks of Marxist ethics and their practical significance grow immeasurably. Ethics Marxist synthesizes and systematizes the principles of communist morality, which are formed by the toiling masses in the process of building the new society, scientifically based these processes and is the theoretical basis of moral education of workers, the formation of their active position in life and intransigence towards infractions of the norms of communist morality. "

II. OBJECTIVE FOUNDATION (MATERIAL) OF MARXIAN

GNOSEOLOGY

II. I. Fundamental Definitions of the Object of Study and the Form of its Study

II.II General

In gnoseology or theory of knowledge " It deals with the following problems: How does the process of knowledge operate? What is the logic of knowledge? What is

the role of the forms and instruments of knowledge in the construction of the scientific picture of reality? These problems can only be solved from the positions of the materialist dialectic. In this way, the examination of its concrete solution, obtained thanks to Marx's analysis of capitalism, highlights dialectics as a theory of knowledge. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 236) .

"Such is the materialist principle of Marxist theory is that human knowledge can only reflect, reproduce reality objectively, but not create it in the Hegelian manner. For this reason, the concepts, the categories with which thought works, are themselves an ideal reflection of the material world in the human brain. *The Capital* is a model of design and analysis materialistic categories in this economic case. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 236-237) .

"In Marx, each economic category fixes objective economic relations and processes. Each of them reflects real life with its objective laws. The scientific rigor of the categories of Marxist political economy is due to the fact that they are the theoretical expression of reality itself. In his marginal Glosses to Adolfo Wagner's "Treatise on Political Economy", which converted real objective relations into ideal concepts that he used to string together his "theories", Marx attacks the idealistic dissolution of the real world in notions, and opposes his materialistic method to idealism. It shows that it is not the notion of value that has to be divided into use value and exchange value, but the value itself, real and objective, that exists in this double form: "... I never start from the 'concepts' , nor, therefore, from the 'concept of value', which is why I do not have to 'divide' this 'concept' in any way. I start from the simplest social form in which the product of labor takes shape in the current society, which is the 'commodity'. " And later, when showing that the merchandise itself, the objective reality, is the one that presents two aspects, he writes: "As you can see, I do not divide, the value in use value and exchange value,

as synthetic terms in which it decomposes the abstract, the 'value', but I say that the concrete social form of the product of labor, of the 'merchandise' is, on the one hand, use value and on the other hand 'value' ... "(...) ". .. the economic categories are only the abstract expressions of these real relations, and they only retain their validity as long as said relations exist ". (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 237-238) .

“Reduce knowledge to a question of form, separated from content: this is what is characteristic of the various tendencies of contemporary idealist philosophy, whatever their denominations:” logical positivism “,” existentialism “,” etc. Marxism was the first to put an end to the idealistic falsification of logic and the theory of knowledge. In opposition to the old metaphysical materialism, it does not ignore the importance of the forms of knowledge. This is the reflection of reality under the aspect of perceptions, of representations, logical categories, concepts, etc. But dialectical materialism studies these forms by linking them in an indissoluble way to the real content that knowledge extracts from the objective world. It is not logical forms that engender and model the laws of the world. , but the laws of nature that determine the logical forms of thought. (Rosental M., The problems of dialectics in "THE CAPITAL" of Marx, 1961, p. fifteen)

“ Logic is the theory, not of the external forms of thought, but of the laws of development of 'all material, natural and spiritual things', that is, of the development of all the concrete content of the universe and of its knowledge , that is, the total, the summary, the conclusion drawn from history, from knowledge of the world " (Lenin, 1974, p. 83) .

“Lenin had said that in Capital Marx elaborated the dialectic, the logic and the theory of knowledge; Inspired by this indication, the author intends to show, by examining some important problems, that dialectics not only extracts the objective

laws of the development of the world, but that for that reason it is the only scientific logic and theory of knowledge. . " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 22) .

“Hence the radical opposition between the Marxist method of analysis of internal connections and the Hegelian way of facing this problem. For example, in his Science of Logic, Hegel also looks for an internal connection, but what interests the German idealist is the logical connection of categories and purely speculative concepts, and not the correlation of objective facts . Hegel's method, Engels indicates, comparing it with that of Marx, was "... essentially idealistic, and here the aim was to develop a more materialistic conception of the world than all the previous ones. That method started from pure thinking, and here we had to start from the most tenacious facts. A method that, according to his own confession, started from nowhere, to arrive at nothing, through nothing, was anyway improper in this form. "Contrary to Hegel, Marx examines the internal connection of" stubborn facts, "and deduces from them the objective laws of the capitalist mode of production. It is not thought, it is not a preconceived idea that links the phenomena between themselves, but their objective connection is translated into the laws discovered by science. In addition, the objective law is nothing other than the link of cause and effect, the correlation in which certain phenomena necessarily engender others, in which a The degree of development necessarily conditions another degree. The law is the form in which these internal connections act, are realized. As the law is the internal, essential link of the phenomena, it determines the development of the phenomena, which occurs with a natural necessity, and governs the processes of nature and society. The essence of the law of value, as demonstrated by Marx, lies in the internal connections of commodity production. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 37) .

"(...)" When interconnection is apprehended - Marx wrote to Kugelmann - all theoretical belief in the permanent necessity of existing conditions collapses before its practical collapse occurs . " Some right-wing socialists have preached a true crusade against the materialistic principle of determinism in science, that is, against the recognition of causal relations and the interdependence of phenomena. It is characteristic that many of them, as well as other bourgeois ideologues , manage to demonstrate that the principle of causality and of determinism is inapplicable to politics and social science. Contemporary physics is used for this purpose. Based on the theory of the idealistic "physics" Bohr, Heisenberg and others, they claim that the principle of causality has failed in politics as well. than in physics, interpreted by the latter under the idealistic angle. Politics, they say, has to count on numerous factors, which are not determined. They are exactly defined by the laws of causality. Through these pseudoscientific references it is concluded that the most recent results of the natural sciences leave the way open to a spiritualistic, religious explanation of nature; that in order to know social life it is necessary to analyze "moral values" and renounce rationally explaining the objective relationships of causality between phenomena. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 43) .

“At the same time that he discovers the objective laws of phenomena, Marx shows how these laws work, how causes and effects are linked, how connection and interaction condition the necessary passage from one degree of development to another. Marx conceives " the development of the economic formation of society as a natural-historical process ... " But what does it mean for Marx to consider the social movement as a "natural-historical process"? It means seeking the internal and necessary connection of objective phenomena , to observe the conditioning of certain facts, by others, independently of the will of men, the regular transition from one stage of development to another. With this idea Marx underlines the fact that, in society, as in In nature, processes are determined by objective laws. Unlike

the action of the laws of nature, things become more complex in social life in which men act, set definite objectives, in which movement acquires the aspect of human acts and behavior. But social movement does not cease to be a natural-historical process. It acquires that character because the conditions of "material life, production processes are the decisive engine of society. The men do not choose the mode of production "according to his wishes , " but the existing mode of production that determines the multiple aspects of a given social system, in this social consciousness of individuals. The primitive community, for example, was not the result of a conscious choice, but the necessary effect of the internal and determined relations between the level of the productive forces, which is the cause, and the form of social life, which is the consequence. Every cause implies the corresponding effect. The change in conditions, the disappearance of certain causes and the appearance of others, necessarily engender new effects. The modification of the level of the productive forces of primitive society and the increase in the productivity of labor gave birth to new results: the social division of labor, private property based on it, the division into opposite classes, in a society that until then lacked classes. The primitive community thus left its place to the slave society. This step was done as a natural historical process. In this sense, Marx considers the evolution of economic and social formations as a natural-historical process. This development is based on the necessary connection of causes and their effects, on their reciprocal action, which conditions the specific passage from one degree to another. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 45-46) .

"The capitalist production of commodities cannot be understood without analyzing in advance the simple circulation and production of commodities. These form the preconditions of the former. Their connection constitutes the passage from the second to the first. After having examined capital as a determinate effect of the processes that act within the framework of simple mercantile circulation, as

a result of the action of the law of value, Marx lays bare the nature of the capitalist mode of production. The axis of all bourgeois society is the production of surplus value. If not taken into mind, nothing is understood in this society, class relations under capitalism. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 46) .

"After having shed light on the essence of capital, he links to this essence the whole of capitalist production and circulation." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 47) .

"These objective processes, independent of the will of men and their awareness, produce certain results: the centralization and concentration of capital and the capitalist production progress rapidly. The small and medium capitalists do not resist the unleashed competition, and they go bankrupt. All the wealth of bourgeois society is concentrated in the hands of a few great magnates. A gigantic process of socialization of work is observed, production becomes more and more social. But this character of production is in flagrant contradiction with private capitalist appropriation. The centralization of the means of production and the socialization of work create the material premises for the birth of a new, superior social regime: socialism. Thus, in his analysis of capital, Marx studies real events, their relationships, and their objective connection. By observing these relationships, by showing that determinate objective causes produce determinate effects, which in turn become causes that generate new effects, and so on, Marx lays bare the entire chain of the phenomena of capitalist production and circulation. , taking his_ analysis to the last link, after which the life of a new social organism begins. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 48) .

“He begins by examining an isolated form of value, an elemental and accidental form of relationship between men, when -the exchange has not yet developed; then establishes that with the evolution of change this relationship between commodity producers becomes ever closer. The developed and general form of value expresses a closer relationship between producers, and this relationship brings together the whole of economic life into a whole, when the first form of value appears. The exchange of goods expresses the bond established by market mediation between isolated producers. the money indicates that this bond becomes closer, indissolubly uniting the economic life of isolated producers into a whole. Capital means the further development of this tie: the labor force of man is becomes a commodity ”. (Rosental M., The problems of dialectics in Marx's "THE CAPITAL", 1961, p. 49)

“ The analysis of the complex network of correlations of bourgeois production and circulation is of enormous interest from the point of view of method. Marx does not begin by examining the "whole", because it is impossible to study from the beginning the set of capitalist relations of production and circulation. He chooses certain aspects, separates them altogether, and only at the end of the investigation does he reproduce the set of relationships and mediations. This rupture of the living links of phenomena, this isolated examination of a certain aspect outside of its relations with other aspects of the whole, is, in fact, indispensable, not, of course, to distort the objective picture, but to know it better. background." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 50) .

"Having shed light on the process of capitalist production, ie on relations most deeper and more important than the bourgeois regime Marx is dedicated to the examination of the second aspect of this single, the process of circulation. In the second book studies the process of circulation, relationships and correlations which it characterized as well as the circulation link with

production. There, too, he does not face these relationships as a whole at once. In the first two sections of Book 11 he examines the rotations of individual capital, temporarily abstracting from the links and entanglements of all individual capitals. This step was methodologically indispensable in order to establish the stages traversed by each individual capital in its rotation, by each part of the capital stock, as well as to establish the existing correlations between these different stages. Only after this analysis could one proceed to the examination of the relations of all individual capitals, of the movement of social capital considered as a whole in its connections and complex mediate forms. At this stage in his analysis Marx considers individual capitals as parts of social capital, thereby assuming an interdependence between all individual capitals. In speaking of the need to examine, to begin with, the movement of individual capital, Marx indicates: "However, each capital in itself is nothing more than a substantiated fraction, endowed so to speak, with individual life, with social capital as a whole, in the same way that each capitalist in himself is nothing more than a individual element of the capitalist class. The dynamics of social capital is formed by the totality of the movements of its substantive fractions, of the rotations of individual capitals." However, Marx does not at once examine the turnover of individual capitals in all its connections. To begin with, he isolates certain aspects of this rotation, and only then brings them together into a whole. It shows that the cycle of industrial capital must go through the phases of capital-money, productive capital and finally capital-commodity, and separately observes the rotation of each of them. The cycle of each capital comprises, in turn, various stages linked to each other. Only as a conclusion, in the chapter entitled "The three formulas of the cyclical process", Marx highlights the cycle of industrial capital as a whole, in all its relationships and mediate forms. It is a model of dialectical analysis. There was apparently no reason to examine isolated aspects of capital turnover at first and then reproduce the cycle as a whole. In reality, the rotation of industrial capital as a whole can only be carried out without interruption on the

condition that each of its phases (money capital, productive capital, commodity capital) carries out its cycle in a normal way. Otherwise, the overall cycle of capital could not occur. Only the knowledge of these diverse aspects allows, therefore, to understand the whole, that is to say, the cycle of industrial capital as a whole. This meticulous analysis of the various connections and interdependencies, which precedes that of the cycle of individual capital as a whole, is far from purely abstract speculation; The proof of this is that precisely from the existence of these relations Marx deduces the need for their rupture, for their disturbance, which causes periodic economic crises, inevitable in capitalist production and circulation. In these circumstances, the relationship itself, however paradoxical it may seem, is only possible on condition of continually suffering ruptures. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 50-52) .

As he points out (Lenin, 1974, p. 87) , Hegel raises two fundamental postulates, the first is *the need for concatenation* , while the second is *the immanent birth of differences* . The first means Lenin defines it as a **necessary connection** , objective links, between all aspects, forces, tendencies, etc., in the sphere of the given phenomena. The second defines it as **the internal objective logic of evolution and the struggle of differences** , polarity.

In the second book, Marx still not yet the transformació n of the various parts of the capital in autonomous areas of application, which operate independently. He exposes that transformation in the third book. Commodity capital, which until then appeared as part of industrial capital, becomes autonomous in the form of mercantile capital. But this autonomy could in no way destroy the internal connection of capital-commodity and the other parts of capital. It only accentuates the tendency, typical of the anarchic production regime, of the rupture of relations and their reestablishment by violence, in the form of destructive crises. "Despite its substantiation," writes Marx, "the movement of commercial capital is never anything other than the movement of industrial capital itself within the orbit of

circulation. What happens is that, thanks to its substantiation, it moves to a certain extent. regardless point own limits the reproduction process, by which pushes to it to exceed its limits. the internal unit and the external sustantivación push it until a point where the inner connection is restored violently through crisis. But in both the first and second sections, it was always an individual capital, the dynamics of a substantive part of the social capital. However, the cycles of individual capitals intertwine with each other, presuppose and condition each other, and this intertwining is precisely what forms the dynamics of capital as a whole. "(...)" (Rosental M., Los problema of dialectics in Marx's "EL CAPITAL", 1961, pp. 54-55) .

"In the second book Marx reveals much more complex and more concrete correlations of bourgeois production and circulation than in the first book. But it goes further. In these two books he still abstracts from the relations of the movement of capital with numerous phenomena that modify it in a sensible way. It temporarily discards the influence of the concurrence of capital, the different composition of capital in the various branches of production, the transformation, under the reciprocal action of capital, of value in price of production, etc. In the third book, Marx reveals these connections, which reflect the extreme complexity of the overall movement of social capital. Thus ends the analysis of the connections and reciprocal links of production and the circulation of capital, which he had begun in the first lines of his work. Finally, capital adopts as Pecto a everything together and coherent, different parts of which meet in a synthesis. In the first two books of Capital, Marx had shown that the class of workers is opposed to that of capitalists

who appropriate the unpaid labor of their wage slaves. But when the whole of social capital had not yet been analyzed in all its connections and mediations, Marx above all opposed the individual capitalist and his workers. Now that he considers the whole of capital he shows that it is not only the individual capitalist who exploits the worker, but the total capital. This important conclusion for the formation of the

political consciousness of the working class was only possible thanks to the analysis of the prices of production and the establishment of the average profit rate. The formation of the price of production, the sale of commodities, not according to their immediate value, but according to the costs of production plus the average profit, implies that the individual capitals are closely linked to each other, and that the profit of all capitalists, obtained by the exploitation of all the workers, is poured into a kind of common receptacle, from which each individual capitalist extracts a benefit corresponding to the importance of his capital. The average profit rate is the rate of exploitation of the workers, not by an individual capitalist, but by the whole of social capital, by the entire class of capitalists. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 57) .

"From this it follows that it is not accidental, as Marx further indicates, the fact" ... why, although they behave as enemies in their reciprocal competition, they constitute a true Freemasonry in relation to the whole of the working class. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 58) .

In his Theses on Feuerbach, Marx characterizes the anti-historical method applied by the philosophy of the Enlightenment to the study of man and human society. This characterization is in full accord with classical political economy. The human essence, Marx wrote, "... is not something abstract and immanent to each individual. It is, in its reality, the set of social relations" (...) " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 60) .

By means of the analysis of "work in general", Marx lays the foundations of a materialist theory of concepts. Precisely because the latter are reflections, copies of the actual relationships, independent of human will, precisely because they are born, they are formulated in scientific terms in

close connection with the historical conditions that constitute its material foundation. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 241) .

"If you reflect objective reality and express conditions historical concrete, it is clear that evolution and modification of the latter involve scientific notions. The objective dialectic of development deb and reflected as in a mirror · dialectics "subjective", ie, in the dialectic of concepts. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 241-242) .

Lenin insisted in this sense in his Philosophical Notebooks: " ... if everything develops," he writes, "does this also apply to the more general categories and concepts of thought? If not, it means that thought is not linked to existence. If so, it means that there is a dialectic of concepts and a dialectic of knowledge that have an objective meaning. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 242)

"The objective importance of the" dialectic of concepts "is constituted by the fact that the development of reality necessarily engenders contradictions between new and old phenomena, which cease to correspond to them. Only the evolution of the concepts, their correspondence with the new conditions, confers an objective value to the concepts formulated by science, and makes them adequate to faithfully reflect the development of reality.

"For Marx, concepts and categories, according to his own expression," ... are no more eternal than the relationships they express. They are historical and transitory products. " They develop in parallel with economic relations. Hence the richness and diversity of the categories and economic concepts of *Capital* , beyond all

comparison with those of the concepts and categories found in the works of Smith and Ricardo, not to mention the other economists.

bourgeois. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 243) .

"The fundamental flaw of all materialism precedent (including that of Feuerbach) is that it only captures the thing, reality, the sensible, in the form of the object or contemplation, not as sensory human activity, as practice, not a subjective mode. Hence the active side was developed in an abstract way, as opposed to materialism, by idealism, which, of course, does not know real, sensory activity as such. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 251)

" By" real, sensory activity, as such ", Marx means practice, that is, human labor, the social activity of production that transforms and subdues nature. "All social life - Marx adds - is essentially practical" In order to understand this activity it is necessary to take into account the practical nature of social life, since men, in order to live, have to produce means of existence and create, with that object, instruments of production. This is what Marx calls, first of all, practice. Practical activity is what arouses among men the need to know phenomena and their essence; the role of knowledge is precisely that of endowing the man of the power to act in a practical way on nature and to create in such a way the conditions of his own existence. She is the one who develops the active aspect of human thought; she constitutes at the same time the basis of this. This base, and the more human thought develops, the more apt it becomes to penetrate into the essence of things. The theory of knowledge is closely linked to the science of society, to the concept of scientific, that is, materialistic, ion of social life. Marx and Engels were the p irst in founding the science. For the rest, the ancient materialists were incapable of solving the problems of gnoseology. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 251-252) .

"If the materialists before Marx did not discern the active aspect of thought in the process of knowledge, the idealists, on the contrary, emphasized it by all means. But they distorted the nature of knowledge and that of the real world at the same time. The activity of thought in knowledge was metamorphosed in them into a creation of reality, of nature. That incredible leap was checking the activity of thought to the postulate that thought would be the basis, the substance of nature, idealists made in different ways. The idealists were divided, in turn, into "rationalists" and "empiricists." The first (Hegel and others) affirmed that the *noúmeno* must be discovered, beyond the *fenómenos*, the essence of things. In his opinion, the testimony of the senses is false and misleading, since it is limited to the surface, to the "appearance" of phenomena. The reason is the only way to discover the essence of things, but as this essence is illuminated by reason, which gives a conceptual way, it turns out, then, is nothing but an idea, a concept. That is why the essence of things appears as the ideal order, and real things are engendered by that essence. Hegel and other idealists only emphasized the activity of thought in knowledge in order to convert nature into an Idea, separated from the real world and divinized. This era totally distorted the effective correlation of phenomena and essence, feelings and abstractions, sensory activity and activity of abstractive thinking. Other idealists, like Kant and Hume, considered the essence of things unknowable. Some, for example, Kant, opened a gulf between phenomena and essence. In itself, the world of phenomena would be pure chaos removed from all objective law. Laws are given from outside by the understanding of man, which uses *a priori* concepts, regardless of experience. The analysis of phenomena cannot discover the universal, the necessary, the laws; all this only exists in the understanding, independently of nature. If Kant is believed, the phenomenon and the essence, the singular and the universal, constitute two unrelated worlds, totally separated from each other. For the "empiricist" idealists (Berkeley, Hume, and others), sensations are the only reality, and outside of them

there is nothing else. For all idealists, in a word, the problem of the phenomenon and the essence of what is singular and the universal, the sensible and the abstract, was insoluble. Only Marxism solved this problem, elaborated a scientific theory of knowledge. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 252-253) .

“The solution of the problem of nature and of the stages of knowledge, of the respective role of its different degrees, is closely linked to the problem of essence and phenomenon. Marx has expressed in a few words, in *Capital* , all the importance of this problem: "... in reality, all science would be of more, if the way of manifesting things and their essence coincided directly ... " Therefore, it is this immediate lack of coincidence that makes knowledge necessary; that's what explains why the history of philosophy has been the theater of a conflict so bitter between "empiricists" and "rationalists " between supporters of sensory knowledge and supporters of the " pure reason ". This conflict, which is not at all fortuitous, is due to the opposition of two solutions to the most important problem in the theory of knowledge, of two conceptions of the world: materialism and idealism. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 254) .

"Being hostile to all forms of idealism, scientific knowledge of the fact of no immediate coincidence of essence and phenomenon, and the purpose of discovering is set to through phenomena essence, that is, the fundamental element It characterizes them, and to show how that essence is manifested on its surface. "... it is the work of science to reduce visible and purely apparent movements to real and internal movements ... " (...) (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 256) .

“There is there a principle of general methodology, valid for all kinds of scientific knowledge. Phenomena, as they occur immediately, cannot be scientifically known

unless light is first shed on their essence. Of course, this does not mean that on the historical plane knowledge, for example, that of capitalist production, can and has in fact started from its essence. Strictly speaking, knowledge always begins with appearance . Just as men at first confused the apparent motion of the stars for their actual motion, and only much later did they understand the true motion of the planets, so political economy began by describing the external motion of bourgeois production and only later, with classical political economy, he approached the study of the hidden basis of external phenomena. The same thing happens in the brain of the individual. Knowledge goes from the perception of external phenomena to the analysis of their essence. Hence the fact that knowledge is governed by specific laws, and hence the role of sensory knowledge and the activity of thought. Therefore, the scientific knowledge of the phenomena implies the illumination of their internal and fundamental content hidden behind the external forms . However, it is not possible to oppose the essence to the phenomena, as if it existed outside and independently of them. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 263) .

Actually, they are opposites, but they are also in unity. The intensity of this opposition depends on the moment of the evolutionary trajectory of the phenomenon in question that is analyzed.

“Strictly speaking, the essence and the phenomena are two aspects of a single and unique objective reality: internal and external; on the one hand, the laws of the real world, on the other, the forms of expression of those laws. The essence of the price of a commodity, for example, is its value; but the price of the commodity is the external manifestation of that value. It is clear that the essence of the price of the commodity does not exist outside of it or independently of it. Value is the socially necessary labor, incorporated into the merchandise. Outside, on the surface, value is expressed in the form of price. The knowledge of value allows us to discover the

aspect of the merchandise that determines the price, without which the price becomes irrational and unintelligible, since it is the expression of value. Here is what distinguishes value from price. This is what explains why, as Marx says, external phenomenon cannot be analyzed without relying on its inner essence. It is quite evident that the essence and the phenomenon do not belong, as the idealist imagines, to two different worlds; they express different aspects of one and only world, the material world. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 264) .

“ The essence and the phenomenon differ, moreover, as Marx teaches, in the fact that the former does not reside on the surface of things and is not immediately discovered to the gaze of man, while the latter has the character of an immediate fact, inasmuch as it is the external expression of the essence. To know the price of the merchandise, no analysis is necessary, but to know the value as the basis of the price, a scientific analysis is essential. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 264) .

The above is not without certain inaccuracies, because the price of production is not what is observed in the market, but its *sale price* (which is the terminology used by Marx to denote what the Marxists of the *New Interpretation* (of now hereinafter NI) and neoclassicals generally call *market prices* .

Consequently, the phenomenon and the essence indicate the degrees of deepening of knowledge. Marx writes that, for example, to know the hidden base, the secret of wages, a long historical period was necessary, but that once this base is known, nothing is easier than to understand the need for this form of expression between workers and capitalists. . Having established that the salary is the price of labor and not labor, Marx does not reject however the category of wages, so pretext that it erases the true state of affairs. On the contrary, it explains why real, covert relationships take the form of wages, why the value of labor power is

metamorphosed into wages. "In this external form of manifestation - he writes - that hides and makes reality invisible, inverting it, all the legal ideas of the worker and the capitalist are based, all the deceptions of the capitalist production regime, all its free trade illusions, all the apologetic phrases of the vulgar economy. " (...) (Rosental M., The problems of dialectics in Marx's "THE CAPITAL", 1961, pp. 266-267) .

"The problem of essence and phenomenon is closely linked to that of the abstract and the concrete. Linking the essence with the phenomenon, the law with its concrete forms of expression, supposes an advance from the abstract to the concrete. The intermediate links on which Marx insists so much are discovered precisely in the course of this advance, which will be discussed later. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 279) .

"This movement that goes from the phenomenon to the deepest essence is the one that confers a dialectical character to the process of knowledge. However, the process of scientific knowledge is not limited to reducing phenomena to their essence, but also consists of explaining how it is expressed, why it manifests itself in this way and not in another way. This problem will not be solved if the phenomena are directly reduced to the essence, because there is no immediate coincidence between them, but it can be solved by analyzing the intermediate links that modify the law, the essence, in its external form. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 280) .

"The problem of Essence and the phenomenon, as it solves the Marxist theory of the knowledge -the only scientifically, is cardinal for anyone who wants to understand the forms of knowledge of reality, the role therein represent perceptions sensory and scientific abstractions. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 280) .

" The task is assigned to the scientist, and that is to overcome the contemplation of external phenomena to penetrate into the heart of reality and shed light on their links and fundamental relationships, it determines both the general progress of knowledge like its forms and its essential moments. In its external manifestations, reality is immediately given to our perceptions. But the knowledge of these manifestations is not yet scientific knowledge. The latter seeks knowledge of the background of things, hidden behind external forms. Hence the fundamental problem of the theory of knowledge: How, by what means, does thought come to know that hidden background, the essence of phenomena?

Marxism answered this question for the first time in the history of philosophy. By perceiving, with the help of the sense organs, the phenomena of reality, thought elaborates the materials provided by sensory knowledge. This elaboration tries to discover, to know the fundamental, hidden links, imperceptible to the naked eye, that exist between phenomena. The organs

The senses are the instrument of sensory knowledge, of active contemplation of reality. Scientific abstraction is the instrument of the elaboration, of the interpretation of the materials provided by this contemplation. Contrary to the old theories of knowledge, which attributed unilaterally the role of main instrument and unique knowledge, to sensory knowledge, to the rational knowledge, Marxism considered one and the other as degrees needed, linked together. Organically, in the knowledge that they can pass the phenomenon of the essence, and then reach an essence deeper and deeper. Marxist theory of knowledge has shown that no one can know anything of reality but in particular contact with the phenomena of the objective world, acting on the organs of man's senses and causing it to have certain sensations. Thought can only penetrate the essence of phenomena on the basis of data provided by the senses. But sensory knowledge is insufficient by itself, because it records only the external forms on which the essence is manifested; So, the degree of sensory knowledge is completed by that of

the abstractive activity of human thought, which allows precisely to know the essence of reality. Thus, instead of arbitrarily separating and opposing the different moments of knowledge, as was done until then, Marxism associates them in a single process that develops dialectically and where all these movements are of equal importance and necessity. One passes dialectically from one degree of knowledge to another: from sensory knowledge, from concrete observation, to knowledge based on scientific abstraction . Each of these degrees cannot be conceived without the other. The Marxist theory of knowledge reduces, moreover, the entire process of knowledge of objective truth and of each of its moments, to practice, to the practical activity of men, which is the foundation of knowledge and the criterion of authenticity of our knowledge. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, pp. 281-282) .

Of course, when Rosental speaks of reducing, that is, when he mentions the word "reduce," he is not making an accusation of reductionism.

“ This statement defines the role of abstraction in knowledge. Thanks to the force of abstraction, thought can penetrate the essence of phenomena and know the laws of objective reality, in the analysis of the data provided by the sensory organs. A Unlike the old materialists, who underestimated the role of abstraction in the development of perceptions and representations, the Marxism led to a very high level abstractions the role of science in the process of knowledge. The Marxist theory of knowledge, like that of the materialists before Marx, starts from the principle that knowledge is the reflection of reality. Except that for Marxism it is not a simple, direct reflection, but rather a very complex process of abstraction, concept formation, discovery of laws, etc. The simple reflex, live, play is dead, fo tográfica of reality, which does not exceed the record of its manifestations outside. To reflect the deep processes of reality it is necessary to resort to the force of

abstraction. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 283) .

" This insufficient depth of abstraction in the analysis of value, this ineptitude to systematically separate the substance of value from the magnitudes that it is capable of adopting, from the forms under which it is expressed, explain a great deal of the errors of value. Ricardo's theory, especially the confusion between value and price of production, which was discussed in the chapter above. "

(Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 285) .

" The force of abstraction lies in the fact that thanks to her thinking discovers the profound causes of the phenomena, and thus we makes them intelligible. For this reason scientific abstraction reflects reality more deeply than observation itself. "

(Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, pp. 288-289) .

Scheme 5 of (Dussel, 1991)

Source: (Dussel, 1991, p. 50) .

Regarding the previous table, it is essential to note that: " For Marx it was very important to clearly distinguish between what is real and what is thought, since the Hegelian spectrum was always on the horizon (reality: A is not what is thought: B of scheme 4) : "The whole, as it appears in the head as the whole of thinking, is a product of the thinking head" (22,29-31; 22,31-32). For Kant "representation (*Vorstellung*)" is the act of knowing an object by categories. Not exactly so for Marx. Knowing by "representation" is an initial cognitive act , naive, first, full of meaning , but confused, chaotic. From the original "representation" , abstraction begins its action -productive of knowledge- as an analytical moment of reason: ". . . it would have a chaotic representation of the totality and, by means of more precise determinations, it would arrive analytically (*analytisch*) to increasingly simple concepts "(21,14-16; 21,20-22). " (Dussel, 1991, p. 50) .

Thus, " The act of abstraction is analytical, in the sense that it separates from the " full representation " one by one its multiple noetic contents (moments of the reality

of the thing itself); it separates a *part* from the whole and regards it as *whole*. The consideration of a "party" as "everything" by the conceptive ability of intelligence, it is the essence of abstraction. As an act, abstraction separates analytically; as object or content, abstraction produces "abstract determination." The "determination" - we have seen it above - is a real moment of the thing, but as that moment is abstracted (analytically separated) it is now a concept that "reproduces" the real ("reproduction [*Reproduktion*] of the concrete"; 21.42; 22.5); it is now a moment of thought, a conceptualized moment. The abstraction (arrow *b* of Scheme 5) directly separates the determination of the actual concrete (level 1), but the "representation" already known (level 2). For this reason representation (arrow *a*) is prior to abstraction (arrow *b*), and representation (level 2) is the starting point of abstract determination (level 3). In this way representation is "volatilized" in abstract determination; as a full representation it disappears, it is methodically denied - for the moment, analytically. It is in this sense that it is written: "The abstraction of the category of work, work in general, work sans phrase ... is the starting point of modern economics." (25.41-44; 25.21-23). The determinations are abstracted, but they are "produced" as well. They are produced or constructed in terms of the clarity and precision of their noetic contents. It is a theoretical work (not a theoretical practice, but a theoretical production), and therefore in the original plan of the work, the first action was to study "the general abstract determinations (*die allgemein abstrakten Bestimmungen*) that correspond ... to all forms of society" (29.34-36; 28.37-39). The study or investigation of determinations, be they simple or complex, by analysis, is the first moment of the theoretical method for Marx - since the mere representation is a moment of everyday, pre-scientific, pre-dialectical knowledge. In analysis the discipline of methodical thinking is required." (Dussel, 1991, p. 51).

Finally, "Once the abstract determinations have been defined or "fixed", the dialectical moment occurs in essence, which always consists of a "rise" or "rise

"(21.30 and 22.3; 21.38 and 22.9) .1 This "ascension" (arrow *c* of diagram 5) starts from the abstract and builds the concrete totality (which will nevertheless be abstract with respect to the later moments of the method, in its movement of "return" and "descent"). . The dialectical method consists of knowing how to place the "part" in the "whole", as an inverse act of that carried out by analytical abstraction. Abstraction starts from representation (all full) and reaches abstract determination (clear but simple). The dialectical act starts from the abstract determination and synthetically builds a totality - concrete with respect to the determination, abstract with respect to the " explained concrete totality " (level 6 of scheme 5): "The concrete is concrete because it is the synthesis (*Zusammenfassung*) of multiple determinations, therefore , unity of diversity " (21,34-35; 21,40-41). This had been the conclusion of his previous reflections on production, when he wrote that the "result" that was reached is that , although production, distribution, exchange and consumption are not identical, they nevertheless "constitute the articulations of a totality, differentiations within a unit " (20.15-16; 20.25-27). The dialectic movement is therefore a time of the pen- sar generally by which "rises from simple to complex " (23.31 to 32; from 23.26 to 27). The simple thing is, for example, production (a determination that can itself be described in its essential determinations itself). But by elaborating the mutually constitutive relations of production with consumption first, with distribution later, and finally with exchange, a whole was thus built where the four determinations constituted a new totality with mutual co - determinations. Marx had thus "elevated" himself from the simple (production) to a totality of multiple determinations (cf. Scheme 2). Marx is aware that it is a construction: "The concrete totality, as a totality of thought, as a concrete of thought, is in fact a product of thinking (*Produkt des Denkens*) and conceptualizing, but in no way is it a product of thought. concept ... but on the other hand, it is a product or of the development work that transforms intuitions and representations into concepts "(22.22 to 29; 22.26 to 31). The dialectical "construction" obeys a double movement. On the one hand, it handles

the determinations (clearly defined as "concepts", themselves "constructed" as a thought essence with internal determinations) and relates them to each other (production-consumption, for example), mutually co - determining each other. In this way the "opposites" are co - defined. In a second moment, a new totality is synthetically constituted with them that acquires autonomy (it is the totality articulated with multiple determinations). Having reached this specific level, what previously appeared to be the opposite (production and consumption), now form part of a "unit" that understands and explains them. The concrete totality is the complex. The simple thing is the determination (which can reach the level of concept), such as work, division of labor, need, exchange value . With all of them, dialectically, one ascends to the concrete totalities , such as: " ... the State, the exchange between nations and the world market" (21,32-33; 21,38) - stop, for the question of the "plan "Of the work, the order of the concrete wholes. The "world market (*Weltmarkt*)" thus appears as the last concrete horizon (level 4 of scheme 5); as a theoretically constructed totality . At this point it is necessary to "descend", Marx tells us verbatim: "At this point, we would have to resume the return journey, until we found the population again, but this time we would not have a chaotic representation of a set, but a rich totality with multiple determinations and relationships "(21,18-22; 21,24-28) . This "return" (*rückwärts...*) "(Which would be the arrows *d* and *e* in diagram 5) is not clearly visible in Marx's description. In the same way, the "concrete totality " seems to be, on the one hand, the "constructed totality" (concrete with respect to determinations) or the "concrete historical totality" (the first, level 4, and the second, level 6 , from scheme 5). When it is said that "bourgeois society is the most complex and developed historical organization of production" (26,23-24; 25,43-44), Marx is referring to a concrete historical and real totality; but as long as it is known and explained, it would be a higher level of complexity (level 6) than the totality initially constructed (level 4). Fast forward in time, in *the Capital* , simple determinations (work, division of labor, etc.) would build the concrete totality of many determinations is "capital in general". From that

concrete totality (but at the same time abstract with respect to bourgeois society), which has been reached by "ascent" (volume I of Capital), the totality of bourgeois society (level 6) would be explained, by "decline". All this will have to be clarified as the speech progresses in the *Grundrisse*. In any case, we think that Marx's reflections on the method in Notebook M are not a treatise on methodology, they are rather reflections on the "running of the pen". There are too many misunderstandings, too many unexplained aspects. In short, there is talk of a general dialectical "movement", but many details remain obscure. However, the general lines of the discourse have been defined." (Dussel, 1991, pp. 52-54).

" It is not that categories or the order of thinking produce reality (Hegel). It is not a question of thinking that reality is already clearly manifested in full representation (empiricism). Nor is it a question of confusing the order of thinking (categories) with that of reality (in this Proudhon is right when he distinguishes both orders). But neither should it be thought that the two orders are absolutely separate, which would determine that the order of the succession or movement of the categories is the effect of the pure order of thought (idealism, after all). But neither can it be thought that the order of the categories is determined by their appearance in history (first the oldest categories and later the most modern). No. The order of the categories (order of theoretical thinking, which arises from reality, but is not confused with reality) must be determined by their essential and synchronic position in modern capitalist society. In this way, the order of the categories (even if it is a theoretical order) reconstitutes reality in an abstract order, arising from reality itself (not from ideas). But the reality to which the order of the categories refers is the concrete totality, with multiple determinations, that is modern bourgeois society. Let's take a look at this in parts. In the first place, categories are not pure ideas that arise from ideas; nor are they reality itself: "The economic categories. . . they express ways of being (*Daseinsformen*), determinations of existence (*Existenzbestimmungen*), often simple aspects of this determined society

"(27,26-31; 26,41-45) . The real ("modern bourgeois society in this case is something given both in reality (*Wirklichkeit*) and in the head"; *ibid.*) Is the starting point of abstraction. In reality, determinations are moments of their existence, ways of being of the same society. As abstract they are already the fruit of an analytical act of methodical separation. Abstract determinations insofar as they are defined are "concepts", and as interpretive "instruments" or "mediations" they are categories. The order that the categories keep among themselves is the same real order that the determinations keep as a moment of reality in concrete bourgeois society. On the other hand, by understanding the reality of bourgeois society, I understand at the same time the reality of earlier, less complex societies. But, and it is essential, the structure of bourgeois society cannot be confused with the "natural order" of the economy valid for all times - it is the fetishism into which bourgeois economists fall: "Bourgeois society is the most complex and developed historical organization of production. The categories which express (*ausdrücken*) conditions and understanding of your organization allow the same time to understand the organization and related s production of all forms of past society. . . [However] they may contain these forms in a developed, atrophied, caricatured way, etc., but the difference will always be essential (*wesentlichem Unterschied*)" (26,23-27,5; 25,43-26,23). " (Dussel, 1991, pp. 56-57) .

" The Marxist conception of scientific abstraction can be reduced to three essential moments: 1. After direct contact with reality, it appears to us as a mass of singular phenomena and objects, at first sight devoid of mutual links, chaotic, etc. The importance of scientific abstraction lies in the fact that, according to Marx's expression, it sheds light on the unity of these phenomena, on what is identical about them. For example, in the diversity of the phenomena of nature, thought establishes, by way of abstraction, its internal connection , its unity, its common element. This unit is the fact that all materials are, are manifestations of matter in its evolu c ion. The concepts that summarize the results of this abstraction are

"reductions", forms that express the common properties of a multitude of different things. The history of science attests to the importance of abstractions as "reductions" of this type. For example, before science developed the abstract notion of matter, which helped reduce multiple phenomena of the natural world to matter and to the various forms of their movement, nature was artificially divided into "qualities" particular, in "imponderable substance", and so on. Only the abstract notion of matter made it possible to establish the unity, the community of all the phenomena and processes of nature, to reduce them to their most general essence and to extirpate from science the mysterious and unknowable "substances". Thus, abstraction considers what is common to a multitude of singular things. However, scientific abstraction is not interested in the totality of common elements, but only in those that express the essence, the cause of concrete phenomena. Therefore, the abstraction allows knowledge to reduce all the multiplicity and diversity of phenomena to their essence and understand their properties and respects decisive, cover men such. 2 . The direct view of reality makes us believe that it is full of coincidences, that everything is subject to accidental changes and fluctuations, and that there is nothing stable or lasting in this succession of phenomena . The importance of scientific abstraction, according to Marx, lies in the fact that behind contingency it allows us to perceive necessity, the law that determines the objective course of development and modifications. The unity and universality discovered by thought, through abstractions, in the mass of phenomena, are nothing other than the law of the latter, the relatively durable and stable element that is preserved and manifested in the infinity of things and processes. "The shape of the universal nature says Engels is the law ... " For example, the law of conservation and transformation of energy is a form of universality, that is the required element and regulate on which are based on the most concrete forms of movements , modifications, transformations that take place in matter. In the same way, the law of value is the form of universality in the world of commodity production, because it is the need that manifests itself in one way or another in the most diverse

movements and changes that take place in it. 3. The result of the first two points is that the force of abstraction is a force of generalization, and that this is effected by separating the non-essential, the contingent, the particular, the concrete, to take into account only the common and essential element, typical of the mass of singular phenomena. Thus, abstracting from the fact that the goods traded one for the other, they are fundamentally different, generalization Marx discovered the element unique and essential that constitute the content of these singular things: their value. Therefore, by generalizing you will discover the laws of the phenomena and scientific abstractions are the instrument of this generalization. Hence his strength." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 289-291).

" But Marx also cites examples of another order, which show that more developed economic relations can and do exist in the absence of money; it is especially about cooperation, division of labor, and so on. In this regard, he adds that the simplest categories are only fully manifested in a higher stage of historical development. His demonstration takes as an example the work abstract. This category was known in ancient times, but only in bourgeois society, when a decisive role falls on work in general, and not on its concrete forms, and when a given work becomes "accidental and consequently indifferent" to the individual, the category of work in general becomes "practically true." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 370).

" The answer that Marx gives to the problem of the correlation between the logical and the historical is reduced to saying that the upward march of thought from the abstract to the concrete must reflect as a whole the great guidelines of the real historical process. But it is not a simple, photographic reflection; it is a complex reflection, which includes the stage of departing from the exact reproduction of the historical process." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 371).

" Engels gives the same response (...) speaks of the logical and historical methods in v estigación. As it indicates that, in its broad guidelines, historical development generally goes from the simplest to the most complicated relationships, it might be believed at first glance that the correct method consists in following the process of this development as closely as possible. But in practice this method would make it necessary to repeat all the "jumps and zigzags" of history, and then it would be difficult to discover the logic of development; the advance of thought would often be interrupted . Here, Engels says, only the logical method is acceptable. The logical method of investigation seeks, according to Engels, to know the internal logic of the development of a given phenomenon. Does it follow that the logical method is diametrically opposed to the historical method? In any way. Engels indicates that, strictly speaking, it is nothing more than "... the historical method, stripped only of its historical form and of disturbing contingencies. Where this history begins, the discursive process must also begin, and its subsequent development. will be more than the reflected image abstractly · and theoretically consistent, the historical trajectory; a corrected reflected image, but corrected under the law that provides the historical trajectory itself with, and so, cad a factor can be studied at the point development from full maturity, in its classical form. " (...) " (Rosental M., The problems of dialectics in Marx's" THE CAPITAL ", 1961, p. 371) .

Of course, it is shedding its historical form precisely to eliminate its disturbing contingencies. This follows the same logic, for example, when in data processing the observations are scaled based on the natural logarithm to eliminate or mitigate the variable variance problem in the studied data set.

" In our upward march from the abstract to the concrete we must therefore follow the actual historical evolution of economic relations. On the other hand, it would be a mistake to believe that theoretical analysis should consider economic categories only in the order dictated by the course of historical development. Marx and Engels believed that , of the two mé t ll possible, the logical method of

studying capitalist production was the only permissible. For the rest, the logical point of view and the historical point of view do not appear for them as two independent paths, but as two paths inextricably linked to the method of study that they called logical or analytical. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 372) .

"(...) " As shown by the development of its determinations, money contains within itself the d and sends value which comes into circulation, maintained during circulation and the same time establishes circulation: that is the capital. This transition is also historical. The antediluvian form of capital is commercial capital, which always displays money. At the same time, true capital arises from this money, or merchant capital, which takes control of production. " Having discovered the nature of capital, Marx clarifies the procedures for increasing surplus value. Starting from the absolute surplus value, it then goes on to the relative surplus value. Here too he is inspired by the principle that logic reflects the historical development of social production. In actual historical movement, capital began precisely with the method of producing surplus value that Marx called the absolute method of increasing value, that is, by prolonging the working day. Only the development of technology made it possible to increase surplus value by reducing the time required and increasing the worker's overwork. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 374) .

"(...) " In the course of scientific analysis, the formation of the general profit quota appears having as a starting point the industrial capitals and their concurrence, being later corrected, completed and modified by work of the interposition of commercial capital. In a trajectory of historical development, things happen exactly the opposite . it is the commercial capital and more or less determined primarily prices of goods and values, being in the sphere of circulation which serves as a vehicle for the process reproduction, where a general share of profit is formed. " It is understood that , if Marx allowed himself such "departures" in relation to the

fundamental line of historical development, he did not do so without serious reasons for it. The analysis of the latter will show that the logical or analytical method of investigation is not a simple reflection of the historical, but that, as Engels puts it, it is a "rectified" reflection according to the laws of historical reality itself : Whoever ignores of the laws, of the essence of phenomena, it will not be able to give more than a superficial description of its evolution nor will it be able to overcome the level of observation, even though it is sometimes penetrating. The reproduction of the historical process in thought loses all its force if it is not based on the knowledge of the motive laws of the historical process. The mystery of primitive accumulation is easily understood if the essence of the capitalist mode of production has already been discovered. But if the latter is unknown, the exposition of the prehistory of capitalism will be limited to an external description of the events of this period. These we will then appear as a Caotic bunching or deprived of any internal logic. It is understood, from this point of view, why Marx here renounced the historical succession of events and began by specifying the essence of the capitalist mode of production, only to clarify later the mystery of the primitive accumulation of capital. As established before, the essence of capital resides in the exploitation by the capitalist, holder of the means of production, of the workers, deprived of these means. Therefore, so that the capital can appear and there had to be a whole historical period, at the junction of which the property was arranged each gradually hand of direct owners and in which producers- were separated from the property . Such is the essence, the law of the primitive accumulation of capital. The logical study of this problem required that the materials be arranged in an order diametrically opposed to the actual historical development. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, pp. 376-377) .

" Take another example. Historically, commercial capital preceded industrial capital. But if we limit ourselves to following at all costs, always and in all cases, the historical process, it will be difficult and even impossible to proceed to a

scientific analysis of commercial capital. Because it intervenes in the sphere of circulation, and there is a risk of adopting the false idea that the source of commercial capital, and consequently of the existence of commercial capital, is a simple increase in the selling price, a deception, a fraud, etc. Strictly speaking, the source of commercial profit is the surplus value created in the sphere of production, surplus value of which commercial capital monopolizes a part. It is clear that the study of industrial capital before commercial capital is a need that arises directly from the objective pursued, which is to know the essence, the law of phenomena. In the light of the law of surplus value _ discovered by Marx, commercial profit (as well as commercial capital as a whole) appears as a perfectly explicable fact. It would be an irrational fact if we tried to understand it before having studied industrial capital independently of that study. What constitutes the strength of the logical investigation procedure is aimed at theoretical knowledge of the problem, knowledge of the internal logic of the development of a given phenomenon in its most pure form, the discovery of its essence, of its law. This procedure allows us to understand the development of the phenomenon from its most elaborate form. From that degree of complete maturity of the phenomenon, certain characteristics and aspects of the lower forms, historically previous, are particularly well affirmed. "The anatomy of man is the key to the anatomy of the monkey. In the lower animal species can not understand I will sign annunciators a higher form if not already know Ja top shape it." (...) " (Rosental M., The problems of dialectics in Marx's " THE CAPITAL ", 1961, pp. 377-378) .

" Hence the following conclusion: as only from the most developed and relatively more complete form of a phenomenon can its intimate essence, its logic, its law be better understood, then it is necessary to dispose of the historical data in a certain way, which does not it always agrees with the actual course of history. The historical is life itself. The logical is the essence of life, unraveled by theoretical research. The force of the logical procedure consists in revealing that essence of the historical, that main line of development, lightened from everything that obscures

it. Therefore, if the logical cannot be separated from the historical, because that would be the same as separating thought from life, from reality; If as a whole it is an emptying and a copy of the historical, it is not, however, just any copy, a lifeless reflection of reality, but a reflection penetrated by the thought of man who knows how to extract the essential from history and reject the accessory, accidental, and subordinating all that essential element particulari d ades and all the details. The painter who reproduces a landscape on his canvas preserves the main, the essential, and eliminates the accessory, to illuminate in such a way, through the interplay of colors, lights and shadows, all the elements of the landscape, which shows us a copy in a certain sense superior to the original itself. The same can be said of the logical method of investigation: it arranges the colors, the lights and the shadows in such a way that it makes everything that is historically accidental, secondary, disappear, to bring out the main, the essential, in the confusion and the motley diversity of phenomena. The logical method of investigation thus provides a theoretical synthesis of the course of history. Each economic category is based, in Marx, on historical facts, which he systematizes without losing a single moment of sight. The movement of economic categories, their reciprocal conversion, broadly reflect the historical process of the emergence, development and inevitable end of capitalism. But at the same time, since the logical thing is a refined historical picture, the method cannot and must not blindly follow all historical incidents, and when a departure is necessary in order to reproduce reality in a more profound way in thought, it withdraws of the historical course of the concrete and arranges the categories, no longer according to history, but according to the logic of development. The production of surplus value is the skeleton of the entire process of the historical development of capitalism, it is its essence and its foundation. Without it, nothing of the capitalist mode of production can be understood. It is the fundamental economic law of capitalism, which determines and explains all aspects of bourgeois society. For this reason, Marx subordinates his entire study to the analysis of this fundamental

economic law of capitalism. And precisely so that this law emerges with force through all the manifestations of capitalism, Marx arranges and studies the economic categories according to his main task. However, it would be a mistake if it were assumed that Marx acts in this way to "facilitate" knowledge, that he intervenes in the objective process and introduces something strange, something "subjective" into it. This would be to completely ignore the essence of the Marxist theory of knowledge. Marxism is alien to all subjectivism in relation to reality. The "intervention" in question, in the representation of historical development, does not result from the desire to "facilitate" knowledge, but from laws by virtue of which the essence of reality is reflected. It is not to denature the course of history, but to give it a deeper, more understanding or to separate the logic of the historical, but to better disclose your unit. Let's continue our analogy with the painter. When when executing a landscape, it omits useless elements, accidental details, it is not to denature the objective painting, but to express with more precision the characteristic, the typical, in the nature it represents. In other words, their attitude is governed by the represented object itself. A bad portraitist who tried to reproduce the features of a face as faithfully as possible would do everything possible to make everything similar: the hair, the dye and a thousand other accidental details. Seeing a good painter, on the other hand, strives to capture and to express the essence, more intimate the bottom of your model, and for this purpose does not seek to emphasize this or that accidental detail. It is clear that it is the second painter, and not the first, who most faithfully represents reality.

Consequently, departing in this or that case from the line of historical evolution in order to reproduce in thought the internal logic of the development of a phenomenon, one does not fall into subjectivist arbitrariness in any way. In the precapitalist formations, everything, even the embryonic industry, has an agricultural tinge; the dominant production is agriculture, with all the relationships that arise from it. On the contrary, in the capitalist regime the hegemony of the bourgeois mode of production gives all things, including

agriculture, a bourgeois tinge, and therefore nothing could be understood in it, except in the light of economic law. fundamental of capitalism. Hence the need objective to study first the capital and then the territorial income, although history things are presented in another way. "Therefore it would be impossible and wrong," concludes Marx, to place the economic categories in the order in which they were historically determining. Their order is determined, on the contrary, by the relations that exist between them in modern bourgeois society, and it is precisely what inverse of what appears to be their natural order or correspond to the order of emergence in the course of historical evolution. " the arrangement, subordination of economic categories as evidenced by *the Capital* is entirely determined by this important methodological indication of Marx. In the foreground of his study are the categories that express the essence of the capitalist mode of production: surplus value, capitalist accumulation, etc. From it, he derives and develops economic categories such as interest, commercial profit, income, etc. It is true that Marx studies the commercial capital, the interest income, etc., not under the historically shaped category existed before, but as modified forms under the influence of the capitalist mode of production. But at the same time it also examines the forms in which capitalism existed before; It studies the genesis of capitalist land rent and offers an "extract from the history of mercantile capital", a remarkable chapter in which he analyzes the "antediluvian forms of capital", usurious capital, and so on. " (Rosental M., *The problems of dialectics in Marx's CAPITAL* ", 1961, p. 382) .

"(...) " A classical economics is not interested in presenting the complete genesis of these forms, but reducing them analytically unity, they are the same forms that serve as a starting point. Without working or analysis is forever and necessary condition of any exposure to character genetic ; without it is not possible to understand the real process of formation and development in its various phases. " When Marx speaks of study and genetic exposure refers, basically, to the synthesis. as made ignored if this aspect of the research, Smith and Ricardo fell fatally with

incoherence and thus contributed largely to prepare the trinitaria formula vulgar economists. parted, as one must start from the value, and as they identified profit, salary and income as their manifestations and stages. But then they failed to explain why, in the concrete reality, the average profit does not match the goodwill, or the value taken as with along with the price of production. They stopped, helpless, before a phenomenon like absolute income, which seems to contradict the value deduced by the analysis; they substituted constant capital and variable capital for fixed capital and circulating capital, etc. In other words, although they saw value and the production of value as the basis of the capitalist mode of production, they did not dedicate themselves (and did not even formulate the problem) to develop, from value, their converted forms, that is, , to reproduce by synthesis the concrete in its diversified forms, the concrete - let us specify it in passing - that arises from its base, from its unity. And this can only be done by synthesis, that is, once the analysis has been carried out. " (Rosental M., The problems of dialectics in Marx's "CAPITAL ", 1961, p. 391) .

" Once its task is accomplished, the analysis must be completed by other cognitive processes, as indispensable as it is, but which develop in a directly opposite sense. Although the analysis discovers the unity, the essential community of the different phenomena, we are still very far from understanding real development in all its concrete complexity. Analysis does not by itself give us anything other than a highly abstract and colorless picture in relation to concrete and living reality. In this way, the mineral kingdom and the living world are made up of the same chemical elements, the analysis of which is indispensable for the knowledge of these two manifestations of a single and unique matter. But how far this knowledge is from that of the real essence and of the distinction between the living and the non-living! As Hegel said spiritually, the flesh may be composed of carbon, oxygen, etc., but these abstract substances are not flesh. Everything resides in the synthesis of these substances, in the way in which these elements are

brought together, which precisely restores all the concrete aspects of the phenomenon under consideration.

Analysis, to take another example, helps us break down production into constituent elements such as the instruments of production, with the help of which society its means seeks existence, and the men who use these elements production. The knowledge of these constituent elements of all production is of the utmost importance, but it does not by itself give us knowledge of a specific and specific mode of production. These elements are themselves abstractions. It all depends on the way they have been put together. Their concrete mode of assembly is that provided by real society: feudal, capitalist, socialist.

Therefore, the analysis must be completed by the synthesis. But this is not as trivial a task as a cursory examination that reduces synthesis to the pure and simple gathering of the component parts of the object might lead one to believe. The criticisms directed by Marx against the bourgeois economists and the concrete applications that he gives of the synthesis in *Capital* show that it is a process of extreme complexity. Marx synthesis means the realization of the general term and unique, reached by analysis and deduction therefrom, its concrete expressions multiform existing in the reality. According to him, synthesis is the reproduction of the concrete as a unit of the diverse. If the analysis thinking is the singular, from the concrete to the abstract and general, in the synthesis follows the reverse path: from general to their multiple manifestations, its diverse forms of existence. All the essence and all the force of the synthesis reside in the fact that reality is no longer presented as a sum of isolated phenomena and processes, but as a whole in which phenomena, however fragmented and diverse, are they are found together in a single bundle and subordinate to the laws discovered and studied thanks to the analysis. By synthesis Marx intends study and play at the thought of the actual development process, while the analysis does not study and does not know anything other than the abstraction of that process.

This is why Marx could not consider that he was done with his task when he discovered surplus value. It remained for him to demonstrate that all the diversity embodied in the many forms of capitalist income is the manifestation of the production of surplus value, and that all the external forms of capitalist life are expressions of the main and fundamental fact of bourgeois production, whatever it is. Whatever contradiction seems to exist, at first glance, between the former and the latter. And that demonstration was only possible with the help of that powerful instrument of knowledge that is synthesis.

Marx himself highlights the considerable role of synthesis, taking for example the study of land rent. Indicates that the difficulty lies not in the general account of the surplus product generated by the capital invested in a GRICULTURE and the corresponding value. This problem is solved in the analysis of the surplus value created by all productive capital, whatever the sphere in which it is invested. Once the analysis has made it possible to discover the general element that characterizes all forms of capitalist production, a special demonstration is no longer necessary to understand that income is a form of surplus value. "The difficulty," writes Marx, "is to show how, after the surplus value is leveled between the various capitals on the basis of the average profit, on the basis of granting them in the total surplus value generated by the social capital in all branches of production, a share corresponding to their relative magnitudes, how after this leveling, after apparently all the existing surplus value has been distributed and capable of being distributed, there is still a remnant of surplus value, which the capital invested territorially yields to the owner in the form of rent from the land, and where does this remnant come from. " (...) " (Rosental M., The problems of dialectics in Marx's " THE CAPITAL ", 1961, pp. 392-395) .

“ The bourgeois economists before Marx did not even set out to formulate this problem; they denied the existence of absolute income. Marx was the one who took care of it. This problem is nothing more than the synthetic study of the way in

which the surplus value discovered by the analysis is specified in the real relations of the capital invested in agriculture, it is modified in those concrete conditions linked to the existence of private property of the land , at the lower level of the organic composition of capital in agriculture, etc. It is the movement of thought that goes from the abstract and the general - surplus value - to its concrete and singular manifestation, land rent. It is the synthesis of the general and the singular, the abstract and the concrete. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, pp. 392-395) .

" Marx considers analysis and synthesis, not as two independent research methods, but as two different methods, inextricably linked to each other, arising from each other and mutually conditioning. Each of the the is appropriate at a given moment and to resolve v er a problem given. At each particular stage of knowledge, synthesis or analysis comes to the fore , but both cooperate closely with each other: analysis prepares the "work" of synthesis, and synthesis helps analysis penetrate deeper into the essence of phenomena. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 395) .

" However, it would be oversimplifying the problem if one thought that the research process can be reduced in Marx to two stages, in which the first is mainly analytical and the second synthetic. This is true broadly speaking, when the structure, the Capital plan, is considered as a whole. But in reality things are obviously more complex. At each stage Marx uses analysis and synthesis simultaneously. This is true both for the first two books, in which he studies particular aspects, taken separately, of capitalist production, and for the third, in which he studies capital as a homogeneous whole. One can only speak of a predominance of analysis in the first stage (books I and II) and of synthesis in the second (book III) , but otherwise we see that Marx applies the two methods, each in its place, to throughout your research. This is better understood if it is remembered that it goes from the simple to the complex, from the abstract to the

concrete, and that each new degree of its investigation, although it reproduces a more complete and complex picture of the movement of capital, does not for that reason an abstraction in relation to the following extent, u n higher and complex . "

(Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 396-397) .

“ Thus, currency is a more concrete category than merchandise, and therefore cannot be deduced except by a synthesis itself preceded, as is evident, by the necessary analysis. But currency, at the same time, is something simple and abstract in relation to capital. Therefore, the study of this complex category requires its v ez analysis and synthesis. In Book III , in which predominates together, as we have already said, the method of synthetic research, Marx goes from simple and abstract to complex and concrete , and , therefore, at this stage, should resorting, again, simultaneously, to analysis and synthesis. All research movement in Capital can then be represented as a string in which the link analysis happens synthesis, followed by is l Abbo further analysis, after a synthesis ú n complex, etc. Each stage of analysis and synthesis adds new characteristics to the picture of the movement and development of capital and enriches the canvas with new colors, until the moment when the research process culminates in the reproduction of the capitalist mode of production in all its complexity. concrete . "

(Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 397) .

“ This cell that discovered, the merchandise, is subjected by Marx to a penetrating analysis, which makes a complex world emerge instead of what seemed a dead thing, a fixed identity. Analytically decompose the merchandise into its opposites, the use value and the exchange value. The work that produces commodities is also decomposed by Marx into its opposites: concrete and abstract work. And this analysis makes you discover the ordinary, the only thing in the world multiforme l as goods, which constitutes its substance, ie its value. The analytical work carried out by Marx makes it possible to arrive at an important synthesis and culminate in the scientific concept of exchange value. The exchange value, specified by the

preceding analysis that discovered its essence, no longer appears to us as an indecipherable hieroglyph, but as a known whole; it is the expression or the manifestation of value. Goods find a common denominator in value, the embodiment of abstract labor. " (Rosental M., The problems of dialectics in Marx's "CAPITAL ", 1961, p. 398) .

“ Marx first gives the general formula of capital, as it appears on the surface of phenomena, and shows that its movement is a self- growth of money advanced by the capitalist. Then study, with ay u da analysis, the essence of this movement and shows that the autoacrecientamiento of capital is possible only because capitalism is a specific commodity, labor force, which has the special virtue of being source. new value. He analyzes this original merchandise and discovers that, like all other merchandise, it has a value and a use value. It highlights the important difference between the value of labor power and its use value. If the former does nothing but reproduce itself in the course of the worker's work, the latter can be and is the source of the self-growth of value. It is precisely the specific nature of the use value of this commodity that explains the mystery of surplus value. Then Marx studies with the help of analysis the process of work. It breaks it down into its constituent parts, studies the role of constant capital and variable capital in the production of value, analyzes the different procedures for obtaining surplus value, etc.

All this study leads Marx to give an exhaustive definition of the essence and nature of surplus value, the cornerstone of the entire political economy of capitalism. This is how the production of surplus value, the essence of the capitalist mode of production, has been explained by analysis. By abstracting the non-essential or less important aspects of these processes, systematizing the concrete phenomena and stripping them of their misleading cover, Marx discovered the essential common element that unites the many manifestations of the life of capital. But if from the point of view of estructure to from the set of The Capital this study of surplus value is dominated by the analysis, the research process itself is divided into a large

number of degrees and links born by a part of the analysis and on the other of synthesis. In other words, the study of goodwill could be brought about or finally through the use of analysis and synthesis in its unity . " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 399-400) .

“ This continuous step from analysis to synthesis and from synthesis to analysis is found again in Book II of *Capital* . Thus, Marx divides the overall rotation of capital into its elements, and explains in what lies the essence of the rotation of each variety of capital: money-capital, productive capital, commodity-capital. Then he carries out the synthesis of these different rotations and obtains the formula for the total turnover of capital. After that, he analyzes the movement of individual capitals and provides a synthetic picture of the reproduction of the conjuration of social capital. In Book III, in which he outlines a broad synthesis of the overall process of capitalist production and circulation, Marx also applies the two methods of study, since he goes from the simple to the complex, from the less concrete to the less specific. more concrete. ” (Rosental M., The problems of dialectics in Marx's " CAPITAL ", 1961, p. 401) .

" What it is based, then, this movement of the conocimiento? One of its essential foundation is the principle that the conocimiento is abbreviated reproduction of the historical process of knowledge. In Chapter IX the problem of the logical and the historical has been dealt with in only one aspect, that of the correlation between logical knowledge and the historical development of the real. Here, this problem is considered from the angle of the correlation between the logic of knowledge and historical development, not of objective reality, but of knowledge. This aspect of the problem is no less central to the theory of knowledge and logic. "The concept (knowledge) in being (in immediate phenomena) - writes Lenin - discovers the essence (the law of cause, identity, difference, etc.)... Such is the general march in reality. of all human knowledge (of all science). Such is also the march of the science of nature, of political economy and of history. Hegel's

dialectic is in the same measure the generalization of history and thought. this process more completely, with greater precision, in the history of each of the different sciences, seems to be a task worth undertaking in every sense. " And from what he precedes Lenin draws the following conclusion of principle. In logic, the history of thought must essentially coincide with the laws of thought. Not only does the analysis of the historical development of knowledge in general present a capital importance for the construction of a logic and a scientific theory of knowledge, but also the analysis of the historical development of the different categories. In the light of all the foregoing, it is perfectly understood that, according to Lenin, the work of dialectical logic must consist of a dialectical study of the history of human thought, science and technology. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, pp. 416-417) .

“ In the Dialectic of Nature, Engels also underlined the importance that the coincidence of the logical process of knowledge with the historical development of human thought presents for scientific logic and for the theory of knowledge. The relationship between the logic of knowledge in the head of an individual taken in isolation and history of knowledge, said Engels, is analogous to the relationship between I to embryology and paleontology. What does this analogy mean? It is known that paleontology is the science that studies, according to the fossil remains, the history of the animal world; r e builds the evolution of the organic world . Embryology is the science that studies the development, from the embryo, of organisms taken individually.

But in the nineteenth century it was established that the development of a particular organism reproduces in an abbreviated and highly condensed form the history of a species or of its genus, and that the embryos of any contemporary animal species greatly resemble ancient forms, disappeared, of the same class of animals in their adult state. The parallelism between the history of the animal world and the development of the embryo has played a great role in the victory of

the principle of evolution over the metaphysical principle of immutability and constancy of species in the organic world. For Darwin, the great creator of the scientific theory of natural selection, this parallelism constituted one of the essential proofs of the thesis according to which the animal and plant world did not suddenly emerge in the form in which it exists today, but rather it underwent radical transformations in the course of millions and hundreds of millions of years . Engels shows that, just as the development of the individual organism from the embryo is the condensed reproduction of the history of the evolution of the species or , in other words, just as ontogenesis coincides with phylogenesis, so the logic of the individual process Knowledge is the condensed repetition of the history of the development of knowledge and coincides with it. Here is how he formulates this law of knowledge. "The development of any concept or relation of concepts (positive and negative, cause and effect, substance and accident) in the history of thought is to its development in the head of the dialectic taken individually, like the development of an organism in the paleontology is its development in embryology (and one could also say in history and in the isolated embryo). " (...) " (Rosental M., The problems of dialectics in Marx's" THE CAPITAL ", 1961, pp. 418-419) .

“ In order to perfect a scientific theory of thought, Lenin recommended studying, in particular, the history of the intellectual development of the child. The laws of this development reproduce, as a whole, the laws of the historical development of knowledge, from being to essence, from the singular to the general, from the concrete to the abstract, laws proper to all knowledge.

Thus, the logic of knowledge, as it operates in the head of a man taken individually, reproduces essentially the history of knowledge, that is, in both cases the movement goes from sensitive data to abstractions, and from abstractions less deep to the deepest.

The essence of knowledge, which consists in rising from the singular to the universal, thus manifests itself in historical logic as well as in individual logic.

A particularly instructive example from this point of view is the Hegelian classification of judgments, cited by Engels in *Dialectics of Nature*. The passage from the singular to the particular and to the universal is effected by means of judgments. Hegel pointed out with the utmost correctness that each judgment enunciates this principle: the singular is the universal.

But it is understood that, just as in the history of knowledge the highest degree of generalization is not suddenly reached, so in the logical process of individual knowledge, generalization knows degrees, stages. From this point of view Hegel addresses the problem of the classification of trials.

It is evident that this method can be approved without however accepting the whole of the Hegelian classification. What is important and precious, according to Engels, is the basic idea of this classification, the idea of progress, of the development that leads to thought from the singular to the general, from the less general to the more general, until the moment when all studied phenomena are completely encompassed in a law.

What is essential here is that the logical process of knowledge is presented as a reflection of the historical process of deepening knowledge. In other words, the generalization of the history of thought is the criterion, the common thread of a rational plan of this part of logic.

To illustrate this thesis, Engels took as an example the historical development of knowledge about the conversion of one form of movement into its other forms. The historical process of the development of knowledge has started from the knowledge of the singular ("friction is a source of heat") to that of the particular ("all mechanical movement is capable of being transformed into heat through friction"), and from there to the discovery of a general law of nature ("every form

of movement can and must necessarily, under certain conditions for each case, become, directly or indirectly, any other form of movement"). " (Rosental M., The problems of dialectics in Marx's " CAPITAL ", 1961, pp. 420-421) .

" From this point of view, it is of great interest to study the analysis of the historical development of the political economy of capitalism, offered by Marx in the History of the theory of surplus value, which constitutes the fourth book of *Capital* .

At first Marx did not intend to make the History of the Theory of Surplus Value a separate, independent part of his work. His intention was to integrate these historical and critical materials into the text of *El Capital itself* . However, he then decided to bring together the historical analysis and criticism of the entire previous political economy in a separate volume, Book IV.

This will present "the history of the theory" -c or mo Engels called the *history of the theory of surplus value* as a separate book, after the three fundamental theoretical parts of *the Capital* , have a deep sense that self Marx defined in one of his letters to Engels. After indicating that the three books of the theoretical part should be followed by a fourth "historical-literary" book, he writes: " ... it is for me the relatively easier part, since all the problems have been solved in the first three books. , and that the latter is rather *the repetition of the former in historical form* . " Underlined words by us show that Marx regarded the history of the theory of surplus value as a historical parallel with the theoretical part, as a new vision of the problem in the form of a critical analysis of the history of the theory of historical or This is due to the emergence and development of views on the capitalist mode of production. Indeed, in Book IV of Capital, Marx studies in detail the historical development of the conceptions about the origin of surplus value and subjects them to criticism. What interests us here is only the way in which Marx characterizes the fundamental logical tendency of the development of knowledge,

the logic of the development of the political economy of capitalism. " (Rosental M., The problems of dialectics in Marx's " CAPITAL ", 1961, pp. 421-422) .

" Of course, the development of the knowledge of the capitalist mode of production depends not only on the logic of the development of knowledge, but also the historic house conditions as in the development of the class struggle. Thus, for example, the post-Smith and Ricardo in the development of economi to bourgeois politics did not represent a deepening but one to regression of knowledge. Classical political economy d ected way to a vulgar theory, which was assigned as an essential task, not knowledge, but the defense of the regime capi talismo . In this period were no longer representatives of the bourgeoisie, but the ide or logos of the proletariat who could advance knowledge and make the logical trend 'towards deepening understanding towards the esclareci m ent of the essence of the capitalist mode of production . It is necessary to take into account all these elements, without which one would have a simplistic opinion of the real development of knowledge. " (Rosental & Iudin, 1971, p. 423) .

" This idealistic conception of the history of philosophy and logic clearly opens the way to the arbitrary. For example, for Hegel the history of philosophy begins with the cleatas, because these would have been the first to carry out the pure movement of thought in concepts. As for the Ionic materialists, precursors of the Eleatas, he does not take them seriously because, although they thought the universal, they did not do so in the form of concepts, but in the form of the sensible, of the concrete. It is clear that the idealist denatures the real history of philosophy. However , we deceive ourselves if, in studying the problem of the order of logical categories, for these reasons we deny the need to take as a guide the generalization of the h istory of philosophy, history of human thought. This need arises from the objective fact of the coincidence between the history of knowledge and the logic of knowledge. " (Rosental & Iudin, 1971, p. 426) .

“ What has just been said regarding the correlation of the categories of identity and difference does not imply, it is evident, that the object of the investigation (atom, work, etc.) is in the first place a private identity of differences, of contradictions, which would only appear in a higher degree of its evolution. Such a conclusion can only result from an idealistic interpretation that considers development with c logical EPTOS as the source of the nature of objective reality. Strictly speaking, the movement that goes from identity to differences to contradictions is the movement of our knowledge, which penetrates the heart of the essence of phenomena. The categories of identity and difference form precisely the degrees of deepening of knowledge. The logical order of these categories thus reflects the historical process of the development of knowledge. ” (Rosental M., Problems of dialectics in Marx's" CAPITAL ", 1961, p. 429) .

“ Now let's move on to the categories of quality and quantity. What we know about the thought of natur e s living in the era of the primitive community demonstrates that came easily to meet the qualitative differences between objects, but they found it extremely difficult to make the calculation operations linked to the quantitative aspect of the objects. When they counted, it was difficult for them to abstract from the qualitative properties of objects, which is why number was not an abstract concept in them, but inseparable from the object. It took some time for the number to become progressively abstract and for man to learn to operate with the abstract concept of quantity. ” (Rosental M., Problems of dialectics in Marx's" CAPITAL ", 1961, p. 429) .

“ In the historical development of thought and knowledge, the concept of quantity appears, then, as a later stage. This check can be illustrated by means of examples. taken from various sciences. For example, in the historical development of chemistry and its concept capital, element chemistry, knowledge passed igualm e nte qualitative definition of the substance quantitative analysis to the study of reciprocal linking internal, and co nversio reciprocal purposes of quality and

quantity, to the discovery of the periodic classification of elements. Let us specify, however, that here we are only dealing with the most general trend in the development of knowledge, and that in a living, concrete course, it is much more complex and contradictory. It would be to arbitrarily simplify things to assume that knowledge always and in all cases develops precisely in this way, and to artificially adapt the complex and concrete history of science to this general trend. The history of knowledge is influenced by many very diverse factors, which must be taken into account in order to understand each advance in knowledge in all its specific aspects. But this in no way reduces the need to study the more general tendencies and laws of the development of knowledge, because the overall systematization of the history of thought has, as we have seen, a very high importance for the understanding of knowledge. laws of the logical development of knowledge. The overall systematization of the history of thought is also of utmost importance with regard to the categories of quality and quantity, because the analysis of the logical development of knowledge shows that, as in history, quality, determination qualitative of objects, appears before their quantity is known, their quantitative aspect. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, pp. 429-430) .

" For this reason, Marxist dialectical logic must be elaborated, contrary to Hegel's idealistic logic, not as a closed and finite system, but as a system dedicated to a deep development, closely linked to scientific and social practice, and that he is attentive to everything new that arises and develops in life. Here too, the profound way in which Lenin defined must be kept in mind. the dialectic, "multiple and living knowledge whose number of facets increases indefinitely." " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 451) .

" The Marxist philosopher considers at the beginning that there are and cannot be limits to the development of the objective world. The development of nature is unlimited. It is clear that knowledge, a reflection of a world in perpetual

development, can never be considered as finished either. Therefore, Marxism denies any system that claims absolute realization. No concept, no system of concepts can provide an exhaustive reflection of the nature of the objective world as a whole. Lenin emphasizes that only the infinite sum of general concepts, laws, etc., restores the concrete in its entirety. " (Rosental M., *The problems of dialectics in Marx's " CAPITAL ", 1961, pp. 448-449*).

II.I. II. Marxian Definition of Necessity and Chance

" Philosophical categories that reflect two types of objective connections of the material world. The need arises from the internal essence of phenomena, designates the law, order and structure of them. Necessity is what must necessarily occur under given conditions. Chance, on the other hand, does not have its foundation in the essence of the phenomenon, but in something else, in the action of other phenomena on the given phenomenon; it is what can be and can not be, what can happen in this or that way. The dialectical materialist conception of the relationship between necessity and chance is opposed to two conceptions, one of which denies necessity and reduces everything to chance, to the casual conjunction of circumstances, while the second, on the contrary, tries to make a *tabula rasa* of chance denying it roundly, reducing it to necessity. The first conception has been expressed in numerous subjective idealistic theories (for example, in Russian populism). The second has been followed by both Laplace's determinism and religious fatalism. However, fatalistic theory, by initially considering every casual deviation from the norm as necessary as the fundamental laws of nature, does not actually elevate chance to the level of necessity, but rather lowers it to the level of necessity. chance. Hegel was first overcome, from idealistic positions, both ends metaphysical, m to s only dialectic materialism has provided a scientific

understanding of the essence of the need and chance, and their interaction. By virtue of the universal interconnections and the reciprocal transits of all phenomena, it is possible to consider each one of them as having an essential or non-essential relationship with any other phenomenon; therefore, in each phenomenon or set of phenomena, in each process it is always possible to distinguish between essential (necessity) and non-essential (accidental) properties. Necessity and chance are dialectical opposites, they are linked to each other and there is no one without the other. By virtue of the material unity of the world, every event has a cause connected in the universal causal chain. Necessity is the expression of that concatenation and, consequently, "necessity is inseparable from the universal", it is "the universal in being", the absolute universal connection. Each phenomenon arises under the inner necessity and the occurrence of the phenomenon is linked to many external conditions, by virtue of its specific peculiarity and its infinite diversity, are source of chance, features and aspects of a casual phenomenon. Every phenomenon is as inconceivable without its internal necessity as without its external "chance" premises. Consequently, internal need is inevitably supplemented by external chance. This has its foundation in necessity, it is the form of its manifestation. Necessity is always hidden behind coincidences, which determines the course of development in nature and in human society, "where on the surface of things chance seems to reign, it is always governed by hidden internal laws, and therefore the question is to discover these laws" (Marx and Engels, t. XXI, p. 306; Marx-Engels, "Selected works", Esp. Ed., Moscow 1952, vol. II, p. 365). The dialectical materialist conception of the relationship between necessity and chance makes it possible to investigate the causal chain, subject to law, of phenomena. With this, this conception is in line with the task of science, called to discover its necessary character behind the casual connections of phenomena. Science, including dialectical materialism, is averse to unknowableness and uncontrollability in principle. Science, says Marx, ceases where the necessary connection loses force. However complex a given

phenomenon may be (for example, the development of society), whatever the set of apparent coincidences on which it depends, the phenomenon is ultimately governed by objective laws, by objective necessity. Dialectical materialism helps to see not only the connection between necessity and chance, but also their reciprocal transits. The theory of the evolution of the organic world is based on the consideration of these reciprocal transits. Marx discovered this important facet of the dialectic of necessity and chance in his theory of the development of forms of value. Modern natural science enriches with new data (statistical and dynamic regularities, & c.) The dialectical materialistic conclusions about the essence of necessity, chance and their connections. " (Rosental & Iudin, 1971, p. 334) .

" The categories of chance and necessity are inextricably linked to each other and cannot be understood one without the other, for the same reason that they reflect the reality of the concrete connection, the reciprocal conversions, the contradictions between chance and necessity in concrete phenomena and concrete processes. In *Capital* , these relationships of the fortuitous and elucidated necessary are largely a result of the analysis made from production to the end. Marx studies the capital in its necessity, its regular movement logical to, but it shows that the need is completed by the chance, the latter is an expression of necessity. Where chance reigns, Marx strives to discover its hidden basis: necessity. As for this, he not only examines it under its pure, abstract, 'theoretical' aspect, but also under its concrete form, in its real and living movement, in which necessity and chance are closely intertwined . " (Rosental M., The problems of dialectics in Marx's "THE CAPITAL", 1961, p. 445) .

" The casual and the necessary are not only linked, interwoven as a relationship of contradictory elements. They are also linked by mutual conversions, by the fact that the casual can become necessary, and vice versa. Each of them can transform into its opposite. In his analysis of the development of the forms of value, Marx gives an in-depth view of these conversions. Shows that when

considering the simple form of the value that two commodities can be changed according to a certain quantitative relationship might seem a casualidad. Necessity, that is, the law of value, is only weakly revealed through the relations between the two commodities. There is not just a semblance of chance in these relationships here; in reality they are largely accidental, because the exchange is only in the embryonic stage. That is why Marx speaks here in a simple, isolated or accidental way of value. But what appears to start as accidental (and accidental exchange of surplus products), it then becomes necessary. With the development of exchange, under which quantitative relations have exchanged goods turn become more stable, if not lost, and videntemente, the accidental character of their own. The second form of value lets appear more clearly, according to Marx's expression, "its hidden base", that is to say, necessity, "essentially different from the accidental manifestation that determines it." This need manifests itself even more strongly in the higher forms of value. The latter cannot really be described as accidental ways, because what was previously a coincidence has become a necessity; the reciprocal, what was once --it need to say natural forms of economy without exchange developed - is growing weaker and weaker with the development of commodity production and especially capitalism, to become a mere anachronism in a accident. " (Rosental M., Problems of dialectics in Marx's" CAPITAL ", 1961, p. 445) .

“ We have just examined the logical relationship of the categories of chance and necessity. But these categories, which fix particular aspects of the whole, are closely linked by relations and conversions with categories such as the essence and the phenomenon, the singular (or the particular) and the general, the content and the form, the cause and the effect, inter action, etc. For example, the relationship between value and price is intimately reflected in the mutual connection, not only of the categories of necessity and chance, but also of the essence and phenomenon, the general and the singular, the of content and form, etc. The relations between value and price (other examples could also have been taken, such as the relations

between surplus value and profit, value and price of production), reflect the connection and conversions that exist between all the categories of dialectical logic. The value determines the need, it is the law of the movement of commodity prices. But the category of necessity is here closely linked to the category of essence, because necessity is linked to essence. Without the latter, it would not be possible to give a complete and profound definition of the need. The category of chance is linked, for its part, to that of phenomenon, because precisely the phenomenon is the external manifestation of the essence of objects, which has chance as its characteristic. Therefore, without the category of phenomenon it would be impossible to understand that of chance. With the help of the categories of essence and phenomenon we discover, then, the internal, essential aspect, and the external aspect of the merchandise: its value and its price. With the help of the categories of necessity and chance we deepen our understanding of the relationship between value and price, we shed light on the law of value of the movement of prices, we discover in value as essence the necessity and the internal logic that they are expressed in the price, that is, externally, in the phenomenon, through what is accidental.

After discovering between value and price relationships of essence and phenomenon, of necessity and chance, we also study the relationships of cause and effect, general and singular, that unite them. The value of the merchandise is the cause of its price; and the price, despite its fluctuations, cannot be separated just as the satellite cannot be separated from its planet. When we learn to know the essential in the object, we also acquire the knowledge of what it contains of general, of current, of what differentiates it from the particular, from the singular and from the numerous accidental elements. The value of the merchandise is the general element that expresses the essence of the world of merchandise. The price of the merchandise is the singular, isolated, concrete manifestation of the mercantile value. The passage of the simple form of the value to its higher forms is the step, not só l or accidental to the necessary, but the singular, of the isolated

(Marx also used the word "isolated" to talking about the simple form of value) to the universal, that is to say to the "general" form of value. These examples lead to a very important conclusion regarding what the correlation between the categories and the logical concepts should be: this correlation must be such that their link, their conversions, their contradictions, express the interaction, conversions, contradictions of the phenomena of the objective world, in such a way that each new category indicates a new deepening of knowledge, and that its system, taken as a whole, indicates the path of knowledge of the objective world . " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 446-448) .

II.I. III. Marxian Definition of the Principle of Complementarity or Complementary Mode of Description by Niels Bohr

"The principle of complementarity or complementary mode of description is the methodological principle exposed by Bohr^[4] when dealing with the interpretation of quantum mechanics. Generalizing this principle and stripping it of its idealistic garb, its formulation is established as follows: for the reproduction of the integrity of a phenomenon in a certain intermediate stage (it should not be confused with the middle or average stage) it is necessary to apply in knowledge

"complementary" classes of concepts, which are mutually exclusive and also mutually limiting in terms of which concepts can be used separately, formulated depending on the specific relevant conditions (experimental, historical, etc.), but only taken together they exhaust all the information subject to definition. Using the principle of complementarity, Bohr hoped to solve one of the paradoxes of quantum mechanics, which showed the insufficiency of the old classical concepts and, at the same time, could not do without them in the early stages. The principle of complementarity made it possible to highlight the need to take into account the double corpuscular wave nature of microphenomena. With the help of the principle of complementarity, the equivalence of two classes of concepts that describe contradictory situations was established. Thus, elements of dialectical thought found reflection in Bohr's methodological conception. "Combining the definitions set out in (Rosental & Iudin, 1971, pp. 374-375) and in (Frolov, 1984, p. 73).

As noted in (Rosental & Iudin, 1971, pp. 374-375) and in (Frolov, 1984, p. 73), in the works of various supporters of the so-called "Copenhagen school" - Jordan, Frank and others, who maintain positions of extreme positivism - the principle of complementarity has been used to defend idealistic and metaphysical points of view on space, time and causality. They confer absolute value to the growing role of instruments in the microworld, a role that they conceive as an "uncontrollable disturbance", and see space and time, on the one hand, and causality, on the other,

as "complementary", mutually exclusive characteristics of microprocesses. The need to apply "complementary" concepts was not deduced from the objective nature of the microobjects, but from the particularities of the cognitive process, and was linked to the discretion of the observer, which is in fact very similar to what the Bayesian school subjective conceives in its definition of probability. In its positivist form, this principle was the subject of critical analysis by Soviet and non-USSR scientists, including Vavilov, Dmitri Blojintsev, Vladimir Fok, De Broglie, Langevin, L. Janossy, et c.

Next, there are paragraphs belonging to (Rosental M., The problems of dialectics in Marx's "THE CAPITAL", 1961) . These paragraphs include some reflections, the authorship of which belongs to Rosental, as quotes about Marx that the Soviet philosopher and gnoseologist, which not only reveal Marx's anticipation in understanding and using the logic that orchestrates the principle of complementarity proposed with Bohr , but also show how the Soviet philosophy of the time was nourished by the scientific discoveries of the time (for this particular case of Theoretical Physics) in its process of expansion of Marxism, both at an epistemological and methodological level.

"If you reflect objective reality and express conditions historical concrete, it is clear that evolution and modification of the latter involve scientific notions. The objective dialectic of development deb and reflected as in a mirror · dialectics "subjective", ie, in the dialectic of concepts. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 241-242) .

“There is there a principle of general methodology, valid for all kinds of scientific knowledge. Phenomena, as they occur immediately, cannot be scientifically known unless light is first shed on their essence. Of course, this does not mean that on the historical plane knowledge, for example, that of capitalist production, can and has in fact started from its essence. Strictly speaking, knowledge always begins with

appearance . Knowledge goes from the perception of external phenomena to the analysis of their essence. Hence the fact that knowledge is governed by specific laws, and hence the role of sensory knowledge and the activity of thought.

Therefore, the scientific knowledge of the phenomena implies the illumination of their internal and fundamental content hidden behind the external forms . "

(Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 263) .

"Strictly speaking, the essence and the phenomena are two aspects of a single and unique objective reality: internal and external; on the one hand, the laws of the real world, on the other, the forms of expression of those laws. The essence of the price of a commodity, for example, is its value; but the price of the commodity is the external manifestation of that value. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 264) .

" In analyzing the equivalent form Marx sheds light on the contradictory nature of the two poles of the expression of value. The first peculiarity of it is that the use value becomes a form of manifestation of its opposite, the value. Merchandise, which must express its own value, cannot do so on its own, but in a relative way, that is, in another commodity that has another form of use, another use-value. In this sense, use value becomes the manifestation of its opposite, value. The second peculiarity of the equivalent form is that concrete work becomes the form of expression of its opposite, that is, of abstract human work. Abstract labor has been used to produce the commodity that the relative form of value acquires in exchange. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 175) .

"But this commodity cannot by itself express its own value, and measure the amount of human labor invested in its production. For this, it needs to be opposed to its opposite, that is, to another merchandise. Furthermore, the other merchandise, which serves as the equivalent of the first, has to be the result of another specific work, for the same reason that the value of a merchandise can only

be manifested by its comparison with the use value of another merchandise. . Only the confrontation of commodities arising from different forms of work reveals that they result from the same abstract human labor and, as Marx says, only by this detour does each commodity recognize its soul mate in the other. Through the opposition of the products of different forms of concrete labor the reduction to general abstract labor is effected. Finally, the third peculiarity of the equivalent form is that private work acquires the form of its opposite and becomes work in its directly social form. In the equivalent form, the commodity is, like all other commodities, a product of private labor. But when it is exchanged with another commodity, it testifies to the social nature of the labor employed to produce the latter, that is, the commodity in the relative form of value. As well as being the product of private labor, the equivalent thus serves, in that form, as an immediate expression of social labor. So also in this case, the confrontation of private jobs reduces them to a single social job. Thus, in the relationship of one commodity to another, in the relationship of opposites such as the relative and equivalent forms, the internal contradictions of the commodity and of the labor that produces it find their prior expression. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 175) .

" This example remarkably illustrates the apparently contradictory principle, enunciated by Marx in general theoretical form, in the Contribution to the Critique of Political Economy, according to which the concrete whole intervenes in knowledge, both as a starting point and as a point of departure. as a result. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 176) .

" The dialectical method consists of knowing how to place the" part "in the" whole ", as an inverse act of that carried out by analytical abstraction. " (Dussel, 1991, p. 52) .

"(...)" In the course of scientific analysis, the formation of the general profit quota appears having as a starting point the industrial capitals and their concurrence,

being later corrected, completed and modified by work of the interposition of commercial capital. the trajectory of historical development, things happen exactly in reverse. It is commercial capital that more or less first determines the prices of commodities and their values, being in the sphere of circulation that serves as a vehicle for the process of reproduction, where a general profit share is formed. " (...) " (Rosental M., The problems of dialectics in Marx's" EL CAPITAL ", 1961, p. 376) .

" Consequently, departing in this or that case from the line of historical evolution in order to reproduce in thought the internal logic of the development of a phenomenon, one does not fall into subjectivist arbitrariness in any way. In the precapitalist formations, everything, even the embryonic industry, has an agricultural tinge; the dominant production is agriculture, with all the relationships that arise from it. On the contrary, in the capitalist regime the hegemony of the bourgeois mode of production gives all things, including agriculture, a bourgeois tinge, and therefore nothing could be understood in it, except in the light of economic law. fundamental of capitalism. Hence the objective need to study capital first and then land rent, although in history things appear differently. "Therefore it would be impossible and wrong," concludes Marx, to place the economic categories in the order in which they were historically determining. Their order is determined, on the contrary, by the relations that exist between them in modern bourgeois society, and it is precisely what the reverse of what appears to be their natural order or to correspond to their order of succession in the course of historical evolution. " (...) " (Rosental M., The problems of dialectics in Marx's" THE CAPITAL ", 1961, p. 382) .

" Analysis, to take another example, helps us to decompose production into constituent elements such as the instruments of production, with the help of which society procures its means of existence, and men, who use these elements of production. . The knowledge of these constituent elements of all production is of

the utmost importance, but it does not by itself give us the knowledge of a determined and concrete mode of production. These elements are themselves abstractions. It all depends on the way they have been put together. Their concrete mode of assembly is that provided by real society: feudal, capitalist, socialist.

Therefore, the analysis must be completed by the synthesis. But this is not as trivial a task as a cursory examination that reduces synthesis to the pure and simple gathering of the component parts of the object might lead one to believe. The criticisms directed by Marx against the bourgeois economists and the concrete applications that he gives of the synthesis in *Capital* show that it is a process of extreme complexity. Marx understands by synthesis the concretion of the general and unique term, reached by the analysis and the deduction from it, of its multiform concrete expressions existing in reality. According to him, synthesis is the reproduction of the concrete as a unit of the diverse. If in analysis thought goes from the singular, from the concrete, to the abstract and general, in synthesis it follows the reverse path: from the general to its multiple manifestations, to its various forms of existence. All the essence and all the force of the synthesis reside in the fact that reality is no longer presented as a sum of isolated phenomena and processes, but as a whole in which phenomena, however fragmented and diverse, are they are found together in a single bundle and subordinate to the laws discovered and studied thanks to the analysis. By synthesis Marx understands the study and reproduction in thought of the real process of development, while analysis does not study and does not make known anything other than the abstraction of that process. " (Rosental M., *The problems of dialectics in Marx's "CAPITAL"*, 1961, pp. 393-394) .

" If you want to determine the importance of having this coincidence between the laws of thought and the course of the historical development of human knowledge for perfection or tining of logic and theory of Marxist knowledge, it is necessary to consider that only refers to essential. The logical process of knowledge cannot,

strictly speaking, repeat, even if only in condensed form, the entire historical development of thought. It is not about anything other than , the reproduction of a logical trend, the general course of knowledge, ranging phenomena immediately given, ie, of being, essence, and essence of some order to an essence of a deeper order. Let's specify this with an example. Marx begins his analysis of the capitalist mode of production with the examination of an immediate fact: the act of swapping two Merca n cos. The historical process of development of the analysis of capitalism also began with the study of the circulation of goods (mercantilism). Thus, what was the starting point of the historical development of knowledge is also the starting point of the logical process of knowledge. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, pp. 424-425) .

" The exchange value is not considered here as a ca t egoría quantitative, except in relation to the qualitative aspect of the goods, in relation to its use value, but what appears in a case like quantitative aspect of objects it can and should be considered, in another case, as its qualitative aspect. Only in certain historical conditions s and crystallizes work in the value of the goods, and it is expressed in the form of exchange value. And here there is a deep qualitative characteristic of commodity production, in particular of capitalist production. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 431) .

" If the logical process of knowledge, as is done in the brain of a man taken individually, agrees l or essential to the historical development of knowledge, it is clear that the categories and ways of thinking as well as their willingness and order of succession, should Shimmer to r logic d development that leads to knowledge from phenomena to essence, from the immediate data offered by the phenomena to mediate data from the external aspects of nature s laws us. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 425) .

“ Marx begins by taking exchange value as it is expressed directly on the surface of phenomena, under the aspect of the proportion in which the use values of a certain species are exchanged for the use values of another species. In other words, knowledge begins with the concrete phenomenon. As seen in the preceding chapter, Marx establishes, with the help of scientific abstraction, that the hidden basis, the essence of exchange value, is value. Value is an abstraction in relation to exchange value. Marx then passes from the concrete to the abstract, from exchange value to value. But it doesn't stop there. A value has established relations of two commodities exchange value as crystallized dissimulate work immediately becomes exchange value. It must show that value necessarily manifests itself in the form of exchange value. " ... in our research - writes Marx - we began by studying the exchange value or exchange ratio of commodities to discover, locked in this relationship. Their value. Now we have no choice but to go back again to this form or manifestation of value." And Marx analyzes in detail the development of forms of value with the emergence of money. Value finds its expression in money, "the finished form of the mercantile world." From the abstract, the value, Marx then returns to the concrete, to exchange value, to the forms of expression of value, to money. But the concrete is now reproduced on a much deeper basis; It is enriched by the results it has obtained gone force of abstraction, by the knowledge of the fact that the exchange value is a form of expression of the value. This example remarkably illustrates the apparently contradictory principle, enunciated by Marx in general theoretical form, in the Contribution to the Critique of Political Economy, according to which the concrete whole intervenes in knowledge, both as a starting point and as a Outcome. Exchange value as a concrete element is the starting point of knowledge, because it is related to the practical reality that it takes as the object of its research. As for practical reality, it is presented to the human gaze in all its concrete complexity. But at the beginning that particular element is not yet divided into its component parts or analyzed, and therefore it is not yet known. The abstractive activity of thought discovers the deep processes, which

escape the immediate intuition of the concrete, and allows us to return to the concrete, to the exchange value, understood this time as the unity of the diverse. From this point of view, the exchange value, as a concrete element, cannot be anything other than a result, that is, the result of the knowledge of the concrete by thought. In Chapter I of the first book of Capital, Marx makes an observation of the greatest importance, which allows us to understand how the analytical method is based on the movement of thought from the concrete to the abstract and from the abstract to the concrete. "The reflections on human life, including therefore its scientific analysis," writes Marx, generally follow a path opposite to the real course of things. It begins *post-festum* and starts, therefore, from the already achieved results of the historical process. The ways that make the production of goods and, of course, pre-involve the movement of these, and have the strength of natural forms of social life before men strive explained, not the historical character of these forms that they already consider something immutable, but their content. Thus it is understood that it was simply the analysis of the prices of commodities that led men to investigate the determination of the magnitude of value, and the collective expression in money of commodities, which moved them to fix their evaluative character. But this finished form - the money form - of the world of commodities, far from revealing the social character of jobs private, and, therefore, social relations among private producers, what it does is cover them up. "Value, he writes, "comes down to a quantity of work." "Value as such does not possess any other 'substance' outside of work itself." And later: "While it is an abstraction, it is a historical abstraction that could only be adopted on the basis of a particular development. Society All objections to this definition or of the value or derived from relationships production less developed, or they are based on a confusion by which the most concrete economic determinations are established (and from which value is abstracted and which, from another point of view, can therefore also be considered as its subsequent development) in opposition value in its abstract and undeveloped form. Taking into account the lack of clarity of the economists

themselves as to the way in which this abstraction is linked to the later and more concrete forms of bourgeois wealth, these objections were more or less justified. " These words lead us to the core of the analytical method of investigation of Marx: reach, through the analysis, generalizing data of intuition and direct representation and the empirical material, to an abstraction that allows understand the law, the regular trend of development, and fix this trend in a concept, in a scientific category, to then follow this trend in the development of complex and concrete relationships. For example, in the mass of terms of trade, this law, this regular tendency, is value. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, pp. 336-338) .

II.I. IV . Marxian Definition of Essence

In my opinion, the essence is only one, but it should not be understood as an object, but as a place, in which there will not necessarily be a single object and in which there will necessarily be at least one relationship [be at least the of the only object with itself (as in the case of the *Big Bang* , which is a relationship between the internal structure of the object and its external structure, but the external structure of the same object, not the external structure understood as the structure of the exterior, since that there was no such exterior, since it was self-contained, it was self-contained)]. There is a hierarchical relationship between the components of the essence, *ie* , the elements that exist in that place [that considering any mathematical structure is expressed in its topology and the place where that set of relationships exist is the topological space as such; Although formally speaking, Topology deals with forms and not with essences, it deals with special forms, specifically with forms determined by the relative position of the points that make up the geometry studied, conceived as the internal structure of geometric forms (which are the forms studied from the metric perspective), that making an analogy with the phenomena of reality the geometric form would be equivalent to the form and the topological form to the essence of the objects-)] and between the different types of relationships that these components may have , both analyzed in isolation from

one another (at the level of the relationships of each of the components -if there are more than 1-), comparing relationships that occur within one (s) with those that occur within another (s) or, the relationships that occur between them. In some cases it is observed that it is easier to be able to rank elements and interrelationships between them, than interrelationships of the elements with themselves, as is the case of quantum theory. Of course, this or bedece to the complexity of the phenomenon under study[5], to the limitations (both qualitative and quantitative) in the measurement capacity and in the available information, not because there is any specific law that prevents it. In addition, it also seems that it is easier to rank elements (objects, particles) than to rank the relationships between these elements, since moving towards a greater depth level, for which more precise measurements will also be necessary, which imply more robust measuring instruments. .

“ Strictly speaking, the general, as the essence of things, cannot exist independently of their concrete manifestations. Value manifests itself in prices, and price expresses value. This example shows the relationship that always exists between the general and the singular. Only an idealist can try to mistake the general for an independent subject floating above particular things. In reality, the general only exists in the particular, because it expresses the identical, essential aspects and properties of particular things. Idealists falsify the laws to pass them off as autonomous and independent something s phenomena concrete, while they are nothing but the expression of the essential relationships and mutual links between these phenomena. The law cannot occupy an autonomous place. It exists and exerts its action in everything and for everything, in each concrete reciprocal relationship between things and phenomena, to the extent that the necessary conditions exist. Those who see the criterion of the reality of the laws and of all the other relationships discovered through scientific abstractions in the possibility of "photographing" them or feeling them like a pair of shoes, distort science and scientific knowledge; they discredit the best instrument of knowledge, scientific

abstraction. The authenticity of the laws of science is confirmed by practice. All the practical activity of contemporary humanity, the highly developed technique of industry, the production of the means of existence, are based on the laws discovered by science. Deprived of the knowledge of these laws, humanity would go back several millennia and return to the savage state. This indicates the futility of the efforts of the idealist philosophers who try, with the help of some sentences, to refute and discredit the great realizations of science. " (Rosental M., The problems of dialectics in Marx's " CAPITAL ", 1961, p. 316) .

Note that it says the authenticity of scientific laws is "confirmed" by practice, not "determined." This is important to always point out the express difference between Marxism and Empiricism.

II.I. V . Marxian Definition of Instrument

The Marxian definition of *instrument* is: " Resource of knowledge; It is applied to record measurements of different gender. In contemporary scientific knowledge, the importance of instruments has grown dramatically. The instruments constitute peculiar amplifiers of the organs of the senses of the man, they allow to investigate material objects inaccessible to the immediate perception. The erroneous

interpretation of the growing role of instruments in knowledge and their subjectivization have given rise to the so-called "instrumental idealism", which has served as a basis for the thesis concerning the alleged "coordination of principle" between the object and the instrument, thus as well as the "principle of the impossibility of control", according to which the process of measurement and determination of such or such properties of the microobjects causes "uncontrollable alterations". The representatives of "instrumental idealism" (Pascual Jordan and others) affirm that, through the instrument, the subject "prepares" the physical reality, creates it. "

As can be seen, the definition of instrument given by R&I is a clear criticism of the Copenhagen School of Philosophy of Physics, which is verified when they state that " Name given to a group of physicists (Bohr, Heisenberg, Weizsäcker , Jordan and others) who adhere to a positivist interpretation of the philosophical problems of quantum mechanics. The group was formed in the late 1920s in Copenhagen at the Institute for Theoretical Physics, led by Bohr. Several physicists of this school, especially Bohr and Heisenberg, have great merits in the formation and development of quantum mechanics, in the interpretation of its mathematical elements and experimental data. However, in the philosophical position of this school, in its subjectivist formulations, above all from its early days, a great influence of neo-positivism is perceived. Some representatives of the school, mistakenly conceiving the role of the instrument in the microcosm as "uncontrollable disturbance" spoke of the "bankruptcy of causality", of the "free will" of the electron, et c. Such conceptions have been subjected to criticism by Soviet physicists (Sergei Vavilov , Vladimir Fok, Dmitri Blojintsev, & c.) And of other countries (Einstein, Langevin, & c.). Currently, the Copenhagen school is not a complete whole. If Jordan and Weizsäcker maintain their old positivist conceptions, Heisenberg leans towards objective idealism and Bohr approached the materialist conception in various philosophical problems of quantum mechanics. " (Rosental & Iudin, 1971, pp. 87-88) .

II.I.VI. The Dialectical-Materialistic Method in the Social Sciences: Historical Materialism

“ In his Contribution to the Critique of Political Economy, Marx enunciates a series of considerations of the highest importance, which make it possible to understand which method of mental study he judges the safest. Marx points out two possible methods. The first part of the concrete, for example, of the population as the basis of the entire social process of production; But Marx considers this method to be erroneous, because nothing substantial can be known about the population, that is, about the concrete element, if the elements by which it is constituted, for example, the classes, are not known; and classes, in turn, would only be an empty word if the elements on which they rest were ignored: wage labor, capital, etc. Capital, in turn, is a complex phenomenon, impossible to understand without analyzing its aspects: value, money, price, etc. "Therefore," concludes Marx, "if one began in this way with the population, one would have a chaotic representation of the whole, and, by a more precise determination, through analysis, one would arrive at increasingly simple concepts; of the figurative concrete. One would move on to more and more subtle abstractions, until reaching the simplest determinations. From there it would be necessary to retrace the path backwards, until finally reaching, once again, the population, but this would not now be the chaotic representation of a whole, but a rich totality of determinations and of numerous relations. "

The second method, on the other hand, seems fair to him from a scientific point of view. He calls it a "method of elevation from the abstract to the concrete." Marx indicates that both methods have been used in the study of political economy. The first characterizes the economists of the seventeenth century; the second, to those of the XVIII. But strictly speaking, only Marx received or the latter method a further truly scientific, deepened and developed in all its aspects. *Capital* is a

brilliant example of this method, in its application to the analysis of capitalist formation.

In his marginal Glosses to Adolfo Wagner's "Treatise on Political Economy", Marx says of his method that it is analytical. In an analysis of the work of Marx, Contribution to the Critique of Political Economy, Engels calls this method logical. The concept of logical method is synonymous in Engels with what Marx has called the analytical method. For this reason, the method of study applied and perfected in Capital can be called, as you prefer, "analytical" or "logical". It cannot be considered as a new and independent method, apart from the dialectical materialistic method. It is nothing more than the concrete expression of the dialectical method that responds to the following important problem: how, by what means, should the scientific study of objective reality be carried out? What, then, is the essence of the analytical or logical method of study? For Marx, the analytical method is a method of study of reality in which thought goes from the abstract to the concrete (that is, from elementary abstract determinations established by the analysis of increasingly concrete and complex determinations) gradually reproducing reality in all its fullness. It could be believed that in the analytical method the starting point, the starting point of knowledge, is abstraction. Will be an error. Simple as it may be, abstraction cannot, as explained in the preceding chapter, be the beginning of the process of knowledge. Abstraction always results from the elaboration, in thought, of images and sensory representations. The real starting point of knowledge cannot be other than the perception of the concrete. But is there not then a contradiction between the need to rise from the abstract to the concrete and the indisputable materialistic principle according to which knowledge begins with the sensory perception of living concrete reality? In his Contribution to the Critique of Political Economy, Marx gives an exhaustive answer to this question: "The concrete is concrete because it is the synthesis of multiple determinations and, therefore, unity of diversity that appears. thought as a process of synthesis, as a result, not as a starting point, even

if the true starting point and , therefore, also the p daub starting immediate vision and representation. " (...) " (Rosental M., The problems of dialectics in Marx's " THE CAPITAL ", 1961, pp. 321-323) .

II. II. Analysis and Synthesis in the Marxian Study Method

“Once its task is accomplished, the analysis must be completed by other cognitive processes, as indispensable as it is, but which develop in a directly opposite sense. Although the analysis discovers the unity, the essential community of the different phenomena, we are still very far from understanding real development in all its

concrete complexity. Analysis does not by itself give us anything other than a highly abstract and colorless picture in relation to concrete and living reality. In this way, the mineral kingdom and the living world are made up of the same chemical elements, the analysis of which is indispensable for the knowledge of these two manifestations of a single and unique matter. But how far this knowledge is from that of the real essence and of the distinction between the living and the non-living! As Hegel said spiritually, the flesh may be composed of carbon, oxygen, etc., but these abstract substances are not flesh. Everything resides in the synthesis of these substances, in the way in which these elements are brought together, which precisely restores all the concrete aspects of the phenomenon under consideration.

Analysis, to take another example, helps us to decompose production into constituent elements such as the instruments of production, with the help of which society procures its means of existence, and men, who use these elements of production. The knowledge of these constituent elements of all production is of the utmost importance, but it does not by itself give us the knowledge of a determined and concrete mode of production. These elements are themselves abstractions. It all depends on the way they have been put together. Their concrete mode of assembly is that provided by real society: feudal, capitalist, socialist.

Therefore, the analysis must be completed by the synthesis. But this is not as trivial a task as a cursory examination that reduces synthesis to the pure and simple gathering of the component parts of the object might lead one to believe. The criticisms directed by Marx against the bourgeois economists and the concrete applications that he gives of the synthesis in *Capital* show that it is a process of extreme complexity. Marx understands by synthesis the concretion of the general and unique term, reached by the analysis and the deduction from it, of its multiform concrete expressions existing in reality. According to him, synthesis is the reproduction of the concrete as a unit of the diverse. If the analysis thinking is

the singular, from the concrete to the abstract and general, in the synthesis follows the reverse path: from general to their multiple demonstrations, various forms of existence. All the essence and all the force of the synthesis reside in the fact that reality is no longer presented as a sum of isolated phenomena and processes, but as a whole in which phenomena, however fragmented and diverse, are they are found together in a single bundle and subordinate to the laws discovered and studied thanks to the analysis. By synthesis Marx intends the study and reproduction in thought of the real process of development, while analysis does not study and does not make known anything other than the abstraction of that process.

This is why Marx could not consider that he was done with his task when he discovered surplus value. It took him to demonstrate that all the diversity embodied in the many forms of capitalist income is the manifestation of the production of surplus value, and that all external forms of capitalist life are expressions of the main and fundamental fact of bourgeois production, be it whatever contradiction seems to exist, at first glance, between the former and the latter. And that demonstration was only possible with the help of that powerful instrument of knowledge that is synthesis.

Marx himself highlights the considerable role of synthesis, taking for example the study of land rent. It indicates that the difficulty does not lie in the general explanation of the overproduct generated by the capital invested in agriculture and the corresponding surplus value. This problem is solved in the analysis of the surplus value created by all productive capital, whatever the sphere in which it is invested. Once the analysis has made it possible to discover the general element that characterizes all forms of capitalist production, a special demonstration is no longer necessary to understand that income is a form of surplus value. "The difficulty," writes Marx, "is to show how, after the surplus value is leveled between the various capitals on the basis of the average profit, on the basis of granting them

in the total surplus value generated by the social capital in all branches of production, a share corresponding to their relative magnitudes, how after this leveling, after apparently all the existing surplus value has been distributed and capable of being distributed, there is still a remnant of surplus value, which the capital invested territorially yields to the owner in the form of rent from the land, and where does this remnant come from. " (...) " (Rosental M., The problems of dialectics in Marx's " THE CAPITAL ", 1961, pp. 392-395) .

"The bourgeois economists before Marx did not even set out to formulate this problem; they denied the existence of absolute income. Marx was the one who took care of it. This problem is nothing more than the synthetic study of the way in which the surplus value discovered by the analysis is specified in the real relations of the capital invested in agriculture, it is modified in those concrete conditions linked to the existence of private property of the land , at the lower level of the organic composition of capital in agriculture, etc. It is the movement of thought that goes from the abstract and the general - surplus value - to its concrete and singular manifestation, land rent. It is the synthesis of the general and the singular, the abstract and the concrete. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 392-395) .

"Marx considers analysis and synthesis, not as two independent research methods, but as two different methods, inextricably linked to each other, arising from each other and mutually conditioning. Each of them is opportune at a certain time and to solve a certain problem. At each particular stage of knowledge, synthesis or analysis comes to the fore, but both cooperate closely with each other: analysis prepares the "work" of synthesis, and synthesis helps analysis penetrate deeper into the essence of phenomena." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 395) .

"However, it would be oversimplifying the problem if one thought that the research process can be reduced in Marx to two stages, in which the first is mainly

analytical and the second synthetic. This is true broadly speaking, when the structure, the Capital plan, is considered as a whole. But in reality things are obviously more complex. At each stage Marx uses analysis and synthesis simultaneously. This is true both for the first two books, in which he studies particular aspects, taken separately, of capitalist production, and for the third, in which he studies capital as a homogeneous whole. One can only speak of a predominance of analysis in the first stage (books I and II) and of synthesis in the second (book III), but otherwise we see that Marx applies the two methods, each in its place, to throughout your research. This is better understood if it is remembered that it goes from the simple to the complex, from the abstract to the concrete, and that each new degree of its investigation, although it reproduces a more complete and complex picture of the movement of capital, does not for that reason to be an abstraction in relation to the next degree, even higher and more complex. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 396-397) .

“Thus, currency is a more concrete category than merchandise, and therefore cannot be deduced except by a synthesis itself preceded, as is evident, by the necessary analysis. But currency, at the same time, is something simple and abstract in relation to capital. Therefore, the study of this more complex category requires both analysis and synthesis. In Book III, in which the synthetic method of inquiry predominates altogether, as we have already said, Marx goes from the simple and the abstract to the complex and the concrete, and therefore, at this stage, must resorting, again, simultaneously, to analysis and synthesis. The whole movement of research in Capital can then be represented as a chain in which the link of analysis is followed by that of synthesis, followed by the link of a further analysis, then an even more complex synthesis, etc. Each stage of analysis and synthesis adds new characteristics to the picture of the movement and development of capital and enriches the canvas with new colors, until the moment when the research process culminates in the reproduction of the capitalist mode of

production in all its complexity. concrete. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 397) .

“This cell that discovered, the merchandise, is subjected by Marx to a penetrating analysis, which makes a complex world emerge instead of what seemed a dead thing, a fixed identity. Analytically decompose the merchandise into its opposites, the use value and the exchange value. The work that produces commodities is also decomposed by Marx into its opposites: concrete and abstract work. And this analysis makes him discover the common, the unique, in the multiform world of commodities, what constitutes their substance, that is, their value. The analytical work carried out by Marx makes it possible to arrive at an important synthesis and culminate in the scientific concept of exchange value. The exchange value, specified by the preceding analysis that discovered its essence, no longer appears to us as an indecipherable hieroglyph, but as a known whole; it is the expression or the manifestation of value. Commodities find a common denominator in value, the embodiment of abstract labor. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 398) .

“Marx first gives the general formula of capital, as it appears on the surface of phenomena, and shows that its movement is a self-growth of money advanced by the capitalist. Then he studies, with the help of analysis, the essence of this movement and shows that the self-growth of capital is only possible because the capitalist finds a specific commodity, labor power, which possesses the particular virtue of being a source of. new value. He analyzes this original merchandise and discovers that, like all other merchandise, it has a value and a use value. It highlights the important difference between the value of labor power and its use value. If the former does nothing but reproduce itself in the course of the worker's work, the latter can be and is the source of the self-growth of value. It is precisely the specific nature of the use value of this commodity that explains the mystery of surplus value. Then Marx studies with the help of analysis the process of work. It

breaks it down into its constituent parts, studies the role of constant capital and variable capital in the production of value, analyzes the different procedures for obtaining surplus value, etc.

All this study leads Marx to give an exhaustive definition of the essence and nature of surplus value, the cornerstone of the entire political economy of capitalism. This is how the production of surplus value, the essence of the capitalist mode of production, has been explained by analysis. By abstracting the non-essential or less important aspects of these processes, systematizing the concrete phenomena and stripping them of their misleading cover, Marx discovered the essential common element that unites the many manifestations of the life of capital. But if from the point of view of the structure of *Capital* as a whole, this study of surplus value is dominated by analysis, the research process itself is divided into a large number of degrees and links that arise from a part of the analysis. and on the other of the synthesis. In other words, the study of surplus value could be successfully carried out thanks to the use of analysis and synthesis in its unit. " (Rosental M., *The problems of dialectics in Marx's "CAPITAL"*, 1961, pp. 399-400) .

"This continuous step from analysis to synthesis and from synthesis to analysis is found again in Book II of *Capital* . Thus, Marx divides the overall rotation of capital into i. Its elements, and explains in what lies the essence of the rotation of each variety of capital: money-capital, productive capital, commodity-capital. Then he carries out the synthesis of these different rotations and obtains the formula for the total turnover of capital. After that, he analyzes the movement of individual capitals and provides a synthetic picture of the reproduction of the conjuration of social capital. In Book III, in which he outlines a broad synthesis of the overall process of capitalist production and circulation, Marx also applies the two methods of study, since he goes from the simple to the complex, from the less concrete to the less specific. more concrete. " (Rosental M., *The problems of dialectics in Marx's "CAPITAL"*, 1961, p. 401) .

Regarding the analysis and synthesis, it should be added that they come from:
“(From the Greek ἀνάλυσις : decomposition, and σύν θ εδις : union, composition.)
In the most general sense, processes of thinking or of the real decomposition of a whole into its parts and of the reunification of a whole based on its parts. Analysis and synthesis play an important role in the process of cognition and occur at all stages of it. The center of analytical-synthesizing activity lies in the cortex of the large cerebral hemispheres. This activity, however, only arises and is carried out in the process of practical doing, of a social nature, and on the basis of such doing. In mental operations, analysis and synthesis appear as logical procedures of the intellect that are carried out with the help of abstract concepts and are closely linked to other operations of thinking: abstraction, generalization, & c. The logical analysis consists of the mental decomposition of the investigated object into its component parts and is a method to obtain new knowledge. Depending on the nature of the object investigated, the analysis takes different forms. To reach multilateral knowledge of the object under investigation, it is a necessary condition that the analysis be multifaceted. The dismemberment of a whole in its component parts, allows to discover the structure of the investigated object; the decomposition of a complex phenomenon into simpler elements allows us to delimit the essential from that which is not, to reduce the complex to the simple; we have one of the forms of analysis in the classification of objects and phenomena. The analysis of a process in its course allows us to distinguish in it different stages and contradictory tendencies, et c. In the course of analysis, thought moves from the complex to the simple, from the casual to the necessary, from multiplicity to identity and unity. The purpose of the analysis is to get to know the parts as elements of a complex whole, to see what links exist between them and the laws to which the whole is subject in its development. However, the analysis leads to the breakdown of an essence not yet linked to the concrete forms of its manifestation; unity, which remains abstract, has not yet been discovered as unity in diversity. The synthesis - that is, the union, forming an integral whole, of the parts, properties and

relationships delimited by means of analysis -, going from the identical, from the essential, to differentiation and multiplicity, unites the general and the singular, unity and multiplicity in a concrete, living whole. The synthesis completes the analysis and forms with it an indissoluble unity. The dialectical materialist conception of analysis and synthesis is opposed by their idealistic interpretation as mere intellectual resources not related to the objective world or to the practical doing of man; It is also opposed by the metaphysical separation of analysis and synthesis, by attributing to one of these two processes, inextricably linked to each other, an absolute character, opposed to the other. In the history of philosophy, the contrast of analysis and synthesis is linked to the birth of the analytical method in the natural sciences and in the classical bourgeois political economy of the 17th-18th centuries. At that time, this method, which replaced speculative constructions with the study of empirical activity, had a clearly progressive character. But raised to the category of absolute philosophical method, it led to the examination of things apart from their connection and development, and this is how the analytical method of research became a metaphysical method of thinking. The advance of science has shown that the analytical method has constituted the historical premise of the synthetic method, closely related to it. From the point of view of their theoretical and cognitive meaning, both methods, free from all one-sidedness, appear as logical processes that are mutually conditioning and are subordinate to the general requirements of the dialectical method. " (Rosental & Iudin, 1971, pp. 11-12) .

“ Bourgeois economists often use formal logical deduction to integrate concrete capitalist relations into general," universal "theses about" production in general "and thus disguise the real essence of capitalism. ” (Rosental M., The problems of dialectics in Marx's" THE CAPITAL ", 1961, p. 409) .

As a little-known song by a popular Guatemalan artist says, "rats like caviar too." Here Rosental implicitly warns of the latent risk of employing the logical-formal

deductive method in the study of phenomena of high historical-theoretical complexity, of the risk of incurring gnoseological errors and, consequently, historical and theoretical, in terms of the scientific study of the facts. In a sense, Rosental explains something that Edward Lorenz would explain at the level of the formal sciences in 1965, four years after the publication of Rosental's work studied here: complex systems cannot be rigorously formalized (axiomatic and self-contained), which is related to what was discovered by Gödel in 1931 in relation to the impossibility of carrying out the first point of Hilbert's program^[6].

Synthesizing the previous exposition: “ (From the Greek ἀνάλυσις : decomposition, and σύν θ εδις : union, composition.) In the most general sense, processes of thinking or of the real decomposition of a whole into its parts and of the reunification of a whole based on its parts. Analysis and synthesis play an important role in the process of cognition and occur at all stages of it. The center of analytical-synthesizing activity lies in the cortex of the large cerebral hemispheres. This activity, however, only arises and is carried out in the process of practical doing, of a social nature, and on the basis of such doing. In mental operations, analysis and synthesis appear as logical procedures of the intellect that are carried out with the help of abstract concepts and are closely linked to other operations of thinking: abstraction, generalization, & c. The logical analysis consists of the mental decomposition of the investigated object into its component parts and is a method to obtain new knowledge. Depending on the nature of the object investigated, the analysis takes different forms. To reach multilateral knowledge of the object under investigation, it is a necessary condition that the analysis be multifaceted. The dismemberment of a whole in its component parts, allows to discover the structure of the investigated object; the decomposition of a complex phenomenon into simpler elements allows us to delimit the essential from that which is not, to reduce the complex to the simple; we have one of the forms of analysis in the classification of objects and phenomena. The analysis of a process in its course allows us to distinguish in it different stages and contradictory

tendencies, et c. In the course of analysis, thought moves from the complex to the simple, from the casual to the necessary, from multiplicity to identity and unity. The purpose of the analysis is to get to know the parts as elements of a complex whole, to see what links exist between them and the laws to which the whole is subject in its development. However, the analysis leads to the breakdown of an essence not yet linked to the concrete forms of its manifestation; unity, which remains abstract, has not yet been discovered as unity in diversity. The synthesis - that is, the union, forming an integral whole, of the parts, properties and relationships delimited by means of analysis -, going from the identical, from the essential, to differentiation and multiplicity, unites the general and the singular, unity and multiplicity in a concrete, living whole. The synthesis completes the analysis and forms with it an indissoluble unity. The dialectical materialist conception of analysis and synthesis is opposed by their idealistic interpretation as mere intellectual resources not related to the objective world or to the practical doing of man; It also contrasts the metaphysical separation analysis and synthesis, attributed to one of two processes, indissoluble and not linked together, one opposite to the other absolute. In the history of philosophy, the contrast of analysis and synthesis is linked to the birth of the analytical method in the natural sciences and in the classical bourgeois political economy of the 17th-18th centuries. At that time, this method, which replaced speculative constructions with the study of empirical activity, had a clearly progressive character. But raised to the category of absolute philosophical method, it led to the examination of things apart from their connection and development, and this is how the analytical method of research became a metaphysical method of thinking. The advance of science has shown that the analytical method has constituted the historical premise of the synthetic method, closely related to it. From the point of view of their theoretical and cognitive meaning, both methods, free from any one-sidedness, appear as logical processes that are mutually conditioned and subordinate to the general requirements of the dialectical method." (Rosental & Iudin, 1971, pp. 11-12) .

II. III. Deductive Method and Inductive Logic

“ Lenin has characterized the method of *Capital* as a double analysis: deductive and inductive. Indeed, in investigation as well as in exposition, Marx proceeds simultaneously by induction and deduction, that is, he goes from the particular facts to the general conclusions and concepts, and from the latter to the examination of the particular facts and conclusions. . Studied from this point of view, *Capital* attests that the Marxist dialectic does not confer absolute value on any of these methods of knowledge, as well as on analysis or synthesis taken separately. The Marxist dialectic considers induction and deduction in their indissoluble unity; It requires that each of them be used in a specific stage of the process of knowledge and that the continuous passage from one to the other is never lost sight of: induction prepares deduction, deduction broadens the field of action offered to inductive study posterior of the phenomena. In this sense, it is necessary to remember that induction and deduction only intervene in Marx as moments of his method, that neither one nor the other have nor can they have autonomous significance. ” (Rosental M., *The problems of dialectics in Marx's" THE CAPITAL "*, 1961, p. 403) .

“ For example, in your considerations of value, induction finds a place next to deduction. In his theory of value Marx relies on what is valid in Smith and Ricardo. It checks from the beginning that the use values of commodities are the material bases of exchange value. This appears to him as the form of expression of value. But the very course of his reflections on value provides us with an example of induction in *Capital* . Marx takes a particular commodity, wheat, and shows that it is exchanged in certain proportions for specified quantities of other commodities; iron, silk, gold, etc. The same thing happens when other goods are exchanged with each other. When wheat is exchanged for iron, Marx reasons, this equality means that there is something common in these two different commodities, that both are equal to a third, to which they can be reduced. After generalizing analogous singular facts, Marx comes to the conclusion that this common something is work,

the general work that has been invested to produce them. This work determines its value. Here, then, we have an example of an inductive conclusion: singular events have culminated in a general conclusion. " (Rosental M., The problems of dialectics in Marx's " THE CAPITAL ", 1961, p. 404) .

" It is evident that a mistake would be made by reducing all the analysis that follows to induction only , and that it refers to cooperation, manufacturing and large mechanical industry, etc., that is, to the successive historical degrees of production. capitalist through which the production of relative surplus value takes place. It is first of all a brilliant example of the application of the dialectical theory of development to the study of the capitalist mode of production, an example of the conception of development as a process in which quantitative changes culminate in qualitative changes. But it is also an example of induction or, more specifically, of the inductive method of demonstration. Marx supports his general thesis regarding the methods of relative surplus value on the real basis of numerous singular facts that confirm it.

The Capital study highlights in particular the importance and role of deduction in knowledge. Marx attacks the overestimation of the role of induction, you n dence to put in the foreground induction in theoretical research. Engels approved of Hegel in every way when he said that a conclusion reached by induction was always problematic. The defect of induction is that it can never demonstrate by itself the necessity, the determinism of phenomena. But scientific knowledge has the task of considering and studying phenomena in their necessity, in their determinism. Therefore, the empirical observations must be completed by a theoretical generalization of the facts, by the deduction of uncontested general theses, which define the necessity of such a state and not of such another, of such development of phenomena and not of such other. In other words, induction must be completed by deduction, which allows, from the knowledge of the general and necessary properties of objects, to deduce the facts and singular phenomena, to

make them enter within the framework of the laws. . " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, pp. 405-406) .

In this regard, it should be said about inductive logic that: " In traditional logic, part that deals with the logical processes of reasoning that go from the particular to the general (Induction). The representatives of traditional inductivism saw the task of inductive logic in the analysis of the processes with which general theoretical knowledge was obtained starting from the singular, from the empirical. In the history of logic, there has been another conception of the object of inductive logic, whose tasks were limited to the analysis of the logical criteria for the verification of general laws. The first to formulate such a conception of this part of logic was the English logician Whewell. To carry out such a check, the hypothetico-deductive method was taken. At present, this point of view is shared by neopositivist logicians and most specialists in inductive logic outside the USSR. This conception is based on the influence of inductive methods to obtain scientific theoretical propositions whose formation presupposes delimiting a new content. conceptual and form new scientific abstractions. What such a conception presents as limited is the illegitimate renunciation of the logical investigation of the processes to obtain scientific knowledge in general, that is, the renunciation of the analysis of said processes as socially necessary, not dependent on the particularities of individual consciousness. , determinable by the objective content of the cognition processes. Modern inductive logic broadens the sphere of its application and examines not only the reasonings that go from the particular to the general, but also all the logical relationships that occur when it is not possible to reliably establish the veracity of the knowledge that is obtained. It must be verified starting from the knowledge whose veracity is known to us, and that it is only possible to determine: if this knowledge confirms the first, and if so, to what degree. Hence, one of the central concepts of contemporary inductive logic is the degree of confirmation, which is usually interpreted as the probability of the hypothesis taking into account the empirical knowledge given. With this, contemporary inductive logic

uses the methods of probability calculus and probabilitarian logic. " (Rosental & Iudin, 1971, pp. 279-280) .

Here it is interesting how R&I show that the logic behind probabilities is inductive logic.

Regarding the deductive method, it must be said in turn that it is the: " Procedure for establishing scientific theories; its specific peculiarity lies in applying only the deductive technique of the conclusion (deduction, inference). In philosophy, attempts have been made to establish a sharp boundary between this method and others (for example, inductive ones), interpreting deductive reasoning as extra-experimental and making the role of deduction in science too expensive. In fact, deduction and induction are inextricably related to each other; the process of deductive reasoning is conditioned by the multiseccular cognitive and practical activity of man. The deductive method is one of those that can be applied in the structuring of scientific knowledge. As a general rule, it is used when empirical facts and data have been accumulated and theoretically interpreted. Then, using the deductive method, try to systematize the empirical material, it seeks to infer from it more rigorously and systematically all possible consequences, etc . Thus, a new knowledge is obtained, for example, as a set of possible interpretations of the theory structured in the deductive plane. The general scheme under which deductive systems (theories) are organized includes: 1) a starting base, that is, a set of initial terms and sentences; 2) usable logical resources (definition inference rules); 3) the theory itself obtained from (1) applying (2). When examining such theories, the relationships between some of its components abstracted from the genesis and development of knowledge are subjected to analysis. For this reason, it is convenient to consider them as special formalized languages, which can be analyzed in their syntactic or semantic aspects (in the syntactic, when the correlation between the signs that enter the language and the expressions is studied without taking into account their meaning outside the latter. ; in the

semantic, when the relationships between the signs and the expressions of the system are examined from the point of view of their meaning and their conditions of truthfulness). Deductive systems are subdivided into axiomatic (axiomatic method) and constructive (constructive or genetic method). The deductive method, when applied to knowledge based on experience and experiment, is presented as a hypothetical-deductive method. The analysis of the deductive procedure in the structuring of scientific knowledge began already in the philosophy of classical antiquity (Aristotle, Euclid, Stoics) and acquired singular importance in the philosophy of the Modern Era (Descartes, Pascal, Spinoza, Leibniz, and others).), m to s the principles of deductive organization of knowledge only been fully and accurately formulated at the end of the nineteenth century and early twentieth (widely applying the resources of mathematical logic). Until the end of the last century, the deductive method was applied almost exclusively in the sphere of mathematics. In the twentieth century, have become widespread attempts to structure in deductive sense (particularly axiomatic) mathematical numerous disciplines no special -parts of physics, biology, linguistics, sociology, et c. " (Rosental & Iudin, 1971, pp. 314-315) .

Regarding the hypothetico-deductive method, they expand by explaining that it is the: " Methodological procedure that consists in taking some assertions as hypotheses and in checking such hypotheses by deducing from them, together with the knowledge that we already have, conclusions that we confront with the facts . This procedure is an important part of the methodology of science; its application is linked to several methodological operations: confrontation of facts, revision of existing concepts, formation of new concepts, conciliation of hypotheses with other theoretical propositions, et c. For this reason, the tendency that occurs in neopositivist "philosophical science" is erroneous, which consists in giving an absolute meaning to the hypothetico-deductive method as the only essential methodological operation in the logical relationship. " (Rosental & Iudin, 1971, p. 316) .

“ The role played in Capital by deduction is particularly clear in the example of surplus value, a fundamental problem, the cornerstone of the entire work. By studying concrete facts Marx was led to his thesis on surplus value (...) From this general, fundamental law of the bourgeois mode of production, Marx derives, with the help of the deductive method, all the concrete and particular varieties of capitalist profit: the entrepreneur's income, interest, commercial profit, land rent. Marx underlined the full importance of the fact that he had begun by studying surplus value by abstracting from its many concrete manifestations. He indicated that it was only thanks to this that he was able, going from the general to the particular, to scientifically explain the real essence of capitalist profit. ” (Rosental M., The problems of dialectics in Marx's " CAPITAL ", 1961, pp. 407-408) .

II. IV. The Role of Intuition in the Knowledge Construction Process

In dialectical logic, considered as an integral part of Marxist philosophy, the categories and logical concepts, the forms of movement of thought, must be examined and studied, going from the lower to the higher, from the simple to the complex, from the lower to the higher. the abstract to the concrete. The movement of knowledge always begins by intuition, by perception of the concrete; this is an absolute law of knowledge. But this perception, this intuition is something even more abstract in relation to the results posteriores of knowledge. In the present case, we take the concept of "abstract" as something simple, still poor in terminations, not enriched by the concrete knowledge of the essence of things. In the course of knowledge, definitions and primitive concepts are clothed with more complex and rich determinations, which give us an infinitely more concrete representation of the object than the initial perceptions and representations from the senses. The starting point of knowledge are sensory perceptions, concrete in form, but abstract and poor in content. On the contrary, the general concepts that we form are abstract because of their form , but highly concrete because of their content, because of the wealth of determinations they contain. In this sense Lenin affirmed that the meaning of the general is contradictory: "it is inert, it is impure, it

is incomplete, etc., Etc., but it is only a stage towards the knowledge of the concrete ..." The merchandise, point of starting from the study of the capitalist mode of production, is a concrete thing. But the abstract ideas of value, capital gains, etc., allow more complete analysis of the capitalist mode of production and we really come to the knowledge of the concrete. the outstanding contradiction It is also found by Lenin in the history of human knowledge. In primitive men, thought and the representation of the world around them had an extremely concrete character. But this concrete character had very poor content, and in that sense their conception of the world may be considered as abstract, rather than as concrete. The historical development of all science also obeys the law of movement that goes from the abstract to the concrete. For example, the theory of the atom, in its historically primitive form and first expressed by Democritus, has an apparently concrete character in relation to the modern scientific conception of the atom. The representations relative to the atom, to the relationships between the atoms, were conceived as an analogy with the objects that surround man. But this concrete character only applied to the form and not to the content, because the conceptions of the atom were still very abstract and were far from the real concrete knowledge of the nature of these material particles. And although the modern theory of atoms and electrons is abstract in form, and although the corresponding representations cannot be illustrated by any concrete image, this theory is incomparably deeper than those of the past: it discovers the concrete content of the atom and it is, in essence, more concrete. " (Rosental M., Problems of dialectics in Marx's" CAPITAL ", 1961, pp. 434-435) .

To the above we must add the systematic Marxian definition of *intuition* , which raises about this philosophical category that; " (From the Latin" *intueri* ": to stare). Faculty of immediately knowing the truth without prior logical reasoning. In pre-Marxist philosophy, intuition was considered a special form of cognitive activity. Descartes, for example, understood that the deductive form of the proof is based on axioms, but that these, instead, come to be known in a purely intuitive way,

without any proof. Intuition, according to Descartes, together with the deductive method, serves as a universal criterion for establishing full evidence. Intuition also occupies a prominent place in the philosophy of Spinoza, who considered it to be the "third degree" of knowledge, the most reliable and important, which apprehends the essence of things. In contemporary bourgeois philosophy and psychology, intuition is conceived as a mystical faculty of knowledge, incompatible with logic and with the practice of life (Intuitivism, Intuitivism in ethics). From the point of view of many representatives of contemporary bourgeois ethics, intuition makes it possible to value, without relation to logical thought, "instinctively" the actions of people. Dialectical materialism does not consider intuition as a special degree of knowledge and rejects all attempts to present it as a cognitive faculty supra r rational, mystical. On the other hand, intuition plays an auxiliary role in the process of scientific cognition and the aesthetic assimilation of reality. Intuition cannot be considered as a different way, in principle, from the paths that are currently followed to get to know the truth, but rather it is one of the ways in which these paths are manifested, a form subject to law, based on thought. logical and practical. Behind the faculty of "suddenly" guessing the truth, there is actually an accumulated experience, a previously acquired knowledge. The results of intuitive knowledge do not need a special criterion of truthfulness ("evidence by itself", etc.), but are also logically demonstrated and verified by practice. "

(Rosental & Iudin, 1971, p. 247) .

The above must be complemented with the dictionary entries regarding *Mathematical Intuitionism* and *Constructive Logic in Mathematics* .

II.IV.I. Mathematical Intuitionism

" Idealistic philosophical school, emerged at the beginning of the 20th century in relation to the controversy around the theoretical foundations of mathematics. It is attached to the names of Brouwer, Weyl, Heyting and others. According to intuitionism, a specific part of thought is based on intuition, understood as the

ability to differentiate and clearly identify the objects of thought. Intuition fills judgment with content, gives it meaning and also serves as a criterion of truth. The mathematical proof does not convince by its logical rigor, but by the intuitive clarity of each of its links. Confidence in Aristotelian logic constitutes a source of contradictions (antinomies) as soon as we exceed the limits of the finite sets from which said logic has been abstracted. Hence, ultimately, intuition must even judge whether or not the logical rules apply. However, intuitionism (unlike intuitivism) does not counterpose intuition to logic. The philosophical conceptions of the intuitionist school were not scientific and did not reach much diffusion; in principle criticism made by its representatives demonstration of concepts and definition, played an important role in the formation of constructive logic and mathematics (constructive logic). " (Rosental & Iudin, 1971, p. 247) .

II.IV.I. Constructive Logic in Mathematics

" One of the directions of mathematical logic. Its bases are in the intuitionist school, although they are not linked to the philosophy of intuitionism. The development of constructive logic begins with the works of Luitzen Brouwer, Hermann Weyl and Arendt Heyting . The fundamental idea of constructive logic is to prohibit the valid principles for finite sets from being applied to infinite sets (for example, the thesis that the whole is greater than the part, the principle of the excluded third, & c.). The points of view of classical logic and constructive logic on the concept of infinity are different: the former sees the infinite as actual, finished; the second, as potential, in the process of formation (actual infinity and potential infinity). Constructive logic has the inductive structure (construction) of objects. Starting from the principles of constructive logic, attempts are made to review the fundamental results of contemporary mathematical logic and mathematics. Soviet scientists AM Kolmogorov, AA Markov and PS Novikov have contributed greatly to the development of constructive logic . " (Rosental & Iudin, 1971, p. 278) .

“ Orientation in the philosophical foundations of mathematics (as well as logicism, formalism and effectiveness), which emerged at the beginning of the 20th century due to the controversy surrounding its theoretical bases. According to intuitionism, exact mathematical thinking is based on rational intuition, which includes the process of mental structuring of all mathematical objects. According to intuitionism, through such intuition all mathematics is created, which is why mathematical objects do not exist apart from mental speculations. To avoid paradoxes, the mathematical proof should not be based on logical rigor, but on intuitive evidence: it is true on condition that each of its degrees is understood intuitively, starting with the starting premises and the rules of reasoning. So, ultimately, the intuition must also judge about the applicability in the demonstrations of one or other laws and logical rules. However, intuitionism, unlike intuitivism, does not oppose intuition to logic. He only considers that mathematics cannot be based on logic and develops his understanding of logic as part of mathematics, approaching logical theorems as mathematical theories of maximum generality. ” (Frolov, 1984, p. 234) .

II.IV.II Marxian Definition of Finite and Infinite

“ Categories that are the expression of contrary aspects of the objective world, indissolubly related to each other. For example, it is called infinite magnitude to the variable magnitude that increases (decreases) in an infinite way and can be made greater (smaller) than any quantity given in advance as large (small) as you want; It is called finite to a certain magnitude with respect to which it is possible to indicate another determined greater (smaller). Regarding the objective world, the infinite characterizes: 1) the existence of the world in space, the absence by principle of any closed limit in all material systems; 2) the existence of the world in time, the uncreable and indestructible nature of matter, the eternity of its being; 3) the quantitative inexhaustibility of matter in depth, the unlimited variety of its properties, interconnections, forms of existence and development trends; 4) the qualitative heterogeneity of the structure of matter, the existence of an infinite

multitude of qualitatively different levels of structural organization of matter, in each of which it has different specific properties and is subordinate to different laws. The finite represents the negation of the infinite; however, every finite object constitutes the form in which the infinite manifests itself. As a given concrete quality, the finite exists for a limited time. But the matter that constitutes the finite is neither creatable nor destructible, it has an infinite existence and only changes from one form to another. The existence of a given body can be discovered in any sphere of the universe, however remote it may be, as far as the material irradiations that the body produces in the process of interaction with other bodies can reach. It follows, then, that the finite includes in itself the infinite, in the same way that the latter is formed from an innumerable set of finite objects and phenomena. The contradictory unity of the infinite and the finite makes the knowledge of the infinite possible, despite the fact that in each act of practical activity and cognition, man only encounters finite objects and processes. or finite phenomenon in one way or another the infinite is contained or manifested, "all true knowledge of nature is a knowledge of the eternal, of the infinite ..." (Engels Dialectic of Nature, p. 186 - Anti- Dühring , EPU, 1959, p. 494). (See also Current Infinity and Potential Infinity, Bad Infinity, Eternity.) " (Rosental & Iudin, 1971, pp. 240-241) .

II.IV.II Marxian Definition of Actual Infinity and Potential Infinity (Finite Cardinality and Transfinite Cardinality)

" They are two ways of understanding the infinite. By current infinity, in mathematics, we mean an endless, finished and already realized set (for example, the set of all natural numbers). By potential infinity is meant an endless set capable of unlimited increase (or unlimited decrease) becoming greater (or less) than any magnitude established in advance. The paradoxes of Cantor's set theory broke the absolute confidence of mathematicians in the conceptions of current infinity. Some mathematicians considered only the infinite potential to exist. Supporters of this point of view understand that the concept of "current infinity" is contradictory

since , when it acquires reality, the infinite magnitude ceases to be so and becomes finite. The struggle between these criteria continues even today. The solution to the problem has to be found in the properties of the real world. The material world is infinite in space and time not as a possibility, but as a reality, it is not that one day it can become infinite, but that it always is. On the other hand, the world is constantly developing, it contains within itself the possibility of further and limitless transformations. Hence its infinity is at the same time potential. The unity between actual infinity and potential infinity also occurs in the structure of matter. To represent such a unity, research methods must be based on the dialectical examination of actual and potential infinity (see also Infinite and finite). ”
(Rosental & Iudin, 1971, p. 240) .

II. V. The Dialectical-Materialist Logic as Gnoseological Overcoming of Rationalism and Empiricism

II.VI Rationalism

" (From the Latin" rationalis ": rational.) 1. Gnoseological theory, according to which universality and necessity - logical characters of true knowledge - cannot be inferred from experience or its generalizations; They can only be extracted from the understanding itself: from concepts that are innate to it (Descartes's theory of *innate* ideas), or from concepts that exist only in the form of abilities, of predispositions of the understanding. Experience exerts some stimulating action for the emergence of such concepts, m to s character of universality and necessity stalwarts are due to the ways of seeing of understanding or a priori forms that

precede the experience, which, allegedly, these do not depend. In this sense, rationalism is opposed to *empiricism*. Rationalism arose as an attempt to explain the logical peculiarities of the truths of mathematics and mathematical natural science. Its representatives were, in the seventeenth century, Descartes, Spinoza and Leibniz; in the XVIII, Kant, Fichte; in the XIX, Schelling and Hegel. The limitation of rationalism lies in denying the practical origin of universality and necessity. Rationalism attributes an absolute value to the unconditional nature of these logical features, it ignores the dialectic of the transit of knowledge from universality and minor necessity to those that are greater and unconditional. The limited nature of rationalism is only overcome with Marxism, which conceives knowledge forming a unit with practice (Knowledge, Theory and Practice). 2. Discursive character of thought and conception of the world. It manifests itself not only in the theory of knowledge, but also in psychology, ethics and aesthetics. In psychology, rationalism places the intellectual psychic functions in the foreground, reducing, for example, the will to reason (Spinoza); in ethics, it places in the foreground the rational motives and principles of moral conduct; in aesthetics, the rational (intellectual) character of creative action. In all these cases, rationalism denotes faith in reason, in the evidence of rational examination, in the force of proof. In this sense, rationalism is opposed to irrationalism. 3. In theology, it is the current according to which only the dogmas of the faith seen by the understanding as concordant with logic and with the "natural light" of reason are acceptable." (Rosental & Iudin, 1971, p. 388).

II.V. II. Empiricism

" (From the Greek *ἐμπερία*: experience). Epistemological theory that considers sensory experience as the only source of knowledge; affirms that all knowledge is based on experience and is acquired through experience. The empiricist idealism (Berkeley, Hume, Mach, Avenarius, Bogdanov, the current logical empiricism, et c.), Limited experience a series of sensations or representations and denies the basis of the former figure objective world. Materialistic empiricism (Francis Bacon,

Hobbes, Locke, and the French materialists of the 18th century) considers that the source of sensory experience lies in the external world, which exists objectively. However, the fundamental contradiction between empiricism and rationalism does not lie in the question concerning the origin or source of knowledge: some rationalists agree that there is nothing in the mind that has not occurred before in sensations. The main point of the divergence is that empiricism infers from experience, and not from the mind itself, the universal and necessary character of knowledge. Some empiricists (for example, Hobbes and Hume), influenced by rationalism, came to the conclusion that experience is not capable of providing knowledge with a value of universality and necessity. The limitation of empiricism consists in metaphysically overvaluing the role of experience, while underestimating that of scientific abstractions and theories in cognition; it consists in denying the active role and relative independence of thought. Such insufficiencies have been overcome by Marxist philosophy, which examines all the problems of the theory of knowledge from the positions of the dialectic of practice (Knowledge, Theory and Practice, Contemplation). " (Rosental & Iudin, 1971, p. 137) .

II.IV.III.I. Fundamental Differences between Empiricism and Positivism

" (From the Latin " positivus ": positive.) The widely diffused subjective idealistic current of bourgeois philosophy; it is presented taking as its flag the denial of philosophy as a conception of the world, rejecting traditional philosophical problems (relationship between being and consciousness, and others) as "metaphysical" and not subject to experimental verification. The main feature of positivist philosophy consists in the attempt to create a methodology or "logic of science" that is above the opposition between materialism and idealism. It has become one of the fundamental principles of the positivist methodology of science, extreme phenomenism; Consequently, it has been declared that the aim of science is the pure description of the facts given by the sensations, not their hallucination. The positivist claim that philosophy is "neutral", not "party

character", obeys deep social motives. The most important of all of them lies in the contradictory attitude of the bourgeoisie towards the particular sciences: on the one hand, the bourgeoisie is interested in the advancement of the natural sciences, without which production cannot develop; On the other hand, it refuses to accept the ideological conclusions that exceed the limits of natural-scientific theories strictly findings that undermine the idea that bourgeois society is enduring. The founder of this current was Comte, to whom the term "positivism" is also due. Historically, there are three stages in the development of positivism. The representatives of the "first" positivism are Comte, Emile Littré, Pierre Laffitte (France), Mill, Spencer (England). Along with the problems of the theory of knowledge (problem of the general historical laws of its development, -Comte-) and of logic (Mill) that were resolved in the sense of extreme empiricism and phenomenalism, in the "first" Positivism gave the main place to sociology (Spencer's organic theory of society) whose aim was to establish the natural and enduring character of capitalism. This fact already exposed the reactionary class sense of positivist philosophy. The birth of the "second" positivism - empirio-criticism - occurs in the last third of the last century and is linked to the names of Mach and Avenarius, who even renounced the formal recognition of real objects, a recognition that was still accepted by the representatives of the "first Positivism. In Mach's theories, knowledge problems were interpreted from the point of view of an extreme psychologism, which became subjectivism. The appearance and formation of the "third" positivism are related to the activity of the Vienna Circle (Neurath, Carnap, Schlick, Frank and others) and of the Berlin Society for Empirical Philosophy (Reichenbach, F. Kraus and others) in which they united numerous directions: logical atomism, logical positivism, general semantics (operationalism and pragmatism were close to these currents). In the "third" positivism, problems of language, symbolic logic, the structure of scientific research and others occupy the main place. After rejecting psychologism, the representatives of the "third" positivism have worked in the sense of bringing the

"logic of science" closer to mathematics, in the sense of formalizing gnoseological problems to an extreme degree." (Rosental & Iudin, 1971, p. 370) .

The definitions given above on empiricism and positivism must be complemented with what was stated by Jostein Johnsen , linguist at the University of Bergen. In this regard, Johnsen points out that: " In theory, therefore, positivism has room for all possible results as long as the method is correct. And that in itself is what validates the foundation, not the metaphysical assumptions of reality and observation. What sounds wonderful, all to the point where you're studying, say, biology, and begin to establish how social mechanisms are actually caused by gene factors é ticos, because you find a correlation it or n somewhere. Instead of discussing cr í matically if you could í an absence of other factors and ways to establish the correlation or n. That, in fact, perhaps to s completely negate the genetic model and turn it into an indication rather than a cause. Such a problematization would be difficult for a positivist to accept, simply because the concept of reality that interferes with the facts is a kind of man-made sophistry, which simply would not be trusted in an experiment. And so positivism, even limited to the philosophy of science, passes from wonderful idealism to orthodox preaching and arrogant ego worship. Simply because the questioning of the correct application of the method does not enter as a factor. The method must be correct, a positivist would say: we simply have incomplete data or we lack a holistic model that encapsulates this old data with the other data. The genetic factor is real, as are the other factors, and the truth is somewhere in between, etc. And as a result, we often have, and have had, conflicts in certain controversial areas, where groups adhere to models that have very obvious weaknesses, simply because they hope, and will do so until the end of time and space, to claim that it is part of that imagined whole of all knowledge. And therefore it is invaluable, no matter how much it conflicts with other models, which by necessity is not invaluable and is often also wrong. In other words, a positivist could be seen as a kind of specialist of an empiricist. Where observations and discoveries must be cumulative, as a

consequence of how knowledge is supposed to exist (although no positivist would probably claim this directly as a position, at least not explained in that way; instead, insist on validity and objectivity of scientific theory). method and its studies based on the method so carefully chosen, documented and explained. " (Johnsen, 2019) .

However, there is also logical empiricism, which is generally also known as logical positivism. In this regard, it is noted that logical positivism "(...) (also called " logical empiricism "or" scientific empiricism ") , is a movement associated with the Vienna Circle. His mission was to "unite" science (especially in opposition to metaphysics) and give a correct sketch, a description of the scientific method (to dispute metaphysics). His task concerns both scientific theory and language; This movement can be seen as empiricism (which states, for example, that they agree with the methodology of the natural sciences and that they believe that the source and origin of all knowledge is experience) and with a very important role for logic (formal) "to describe the permissible inference structure" (linguistics and logic). They agree with the empiricist that the origin of all knowledge is experience , but they also seek a "logic of science" with a very unique "authority", which in turn leads to the theory of conformation.[\[7\]](#). To be straightforward, positivism states that 1) the *only* authentic knowledge is scientific knowledge [a statement of uniqueness] (but empiricism deals with the source and origin of knowledge, which states that the origin of all knowledge is sensory experience and of course scientific knowledge is included). 2) This authentic knowledge comes from a special and unique method (scientific method , which is empiricism plus specific principles of logic. It affirms something about authentic knowledge and the method to achieve this authentic knowledge, it is about empiricism, what is the basis? of all our knowledge, emphasis is placed on experience and evidence (especially sensory perception) to acquire knowledge, to use Kant, the "only knowledge we can have" is a posteriori (based on experience) . " (StackExchange Philosophy , 2015) .

The synthesis of the last two paragraphs is expressed as follows: “ In a broad sense, empiricism also covers logical positivism. In a strict sense, both differ by historical time and the opponents of each school of thought. ” (StackExchange Philosophy, 2015) .

II.V. III. Marxian Definition of Knowledge and Contemplation

II.IV.III. I. Knowledge

“ Process by virtue of which reality is reflected and reproduced in human thought; This process is conditioned by the laws of social becoming and is inextricably linked to practical activity. The end of knowledge is to achieve objective truth. In the process of knowledge, man acquires knowledge, assimilates concepts about real phenomena, understands the surrounding world. Said knowledge is used in practical activity to transform the world, to subordinate nature to the needs of human beings. Knowledge and the practical transformation of nature and society are two facets of the same historical process, which condition and penetrate each other reciprocally. Knowing itself constitutes a necessary moment of the practical activity of society, since this activity is typical of men and they carry it out based on the knowledge of the properties and functions of things and objects. On the other hand, social productive activity, the practice of society, appears as a necessary moment of the process of knowing itself. Only the inclusion of practice in the theory of knowledge has turned the latter into a real science, which discovers the objective laws of the origin and formation of knowledge related to the material world. In the sources of knowledge, there is practical, active action on nature, the practical reworking of its substance, the use of certain properties of things with a view to production. What is assimilated in practice and with it goes on to enrich human knowledge, its collection of concepts and theories, is not the appearance of the object, but its functions - discovered thanks to doing practical - and, with them, the objective essence of the given thing. Knowledge constitutes a complex dialectical process that takes place in different ways, has its stages and

degrees, and different forces and abilities of man participate in it. Knowledge – which is based on experience, in practice– begins with sensory perceptions of the things that surround the human being. Hence, in the process of cognition, the direct sensory connection of man with the objective world plays a great role. Outside of sensations, man cannot know anything about reality. The "living contemplation" is carried out in ways such as sensation, perception, representation, study of facts, observation of phenomena, & c. Sensations provide man with a knowledge of the external qualities of things. By differentiating between hot and cold, colors, smells, hardness, softness, & c., Man correctly orients himself in the world of things, distinguishes one from the other, acquires various information regarding the changes that occur. they produce in the environment that surrounds you. The perception of the images of the objects and the fact of preserving them in the representation allow to operate freely with the objects, to capture the nexus between the external aspect of the object and its functions. But, important as the sensory form of knowledge may be, this, in itself, does not make it possible to penetrate the science of things, to discover the laws of reality. Now, it is precisely in this that the main objective of knowing lies. The data of "living contemplation", of experience, are elaborated and generalized by the higher cognitive faculty of man, by verbal, abstract and logical thinking, which is carried out in the form of concepts, judgments and reasoning. Concepts also appear in man as a product of his social productive activity. The properties, the functions of things, their objective value for practice, focusing on the verbal signaling activity of people, become meaning and sense of words with the help of which human thought creates certain concepts about things, their properties and manifestations. Logic thinking activity is performed in different ways: induction and deduction, analysis and synthesis, hypothesizing and theories, et c. They also play a great role in knowledge, imagination, creative fantasy and intuition, which allow us to compose broad generalizing representations about the nature of things based on some data from experience. However, thought only creates subjective ideas; The problem remains

open as to whether these ideas correspond to reality itself. This problem is not solved only by mere reasoning and theoretical demonstrations, but, above all, in historical - social practice . A subjective idea becomes objective truth, -with which a determined sky of thought culminates- only in the event that the practical actions of society, supported directly or indirectly by said idea, allow man to dominate forces of nature. or social. (Criterion of truth). And only when the social practice of production confirms the coincidence of ideas, knowledge and theories with reality, only then, is it possible to speak of the veracity of said ideas, knowledge and theories. Lenin wrote: "From living contemplation to abstract thought and from this to practice - such is the dialectical path of knowledge of truth, of knowledge of objective reality" (t. XXXVIII, p. 161). The truths of science are not virtually definitively proven by an isolated experiment, carried out on purpose. All the material activity of production, the existence of society in the course of its entire history, specify, deepen and verify knowledge. The truth is a process. Practice specific enough to differentiate the error objective truth, to confirm the authenticity of our knowledge, is at the same time a developing process, limited in each of its stages by the possibilities of production, its technical level, et c. This means that practice is also relative, by virtue of which its development does not allow the truth to become a dogma in something absolute and invariable (absolute truth and relative truth). The revolutionary transformation of society and the practical establishment of communism are only possible if one has a true knowledge of objective social and natural laws. " (Rosental & Iudin, 1971, pp. 80-81) .

II.IV.III. II. Contemplation

“ The main defect of pre-Marxist materialism , in the sphere of the theory of knowledge, consisted in having a contemplative character. Starting from the objectivity of the external world, the old materialists characterized knowledge as a passive process of perception, of contemplation; the external world acts on the organs of the senses of man and this is conceived only as a percipient subject.

Furthermore, the objective world and human activity were unilaterally opposed. Reality was conceived only as an object and not subjectively, that is, depending on the activity of the subject, under an aspect transformed and changed by the social practice of humanity. The very social activity in the sphere of production, practical doing, was understood by the old materialists only as an individual activity of people tending to satisfy their narrowly personal and selfish needs, they saw practice only in the "dirty Jewish form of manifest", (Marx). For the old materialism it was not accessible to conceive the practice as a creative activity both of man himself and of the world in which he lives. This is due to the fact that history was conceived in an idealistic sense since the role of production in the life of society was unknown. Consequently, only theoretical activity was considered authentically human, and knowledge was separated from practice, opposed to it. The truth is that, in the process of cognition, man encounters not so much nature as such, as with the "humanized" world, that is, included in one way or another in the production process; it is precisely the practical transformation of the world that reveals to man its laws and its essence. It is also characteristic of contemplation to understand the subject of knowledge as an abstract individual, isolated from society and often seen only as a natural being. Contemplation is inherent in both empiricism and rationalism, since outside of practice it is not even possible to correctly pose the problem of their correlation. In the theory of knowledge, contemplation inevitably leads to metaphysics, since it makes it impossible to completely refute idealism. Marxism has overcome contemplation and with it has caused a radical change in the sphere of gnoseology." (Rosental & Iudin, 1971, p. 83).

II. V. IV. Marxian Definition of Absolute Truth and Relative Truth

"Categories of dialectical materialism that characterize the process of knowledge development and reveal the existing correlation between: 1) what is already known and what will be in the subsequent advance of science; 2) what, already known, can be changed, clarified or refuted in the course of the subsequent

progress of the sciences and what remains irrefutable. The doctrine on absolute and relative truth answers the following question: "Can human representations that express objective truth express it at once, completely, unconditionally and absolutely or only approximate and relatively?" (VI Lenin, t. XIV, p. 110. Materialism and empirio-criticism, EPU, 1959, p. 126) Thus, absolute truth is understood as a complete, exhaustive knowledge of reality (1) and as that element of knowledge that cannot be challenged in the future (2). At each stage of development, our knowledge is conditioned by the level to which science, technology and production have reached. As knowledge and practice expand, man's ideas about nature become deeper and more accurate, they are perfected. For this reason, scientific truths are relative in the sense that they do not provide complete, exhaustive knowledge about the sphere of objects studied and contain elements that, with the progress of human knowledge, are modified, specified, deepened and replaced by others. . On the other hand, each relative truth signifies a step forward in the cognition of absolute truth; if it is scientific, it contains elements, particles of absolute truth. There is no insurmountable boundary between absolute and relative truth. The sum of the relative truths forms the absolute truth. The history of science and social practice confirms this dialectical character of the development of knowledge. As science advances, we are discovering more and more deeply and fully the properties of objects and the relationships between them, we are getting closer to the knowledge of the absolute truth, which is confirmed through the success in the application of theory in practice (in technique, in production technology , & c.). On the other hand, the theories elaborated previously are being refined incessantly, they develop; some hypotheses are discarded (for example the relative one to the existence of the ether); others are confirmed and become proven truths (for example, the hypothesis about the existence of atoms); some concepts are eliminated from science (such as "caloric" and "phlogiston"), others are specified, generalized (compare the concepts of simultaneity and inertia in classical mechanics and the

theory of relativity), & c. The doctrine of absolute and relative truth is specified in science in the principle of correspondence. It is directed against metaphysics, which declares all truth eternal, immutable ("absolute"), and against the various idealistic conceptions of relativism, according to which all truth is only relative, the development of science only attests that errors are replaced by others and, consequently, there is not and cannot be an objective truth. However, in reality, as Lenin pointed out, "all ideology is historically conditioned, but it is unconditional that all scientific ideology (unlike, for example, religious ideology) corresponds an objective truth, an absolute nature" (Ibid. , p. 123. Ibid., p. 142) . " (Rosental & Iudin, 1971, pp. 479-480) .

II.VV Marxian Definition of Theory and Practice

" Philosophical categories that designate the spiritual and material aspects of the unique historical-social process of knowledge and transformation of nature and society. The theory is the generalized experience of men in consciousness, it is the body of knowledge about the objective world; it is a relatively independent system of knowledge concatenated by the internal logic of concepts, which reproduces the objective logic of things. Unlike the old empirical and positivist (particularly pragmatic) point of view, Marxist philosophy does not conceive of practice as subjective sensory experience of the individual or as action carried out exclusively for subjective reasons. Practice is the activity of man that ensures the existence and development of society, it is, above all, the objective process of material production, the basis of human life , and also the revolutionary and transforming activity of the classes, as well as any other form of social activity that leads to the transformation of the world. The scientific experiment is also one of the forms of practice. Theory and practice are in indissoluble unity, the one does not exist without the other and they influence each other without ceasing. The basis of such interaction is practice. The practice of social production is precisely what generates consciousness and determines it at each stage of development, while at the same time determining the theoretical apprehension of reality. Man acts consciously,

understanding reality in one way or another. This does not mean that in his actions he is guided directly by some rigorously consistent scientific theory. But its activity is always guided by a certain set of knowledge. At the dawn of human history, the only form in which such knowledge could exist was that of the "ordinary consciousness", unique and undivided. The understanding of work habits, the empirical generalization of the results of action and observations, traditions and beliefs, the faithful or fantastic reflection of the social being, all this "theory" did not constitute a logical and harmonious system of concepts. It was not a scientific reproduction of the objective laws of reality. On the other hand, its link with practice was so complete that said "theory" was directly "interwoven" with "the language of real life", with the practical work of people. When the division of labor into intellectual and physical occurs, theory and practice bifurcate towards different social poles. They continue to depend on each other and continue to influence each other, but they become forms to some extent independent of social doing. «... From this moment on, the conscience is in a position to emancipate itself from the world and give itself up to the creation of" pure "theory, of" pure "theology, of" pure "philosophy and morals, & c." (C. Marx and F. Engels, Vol. III, p. 30, The German Ideology " , EPU, 1959, p. 31). The emergence of the "pure" theory was one of the most important revolutionary leaps in the history of mankind. The development of theoretical research, the abstract-logical form of the "pure" theory, allowed man to penetrate deeply into the essence of natural phenomena, to create a scientific image of the world, an image that is in constant development. On the other hand, for the sages themselves the link between theory and practice was no longer so obvious. This circumstance, together with the individualistic conception of the world typical of the society in which private property reigns, caused various illusions to arise: from the criterion that cognition is an act of passive individual contemplation of the "theorist" on the environment that it surrounds even the idealistic philosophical systems that understand theoretical consciousness (ideas) as the creator of reality. "From this moment on,

the consciousness can really imagine that it is something more and something different than the consciousness of existing practice ..." (ibid.). The capitalist mode of production, which has socialized work and developed productive forces never seen before; it creates the objective premises to overcome the divorce between theory and practice, and immeasurably increases the role of theory not only in the production process. Also the practical movement of the masses aimed at liquidating private property joins the advanced Marxist theory, which discovers the objective laws of society and directs all the activity of the party of the proletariat to the achievement of a scientifically understood end: communism. With work liberated, class antagonisms eliminated, the boundary between intellectual work and physical work erased, the division and opposition between theory and practice are likewise eliminated. The theory that has conquered the masses becomes a material force. After the victory of socialism and above all, in the period of the building of communism in the whole front; Marxist- Leninist theory and science in general bind ú n more closely with practice. The new and powerful productive forces that have come to life thanks to free labor for the good of all, require the direct participation of scientific theory in the production process. And science, as the highest form of theoretical activity, by becoming a necessary aspect of the habits of mechanized and automated work, becomes itself a productive force. Only the advent of the authentic history of human society clearly reveals the essence of the unique process - historical-social, practical and theoretical - by virtue of which man knows and transforms nature and society. " (Rosental & Iudin, 1971, pp. 497-498) .

III. THE LIMITATIONS OF FORMAL LOGIC

" It is known that Lenin formulated the problem of the perfect lie of dialectical logic. If the ideas that he expressed in his Philosophical Notebooks are analyzed, it will be seen that he considered the improvement of a scientific system of dialectical logic as an urgent need for the development of Marxist philosophy. And this is

natural. The results of all knowledge are fixed in concepts and categories that constitute the nodal points of knowledge, because they reflect the essential connections and relationships that exist between objects. Each science works based on them, and constitutes a specific system of concepts and categories. In the Philosophical Notebooks, Lenin gave a remarkably deep picture of this connection of concepts. He writes: "The river and the drops of that river, the situation of each drop, its relationship with the others, its connection with the others, the direction of its movement; the speed; the line of movement... Straight line, curved, circular line ... upwards, downwards The sum of the movement The concepts as inventories of the particular aspects of the movement, of the particular drops (= of the "things"), of the particular "currents". . " (...)" (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 411-412) .

“ This is why each branch of science does not limit itself to formulating concepts and categories that reflect particular aspects of the object that it studies, particular "currents" of its movement, of its development, but also establishes, according to the objective nature of the studied phenomena, a certain correlation between concepts and categories, the order of their function, the logic of their links and reciprocal conversions. In physics, for example, you begin by exposing the elementary concepts of mechanics, then you move on to the more complex concepts of heat, electricity, etc. It is not a simple sum of concepts and laws, but a specific relationship between them. In the same way, in chemistry, the chemical elements are described and studied according to a certain order, starting from the simplest, starting with hydrogen, and then moving on to the elements . more complex. Nor is it indifferent in political economy that economic categories are studied and exposed in a certain order, and that the concepts that reflect the relations of production of men are thus presented in specific relations. It would be false to believe that the order in which scientific concepts are established has an independent significance. The strictly defined scientific structure of concepts and categories expresses the degrees of deepening of knowledge, conditions the order

of succession in the study of such and such phenomena, indicates the path of knowledge. Logic as a science does not differ at all, in this sense, from the other sciences. She works with the help of the more general concepts and categories, but the problem of their reciprocal relations, the problem of the elaboration of a scientific system of concepts, is as important for her as for the other sciences. It is all the more particularly important with regard to logic and the theory of knowledge, because philosophy formulates the general principles and laws of knowledge on which all particular sciences are inspired.

The old formal logic was incapable of solving the problem of the connection of concepts and their reciprocal conversions, because it denied evolution in nature and ignored the fact that knowledge constitutes a complex dialectical process. Only on the basis of logic dial é ctica the problem could be raised and could be the first attempts to solve it . Engels emphasized that the old logic, the pure formal logic, was limited to enumerating and juxtaposing the different concepts and forms of movement of thought. This was born of his attitude in relation to reality and knowledge. Since it did not consider nature in its movement or in its evolution, formal logic did not analyze the concepts in its movement, in their reciprocal conversions.

Only the dialectical theory of development formulated the problem of the connection and relations of concepts and forms of thought, their movement and their conversions as a concrete problem of logic. This has n ada strange, because the dialectic considers the objects in the creek des and its change in their logical passages from one to the other. If we refer to objective nature itself, phenomena and objects transform into each other, and engender each other in the course of their development. Therefore , the concepts, which reflect the concrete reality, must be linked to each other and transform into each other because otherwise they would not faithfully reflect the reality in perpetual development. All this explains

why Lenin considered that the essential content of logic resides in the relationships between concepts, in their conversions and in their connection.

Lenin has noted that concepts must be "squared", "pruned", "flexible", "movable", "interconnected", in order to reflect the universe with fidelity. The analysis and study of concepts, the art of working with them, always require the study of their movement, their conversions and their connection. In Lenin's opinion, Hegel's great merit is that through mysticism and pages of hollow pedantry there is a fundamental idea - great, says Lenin - that makes its way into his logic: the idea of the universal connection of everything with everything and of the reflection of this connection in logical concepts.

This merit of Hegel was underlined by Marx and Engels on many occasions. For the first time in the history of philosophy, Hegel tried to create a system of dialectical logic in which concepts and categories were linked by an internal necessity. He harshly criticized the old formal logic in which, as he indicated, the order of concepts is based on purely external considerations: "As for the necessary, internal link," Hegel ironized, "it is limited to the enumeration of titles and subtitles. , and the passage is only indicated by the indication: 'second chapter' or by the expression 'now we turn to the considerations', etc. " To this structure of logic, Hegel opposed an order of succession in the development of logical concepts in which the decisive role fell on the immanent internal link, in the necessary conversion of certain categories into others. The soul of these connections and of these conversions was for him the internal dialectic in development, inherent in everything finite. This -Appearance of Hegelian logic unquestionably constituted a huge step forward in the development of the science of the forms of thought. While stressing the need to elaborate a materialist, Marxist logic, Lenin attached great importance to the study of the plan, of the structure of Hegelian logic. At the same time, he indicated that Hegel's logic cannot be approached as given once and for all and that it must be rid of its mysticism, which hinders the integral

development of all that is healthy and viable. He demonstrated what is artificial in Hegel about the numerous conversions of certain logical concepts into others, and criticized the idealistic background of the fundamental thesis of Hegelian logic, according to which the development of logical concepts is the process of creation of the concrete reality, of nature itself. " If , based on all the analysis above, we would like to define in two words the logic of the movement in *the Capital* and en stationing of categories, we could say that logic is the movement that leads to knowledge, from immediate being (the goods) to reveal ci ng the essence of the laws of capitalism. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, pp. 412-416) .

IV. HISTORICAL ORIGINS OF THE CLASSICAL POLITICAL ECONOMY

Classical political economy is closely linked with the ideological movement of the seventeenth and eighteenth centuries, with the philosophy of the Enlightenment, of a deeply anti- historical bourgeois essence . For this philosophy, the center of interest was not the man linked to the concrete historical conditions that formed him, but an "abstract" individual, considered outside of time and space. He was an imaginary man, endowed with an immutable "normal nature", determined, not by his social being, but by his physiological constitution alone. In his Theses on Feuerbach, Marx characterizes the anti-historical method applied by the philosophy of the Enlightenment to the study of man and human society. This characterization is in full accord with classical political economy. The human essence, Marx wrote, "... is not something abstract and immanent in each individual. It is, in reality, the set of social relations." Neither philosophers nor bourgeois economists understood that human nature is the It is enough to read the first pages of Adam Smith's book, *Investigations into the Nature and Causes of the Wealth of Nations*, and consequently changes when the latter change in the course of history. discern in

them the anti-historical conception of man. In relation to the cause of the division of labor, Smith states: "This division of labor, from which so many advantages arise ... is the necessary consequence, albeit slow and gradual, of a certain natural inclination in all men ... it is the inclination that leads them to trade, to barter and exchange one thing for another. "According to Smith, the division of labor, exchange, commerce, arise from the own human nature. The capitalist mode of production, whose condition is the exchange of commodities, would correspond, according to this point of view, also to "human nature." Political economy, which, as Engels points out, deals with events in perpetual evolution, is an eminently historical science . " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 60-61) .

The anti-historicity of the bourgeois economists prevented the creation of a truly scientific political economy. Smith's merit, in Marx's view, consists in having foreseen that capitalist mercantile production provokes a certain modification in the game of the law of value, and that consequently the change in historical conditions dictates another conception of that law. But Smith was unable to resolve that contradiction, which led him to a dead end. "The theoretical strength of A. Smith lies in the fact that he perceives and emphasizes this contradiction. And his theoretical weakness lies in the fact that this contradiction leads him to ignore the general law, even in what refers to the simple exchange of goods. He does not see that this The contradiction comes from the fact that labor power itself becomes a commodity, and that the use value of this specific commodity, independent of its exchange value, is precisely the force that creates exchange value. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 61-62) .

"Marx also points out in Ricardo certain elements of historicity. In the decreasing trend of the profit rate, Ricardo instinctively felt the limits of the capitalist mode of production, something that never ceased to alarm the spokesman of the bourgeoisie. Even in that case, Ricardo stayed very far from historical analysis and saw the cause of the decreasing trend of the profit share, not in capitalist

production, which is a transitory social form, but - ... in nature. The anti-historicity of his method led him to designate with the term capital even the weapons of the primitive hunter. This anti-historicity permeates all the conceptions of Smith and Ricardo, not to mention the vulgar economists. " This is how the English economist Keynes attributes mass unemployment and economic crises to a supra-historical "psychological law", according to which "human nature" would push men to increase their consumption to a lesser extent than the increase in their income. . They prefer to save a part of their resources rather than use them for personal consumption. Such would be the cause of all evil. Keynes does not care that in the countries of socialism and people 's democracy "human nature" has not prevented liquidate unemployment, crises and other defects d and capitalist society. Such is the attitude of the bourgeois economists today. Keynes writes that consumption is the sole end of all economic activity. The meaning of all this falsification is clear: if this were the case, we would have to look for the origin of the crises, of unemployment, of the misery of the masses, not in the very nature of the capitalist mode of production, but in accessory circumstances, for example. For example, of a psychological order. This cause is found by Keynes in the inclination of men to consume less than their income allows. There is nothing truth in those claims. The primary objective of the capitalist mode of production is not to satisfy the needs of men, but to extract surplus value by exploiting the workers. And as this objective can only be achieved by the plundering of the workers, who constitute the bulk of the consumers, that is where the main cause of the decline in mass consumption must be sought, while the capitalists' incomes grow steadily. fabulous way . The facts deny the supra-historical principles devised by the defenders of bourgeois society. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, pp. 64-65) .

“Marx made political economy the science of the modes of production studied in close connection with the historical conditions

concrete. Marx adds a far-reaching observation, which allows us to see both the weakness of the method of bourgeois economics and the strength of the method of Marx. "One of the fundamental defects of classical political economy is the failure to unravel, from the analysis of the commodity, and more especially the value of the commodity, the form of value that converts it into exchange value. Precisely in people of its best representatives, such as Adam Smith and Ricardo, studies the form of value as something perfectly indifferent or external to the very nature of the commodity. The reason for this is not only that the analysis of the magnitude of value absorbs by full attention. The cause is deeper. The form of value that the product of labor assumes is the most abstract and at the same time the most general form of the bourgeois system of production, thus characterized as a specific modality of social production, already the same, for this very reason, as a historical modality. Therefore, whoever sees in it the eternal natural form of social production, will necessarily ignore what is specific about it. the form of value and consequently in the commodity form, which as it develops leads to the money form, the capital form, etc. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 68) .

Marx concentrates all the power of his analysis on the reasons why the result of labor, under the realm of commodity production, takes the form of value. This enables him to discern in the commodity the primitive cells whose examination shows that the bourgeois mode of production is temporary and not eternal. The best bourgeois economists did not suppose the extremely complex world that boiled behind such a prosaic and seemingly common thing as the commodity. In it Marx discovers that "microcosm" which, in embryonic form, reflects the capitalist "macrocosm", its development, its complex relationships and its contradictions. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 68) .

This is why Capital begins with the analysis of the commodity, that is, of that elementary cell of the capitalist mode of production. Such is the starting point of his study, which allows him to characterize capitalism, historically, as a transitory

and not eternal mode of production. Starting from the simplest form, the commodity form, he examines the specific and by no means absolute character of bourgeois production. It shows that the commodity form of the product and all the "extravagances" of the commodities originate from the specific social character of labor. After having established that the commodity comprises use value and value, it indicates that in all social formations work creates consumer goods, but only in particular historical conditions does it also produce value and give the fruit of work the form of value. Labor acquires this character in the epoch in which private property of the means of production reigns, and in which the set of private works constitutes the total labor of society, in which the producers only enter into social contact thanks to the exchange. Hence the dual nature of the work and the merchandise. Marx deduces the shape value, not as an external appendage, but as a property inherent to the product of the work under certain historical conditions. On this basis it provides a concrete historical analysis of money as a form of value, not as a simple technical tool exchange, but as the embodiment of wealth or, to repeat the words of Marx, as the "Formula 1 social absolute" of wealth, the value of the merchandise separated from it and converted into an autonomous thing. Marx shows that as in other formations the character social work was not the same, the products do not take the form of value. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 68-69) .

“ Marx indicates that in the eighteenth century Locke's philosophy had exerted an enormous influence on the political economy of England and other countries. But Locke's theory of knowledge is characterized precisely by a metaphysical conception of the relationships between the general and the singular, between the abstract and the concrete, while the general is reduced to the set of singular objects. This essential problem of the method of knowledge was also solved in *Capital* . Marx criticized Smith and Ricardo and revealed, also in this sense, the source of their weakness and confusion. This critique, as well as the practical application of the principle

elaborated by him regarding the ascending march from the abstract to the concrete in the study of the capitalist mode of production, is of enormous interest to the theory of knowledge." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 334) .

V. HISTORICAL- LOGICAL FOUNDATION OF THE ORIGINS OF CAPITALISM

"The essence of the cycle of money-capital is, then, for it, to continually change form, to ceaselessly abandon one of them for the other, moving from the form of

money to the form of productive capital, from the latter to the commodity form, and then to the money form again. Its movement is incessant, and this movement is what gives it its function of capital. If such a movement did not exist, if money did not pass from stage to stage, it could not serve the production of surplus value. Marx notes that: "On the other hand, the value of capital in the form of money can only perform the functions proper to money, exclusively these. What converts these functions of money into capital functions is the concrete role they play in the process of capital and also, therefore, the concatenation of the phase in which it appears with the other phases of its cycle. " The passage from one phase to another, the conversion from one form to another, can only transform money into capital when there are capitalist relations, that is, a worker "free" from his means of existence, forced to be employed in the service of the capitalist, and a capitalist possessor of means of production. In other words, there are definite class relations between workers and capitalists. Only these relations, Marx insists, can transform the simple function of currency into a function of capital. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 115-116) .

(Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 71) quotes Marx stating that: "The so-called original accumulation is nothing more than the historical process of dissociation between the producer and the media. It is called 'original' because it forms the prehistory of capital and the capitalist regime of production. " And this is complemented by what Marx raises in Volume I of Capital by stating that: "We have seen how money is converted into capital, how surplus value comes out of it and how surplus value generates new capital. However, the accumulation of capital presupposes surplus value, capitalist production surplus value and this the existence in the hands of commodity producers of large masses of capital and labor power. This whole process seems to move within a vicious circle, from which we can only escape by assuming an " *original* " *accumulation* prior to *capitalist accumulation* (" *previus accumulation* ", Adam Smith calls it): an accumulation

that is not the *result*, but *starting point* of the production regime. This original *accumulation* comes to play in political economy the same role that *original sin* plays in theology. By biting the apple, Adam generated sin and transmitted it to all humanity (...) It is true that the legend of theological original sin tells us that man was condemned to earn bread with the sweat of his brow; but the history of economic original sin reveals to us why there are people who do not need to sweat to eat (...) It is known that conquest, enslavement, robbery and murder play a great role in real history : violence, in a word." (Marx, Capital, 2010, p. 607) .

"By considering capitalism from the angle of its appearance, its evolution and its necessary fall, Marx revolutionized the conception of this mode of production. Before him, bourgeois political economy, even in its avant-garde representatives like Smith and Ricardo, had a metaphysical character. The opinion they had about the bourgeois mode of production was not a historical fact that evolves and changes within certain limits. This mode of production would be an eternal category, corresponding to an immutable "human nature". " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 106) .

"But once the process of separation of producers and means of production has been completed, the capitalist mode of production constantly renews it. Capital is impossible without workers deprived of the means of production and forced to sell their labor power. The specific characteristic that Marx discovered in the commodity form is manifested vigorously as a commodity work force. The whole secret of the capitalist mode, as a historically defined formation, resides in the double character of that specific commodity. The original character of the use value of this commodity consists in the fact that the process of consumption of labor power is also that of the formation of surplus value. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 71) .

“Marx considers it necessary to study the specific forms of general laws, concrete, particular laws that characterize a determined social organism, a determined mode of production. In this regard, he expresses an idea of capital importance to understand the essence of the dialectical method: it is necessary to discern not only what is general, what is common to a group of phenomena, but also what is particular, specific, what characterizes a phenomenon. Tools exist in all degrees of social production, since it is impossible without them. The bow and arrow of the primitive hunter are instruments of production as are the machines employed by the capitalist. If the phenomenon conceals or removes specific transforming capital instruments of production with which the bourgeois extracts surplus value from the worker, then nothing prevents us from declaring that the hunter primitively or was also a capitalist. This is how the bourgeois economists proceed, who slip “... this idea that bourgeois relations are immutable natural laws of society... This is the objective to which this whole procedure tends, more or less consciously.” The vulgar economists of the imperialist age talk a lot about “universal” laws. But these have nothing to do with the actual laws that reflect the more general conditions and driving forces of social production. His “general laws” only translate the disguised, idealized bourgeois relations, which he tries to pass as the natural bases of the existence of every society. In his work *The Distribution of Wealth*, the American economist Clark, already mentioned, dedicates a chapter to “universal economic laws.” One of them is the “law of marginal utility” (invoked long ago, and now also, in various forms, by vulgar political economy to defend capitalism). How were these “universal” laws invented? From the activity of isolated man. The Robinsonian that Marx and Engels scoff at is once again exhumed by bourgeois “economic science.” Robinson's life, says Clark, was introduced into economic research because “the principles that govern the economy of isolated man continue to guide the economy of the modern state.” What does the “law of marginal utility” mean? The wild,

Clark discusses, he produces any object necessary for his consumption. By multiplying it, you reach the limit beyond which that object begins to lose its usefulness. As his needs are fully satisfied, he dedicates himself to making other objects. This "law of marginal utility," concludes Clark, is valid for all economic systems. And capitalist production will also be based on it. The movement of labor and capital, and the passage of capital from one sphere to another, would be determined by that law, while markets and values would play the role of execution mechanism. "They are the acts of society that economizes its productive forces and directs them where they provide maximum utility." (...) (Rosental M., The problems of dialectics in "THE CAPITAL" by Marx, 1961, p. 82) .

"For Marx, this is the criterion that allows distinguishing the classical, scientific bourgeois political economy from the vulgar political economy:" ... I understand by classical political economy all the economy that, since W. Petty, investigates the internal concatenation of the bourgeois regime of production, unlike vulgar economics, which knows nothing more than to delve into apparent concatenations, taking care only to explain and make the most bulky phenomena enjoyable, if the phrase may be permitted, and chewing them into mush for use. domestic of the bourgeoisie the materials supplied by scientific economics for a long time ... "(...)" (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 254) .

"In Marx's opinion, the weak point of the representatives of classical political economy is that, while they tried to know the internal connections, the essence of the relations of production, they did not go further and frequently confused the essence and their forms of expression, or, on the contrary, they brutally separated them, without seeing the connection that united them, etc. For example, he reproached Adam Smith for having confused the knowledge of essence with that of phenomena, of external and superficial connections. Many of Ricardo's mistakes are due to his inability to link the essence of things with their outer forms. But it is

not just of a weakness of theoretical order. On numerous occasions Marx underlines the class roots of the ineptitude of bourgeois economists to understand the interconnectedness of the hidden foundation of things and their external forms. Smith's and Ricardo's political economy, he says, often comes very close to grasping the essence of things, but fails to consciously formulate it. He couldn't do it "if he didn't get rid of his bourgeois skin." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 255) .

VI. HISTORICAL- LOGICAL FOUNDATION OF THE INDUSTRIAL RESERVE ARMY, RELATIVE OVERPOPULATION OR UNEMPLOYED POPULATION

At the beginning of his analysis of surplus value, of the process of transformation of money into capital, Marx notes that in the market two 'owners' face each other, so to speak: the possessor of the means of production and the possessor of the power of job. The exchange is operated between the two according to the strict laws of the "exchange of equivalents". By the way, this is a particular type of "exchange equivalent", in which the worker is forced to sell to the capitalist his own labor, on pain of starvation, while the capitalist acquires right to suck the blood of the worker drop by drop. However, as Marx points out, this transaction still maintained the illusion that the worker freely disposes of his "property" and that his work is linked to that right. But nothing remains of this illusion when the capitalist production process is faced in its expanded reproduction. When analyzing the accumulation of capital, Marx establishes that the part of capital exchanged by labor power is itself a product of the labor of others, that the capitalist has previously appropriated himself and that, for this reason, capital does not contain a single atom of value that does not come from someone else's unpaid work. Consequently, when it invests, at the beginning of each new cycle of production, an additional capital, partly to acquire new means. In production, in part to acquire a supplement of labor power, the capitalist uses the surplus value

obtained in the course of the preceding production process. In other words, he conducts himself in the manner of the conqueror who buys the goods of the vanquished with the money he has stolen from him. The analysis of capital accumulation, which Marx addresses after having exposed the laws of the origin and growth of surplus value, shows

Hence that " ... the law of appropriation or of private property law, law rests on the production and circulation of commodities, is exchanged for the same inexorable inner dialectic and the opposite of what it is." "The exchange of equivalents", that is, the exchange of the "property" of the worker - his labor power - for the means of existence provided by the capitalist for his work, constitutes only an "external appearance", an "empty form ", strange to its specific content and suitable only to mask its nature. As for the reality, the actual content of this "exchange", the fact is that the capitalist appropriates the work of others without any equivalent and that he uses that unpaid work to acquire a new workforce that will bring him back-also this time without any equivalent - a new surplus value, and so on. It is seen how immense is the difference that separates the property of the capitalist and the "property" of the worker. For the capitalist it is about the right to appropriate the unpaid work of others; for the worker, from the impossibility of appropriating the product of his own work. The process of accumulation and expanded reproduction of capital is operated, as can be seen, thanks to the exploitation of the workers and at their expense. Hence the antagonistic character of capitalist accumulation. The accumulation of capital is accompanied by a transformation of its organic composition: the rise in labor productivity and technical progress necessarily imply a relative decrease in variable capital and a corresponding increase in constant capital. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 197-198) .

“The general law of capitalist accumulation is inseparable from the historical conditions of capitalism. It could not act in the other economic and social

formations . The growth of the industrial reserve army, in other words, of the number of unemployed, results from the productivity of labor, the improvement of technology, the instruments of production, and their use by the capitalists. Marx indicates that the law by virtue of which an increasing amount of the means of production can be used with a lesser expenditure of human force, thanks to the elevation of the yield, is a valid law for all times. But here again, nothing of the action of this law in the capitalist regime would be understood if the specific way in which it is expressed was not taken into account. Marx notes to the matter: "The law that, thanks to the progress made by the productivity of social work, can get moving a growing mass media p r oduction to wear less and less human force, It is a law that, within the capitalist regime , in which the workers do not use the instruments of work, but rather they are the ones that employ the workers, is exchanged for something else: that the greater the productive force of labor, and greater, therefore the pressure exerted by the worker on the instruments handled , more precarious is their way of life: selling own strength . to increase the wealth of another or fuel the growth of capital it is, the faster development of the means of production and of labor productivity, as well as of the productive population, is reversed, capitalistically, in the opposite: in that the working population always grows

faster than the necessity of exploitation of capital. " From this Marx also deduces the specific law of population. Capitalist society inevitably generates a relative surplus of population, in relation to the average needs indispensable for the growth of capital. Marx reduces to nothing to Malthusianism, with its abstract and "eternal" laws of population, which in reality have a no less historical character than the others: "This is a peculiar population law of the capitalist production regime, since in reality all historical regime Production concrete has its own population laws , laws that govern in a historically concrete way. Abstract population laws only exist for animals and plants, as long as man does not

intervene historically in these kingdoms. " (Rosental M., The problems of dialectics in Marx's "CAPITAL ", 1961, pp. 86-87) .

"Consequently, the accumulation of capital creates a working population that is relatively surplus, that is to say, higher than what the growth of capital requires, on average. It is the industrial reserve army, the army of the unemployed that capital attracts in periods of increased production and which it launches into the streets in periods of crisis and stagnation. As a product of capital accumulation, this reserve at the same time becomes the lever of capitalist accumulation, which, in turn, increases overpopulation and reproduces the reserve army on an even larger scale. The antagonistic character of capitalist accumulation is then expressed in the fact that the more wealth the workers create with their own hands, the more the productivity of their work rises and the more precarious their situation becomes, the less possible it is for them to realize their sole condition of existence, the sale of its labor power to capital. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 199) .

"(...)" The greater the social wealth, the working capital, the extent and intensity of its development, and the greater, therefore, the absolute magnitude of the proletariat and the productive force of its labor, the greater is also the army The industrial reserve force . The available labor force is developed by the same causes as the expansive force of capital. The relative magnitude of the industrial army grows, therefore, as the powers of wealth grow. But the greater this reserve army in comparison with the labor army in activity, the greater the mass of overpopulation consolidated, whose misery is in inverse ratio to its torment of labor. and finally, the fastest growing misery in the class and the industrial reserve army, the more it grows also official pauperism . Such is the general, absolute law of capitalist accumulation. " AN t agonism of this process is not translated only by the dual nature and contradictory development of social production, which

determines one of the poles accumulation of fabulous wealth and on the other increasing misery and slavery. It is also linked to the evolution of the insurmountable antagonisms of production itself, which transforms the relations of capitalist production into a brake whose destruction is indispensable for the subsequent development of society. The same causes that make the general law of capitalist accumulation work reinforce the social character of production to the highest degree. But this reinforcement is in contradiction with the private capitalist form of appropriation, and this contradiction gives rise to the most serious conflicts. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 200-201) .

“This thesis places contemporary Malthusians in their rightful place, who advocate the destruction of the "surplus" population in order to alleviate the situation of capitalism. If what they say is believed, the "surplus" would be explained by a supra-historical "natural" law, and not by a law of capitalism. The historical method pulverizes the nonsense of the reactionaries of yesterday and today. There are no abstract population laws, only concrete historical laws. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 87) .

“For the capitalist, the thirst for profit is the only stimulus for the development of labor productivity, the rise of which translates into a rise in the organic composition of capital. The relative decrease in variable capital, in relation to constant capital, determines a downward trend in the profit rate. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 202) .

“ Marx indicates that the value of a commodity is always expressed through a certain amount of use value, of another commodity that makes the paper money. This superficial shape is what Bailey considers. In other words, you confuse price with value. But since the price varies according to supply and demand, it follows,

according to Bailey, that the value varies equally. So many prices, so many values. Not without irony, Marx continues his criticism in these terms: "It is not possible to go further. Suppose that x rods of cloth is equal to z pounds of straw. Well, Bailey does not even realize that this relation of equality between Two things as different as cloth and straw must necessarily be converted into equal magnitudes. For these purposes, straw and cloth cease to be that to become equivalent, since only as such can an equality be established between them. The two terms of the equation must necessarily express the same value. Therefore, the value of straw and cloth must necessarily be something that is not cloth or straw, something common to both and at the same time different from them. What could it be? Bailey doesn't answer this question. " (...) " (Rosental M., The problems of dialectics in Marx's" THE CAPITAL ", 1961, pp. 286-287) .

Simply brilliant. This absolute value is reminiscent of what happens in Quantum Mechanics with the four [\[8\]](#) fundamental forces, which are the forces in unity and struggle from which all physical reality is generated.

VII. THE ABSTRACT AND THE CONCRETE AS GNOSEOLOGICAL STAGES OF SCIENTIFIC RESEARCH

“For Marx, the categories and principles of dialectics only have value if they express a material content, that is, if they are applied to the development of reality itself. Another equally important aspect of the correlation between the dialectical method and the materialist explanation of the world, is clarified in *the Capital* : the theory of knowledge can only be scientific when it is based on the principles of dialectics, or when he is imbued with the spirit of dialectics. This is what Lenin understood when he stressed that "dialectics is Marxist logic and theory of knowledge", that "dialectics, logic and theory of knowledge are but one person." What is the deep meaning of this formula? The edge of it is directed against the rupture, characteristic of most idealistic currents, between being and

consciousness, between the laws of objective reality and logical thought, between the content and the form of knowledge. Hence the opposition between ontology, or science of being, and gnoseology or science of knowledge, both considered as parallel and independent. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 14)

As noted in (Rosental & Iudin, 1971, pp. 2-3) , "The abstract (from the Latin "abstractio"; isolation) is a facet, a part of a whole, the unilateral, the undeveloped; the concrete (from the Latin "concrecere", to grow by agglomeration) is the compound, the complex, the multifaceted. In the history of philosophy, up to Hegel, the concrete was understood above all as a sensorially given multiplicity of singular things and phenomena; the abstract, as a characteristic of the exclusive products of thinking (*Abstraction*). Hegel was the first to introduce into philosophy the categories of abstract and concrete in the specific sense in which they have been used, developing it, in Marxist philosophy: the concrete is synonymous with dialectical interconnection, with integrity that is decomposed into parts; The abstract is not an opposite of the concrete, but a stage in the movement of the concrete itself, it is the concrete without revealing itself, without unfolding, without developing (Hegel compares the relation between the abstract and the concrete, for example, with the relation between the bud and the fruit, between the acorn and the oak). However, the concrete, according to Hegel, is characteristic only of "spirit", of thought, of the "absolute idea". Instead, the nature and social relationships of people have appeared as their non-true "being-other", as an abstract manifestation, of singular facets, of moments in the life of the universal spirit. From the point of view of Marxist philosophy, the bearer of the concrete, its subject, is material reality, the world of things and finite phenomena, sensorially given. What is concrete about an object is the objective interconnection of its parts, determinable by the essential relationship, subject to law, which appears at its base; on the other hand, the concreteness of knowledge is the

reflection of said real interconnection in the system of concepts that structurally and genetically reproduce the objective content of the object. The abstract in reality itself is an expression of insufficiency, lack of development, lack of development, limitation of any of its fragments when taking such a fragment by itself, regardless of its connections or its subsequent history. Thus, abstract knowledge is contrasted with concrete as unilateral knowledge that fixes this or that facet of the object outside of any connection with the other facets, outside of its being conditioned by the specific character of the whole. We have, therefore, that if the mere reproduction of sensory multiplicity cannot and should not be the objective of theoretical knowledge, it is no less excluded that the dissociation of certain "absolute" links can serve as such an objective. Well, as soon as such links become isolated, they lose what is concrete and true. The truly scientific theoretical knowledge consists of a movement of thought that starts from the sensory multiplicity of the concrete and reaches the reproduction of the object in all its essentiality and complexity. The procedure that allows the object's integrity to be reproduced theoretically in consciousness lies in the ascent from the abstract to the concrete, which constitutes the universal way in which scientific knowledge unfolds, the systematic reflection of the object in concepts. The ascent from the abstract to the concrete, as a procedure to lock the concepts into an integral system that reflects the objective dissociation of the investigated object and the unity of its parts, presupposes the initial movement of the concrete (from what is given in contemplation) to the abstract. In this last path, concepts are formed that reflect the singular aspects and properties of the object, aspects and properties that can only be understood insofar as they are considered as moments of a whole, determinable by its specific content. Hence, it is necessary to distinguish the concrete as the object that is studied, as the starting point of the investigation (the concrete sensible) and the concrete as the culmination, as a result of the investigation, as a scientific concept of the object (the concrete conceptual). "

" Production in general is an abstraction, but a rational abstraction, insofar as, by underlining and specifying the common characteristics, it avoids repetition. However, this general character, or these common characteristics, which allows us to find the comparison, constitute by themselves a very complex set whose elements diverge to acquire different determinations. Some of these characters belong to all epochs, others are common only to some. Some of these determinations will be common to the most modern epoch, as well as to the older. Without them it is not possible to conceive any production. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 76) .

" This is what explains the location and role of analysis in scientific knowledge, and establishing the role of the analysis in the logical movement that leads to the thought of the concrete to the abstract movement essential to know the concrete, not as a sum of phenomena, or to aspects of a phenomenon, indifferent in relation to each other, but as a single coherent whole. " (Rosental M., The problems of dialectics in Marx's " CAPITAL ", 1961, p. 392) .

" What then is the law of surplus value, that constitutes in fact the basis of profit and that is its regulatory standard? The inability to systematically consider the essential internal relations, abstracting from the forms in which these relations are expressed, culminates in the denial of this law and, consequently, in the obscuring of the whole problem. Smith does not feel, indicates Marx, that by confusing surplus value with profit in such a way and vice versa, he breaks with the scientific attitude that he himself had observed from the beginning when studying the origin of surplus value. Smith reduces surplus value, not only to the profit but also to land rent, that is, to particular varieties of surplus value that have their own laws of motion. This alone, Marx emphasizes, should have been enough to make him see that the universal abstract form is not to be confused with any of its concrete particular forms. This confusion of the universal form of surplus value with its

particular forms undermines not only the law of surplus value, but the law of value itself. Smith, who at the beginning derives the origin of value from work, then attributes the following composition to it: profit, income and wages.

Insufficient abstraction is also complained of by Marx Ricardo, who unable shown studying the value and surplus ignoring the gain and the average rate of profit, phenomena arising and the occurrence of the particular varieties the profit.

"Ricardo," writes Marx, "does not study surplus value anywhere apart from its specific forms: profit, interest, and land rent." By identifying surplus value with profit, Ricardo collides with the divergence between the value of commodities and prices, which are determined by the law of prices of production. Like Smith, he draws from it an erroneous conclusion regarding the laws governing profit. "It would, then, be wrong," writes Marx, "to reproach him for an excess of abstraction.

The truth is the opposite, since in the study of the values of commodities he is incapable of forgetting the gains that competition reveals to him." The vulgar economists' errors, apologists of capitalism, have drawn their arguments Ricardo confusion to try to free fantasy tildar scientific abstraction. Marx shows that Ricardo's misfortune does not consist in having resorted to abstractions, but in not having gone far enough down this path. "Ricardo incurs all and errors here ... Where he concludes vulgo that theoretical truths are contradictory abstractions with reality. Instead of arriving, however, concluded that Ricardo is drawn into false results by not soar enough on the plane of true abstraction. " (...) " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 299-301) .

" In the last section of his work, which remained unfinished, " Rents and their sources ", Marx criticizes the " trinitarian formula " of the bourgeois economists: capital-profit, land-territorial rent, labor-wage, which reflects what " concrete ", but in the manner of a distorting mirror. This concrete element is not offered to us by means of a theoretical analysis, it is not reproduced in thought by means of a logical method, by the gradual ascent from the abstract. Therefore, the concrete

expressed in this "trinitarian formula" does nothing other than denaturalize the real world of phenomena and does not clarify it at all. " (Rosental M., The problems of dialectics in Marx's " EL CAPITAL " , 1961, p. 367) .

" The result of the abstractive activity of thought is embodied in the concepts, in the categories, in the laws, formulated by science and that reflect the objective laws of reality itself. These concepts and categories that reflect the essence of the capitalist mode of production are, for Marx, value, surplus value, capital, etc. When Marx says that the ideal is nothing other than the material "translated and transposed to the head of man", he understands by "transposition" the *generalized* expression in concepts and categories of the phenomena of objective reality. There is "transposition" in the sense that, in the concepts formulated by science, reality appears, not through images directly perceived by the senses, not in the form of singular objects and phenomena, but in their form . Only in perceptions, in immediate intuition, do phenomena and objects appear in the form of concrete images . But immediate intuition does not by itself discover the essence, the law of phenomena. This is the common element. essential, which characterizes the mass of phenomena considered in their unity. And if so, it is clear that the way in which the essence, the law of phenomena, can be reflected must differ from the aspect revealed by your immediate intuition. The concept of "table" results from the transformation by thought of different tables, concretely perceived, because it does not reproduce them in their particular properties but in their essence. From this point of view, the "table in general" does not "resemble" the concrete, determined tables. The concept offers a generalized image of the table. But it is perfectly clear that , if the "table in general" does not resemble the specific tables, it is no less a reflection of the actually existing tables. Moreover, precisely for this reason, the concept of a generalized image of the table reflects objects in a more intimate way than the concrete and sensitive representation of a singular table, since it sheds light on the essence of the mass of singular tables. " (Rosental M., The problems of dialectics in Marx's" CAPITAL " , 1961, pp. 309-310) .

" But does this mean that what they generalize is less real than the singular phenomena seen and perceived directly? A scientific abstraction is nothing more than the reflection of the same singular, concrete phenomena, considered in their most important aspect and in their most essential connections, studied from the point of view of the law that governs them, of their necessity. That is why, although the general cannot be "seen" directly, while the singular, the concrete, it is, it nevertheless shows us things in a more profound way than simple sensible perception. " (Rosental M., The problems of dialectics in Marx's" THE CAPITAL ", 1961, p. 314) .

" In the course of the process of abstraction, the singular loses its singular, concrete form, something that also makes the direct similarity between the general, the abstract, on the one hand, and the singular, the concrete, on the other hand disappear. And yet, thanks to this process, thought acquires a better, deeper knowledge of the singular and of the concrete itself, because scientific abstraction only leaves aside the superficial, contingent, inessential aspect of phenomena, and puts bare its hidden content, its essence. It is clear that abstraction seems "poor ", "drier "than the reality perceived directly. But first this" dryness "is compensated by a reflection of the r much deeper ealidad that provides the perception And , secondly, abstraction is not an objective in itself, but a means of knowing more intimately, more completely, the concrete world of things in all its complexity. Thus we learn to know the laws, not by itself themselves, but to better understand with their help the complex world of things and phenomena.Knowledge thus goes from the abstract to the concrete, relying on the understood essence of things to conceive them in all their complexity and diversity. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 315) .

"It is not only the thought of the singular individual, the individual course of knowledge, that follows this path. This is also how the knowledge of all humanity has historically developed. Humanity was faced with a complex and diverse

whole: nature. It is understood, then, that human thought could not reproduce at once nature in all its richness, in all its complexity. The history of the development of science knows a very long period during which the dominant method of study was the analysis of the parts and aspects of the whole called nature. This period began with the second half of the fifteenth century and ended, in general, with the end of the eighteenth. The great idea of the unity of the world, which gave science a solid foundation, the idea that all the phenomena in different nature are an expression of the same matter in perpetual evolution and transformation in a way another was only discovered in the middle of the last century. It is evident that the process of knowledge of nature was not finished at that time, and could not finish it at any time. But in the middle of the 19th century, the natural sciences already appeared as a science that links the whole set of the processes of nature to a great extent. In other words, nature, considered as something concrete, as the "unity of diversity", is thus reproduced in thought as a result, and not as the starting point of knowledge. Thus, in the isolated, singular act of the study of reality, as in the historical development of knowledge, the concrete cannot be reproduced in thought except as a result, and in no way as the beginning of knowledge.

If the concrete can not be the starting point of knowledge is, however, the starting point in reality itself, and therefore is also the starting point of intuition and representation. This thesis of Marx is of paramount importance in principle. It is directed against the idealistic deformation of the knowledge process and indicates the only scientific - materialistic - basis of knowledge. Marx criticizes Hegel, for whom the movement of thought from the abstract to the concrete is the process of the becoming of the concrete in practical reality itself. As he considered thought - which he adulterates in the form of "absolute idea" as the first element and practical reality as the second, Hegel affirmed that the real world is born and develops, going from the simple to the complex and the concrete as a result of the development of the categories of logic, the categories of thought. " ... while

the method is to rise than to commerce commercial to the concrete is not for thought anything other than the way of appropriating the concrete, reproduce b under the form of concrete thought. But this is not so some the process of the genesis of the concrete itself. " If you would like to characterize the set of the method in v estigación of Marx, it could be done as follows: is the movement of the pens am ent ranging from concrete perception to the abstract, and the abstract back to the concrete, but understood this time on a new superior basis. In this movement of knowledge from the concrete to the abstract, and from the latter to the higher concrete, the law of the negation of the negation is manifested. Therein lies the essence of the analytical method. It is true that in Capital itself Marx's method is presented above all as an elevation from the abstract to the concrete. But Marx explains why the first degree of investigation - the detailed analysis of the concrete whole with a view to abstracting certain general determinations - does not figure in *Capital* . " It is clear that Marx wrote exposure method must formally distinguished from the method of investigation. The investigation must tend to assimilate in detail the matters under investigation, to analyze its different forms of development and to discover their internal links. Only after crowned this work can the researcher proceed to expose 'adequately the real movement.'

Before forming abstractions, then, it is necessary to assimilate the matter itself in all its details, to analyze it. This work is not fully reflected in *El Capital* . But the assimilation of matter in all its details is nothing other than the movement of knowledge, of the concrete and abstract . For the rest, in Capital itself we check this movement at every moment. Thus, Marx begins by studying the commodity. It is evident that the initial "cell", the commodity, is already extracted by abstraction from all the concrete diversity of the capitalist mode of production. This cell is an abstraction in relation to the capitalist organism taken as a whole. In Capital we do not see the work that has culminated in this abstraction, in this elemental determination. Marx gives us in a few words the result of the analytical work that led him to that capital principle that the wealth of a society in which the capitalist

mode of production reigns is an "immense accumulation of commodities", each of which constitutes "its elemental form". But if the good is an abstraction in relation to all living and concrete, taken as a whole, constitutes in itself a concrete phenomenon more or less complex relative to other determinations u n more abstract, a u n more decomposed. That is why Marx says that the commodity is the elementary concrete economic element. It starts from there to culminate, through analysis, in even more abstract determinations: the use value and the exchange value. Although it is the fruit of a deeper abstraction than the commodity, the exchange value is, in turn, presented in the first place in Capital as a concrete relationship. The way in which Marx studies exchange value reflects, as in a mirror, his entire analytical method. The process of analysis of this important but particular problem reflects in a certain way the process of analysis of the capitalist mode of production. " (Rosental M., The problems of dialectics in Marx's "CAPITAL ", 1961, pp. 324-329) . With "somehow" it seems to imply that it does so at a scale in which certain details are not seen, but which themselves are the most important elements noticeable.

" Marx begins by taking exchange value as it is expressed directly on the surface of phenomena, under the aspect of the proportion in which the use values of a certain species are exchanged for the use values of another species. In other words, knowledge begins with the concrete phenomenon. As seen in the preceding chapter, Marx establishes, with the help of scientific abstraction, that the hidden basis, the essence of exchange value, is value. Value is an abstraction in relation to exchange value. Marx then passes from the concrete to the abstract, from exchange value to value. But it doesn't stop there. A v ez has established relations of two commodities exchange value as crystallized dissimulate work immediately becomes exchange value. It must show that value necessarily manifests itself in the form of exchange value. " ... in our research - writes Marx - we began by studying the exchange value or exchange ratio of commodities to discover, locked in this relationship. Their value. Now we have no choice but to go back again to this form

or manifestation of value." And Marx analyzes in detail the development of forms of value with the emergence of money. Value finds its expression in money, "the finished form of the mercantile world." From the abstract, the value, Marx then returns to the concrete, to exchange value, to the forms of expression of value, to money. But the concrete is now reproduced on a much deeper basis; It is enriched by the results it has obtained gone force of abstraction, by the knowledge of the fact that the exchange value is a form of expression of the value. This example remarkably illustrates the apparently contradictory principle, enunciated by Marx in general theoretical form, in the Contribution to the Critique of Political Economy, according to which the concrete whole intervenes in knowledge, both as a starting point and as a Outcome. Exchange value as a concrete element is the starting point of knowledge, because it is related to the practical reality that it takes as the object of its research. As for practical reality, it is presented to the human gaze in all its concrete complexity. But at the beginning that particular element is not yet divided into its component parts or analyzed, and therefore it is not yet known. The abstractive activity of thought discovers the deep processes, which escape the immediate intuition of the concrete, and allows us to return to the concrete, to the exchange value, understood this time as the unity of the diverse. From this point of view, the exchange value, as a concrete element, cannot be anything other than a result, that is, the result of the knowledge of the concrete by thought. In Chapter I of the first book of Capital, Marx makes an observation of the greatest importance, which allows us to understand how the analytical method is based on the movement of thought from the concrete to the abstract and from the abstract to the concrete. "The reflections on human life, including therefore its scientific analysis," writes Marx, generally follow a path opposite to the real course of things. It begins *post-festum* and starts, therefore, from the already achieved results of the historical process. the ways that make the production working in goods and, of course, pre involve the movement of these, and have the strength of natural forms of social life before men strive explained , not the historical character

of these forms that they already consider something immutable, but their content. Thus it is understood that it was simply the analysis of the prices of commodities that led men to investigate the determination of the magnitude of value, and the collective expression in money of commodities, which moved them to fix their evaluative character. But this finished form - the money form - of the world of commodities, far from revealing the social character of jobs private, and , therefore, social relations among private producers, what it does is cover them up. " Value, he writes, "comes down to a quantity of work." "Value as such does not possess any other 'substance' outside of work itself." And later: "While it is an abstraction, it is a historical abstraction that could only be adopted on the basis of a particular development . Society All objections to this definition or n of the value or derived from relationships producci6n less developed , or they are based on a confusion by which the most concrete economic determinations are established (and from which value is abstracted and which, from another point of view, can therefore also be considered as its subsequent development) in opposition value in its abstract and undeveloped form. Taking into account the lack of clarity of the economists themselves as to the way in which this abstraction is linked to the later and more concrete forms of bourgeois wealth, these objections were more or less justified. " These words lead us to the core of the analytical method of investigation of Marx: reach, through the analysis, generalizing l ata of intuition and direct representation and the empirical material, to an abstraction that allows understand the law, the regular trend of development, and fix this trend in a concept, in a scientific category, to then follow this trend in the development of complex and concrete relationships. For example, in the mass of terms of trade, this law, this regular tendency, is value. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, pp. 336-338) .

“ However, abstraction is not the goal itself of knowledge, but a degree towards the knowledge of the concrete. Through abstraction we "separate" ourselves from the concrete diversity of reality. But it is necessary to "separate" ourselves in such a

way to better understand the concrete itself. Having been led, by the analysis of the living and concrete whole, to value as the most general abstraction that penetrates deeply into the essence of commodity production, Marx then rises, along a long and complex road, from the abstract to the concrete. And here we touch with a finger the fundamental difference that distinguishes Marx's method from that of his predecessors. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 338) .

" For example, it would be vain to want to deduce directly from the abstract idea of matter, from matter in general, its highly complex and concrete form, which is life. Undoubtedly, as a form of matter, life is understood, with the other concrete forms of the latter, in the abstraction of "matter in general," but this is such a general abstraction, that is, it reflects such general and natural properties. characteristics of the concrete manifestations of matter, that the specific element that distinguishes life from its other forms is not reflected in the concept of matter in general. In order to pass from the general concept of matter to the concept of life, characterized by specific properties that constitute a higher degree of development of matter, it is necessary to analyze its development from its lower forms to its higher forms, on pain of not to be able to understand where that higher form comes from. Without the study of the intermediate links, that is, of the processes that are fulfilled in non-organic nature and that have culminated, at a certain moment, with the appearance of life, it would be easy to reach the conclusion that life is not a form of manifestation of matter, which is full of "miracles" that are explained by its particular immaterial nature, and so on. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 339) .

" Whatever the difference between Marx's abstractions and the concrete phenomena of reality from which they are extracted by analysis, they are always linked to reality ." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 353) .

VIII. THE HISTORICAL LAWS GOVERNING THE MOVEMENT IN GENERAL

VIII. I. General Definition of Law

A law is a "necessary relationship between things, phenomena or processes, emanating from its internal nature, from its essence. The notion of law is one of the steps of knowledge by man of the unity, relationship and interdependence of the phenomena of the objective world.

Laws are objective, that is, they are not created by the conscience and will of men, but they exist independently of them. Regarding the recognition of the objective character of laws, two opposing philosophical tendencies are manifested: subjective idealism, voluntarism, on the one hand, and the tendency of philosophical materialism, on the other. For subjective idealism (see), voluntarism (see), the laws of nature and society are not objective, they do not exist independently of human will, but are arbitrarily created by men. The understanding dictates its laws to nature, said Kant (see). Today's reactionary philosophers strive to show that chaos reigns in nature and society, that only human will can bring order to them. In order to conceal from the eyes of the working masses the laws that determine the inevitable replacement of capitalism by socialism, deny the objective laws of the development of society, intoxicate the consciousness of the masses with idealistic conceptions. Lenin reveals the class objective of this denial: "To expel the laws of science does not mean anything else, in reality, than to introduce the laws of religion" (Works, Russian Ed.).

Contrary to idealism, Marxism starts from the principle that the laws of nature and society are objective and that nature and society develop according to their own laws, which exist independently of the will and consciousness of the human beings. "The universe is the movement of matter, according to laws, and our knowledge, which is the supreme product of nature, can only reflect laws" (Lenin,

Materialismo y empiriocriticismo, p. 182, Ediciones Pueblos Unidos, Montevideo, 1948).

Man can discover the laws of nature and society, know them and on the basis of this knowledge, use them practically. The inheritance of plants, for example, is formed under the influence of the environment in which they live. It is an objective law that cannot be changed or abolished. Men can discover this law and, based on it, adapt the development of plants to their needs. By creating specific objective conditions, the Michurinists (see Michurin) succeed in modifying the plants, obtaining better species, et c. The same is true in social life, where objective laws act independently of human consciousness. Thus, men cannot establish this or that social regime at will. Marxism proves that the mode of production of material goods (see), constitutes the main force of society, and that a given social regime necessarily corresponds to a given mode of production. Socialism was inconceivable in the Middle Ages or in the 18th century, since it implies a highly evolved production. The desires of men are not enough, then, to establish this or that social regime. It is necessary, for this, that there exist specific objective conditions and, first of all, conditions of material life, a certain level in the development of the productive forces.

But the recognition of the objective character of the laws, in no way means proclaiming the impotence of man before the forces of nature and society. Fatalism is no less alien to dialectical materialism than subjectivism. The laws of nature and of society cannot be abolished, but this does not mean that men are powerless to change the conditions on the basis of which such and such laws arise, changing together with these conditions also the action of the laws. Thus, together with the liquidation of the conditions that make the existence of capitalist society possible, the action of the laws of capitalism ceases , and in their place and as a consequence of the new conditions, new laws arise, the laws of socialism, contrary to those of capitalism.

Men are slaves of nature while they ignore its laws, but from the moment they learn to act in accordance and in accordance with them, men put nature at the service of their interests. By acquiring knowledge of the laws of nature, taking them into account and relying on them, they can limit the sphere of their action, give the forces of nature another direction. The force of the waters was destructive while men had little knowledge, while they did not know how to build dams, hydraulic stations, etc. , but, once they acquired knowledge of the corresponding natural laws, men were able to master the destructive force of the waters. , they were able to make it serve their purposes, using it to irrigate the fields, to obtain electrical energy, et c.

Unlike what happens in nature, where the discovery and application of the laws is carried out more or less without obstacles, the action of the laws of progressive development in social life, encounters the resistance of the decadent classes. Trying to prolong their existence, the latter repress the advanced forces, preventing them from fulfilling the requirements of objective laws. For in a society divided into classes, the use of economic laws is motivated by class interests: it is the advanced class that is at the forefront in the use of these laws in the interest of the whole society, while the dying classes they oppose. At the time when it was an advanced class fighting feudalism, the bourgeoisie took advantage of the necessary law of correspondence between the relations of production and the character of the productive forces. Today it is a reactionary class that uses political power to fight against the proletariat, the most advanced and most revolutionary class. But no matter how much the decadent classes oppose objective laws and the social forces that struggle to carry them out, the victory of the avant-garde classes is unavoidable.

Unlike the laws of nature, social laws do not last. Every mode of production has its specific laws, laws that operate as long as that mode of production exists. When it is destroyed and a new mode of production arises, the old laws lose their force and leave the scene to give way to the new laws.

In addition to the specific economic laws that operate within the framework of a determined mode of production, there are general economic laws, inherent in all socio-economic formations. Thus, the law of necessary correspondence between the relations of production and the character of the productive forces is a general law. Another general law that acts both in a capitalist regime and in a socialist regime is the law of the priority development of the production of means of production in relation to the production of means of consumption, without which extended reproduction is impossible. Under the action of specific and general economic laws, the objective conditions that demand the liquidation of an old formation and the birth of a new, more progressive society, reach maturity within the very bosom of the old formations. The general laws bind all these formations in a single regular process that progresses from the lower to the higher. " (Rosental & Iudin, *Abbreviated Philosophical Dictionary*, 1959, pp. 286-288) .

V I I I. II. On the Historical Character of the Laws and their Application in the Study of Social Phenomena

" What constitutes the historical character of laws, as Marx shows in *Capital* , is the fact that general laws are expressed in various ways under different conditions, that each mode of production has its specific laws, that the latter are expressed in different ways. they modify within the framework of the same training, in the course of their evolution. " (Rosental M., *The problems of dialectics in Marx's "CAPITAL"*, 1961, p. 92) .

"It is known that Marx did not limit himself to mentioning the existence of the general laws of production. In the preface to the same work he provides the brilliant definition of historical materialism, which is precisely the theory of the general laws of the development of society. It formulates the primordial law, valid for all social formation, which explains the evolution of the modes of production under their concrete historical form, the replacement of certain modes of production by others. It is about the law of the necessary correspondence between the relations of

production and the character of the productive forces. Marx discovered and scientifically explained the action of this law in the development of the capitalist mode of production. On many occasions he underlines, in *Capital*, certain general definitions, typical of the capitalist mode of production, as well as other modes of production. For example, whatever the social form of the production process, it must be continuous and periodically go through the same phases. In other words, reproduction is a general phenomenon, typical of all social formations, without which society can not exist. " (Rosental M., *The problems of dialectics in Marx's "CAPITAL"*, 1961, pp. 76-77) .

“The importance of general laws is that, thanks to their action, all the forces of their historical evolution are linked within the unique and necessary process of social development. Furthermore, whatever the scope of the specific laws of each particular historical formation, it would be wrong to ignore or lose sight of the general laws valid for all formations. The natural sciences, for example, discover the specific laws of each particular, qualitatively different way of motion of matter: mechanical, chemical, biological, etc. If science only took into account these specific laws and ignored the general laws of motion of matter, nature would appear to us, not as a single and coherent whole, which it really is, but as a set of domains isolated from each other.

From this point of view, inorganic and organic nature, as well as their various aspects, would appear to be isolated from each other. The origin of life would not be understood as a specific form of the movement of matter, etc. In other words, science would go back many centuries to go back to the time when nature was not considered in its unity. In reality, each form of the movement of matter is governed by specific laws as well as by general laws, valid for all forms of a single and unique matter. The unity of the world consists in its materiality. The general laws bind all the forms of the movement of matter in a united and coherent whole, of which each one of them constitutes a link in the unique and necessary chain of the development of nature. The law of conservation and transformation of energy is,

for example, a general law of nature, of wide application. Knowledge of general laws is no less important for the social sciences than for the natural sciences. The specific laws of development of society express what that difference qualitatively one so training cial each other. But if only specific laws are taken into account, nothing more than the particular characteristics of a given social formation will have been explained ; In other words, only one part of the task will be fulfilled in such a way, and the other, no less important, aspect of the picture of the evolution of society will be left in the dark , that is, the connection between the various formations. The history of society would then not form a united and coherent whole, but rather a mechanical sum of diverse autonomous, contingent organisms that would not arise from one another. Another thing happens if it is remembered that specific laws go hand in hand with general economic laws, valid for all phases of social evolution, and that they reflect the more general relations of production. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 78) .

Take, for example, the law of the necessary correspondence between the relations of production and the character of the productive forces. It means that every mode of production implies determined reciprocal relations between the productive forces and the relations of production. It is known that these are delayed with respect to the productive forces, which develop and are their advance, which leads to contradictions between them. The new character of the productive forces requires a change in the existing relations of production, without which they cannot develop. And since, as a consequence of the law of necessary correspondence, the relations of production can not be delayed for long with respect to the productive forces, the old relations finally give way to the new. This general law, as well as the particular laws of capitalism, clearly explain why on the ruins of capitalism precisely the socialist society was born and no other. The fact is that the laws of capitalism engender productive forces that go beyond the capitalist

relations of production. The productive forces become social by their character, while the relations of production remain private capitalist relations. Therefore, within capitalism itself a material base is created that needs new relations of production, precisely socialist ones. The proletarian revolution gives birth to these new relationships. Thus, the replacement of capitalism by socialism is determined and not fortuitous. This necessity results from the action of the general law of the necessary correspondence between the productive forces and the relations of production, as well as of the specific laws of capitalism. The same happens with other social formations. " (Rosental M., The problems of dialectics in Marx's" EL CAPITAL ", 1961, pp. 79-80) .

"To summarize: all the stages of production have common determinations to which thought grants a general character; but the supposed general conditions of all production are nothing other than those abstract factors that do not respond to any real historical stage of the production. "General laws, precisely because they are general, that is, abstracted from the concrete particularities of each formation, do not and cannot act in the same way in all historical conditions. They always work by reflecting themselves through those conditions. nature to such laws will prevent manifest in the same way in different situations. this is necessary to recall a remark made by Marx regarding the analysis of the law of capitalist accumulation. the same as the others, this law is modified in practice by numerous circumstances. Nothing more natural, since the law expresses what is generally essential in the mass of phenomena. the general law n or can manifest itself in the same way in reality, or acquire once and forever the same form, precisely because it encompasses and expresses the general, because it is the quintessence of numerous phenomena. In its manifestations it is necessarily transformed according to the conditions in which it acts. This applies to general laws as well as specific laws. It is particularly important to keep this in

mind when it comes to general laws. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 80) .

When Rosental speaks of "quintessence" he is not referring to the ether of the Philosophy of Physics in the pre-relativistic era and should not be confused with it, *ie* , he is referring to the essence of things. Here the Soviet philosopher is speaking of a "quintessence" thinking of the basic structure of a thing, on which all other component relationships of the thing in question are built, which are more mutable than non-essential ones. That reality as a whole is not immutable and, therefore, is in permanent dynamics and change, does not mean that at the level of its micro expressions or microstates there cannot be temporary differences with respect to the macrostate in that sense, that is, it does not mean that there are no relatively static segments of reality (the dynamic is absolute, the static is relative), since it is on them that reality is erected. This is what happens, for example, in the process of transforming values into production prices, where values remain stable (in the absence of technological change) and production prices and sales prices oscillate around these values. . It is precisely the antagonistic relationship between relatively static elements that generates the dynamics of systems and of reality itself as a whole.

"Like the other laws of nature and society, economic laws are independent of the will and conscience of men. The true freedom of men does not consist in modifying the laws as they please, but in knowing them and, by conscious activity, based on them, in using them in the interest of the development of society. For this reason Marx emphasizes that the particularities of laws in the various historical epochs affect the form in which they are manifested, and not their objective character. "No natural law can be eliminated. What can change, with changing historical circumstances, is the way those laws operate." The laws of nature apply differently than those of society. One of the peculiarities of social laws is that the interests of

the reactionary classes that have completed their cycle are in contradiction with the objective laws of the progressive development of society. While the laws of nature are discovered and applied more or less without hindrance, those of the social revolution come up against the resistance of the classes condemned by history, of those classes whose activity, far from favoring social progress, slows it down. . " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 96) .

"From these indications it follows that the opposition of value of use and value does not arise all at once, but rather appears, first, as a difference or as an essential difference, to later transform into opposition, in the course of development. Difference and opposition are the lower and higher degrees of the evolution of contradictions, tendencies and contrary aspects of a phenomenon. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 179) .

"And hence an important consequence from the methodological point of view: in certain processes (what exactly, s nly could say a concrete analysis, since no study abstract, stereotyped, might be acceptable here), the movement of contradictions begins the essential difference, which then becomes opposition. In cases where the opposition is eliminated, it does not disappear at once, but rather becomes an essential difference. " (...) Difference that is later transformed into a simple, non-essential difference, or even disappears completely. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 179-180) .

This is what will have to happen in the transition from capitalism to socialism with regard to the opposition between the country and the city, as well as between manual labor and intellectual labor.

"The appearance, the struggle and the solution of the contradictions cannot be developed in a single act. The struggle of opposites, the struggle between the new

and the old, explodes contradictions that unfold, deepen, and accentuate. That is why the set of the process of appearance, development and resolution of contradictions implies stages, determined degrees, different tension in each stage, etc. In this sense, the Marxist analysis of the commodity and the forms of value is of immense philosophical scope. The evolution of the contradictions of the merchandise comes to an end when it has been unfolded into merchandise and money. What at first was the unity of opposites has later been divided into opposites opposed to each other. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 180) .

After having characterized imperialism in relation to pre-monopoly capitalism, Lenin shows the sharp aggravation of the fundamental contradictions of capitalism. When analyzing those of this new stage, he is led to deepen the dialectical theory of the struggle of opposites, to enrich it with new definitions and notions. Not without reason Lenin simultaneously studies the problems of imperialism and those of philosophy. Abstracts of the works, in the notes on dialectics who writes for his own use and which form a significant part of the Philosophical Notebooks, Lenin was especially devoted to the problem of contradictions. It declares essential the law of unity and the struggle of opposites, the motive force of development. The theory of opposites is for him "the essence" of dialectics. It defines the struggle of opposites as an "absolute" factor of evolution, that is, as one whose absence makes all development impossible and condemns stagnation. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 212) .

“In his study of capitalism, he shows with an iron logic that all the transformations of that regime, all its evolution, which necessarily lead to its downfall, do not imply any external force that overthrows it, so to speak mechanically, and that I undermined it from the outside to come to an end. It is a process of self-movement,

conditioned by the internal contradictions inherent in capitalism. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 218) .

"Marx considers the capitalist mode of production in its self-movement , the key of which is none other than unity and the struggle of opposites. If the internal contradictions are the key to the automovimiento, this is because the trends and opues aspects cough of a whole are linked together, are assumed and s and exclude each other, and that that interaction affects their struggle, it is the driving force and the absolute, permanent factor of development. From one extreme to the other of his work, Marx never ceases to shed light on these forces. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 218) .

"However, it would be wrong to believe that the liquidation of social antagonisms puts an end to all social contradictions. As Lenin has pointed out, antagonism and contradiction are not identical. No unity, no harmony is exempt from contradictions, because otherwise evolution would stop and cease. In the new conditions, they change their nature and cease to be antagonistic. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 226) .

"A law applying the most g eneral of development established by the dialectic, Marx was able to penetrate the nature of the capitalist mode of production. This is understood because Marxist philosophy does not separate the laws of knowledge from those of being itself, and the science of the more general laws of being provides at the same time the only scientific theory of knowledge. However, the theory of the more general laws of development does not exhaust the richness of Marxist dialectics, as epistemology, and does not end all the problems in that domain. " (Rosental M., Problems of dialectics in Marx's "CAPITAL", 1961, p. 235) .

“Marx clearly explains what he means by internal correlations, by the notion of law. They are, in short, identical concepts. The law expresses the internal and essential connections of phenomena. In relation to the decreasing trend of the share of profits, he defines the law as the "... intimate and necessary connection between two things of knowledge." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 33) .

"Marx conceives of the social movement as a natural-historical process governed by laws that are not only independent of the will, conscience and intention of men, but also determine their will, conscience and intentions . Marx started from the materialist conception of the law considered as inherent to nature and to society itself. " (Rosental M., The problems of dialectics in Marx's" THE CAPITAL " , 1961, p. 36)

“ Marx greatly appreciated the fact that Aristotle had the merit of understanding that the exchange of one commodity for another implied a common element. This, however, the concept of value is absent in the Greek thinker. Aristotle does not see in what consists the common character of the commodities of species different. Marx emphasizes that Aristotle could not conceive of the notion of abstract labor, since Greek society was based on slavery and inequality. Historical conditions prevented him from discovering the common element of the different merchandise. The concepts of value and, consequently, of abstract labor could only arise at the moment when indifference in relation to the concrete form of labor becomes the principle of economic relations, and at the moment when a commodity production appears. highly developed whose spontaneous mechanism operates in a massive way and produces at every moment the reduction of concrete forms to their common expression: work in general. "And the production of merchandise needs to be developed in all its integrity so that the experience itself gives rise to the scientific awareness that private jobs that are carried out

independently of each other, although they keep each other and in all their aspects a relationship of mutual interdependence, as elementary links that are of the social division of labor, can be constantly reduced to their degree of social proportion ... " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 240) .

As Greek society was based on slavery and inequality, there was no significant development of the specialization of work, since in a society it is a prerequisite, for production relations can exist in such an archaic general evolutionary state, an equally technological level archaic. This is so because at such an elementary technological level there is a degree of development of the social division of labor that is insufficient to adequately appreciate the notion of abstract work (specialization), in addition to that simultaneously in a society with such characteristics there is no need (in its epistemological sense) of any kind of developing economic categories at that level of depth.

“ Logic has no direct relationship with capitalist phenomena, just as it does not have it with any other concrete phenomena of society or nature. They express concepts and categories and set features and properties common to all phenomena and processes of the objective world. The specific character of these concepts and of these categories resides precisely in the fact that they reflect the most general properties of each thing, of each process, that is, the aspects without which it would not exist in general. neither thing nor process. Such are the categories of content, form, essence, phenomenon, chance, necessity, the possible, the real, etc. And logic explains the relationships of objects by means of linking and reciprocal conversions of their more general concepts and categories, in the form of the dialectic of philosophical concepts and categories.

Each specialized science discovers, with the help of its concepts, the most concrete connections and conversions between phenomena, and this concrete character constitutes its superiority over logic, which deals only with the most general

connections and relations between objects. But then the linkages and relationships between objects, enunciated by the different sciences are a manifestation of linkages and general relationships studied by logic. Hence the importance of logic for all branches of knowledge. Since the dialectic of concepts is the reflection of the real, objectively existing connections and relations between objects, the correlation of categories and concepts in logic is not determined by an arbitrary decree, but by reality itself. For example, if the category of content is directly linked, in dialectical logic, to the category of form, this is not due to arbitrariness, but because, in the actual phenomena and processes themselves, the aspects that are reflected in the content concepts and in a way they do not exist without the other and they penetrate each other, at the same time that they are opposed to each other. The same applies to categories such as chance and necessity, the possible and the real, etc." (Rosental M., Problems of dialectics in Marx's "CAPITAL", 1961, pp. 439-440).

"If you want to determine the importance of having this coincidence between the laws of thought and the course of the historical development of human knowledge for the perfection or tuning of logic and theory of Marxist knowledge, it is necessary to consider that only refers to essential. The logical process of knowledge cannot, strictly speaking, repeat, even if only in condensed form, the entire historical development of thought. It is nothing more than the reproduction of a logical tendency of the general course of knowledge, which goes from immediately given phenomena, that is, from being, to essence, and from an essence of a certain order to an essence of a deeper order.

Let's specify this with an example. Marx begins his analysis of the capitalist mode of production with the examination of an immediate fact: the act of swapping two Mercancías. The historical process of development of the analysis of capitalism also began with the study of the circulation of goods (mercantilism). Thus, what was the starting point of the historical development of knowledge is also the

starting point of the logical process of knowledge. Another analogy: in its historical development, as well as in the course of the logical process, knowledge deepens from the phenomenon to the essence. But it obviously does not follow from this that Marx reflects in his analysis all the vicissitudes of the historical development of political economy, that he reproduces the historical process of knowledge in its concrete content. Reproduction and coincidence are only related to the tendency, to the law of knowledge that progresses from the external to the internal, from the phenomena to the essence, from the singular to the general. From this point of view, the famous formula of Lenin on the dialectical process of knowledge - "intuition concrete to abstract thinking" - expresses undoubtedly an essential principle of knowledge: the coincidence of the laws of thought logic or the historical development of human knowledge. The thesis of the unity of the laws of historical and logical development, of the development of knowledge, largely predetermines the solution of an important problem of dialectical logic, that of the relationships between categories, that of their order of succession and of their respective location in the logic system.

Here is an example. Some manuals of dialectical materialism establish a relationship between the categories that is not justified from the point of view of the logic of knowledge. Let's take categories and concepts like cause and effect, interaction, connection of phenomena. These categories are often listed in the following order: connection, cause and effect, interaction. This order of succession in the study of categories violates the objective logic of knowledge. Can not find it necessary or derivation of the higher forms from the s lower forms, nor the mov i m i ento ranging from the simple and the complex and abstract to the concrete. Is irrational and illogical is tudiar , for example, the concept of connection before the cause and effect. The causal relations between objects, which are expressed in the fact that such an object intervenes as a cause and another as an effect, are the simplest and most abstract form of relationship. On the contrary, the interaction of two objects, and even more so the connection of phenomena, are much more

complex and concrete forms of relationship, which cannot be elucidated at once and whose understanding only intervenes in higher degrees of knowledge. . The category of interaction "resolves" dialectically and includes the categories of cause and effect; it is the one that can be derived from the latter, and not the other way around. In the same way, the category of "connection" between phenomena presupposes simpler relationships between them, such as those of cause, effect and interaction. This rational logic of knowledge determines the study procedure, the path of the corresponding knowledge. Therein lies the considerable importance of the order of succession of the categories. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, pp. 436-437) .

" The correlation between the historical and the logical in the process of knowledge is one of the essential problems of the theory of knowledge. In the analytical method of research, knowledge goes from the abstract to the concrete in order to scientifically reproduce the concrete in all the richness of its manifestations. What is the relationship between this process, which occurs in thought, and the actual historical process? Do the simple and abstract economic categories correspond to historically earlier economic relationships, and the more concrete and complex categories to relationships that appeared later on the scene of history? In other words, does the movement from the abstract to the concrete correspond to the historical process of development? The problem of the historical and the logical also presents another no less important aspect: what is the relationship between the logical process of knowledge and the historical development of thought itself, of knowledge itself? Marx has answered all the questions relating to the problem of the historical and the logical, and specifically applied dialectics, the dialectical theory of knowledge, to the study of the capitalist mode of production. Marx cites examples showing that the simplest categories also express the simplest economic relations, the existence of which is historically prior to that of complex relations. Such is the case with money. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, pp. 369-370) .

"(...) " Money can exist and has historically existed before capital existed, banks existed, wage labor existed, etc. In this regard, it can be said that the simplest category can express dominant relations of a whole less developed, or po r the contrary, relations subordinate to a whole more developed, which already existed historically before everything went in the sense that finds expression in a particular category. to this extent, the march of abstract thought, which rises from the simplest to the most complex, would correspond to the real historical process. " (...) " (Rosental M., The problems of dialectics in Marx's" THE CAPITAL ", 1961, p. 370) .

" Humanity can truly be proud of what Marx did in Capital, because the limitless potency of the human spirit is affirmed in this work with an imperishable brilliance. Our characterization of the logical method developed and applied in the Capital would be incomplete without indicásemos M ARX accumulated a huge amount of facts in support and demonstration of each of his thesis. He resorted unceasingly to practice, as a criterion for the authenticity of his most abstract theses. The actual practical process of capitalist production was the source from which he drew his conclusions and generalizations. Suffice it to recall the analysis of day tr to low (third section of the first book of Capital), the study on the influence of machines and big industry on the situation of the workers (fourth section of the same book) , etc. Marx does not limit himself to stating the general law of capitalist accumulation, deduced from the generalization of an enormous mass of materials. He demonstrates it on the basis of the example of eloquent and irrefutable facts. Thus he worked in numerous other cases. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, pp. 367-368) .

"Marx reproduces the overall movement of social capital within his well-known simple and extended reproduction schemes . In his examination of individual capitals he had temporarily abstracted the link of value from the natural formula of manufactured products, while in his analysis of the whole of social capital Marx

takes this link into account. It establishes that the total product, and consequently all social production, are divided into two large sections: the means of production, that is, the goods destined for production, and the objects of consumption, that is, the goods that by their form they are intended for the individual consumption of the population. He then shows that the normal process of reproduction, simple or extended, involves determined correlations between the two sectors of social production that constitute two parts of a whole. Discover this reciprocal action and show that, for extended reproduction, the priority development of the means of production in relation to consumer goods is objectively necessary. The study of the chaotic movement of individual capitals, as it results from the movement of social capital, enables Marx to lay bare their necessary connection and the laws of the overall movement of social capital. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 55-56) .

“ From there, Marx distinguishes two subdivisions in social production: the production of means of production and that of objects of consumption, and infers the laws that govern their reciprocal relations. True to his method of ascent from the abstract to the concrete, he begins again with simple reproduction, and only then goes on to enlarged reproduction. It is interesting to note that while he is simple reproduction as "abstraction" and tells her that under capitalism the situation is not credible, it nevertheless Marx to devote about one hundred pages to clarify this "abstraction ", out of a total of 132 pages dealing with reproduction. This is perfectly understood, because the study of phenomena in their purest form allows us to establish this law. When this is known, it is easier to demonstrate as modified in the concrete reality. For this reason, after having explained in detail the relationship between the two subdivisions of social production in the case of simple reproduction, Marx next shows what these relations should be in the case of extended reproduction. ” (Rosental M., The problems of dialectics in Marx's "CAPITAL ", 1961, p. 361) .

“ Marx begins by taking exchange value as it is expressed directly on the surface of phenomena, under the aspect of the proportion in which the use values of a certain species are exchanged for the use values of another species. In other words, knowledge begins with the concrete phenomenon. As seen in the preceding chapter, Marx establishes, with the help of scientific abstraction, that the hidden basis, the essence of exchange value, is value. Value is an abstraction in relation to exchange value. Marx then passes from the concrete to the abstract, from exchange value to value. But it doesn't stop there. A value has established relations of two commodities exchange value as crystallized dissimulate work immediately becomes exchange value. It must show that value necessarily manifests itself in the form of exchange value. " ... in our research - writes Marx - we began by studying the exchange value or exchange ratio of commodities to discover, locked in this relationship. Their value. Now we have no choice but to go back again to this form or manifestation of value." And Marx analyzes in detail the development of forms of value with the emergence of money. Value finds its expression in money, "the finished form of the mercantile world." From the abstract, the value, Marx then returns to the concrete, to exchange value, to the forms of expression of value, to money. But the concrete is now reproduced on a much deeper basis; It is enriched by the results it has obtained gone force of abstraction, by the knowledge of the fact that the exchange value is a form of expression of the value. This example remarkably illustrates the apparently contradictory principle, enunciated by Marx in general theoretical form, in the Contribution to the Critique of Political Economy, according to which the concrete whole intervenes in knowledge, both as a starting point and as a Outcome. Exchange value as a concrete element is the starting point of knowledge, because it is related to the practical reality that it takes as the object of its research. As for practical reality, it is presented to the human gaze in all its concrete complexity. But at the beginning that particular element is not yet divided into its component parts or analyzed, and therefore it is not yet known. The abstractive activity of thought discovers the deep processes, which

escape the immediate intuition of the concrete, and allows us to return to the concrete, to the exchange value, understood this time as the unity of the diverse. From this point of view, the exchange value, as a concrete element, cannot be anything other than a result, that is, the result of the knowledge of the concrete by thought. In Chapter I of the first book of Capital, Marx makes an observation of the greatest importance, which allows us to understand how the analytical method is based on the movement of thought from the concrete to the abstract and from the abstract to the concrete. "The reflections on human life, including therefore its scientific analysis," writes Marx, generally follow a path opposite to the real course of things. It begins *post-festum* and starts, therefore, from the already achieved results of the historical process. The ways that make the production of goods and, of course, pre-involve the movement of these, and have the strength of natural forms of social life before men strive explained, not the historical character of these forms that they already consider something immutable, but their content. Thus it is understood that it was simply the analysis of the prices of commodities that led men to investigate the determination of the magnitude of value, and the collective expression in money of commodities, which moved them to fix their evaluative character. But this finished form - the money form - of the world of commodities, far from revealing the social character of jobs private, and, therefore, social relations among private producers, what it does is cover them up. "Value, he writes, "comes down to a quantity of work." "Value as such does not possess any other 'substance' outside of work itself." And later: "While it is an abstraction, it is a historical abstraction that could only be adopted on the basis of a particular development. Society All objections to this definition or of the value or derived from relationships production less developed, or they are based on a confusion by which the most concrete economic determinations are established (and from which value is abstracted and which, from another point of view, can therefore also be considered as its subsequent development) in opposition value in its abstract and undeveloped form. Taking into account the lack of clarity of the economists

themselves as to the way in which this abstraction is linked to the later and more concrete forms of bourgeois wealth, these objections were more or less justified. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 336-337) .

" Now let's move on to the categories of quality and quantity. What we know about the thought of nature s living in the era of the primitive community demonstrates that came easily to meet the qualitative differences between objects, but they found it extremely difficult to make the calculation operations linked to the quantitative aspect of the objects. When they counted, it was difficult for them to abstract from the qualitative properties of objects, which is why number was not an abstract concept in them, but inseparable from the object. It took some time for the number to become progressively abstract and for man to learn to operate with the abstract concept of quantity. " (Rosental M., Problems of dialectics in Marx's" CAPITAL ", 1961, p. 429) .

VIII.III. On the Marxian Origins of the Axiomatic Definition of Probabilities, Objective Bayesianism and the Deterministic Philosophical Interpretation of Quantum Mechanics

VIII.III. I. Total Probability

The authorship of this theorem corresponds to Pierre-Simon Laplace. As can be verified in (Loughborough University, 2008, p. 2) , the total probability consists, in essence, of "(...) a partition is a collection of non-empty and non-overlapping subsets of a sample space whose union is the sample space in Yes." [\[9\]](#) Instead of a formal proof, the geometric intuition that this proof expresses will be exposed in the figures presented below:

Source: (Loughborough University, 2008, p. 2) .

Source: (DeGroot & Schervish, 2012, p. 60)

Formally expressing the previous figures and generalizing them , we have:

The non-Bayesian formulation of conditional probability follows from the total probability theorem:

The identity (1) expresses the conditional probability of A given B, while the following identity expresses the conditional probability of B given A:

By the procedure previously carried out, it can be seen that the arithmetic is rigorously clear regarding the equivalence of the numerators in (2), so it is

possible to rewrite (1) by substituting its numerator for the numerator of (2), knowing from beforehand its rigorous mathematical validity by the same logical-formal proof of the theorem located in (DeGroot & Schervish, 2012, p. 77) . With this, it would arrive at :

The reader should note that (3) is equivalent to (2) , with two fundamental differences, one is a different philosophical view and the other is the use of different operators and therefore different operations . The novelty of Bayes' theorem is that it explicitly connects the probabilities of occurrence of two different phenomena and therefore now not only the denominator must be strictly positive, but also . The reader will surely wonder in intuitive terms, was it not always like this? The answer is yes and no. Intuitively speaking, yes, however, although in the design of a mathematical instrument intuition plays the fundamental role (it is inspiration, source of conceptual construction of the instrument, etc.), at the time of construction of the instrument as such it becomes submitted to Formal Logic, which the more it generalizes to itself and in itself (as an axiomatic system and in its individual constructions), progressively suppresses the intuitions that generated it.[\[10\]](#), which causes the links of reality with the instrument that was generated from its study (that of reality) and whose character is not immediate[\[11\]](#) are formally blurred and that is where Philosophy comes to play its classic role, here reference is made to Marxist Philosophy, the only scientific philosophy that exists[\[12\]](#). However, as such intuitions become blurred, it may also happen that the ability of the instrument (now generalized) to draw the originally desired conclusions from its use is modified.[\[13\]](#) or it may happen that an intuition is immediately formalized, it is blurred in its connection with the reality that originated it, as seems to be the case of conditional probabilities prior to Bayes' theorem. It was up to Bayes that this intuition was reflected in the instrument with

sufficient clarity to make explicit the conclusions that are currently drawn from it, fundamentally in the context of hypothesis testing, which as he points out (Russell, 2014) is the interest of the day a day in scientific praxis[14]. It is these conclusions that have given rise to the large and highly sophisticated family of statistical methods known as *Bayesian Statistics* .

VI II . II I. II. *Inverse Probability and Objective Bayesianism*[fifteen]

In its historical genesis, not only Bayes's theorem but also the entirety of Bayes's work on probabilities was born to address what is known as *inverse probability* . As noted in (Wikipedia, 2020) , the term inverse probability is the designated term for the probability distribution of an unobserved variable. At present, the fact of determining probabilistically an unobserved variable (in an experiment on some observed variable) is called *Bayesian probability* , where the "distribution"[16] probability of the data (or observed random variable), given the unobserved random variable, is (being rigorously technical) the likelihood function[17], while the probability distribution of the unobserved variable is, given the data set and the prior or prior distribution, the posterior distribution contained in Bayes' theorem seen in previous sections. In sum, what was previously known as inverse probability is now what was exposed in the previous sections and was labeled in them as conditional probability in its Bayesian version, also known as *Bayesian probability* , which has both an objective and a subjective interpretation, on what to say some questions.

The definition of a rational degree of belief should be understood as follows: “ The *objective Bayesian interpretation of probability* is the construction of probabilities in terms of rational degrees of belief, where these rational degrees of belief receive an objective Bayesian explanation (...) In short, the degree of rational belief is relative to evidence and language. Belief degrees are rational if they are fit for purpose. Plausibly, degrees of belief are rational if and only if they are determined in the correct way from evidence and language, and if the agent is rational to give that

evidence and adopt that language in the first place (to the extent that the agent has some choice about his evidence and language). Objective Bayesian epistemology concerns only the first question: the link between evidence and language, on the one hand, and the rational degree of belief, on the other; It does not refer to the choice of tests or the choice of language. The Bayesianism goal is a theory that the degree of belief that best suit your purpose are those that are probabilistic, calibrated with evidence and otherwise misleading. " (Williamson, 2010, pp. 9-10) .

In addition, the qualitative characteristics of objective Bayesian probability (subject to the general definition of probability established at the beginning of this research) are taking up what was stated in (Williamson, 2010, pp. 11-12) :

- 1) Objectivity in its philosophical sense. "We come to know probabilities in a number of ways: we measure population frequencies, appeal to symmetry arguments or scientific theories, make educated guesses, and derive some probabilities from others using probability calculus. A philosophical theory of probability should explain how we can use such techniques to discover probabilities. If the theory rejects some of these techniques, it should tell where they fail and why they are apparently successful. "
- 2) Objectivity in its logical sense. "For example, the likelihood that a patient's breast cancer will recur after treatment appears to depend on the characteristics of the cancer, the treatment, and the patient. It is not simply a matter of personal opinion: if two prognostic probabilities differ, at least one of them must be wrong. A philosophical interpretation of probability should, if possible, produce a notion of probability that is adequately objective in this logical sense; otherwise, it is reviewing rather than faithfully interpreting the probabilistic statements as they occur in these applications. "
- 3) Computability in relation to its philosophical interpretation. " Probabilities are manipulated and inferences are drawn from them by calculating

probabilities. This mathematical apparatus, based on axioms proposed by Kolmogorov (1933), has already become well established. Consequently, a philosophical interpretation of probability should produce a notion that satisfies the axioms of probability. Otherwise, it is not a theory of probability, it is a theory of something else. " Of course, the reader should not understand that " yield " implies an identity, since this would previously imply the identity between Philosophy and Mathematics, which is obviously false and fortunately impossible. Here we speak in the sense that (Feller, 1968, p. 1) states that intuitions must be in unity and in relation to the formal logical part and its applications (in reference to empirical evidence), although obviously this unit It is not possible that it is logical-formal and that explains to some extent why, as Feller himself points out in the first 3 lines of the preface to the third edition, that is, in (Feller, 1968, p. vii) , that Outside the Soviet Union very few mathematicians had a good concept of Probabilities as a legitimate branch of Mathematics.

- 4) General Interpretation Capacity. " A philosophical theory of probability should be able to deal with this variety: it should take into account every use of probability or, if some uses are to be considered illegitimate, it should say how those uses should be eliminated in favor of legitimate uses. Otherwise the theory is at best a partial theory, a theory of some of the uses of probability. "

To delve into the epistemological variants of subjective Bayesianism, it can be consulted (Williamson, 2010, p. 15) . Finally, if you want to see a compact form of the functional form of the sums and integrals of the conditional probabilities studied in this research (with the standard notation of university Calculus courses), the reader can consult (Greene, 2012, p. 1070) .

V II I. I II. III. *Conditional Probabilities and Bayes' Theorem*

The concept of conditional probability obeys a similar logic, although less general, than the concept of the Hegelian *Aufheben*. However, the concept of conditional probability would lack sufficient philosophical depth for its practical utility to be apparent until the Reverend Thomas Bayes said "Let analytic clarity be made" (perhaps he asked for it, was given it, and / or found it) and this He arrived, although as on average it happens with revolutionary geniuses, it took the birth neither more nor less than an equivalent on an even more general scale (Pierre-Simon Laplace) to begin to be appreciated in a measure that did justice to his intellectual stature, regardless of its scope in more general contexts and its interpretation in such contexts. Bayes' Theorem is therefore a way of calculating and interpreting conditional probabilities.

Thus, the interpretation of the conditional probabilities will be done directly in its most fundamental form, from the Bayes theorem located in (DeGroot & Schervish, 2012, p. 77) :

It is necessary to begin by allowing Bayes himself to tell us how his theorem is interpreted:

"DEFINITION (...) 5. The *probability of any event* is the relationship between the value at which an expectation must be calculated that depends on the event occurring and the value of the thing that is expected to occur." (Bayes, 1763, p. 376)

.

The interpretation that the Bayes Theorem will be made in this research will be oriented to scientific experimentation, so it will be raised from the context of hypothesis testing. However, it is essential to know the objective interpretation,

which is the optimal interpretation since the objective ultimately contains the subjective (ie, the subjective is always a creature of the objective[18]) of the theorem in question. This interpretation is stated in the following terms: "Many applications of probability invoke a notion of probability that is objective in a logical sense: there is a fact as to what probabilities are; If two agents disagree on a probability, at least one of them must be wrong. (Logical objectivity contrasts with the ontological sense of objectivity: probabilities are ontologically objective if they exist as entities or are reducible to existing entities, and are ontologically independent of mental or epistemological considerations.) For example, the likelihood that a patient's breast cancer will recur. after treatment apparently depends on the characteristics of the cancer, the treatment and the patient. It is not simply a matter of personal opinion: if two prognostic probabilities differ, at least one of them must be wrong. A philosophical interpretation of probability should, if possible, produce a notion of probability that is adequately objective in this logical sense; otherwise, it is reviewing rather than faithfully interpreting the probabilistic statements as they occur in these applications. " (Williamson, 2010, p. 11) .

On the other hand, the interpretation of Bayes' Theorem in the context of hypothesis tests can be done following the logic of (Russell, 2014) . There, the mentioned theorem takes the form:

As mentioned in the cited source, it can be interpreted as how plausible it is that our hypothesis is true given the available scientific evidence. With this, it is now more intuitive to give an explanation about Bayes' Theorem, re-expressing the identities (3) and (4) in a different expression and with different ordering of its components:

In the previous expression, it denotes the posterior probability, it is the a priori probability (known in Bayesian theory usually as *prior*, which represents the state of knowledge of the researcher prior to the encounter of new relevant evidence -the relevance established by criteria that can vary according to each case-) and is the ratio (which in the numerator contains the likelihood quotient and in the denominator the marginal probability associated with a new and relevant evidence found -the probability of each "piece of evidence" -) and index that measures the plausibility or reliability associated with this new evidence found. This is understood from the dialectical-materialist logic of Bayes' Theorem and conditional probabilities in their natural truth.

Remember what Albert Einstein said to Niels Bohr in the debate on the interpretation of wave collapse in Quantum Mechanics: the moon is there, even if no one is looking at it, *i.e.*, the probabilities are only a gnoseological resource and the truth is always objective and independent of the will of men and women, it obeys fundamental laws of a rigorously deterministic, dynamic and complex nature, in a word, dialectical.

VIII.III. IV. On a Marxian Definition of Probability

It is widely known that " Although the concept of probability is such a common and natural part of our experience, not all statisticians, philosophers and other authorities accept a unique scientific interpretation of the term probability ." (DeGroot & Schervish, 2012, p. 2) .

However, despite this the probabilities are computationally valid (both theoretically and empirically) thanks to the Soviet Marxist Andrei Kolmogórov [\[19\]](#), which under an objective philosophical conception of reality (which implies that chance exists only as an epistemological resource) provided them with a topological and axiomatic foundation for their estimation in the work (Kolmogórov, 1956), specifically established the axioms for their calculation from

page 2 to 3, from page 3 to 5 established the relationships of these axioms with the experimental data and henceforth his work is eminently topological and analytical.

In (DeGroot & Schervish, 2012, p. 5) it is stated that "This theory is correct and can be usefully applied, regardless of which interpretation of probability is used in a particular problem.", However, this is almost certainly true . When the phenomenon is studied in a sufficiently deep way, the relevance of the differences between the different philosophical definitions of probability becomes relevant and an account of this can be given by Bradley Efron , founder of the re-sampling technique known as Bootstrap and specialist in the use of geometric methods in solving application problems, in his research (Efron, 1978) . This research can be synthesized in the same way that its author does:

" Statistics, by definition, are not interested in the special case. Averages are the meat of statistics, where "average" is understood here in the broad sense of any summary statement about a large population of objects. "The average IQ of a freshman college student is 109" is one such statement, as is "the probability that a fair coin will land heads is 1/2". The controversies that divide the statistical world revolve around the following basic point: what averages are the most relevant to draw inferences from the data? Frequentists , Bayesians, and Fisherians have produced fundamentally different answers to this question.

This article will proceed from a series of examples, rather than an axiomatic or historical exposition of the various points of view. The examples are artificially simple for the sake of human presentation, but readers should be assured that the actual data is susceptible to the same disagreements. A counter-caveat is also apt: these disagreements have not crippled the statistics, theoretical or applied, and have in fact contributed to its vitality. Important recent developments, particularly Bayes' empirical methods mentioned in Section 8, have arisen directly out of the tension between the Bayesian and Frequentist point of view . " (Efron, 1978, p. 232)

.

Having established the above, here we will work under a definition of probabilities that is considered the basic notion of probabilities that must be worked on in order to achieve a philosophical unification of all the Schools of the Philosophy of Statistics without ambiguity. Of course, the definition is in its current state still insufficient, so some specifications must be made in this regard.

In the first place, the definition that will be presented does not include the Theory of Possibilities (which is a recent development in the analysis of uncertainty and is not widely disseminated), it does not allow complete clarity on under which conditions any of the currents apply. or not, nor does it specify under what conditions the applicability of such approaches may vary. However, it does allow to banish the concept of subjectivity seen as a mere opinion, which is so widespread among the metaphysical spirits who practice Statistics, ie, radical subjective Bayesians. With this, it allows to substitute in such a subjective notion seeing the probability as a mere opinion by seeing this subjectivity as an expert-criterion based on its knowledge about the studied phenomenon and similar phenomena (from the same family of phenomena), the information available on said phenomenon and similar phenomena (even if it is little or very little) and other subjective criteria that have an eminently objective foundation. Before going on to explain the definition, it is necessary to clarify what is meant here by that chance is only an epistemological resource and for this, Poisson's conception of chance will be partially taken up again: " The law of large numbers is observed in events that are attributed to pure chance because we do not know their causes or because they are too complicated . " (Poisson, 2013, p. 16) . As a comment by the English translator of Poisson's work, it is noted that " It is known that Poincaré repeated this interpretation of randomness. For him, however, the main pattern of the action of chance was small causes leading to great consequences . " (Poisson, 2013, p. 29) and the reader should remember that Poincaré was the forerunner of Chaos Theory (before Edward Lorenz's work in 1967), a theory that works in scenarios of a total absence of rules (which in appearance it could be conceived as

antagonistic to philosophical and scientific determinism), but completely deterministic in spirit, since the logic of its foundations is isomorphic to Poisson's logic on probabilities previously exposed. Finally, it is convenient to mention that both Jakob Bernoulli and Laplace (who is also the founder of scientific determinism) had an objective vision of Statistics, a fact that many radical subjectivist Bayesians seem to forget.

Regarding Jakob Bernoulli, the above statement can be verified insofar as the translator of the version of Jakob Bernoulli's work used here points out that:

" Here we call this theorem Theorem of Bernoulli or fundamental theorem of Bernoulli. In the 20th century, after the strongest laws of large numbers were proved, it also became known as the weak law of large numbers (...) Bernoulli's fundamental theorem assumes that there is a fixed proportion of possible outcomes in a given situation, before going on to analyze what can happen when many results are observed in such a situation (...) Not only does *Ars Conjectandi* rigorously demonstrate the theorem of the first limit in probability, but also *conceptually* grounds the field of mathematical probability . For the first time, he combined the epistemic concept of probability (*probabilitas*) with the mathematics of games of chance. Before Bernoulli, the mathematics of games of chance had been developed by Pascal, Fermat, Huygens and others largely without using the word (or concept of) 'probability' (...) " (Bernoulli, 2006, pp. ix-xiii) , which corresponds to the note of the work's translator, Edith Dudley Sylla[20] ; from the Second account is the fact that: " All events, even those which because of their insignificance do not seem to follow the great laws of nature, are the result of it just as necessarily as the revolutions of the sun. In the face of ignorance of the ties that unite such events with the entire system of the universe, they have been made to depend on final causes or chance, depending on whether they occur and are repeated regularly or whether they appear without respect to order; but these imaginary causes have gradually receded before the growing limits of knowledge

and have completely disappeared before healthy philosophy, which only sees in them the expression of our ignorance of the true causes. " (Laplace, 2015, p. 4) .

Having established all of the above, it is finally possible to express that:

"The practical application of Probability Theory and Mathematical Statistics is based on the knowledge that the degree of indeterminacy of the occurrence of random events can be determined, for each case, objectively, by a number: the probability. To do this, it is assumed, in correspondence with objective reality, that phenomena dependent on chance (understood as an epistemological resource in Poisson's restricted sense[21]), as well as the processes that take place in a deterministic way, certain regularities are inherent to them and that chance does not mean total absence of rules or chaos. In this context, it should be noted that the mathematical concept of *probability* , which objectively and quantitatively defines the probability of a random event, differs from the concept of the *probable* , used in common language, which generally has strong subjective characters and with the which many times only qualitative propositions are considered. However, it is shown that subjective ideas about the probability of a random event get closer and closer to the objective relationships that constitute the essence of the mathematical concept of probability, as the arsenal of our experiences increases. " (Maibaum, 1988, p. 12)[22].

VIII.III. V. *On a Philosophically Deterministic Interpretation of Quantum Mechanics*

“Probability theory provided an important source and inspiration for the further development of ensemble interpretation of quantum mechanics. Philosophical and ideological currents were at stake in pure mathematics, as in physics, as can be seen in the work of the founder of the Moscow school on probability theory, Aleksandr Khinchin (1894-1959) and his polemic with the Austrian . -The German-American mathematician Richard von Mises (1883-1953). In a series of influential publications during the 1920s, von Mises proposed a fundamental reconsideration of probability theory, the mathematical foundations of which had not changed much since Laplace in the early 19th century, despite all the advances in his methods and Applications. Von Mises considered the classical definition of probability, supported by the a priori concept of equally possible outcomes, indefensible from both the philosophical and mathematical point of view. Instead, von Mises proposed to define probability empirically, in the spirit of Mach's positivism, as the frequency of a particular result in a long series of experimental tests. miserable situation with the foundations of probability theory, but the Soviet mathematician did not agree with the proposed positivist solution for philosophical and mathematical reasons. Khinchin developed the theory of probability in a number of influential publications beginning in 1924. He defined the latter as a mathematical discipline, rather than an empirical science, explaining the difference materialistically: a natural science is distinguished by the specific class of material objects that it studies, while mathematics can deal with objects of a heterogeneous material nature, because it abstracts and focuses on their common formal properties. Rather than a superficial positive definition, the fundamental way to classify the foundations of probability theory, according to Khinchin , required designing an appropriately mathematical axiomatic structure.

Khinchin agreed with von Mises that the fundamental object of probability theory was a collective of any kind, but multiple in numbers: “Probability theory is a science of mass phenomena. Its methods are only applicable to actual events

involving a large number of similar constituent entities. Its main concept refers to the relative proportion of these entities that possess some common characteristic, while the actual material nature of these entities is beyond the scope of research in probability theory . " From the above, it concluded a logical conclusion directly opposed to the belief von Mises in the indeterminacy at the individual level. Strictly speaking, according to Khinchin's definition , it is not justified to use the mathematical notion of probability when talking about an individual event. For example, even if my personal future is uncertain, there is no mathematical probability that I will die tomorrow, but there is a probability that, say, sixty people will die the next day in a metropolitan city like Vancouver.

At the same time, the validity of probabilistic laws for collectives can coexist with causal behavior at the individual level. Even if individuals are described deterministically by some other science, Khinchin explained , probability theory can still be applicable to the properties of a large collective of them, due to the way it abstracts certain characteristics for its kind of analysis. .

Khinchin mentioned in a disapproving footnote the existence of "radical" acausal views regarding atomic phenomena, but did not explicitly address the issue of quantum physics. A to develop their views on the theory of probability, collaborated with his student and colleague m to s young at the University of Moscow, the mathematician Andrei Kolmogorov (1903-1987), with physicists from the neighboring department Leonid Mandelstam and Mikhail Leontovich (1903-1981), and with the Marxist philosopher Boris Gessen (1893-1936) of the Communist Academy. Kolmogorov in 1933 succeeded in formulating the system of axioms that placed the mathematical theory of probability on a modern basis and has become generally accepted as the basis of the field in contemporary mathematics. Gessen (better known in English among science historians as Boris Hessen, the author of the Social and Economic Roots of Newton's Principia (1931)) developed the corresponding philosophical, dialectical-materialist, analysis of

statistical mechanics (classical) and their problems. Physicists in this circle should apply similar ideas to the interpretation of quantum physics. Another source, and an immediate inspiration for them to do so, came from the debate between Einstein and Bohr on the Einstein- Podolsky- Rosen paradox of 1935 and the description of physical reality, which was translated into Russian and followed with great attention by the Soviet physicists. " (Kojevnikov, 2019, pp. 214-216) .

“An attempt to draw the boundary in a different way appeared in the famous Course in Theoretical Physics by Lev Landau (1908-1968) and Evgeny Lifshitz (1915-1985). His volume on quantum mechanics (non-relativistic) appeared as the first edition in 1948. Heisenberg's indeterminacy relation (expressed by the canonical mathematical formula) figured prominently in Landau- Lifshitz's presentation , provided with a complete derivation and a adequate credit to the author. However, complementarity is not even mentioned by name. Partly because it didn't have a mathematical representation and partly because it was being criticized as an idealist, Landau and Lifshitz chose to ignore it entirely, along with all the other philosophical agitation about quantum theory. They just mentioned in the introduction that, unlike the situation in classical physics, the state of an atomic system changes during the measurement process due to interaction with the measurement device. In doing so, they carefully avoided the adjective "uncontrolled" and emphasized more than once that by measurement was not meant "observer", but "a process of interaction between a quantum and classical object that occurs objectively, independently of any observer." Such a minimal rhetorical adaptation, including the indeterminacy relationship, but without complementarity (at least not explicitly) and the substitution of "observer" for an "instrument", would become a popular, acceptable and enduring way of teaching quantum science. mechanics to the students of the Soviet Union and, in this sense, the option adopted by Landau and Lifshitz represented the main solution. What was atypical, by the standards of the 1940s and 1950s, was the absence of any explicit invocation of "dialectical materialism" or any other philosophy for that

matter. This was clearly an act of defiance: although the ideological authorities neither chose nor prescribed any particular interpretation of quantum mechanics to physicists, they strongly urged Soviet scientists to actively and openly engage in philosophy, especially when writing popular articles. . and textbooks. A typical Soviet textbook of the time was expected to include at least one critical commentary on the existing "idealistic" interpretations of some Western authors and a favorable reference to dialectical materialism. Landau decided to ignore the call. " (Kojevnikov, 2019, pp. 223-224) .

"The two main assumptions of your overall presentation were detailed early in the book's introduction. First, atomism in the microscopic world is a qualitatively non-classical phenomenon. Blokhintsev was reluctant to use the word "particles", because he carried too much classical baggage and visual images, as a trajectory. Instead, he switched to "microparticles", characterizing them as similar, in some respects, to waves, but his main point was that the notions of classical physics provided only a crude approximation, fundamentally not adequate for describing microscopic phenomena. Second, "quantum mechanics is a statistical theory ... but different from classical statistical mechanics ... Unlike statistical mechanics, modern quantum mechanics is not based on a theory of individual processes. It operates from the beginning with statistical groups, sets ... and studies these sets in relation to macroscopic measurement devices ". DI Blokhintsev , *Osnovy kvantovoi mekhaniki* . Izdanie vtoroe , pererabotannoe . Moscow-Leningrad 1949, pp. 10-11. The German translation: DI Blochinzew , *Grundlagen der Quantenmechanik* . Berlin 1953. " (Kojevnikov, 2019, pp. 229-230) .

"The seemingly paradoxical nature of quantum mechanics only arises if one tries to understand its novel laws from the point of view of old classical mechanics," Blokhintsev wrote after explaining the EPR paradox along Mandelstam lines . In general, according to him, quantum mechanics demonstrated the restricted nature of classical atomistic concepts and discovered qualitatively new statistical

regularities in the microscopic world, which had been tested experimentally. He thus confirmed an important principle of dialectical materialism that each particular state of our knowledge about nature is only approximate and relative, while qualitatively new laws and regularities emerge at each fundamentally different level of material existence. Lenin's saying of Materialism and Empirio-criticism that the main criterion of a materialistic epistemology is the assumption that nature and its laws exist objectively, independently of the observer, was equally satisfied by the ensemble interpretation of quantum mechanics. "Therefore, from the point of view of dialectical materialism, quantum mechanics should be regarded as the most important development of atomism in the 20th century," Blokhintsev happily concluded in his textbook. " (Kojevnikov, 2019, p. 231) .

IX. HISTORICAL- LOGIC FOUNDATION OF THE PROCESS OF TRANSFORMING VALUES INTO PRODUCTION PRICES

"The law of value only acts here as an internal law, which individual agents consider as a blind natural law, and this law is thus the one that imposes the social

equilibrium of production in the midst of its fortuitous fluctuations." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 93) .

“The law of value is an example of the historical modifications of a single and unique economic law due to changing conditions. Known in the Annex to the second book of *The Capital* , Engels indicates that the law served during 5000 to 7000 years, ie, for a considerable period, from the origins of the exchange that transformed products into commodities. The law of value operates in various economic and social formations. It is true that a serious mistake would be made if one thought that this law is expressed in the same way and culminates in the same results in spite of the succession of social formations. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 89) .

“The characteristic of capitalist production, as indicated by Marx, is the constant tendency to break the necessary interdependence between its different branches, between production and consumption. When the broken link is reestablished, it is only reestablished for a time, so that in the next stage there is an even greater imbalance, an even deeper disturbance of the economic organism. Crises break out periodically and signal that the breakdown has reached extreme limits. These destructive crises are simultaneously a spontaneous way of restoring by violence the proportions determined between the isolated parts of the whole. The necessary movement of bourgeois production develops through constant ruptures and the temporary reestablishment of these links. In these circumstances, the necessary movement takes the form of an average of innumerable deviations and violations of the normal course. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 94) .

“This is how the objective law of the decreasing trend of the profit share appears as the irreversible result of the whole movement of capital. But this is not to say that the capitalists passively accommodate this objective trend. By means of a series of

measures (accentuation of the exploitation of workers, reduction of wages below the value of labor power, etc.), they oppose this trend and slow down its effects. Marx has pointed out different "adverse causes" that "do not suppress the laws, but weaken their action." In the same way, capitalists and capitalist states, as has already been seen, contrive to retard by all means the outbreak of an economic crisis, to limit, to stop the action of the objective laws that determine crises. These measures can be effective for some time. But no measure can eliminate the conditions that engender crises and, consequently, suppress them while preserving the regime.

capitalist. The spontaneous, blind action that the economic laws of capitalism arise from the very nature of the capitalist mode of production. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 99-100) .

"In the capitalist regime the necessary laws work their way through innumerable contingencies. Chance acts freely there and necessity manifests itself through chance and through it. Only the analysis of these contingencies allows us to discover behind them the hidden law that governs them and whose basis they constitute. For this reason, a characteristic feature of the economic laws of the capitalist regime is that, as indicated by Marx, their manifestation is extremely complex and confusing. "In all capitalist production the same thing happens: the general law only imposes itself as a predominant tendency in a very complicated and approximate way, as an average never capable of being fixed between perpetual fluctuations." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 101) .

" In the preface to the third book of Capital, Engels criticizes an economist who did not understand certain aspects of Marx's economic theory, whom he accuses of giving fixed definitions when in fact he develops them and excludes custom definitions. "Where things and their mutual relationships are not conceived as

something fixed and immutable, but rather as something subject to change, it is logical that their mental images, concepts, are also exposed to changes and transformations that are not framed in simple definitions. Ideas, but rather develop them in their historical or logical formation process. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 107) .

"Our analysis has shown - writes Marx - that the form of value or expression of value of the commodity springs from the very nature of its value, and not vice versa, the value and magnitude of value, from its mode of expression as exchange value. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 110) .

After having established in this way the nature of the intervening commodity, under the equivalent form, from the very origins of exchange, Marx follows the development of the forms of value. It shows that the growth of commodity circulation and production leads by necessity to the simple or isolated form of value becoming the total or developed form of value, the latter becoming the general form of value, and finally the money form. Of value.

After having drawn the conclusions of the evolution of value, Marx presents money, not as a "finished result" in which the intermediate movement leaves no trace, but as the culmination of a development. This was the same as suddenly unmasking the "magic character" of money by explaining its mysterious form . At the end of the analysis of its origins and its evolution, money clearly appears as the social mode of expression of the work invested to produce merchandise, as the social measure to which the private work of isolated producers is reduced, as the form that represents the social relations of production. Marx calls money "a metamorphosed form of the value of the commodity." It is evident that it is essential to consider the transformation suffered by merchandise, and commercial relations to understand the origin of money and its nature. From this analysis it emerges that it is impossible to understand a phenomenon if it is not considered in

its development. if the intermediate movement from which it arose is not reestablished. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 111) .

"In *The Theory of Surplus Value*, Marx writes that Ricardo" ... identifies the price of production with value since, for the moment, studying no more than value, and therefore having before him more than a merchandise, starts talking suddenly and whack the general rate of profit and gives access to all conditioned by the further development of the production conditions of capitalism hypothesis. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 112-113) .

"On the contrary, contrary to the bourgeois economists, if Marx brilliantly solved the problem of value and the price of production, it is, in the first place, because he consistently applied, in that sense as in the others, the dialectical principle of development. . In his preface to the third book of *The Capital* Engels explains why Marx begins with the simple commodity, and not by the modified commodity under capitalism. Like commodity production as a whole, the commodity is an evolving reality, and not a fixed thing. In the framework of precapitalist production, it is one thing; in capitalism it is another. Insensitive to this difference, Marx's predecessors imagined that the exchange of values operated in the two cases in the same way. But when perceiving that under capitalism the exchange of goods is carried out according to the prices of production, they fell into insoluble contradictions. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 113) .

"Marx makes it clear that all the difficulties are due to the fact that in the capitalist regime goods are not simply exchanged as such. but as products of capitals that claim to be equal in the distribution of the total mass of surplus value created by

the workers. The price of production is not opposed to the value; is its converted form, more developed, more complete, born of the specific conditions of capitalist production. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 114) . It is not that they pretend to be equal, it is that they compete with each other to annihilate each other.

“However, it is not enough to say that Marx faces each economic relation of capitalism in its genesis and in its evolution, and that for this very reason he discovers its essence. It is important to note that for him the social nature of capital is only expressed and realized in movement. As is the form and mode of existence of matter, so movement is the form and mode of existence of capital. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 114) .

"But once these relationships exist, only the movement can make money capital. If the latter does not abandon the form of money capital to adopt that of productive capital , it will not be able to achieve its essential objective: the production of surplus value, the self-growth of the value of the capital originally invested. " The cycle of productive capital has its stages, and its movement is to move from one stage to another, leaving a way to adopt another. The productive use of capital has the effect of producing commodities in which the surplus value created in the course of the exploitation of the workers is materialized. Capital abandons the form of productive capital and acquires that of commodity capital. The sale of commodities transforms commodity capital into money capital, and the latter in turn acquires the form of productive capital again, and the total cycle of productive capital ends so that the process of production of surplus value begins again. Therefore, productive capital cannot fulfill its function of capital either unless it is in motion and undergoes changes in form. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 117) .

"The process as a whole - says Marx - is presented as a unit of the production process and the circulation process; the production process serves as a mediator of the circulation process, and vice versa." In this reciprocal mediation, production is the one that plays the decisive role, and in the unity of the three cyclical forms this role corresponds to productive capital because, as Marx has shown in the first book of his work, the production process is the the only one in which goodwill is created. Taken separately, each of these three cyclical forms would not suffice to define movement, the cycle of capital as a whole. Each of them is characterized, in effect, by its discontinuity. Now, inherent in capitalist production is the continuity of movement, continuity in the sense that capital cannot live without the self-growth of value. The capitalist cannot wait for an existing commodity-capital to be realized in the market in the form of yarns, for example, and for the re-inflows of money to enable him to once again acquire the means necessary to continue production. The process has to be permanent, so that at the very moment when a capital game passes from one stage to the other, another part also changes shape, leaves one stage and moves on to the next. This continuity results precisely from the unity of the three cyclical forms. Industrial capital, taken as a whole, occupies its various stages simultaneously, and each part of capital equally passes from one phase to the other, from one form to the next. The form in which each part of capital functions at a given moment is not a fixed form, but, as Marx puts it, a fluid form, a form that becomes another. " (Rosental M., *The problems of dialectics in Marx's "CAPITAL"*, 1961, pp. 118-119) . The capitalist would like that the downtime did not exist in order to incessantly value his capital, continuously, however, even the power of the ruling class has had, has and will have limits, so he seeks to break those real barriers through various mechanisms, par excellence the favorite of the western bourgeoisie is financial speculation.

"Marx sums up the whole process in this way:" Considered as a whole, capital thus appears simultaneously and coexisting in space in its different phases. But each of

its parts passes constantly and in turn from one phase to another. , from one to another functional form, function s ucesivamente through all. these forms are therefore fluid forms, whose simultaneity is determined by its sequence. Each of these forms follows another and precedes, where the The return of one part of capital to one form is conditioned by the return of another part of capital to another form. Each part continually describes its own process, but it is always another part of capital that is in this form, and these processes Special moments are nothing more than simultaneous and successive moments of the total process. "It is the unity of the three cycles, and not the interruption of which we spoke above (in the analysis of isolated cyclic forms. - MR) , which performs the continuity of the total process. The global capital of society always possesses this continuity, and its process always represents the unity of the three cycles. "In short, Marx applies the dialectical conception of movement to one of its concrete forms: the movement of capital. In the same way as A moving body must be simultaneously at different points in space, without which movement would not exist, in the same way capital, which can only exist in movement, simultaneously occupies all its phases, adopts all its forms and passes from each other. Therefore, the nature of capital can be understood if it is considered as a movement and not as an inert thing. Outside of this movement the value could not increase, that is, it could not be a capital. In the chapter "Three formulas of a cyclical process", Marx makes a primary observation in this regard: "Those who consider the substantiation of value a pure abstraction forget that the movement of industrial capital is precisely this abstraction made reality. Value here goes through different forms , various movements, in which it is preserved and at the same time it is valued, it is increased. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 118-120) .

It is worth noting: " *These forms are, then, fluid forms, whose simultaneity is determined by their succession .* " What would seem merely a pretentious and

hollow pun on the part of Marx, in fact, a deep meaning, so deep that it helps to clarify the gnoseological validity of the use of sequential equations and / or simultaneous equations at a general level. This is how the great Mark Rosental reveals it when he explains that “ *In the same way that a body that moves must be found simultaneously in different points of space, without which movement would not exist, in the same way capital, which can only exist in movement, simultaneously occupies all its phases, adopts all its forms and passes from one to the other. Therefore, the nature of capital can be understood if it is considered as a movement and not as an inert thing* ”. The process in its entirety and as a totality simultaneously encompasses all the phases that compose it or, in other words, production is simultaneously production as such and circulation [following (Marx, Contribution to the Critique of Political Economy, 1989) [\[23\]](#), which will be expanded in a special study on the foreword to the *Grundrisse* and *Contribution to the Critique of Political Economy*], but that does not mean that simultaneously while a set B of goods is produced it also circulates, but neither does it mean that there cannot exist (on the contrary, there always exists) a set of goods A produced in advance of B that is being sought to be realized in circulation (through competition, both between capitalists, between consumers and between capitalists and consumers) produced in advance of its own circulation process, which, depending on multiple circumstances, may affect the price of set of goods B (whether for production or sale) due to their existence or location in the market (that of set A) or their production conditions (if they involved technological innovation) can change the exchange value of goods downward. Of course, also the exchange value of working capital, despite technological innovation, can change its price (whatever it is) upwards due to exogenous factors (such as the negative extended reproduction proposed by Bukharin).

“It declares in express terms that it applies in Capital the dialectical law of the conversion of quantitative changes into qualitative changes. "You will also find, by

the conclusion of my chapter III, in which the transformation of the master craftsman into a capitalist is touched upon - as a result of purely quantitative changes - that in the text I mention the law that Hegel discovered, that of purely quantitative changes. that qualitative changes become seen , as valid equally in history and in the natural sciences. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 123) .

“Finally, with the help of time, the general form gives way to the coin form. As Marx puts it, progress consists in the fact that the general equivalent form, by virtue of a social habit, "... adheres definitively, by the force of social custom, to the specific natural form of the commodity- gold. " In this way, Marx regards the development of forms of value as not only a quantitative but also a qualitative process that expresses the historical phases of the evolution of commodity production and exchange. The passage from form I to form II, from form II to form III, is marked by essential changes. This analysis makes it possible to explain the higher form of value, that is, money , as a form that expresses the social nature of commodities or, as Lenin has said, as a product of social labor organized by the mercantile economy. Money has become the qualitatively superior form of expression of value, whose inferior forms, qualitatively specific, had been the preparatory degrees. The superior product of mercantile circulation, money, becomes the starting point, in the initial form of capital. It is then produced in development. In the ollo of mercantile production and exchange, a radical turn, a qualitative break, a formidable leap: simple commodity production becomes the superior form of commodity production, capitalist production. In the second section of the first book of Capital, Marx studies in depth the qualitative difference between capital and simple commodity production, and discovers the nature of the leap that occurs in the course of the development of commodity circulation. In the first place, it analyzes the external difference , the change in form that affects the commercial circulation as a result of

the transformation of money into capital. This difference is expressed in the MDM and DMD formulas . " (Rosental M., The problems of dialectics in Marx's "CAPITAL ", 1961, pp. 127-128) .

"Lenin, who was a brilliant study of this new phase of capitalism is due, highly appreciated these conclusions of Marx, which for the decade of the 60 could only rely on a small number of facts still very poorly developed. "Half a century ago - mentioned, do when Marx wrote *The Capital* , free competition was considered by most economists as a 'natural law'. Official science tried to annihilate the conspiracy of silence the work of Marx, which demonstrated by means of the theoretical and historical analysis of capitalism that free competition generates the concentration of production, and that such concentration, in a certain degree of its development, leads to monopoly. Now the monopoly is a fact. " Thus, by his study of the capitalist mode of production, Marx establishes that development operates up to a certain point within the limits of the old quality. The qualitative peculiarities of the production relations of "free" capitalism, prior to monopolies, give free course to the rapid evolution of the productive forces. Compared to feudalism, capitalism gives an extraordinary boost to production. But the development of the productive forces ends up cracking the framework of capitalist relations. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 137) .

"The law of value, regulating production, only exists and can be realized through this conflict. It only finds its form and its concrete mode of existence in the continuous struggle of manufacturers among themselves for more advantageous conditions for the sale of merchandise, in the struggle for the market, in the clash of millions of wills that culminate in a cardinal trend, born of the objective law of value. The fundamental economic law of capitalism, that of surplus value, expresses the contradiction between the workers and the capitalists, the radical

opposition of their interests. It reproduces this contradiction on an increasingly vast scale, and it manifests itself in the class struggle. There are numerous capitalist contradictions that Marx studies. However, all of them, in *Capital*, have a common nucleus, and translate a primordial contradiction: that of the social character of production with the private capitalist form of appropriation. The fight of the opposites is not static at all. It is a process with degrees, with stages, with stages. The contradictions have their dialectic. They cannot suddenly appear in their developed form, nor can they be destroyed in one fell swoop without leaving a trace. In this way, the dialectic indicates that it is necessary to analyze them in their growth, in their evolution. For Lenin, what constitutes the inestimable value of Marx's study of the contradictions of capitalism is the fact that they are thoroughly examined. As the contradictions evolve, they create the conditions for their own solution. Outside of its development, such a solution cannot find an objective basis. Anyone who thinks that contradictions can and should be overcome as soon as they appear would be seriously deceived. Strictly speaking, its development is a process of growth, and as long as it has not reached its end, as long as it has not reached a certain degree, the contradictions cannot be overcome. For example, we have indicated above that the internal contradictions of the merchandise only find their solution in the dissociation of the merchandise into merchandise and currency. But these contradictions existed long before the appearance of the currency. In order for them to be resolved in this way, a long historical period of maturation was necessary. For the rest, this period was not reduced to a simple accumulation of contradictions between the commodity and commodity production. At each historical stage of its development, these contradictions found a temporary solution in the emergence of new forms of value. But neither of such forms could be stable; far from eliminating them, they deepened and awakened the dormant contradictions between merchandise and mercantile exchange. Only at a certain historical stage in the development of commodity production and circulation, and when the contradictions between use value and value have

reached their climax, can they be resolved. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 219-222) .

"(...)" That this need to distribute social labor in defined proportions cannot be eliminated through the particular form of social production, but can only change the form it takes, is evident. No natural law can be eliminated. What can change with changing historical circumstances is the way these laws operate. " Thus, therefore, the proportional division of labor for the production of a corresponding quantity of goods is an objective law of society. This law expresses a necessary connection between the various branches of work; if this correlation is violated, if work is concentrated in any one branch of production and the other branches do not receive a corresponding amount of work, in other words, if the necessary internal connection between the various branches of production is broken , society can no longer exist. And since objective laws cannot be abolished, the need for a proper distribution of social labor will assert itself and manifest itself in one way or another. " (Rosental M., Problems of dialectics in Marx's "CAPITAL", 1961, p. 38) .

" Very different is the case of Marx, for whom value is a complex, flexible, multiform concept that expresses the diversity of aspects of reality itself. The value faithfully reflects the vicissitudes being experienced relations the commodity production in its historical development, at the time that the extension of the capitalist mode of production transforms simple commodity production into capitalist production. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 244) .

"The value of labor power is, in appearance," labor value "; the real source of surplus value is henceforth hidden and obscured. The slave regime produces the impression that the master appropriates *all* of the slave's labor, while capitalism creates the reverse appearance: even the unpaid part of the worker's labor appears

to be paid in wages. The essence of phenomena is further obscured when one passes from the internal sphere of production to the external sphere of circulation. Marx writes that the process of circulation nullifies and erases the connection. The form acquired by social relations is such that the source of the profit appears to be "a universal deception." In the sphere of circulation, capital "... abandons, as it were, its internal organic life to run under external relations of life, under relations in which capital and labor no longer confront each other, but, on the one hand, capitals and, on the other hand, individuals, considered simply as buyers and sellers; circulation time and labor time intersect in their orbit and thus both seem to determine surplus value equally. Wage labor is disguised by the interference of apparently independent relations; now surplus value no longer appears as a product of the appropriation of working time, but as the remainder of the sale price of the merchandise over its cost price, for which easily tends to see its intrinsic value (*valeur intrinseque*), whereby the profit is presented as the remainder of the sale price of the merchandise over its immanent value. entity." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 258) .

"The formation of the prices of production, the conversion of value into the price of production, implies a further step in the falsification of the essence of capitalist relations. The formation of the average profit rate makes a difference of quantitative expression appear, not only between the rate of surplus value and profit, but also between the surplus value and the profit itself. Goods are no longer sold according to their value, to the value produced in a given company, in a given branch of production, but according to the cost of production to which the average profit is added. As Marx says, from now on it takes a chance for the surplus value and, consequently, the profit, actually produced in a branch of production, to coincide with the profit contained in the sale price of the commodity. "However, a difference of magnitude existed only between the capital gain share and the profit share, not between the capital gain and the profit itself. As in the profit share, the

capital gain is calculated on the total capital, to which it refers. As in its measure, surplus value appears as a derivative of total capital, as if it emanated equally from all the parts that make it up, whereby the organic difference between constant capital and variable capital disappears in the concept of profit; ie, in reality, under this way gain their transfigured, goodwill denies its origin, loses its character, which appears here unrecognizable. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 259) .

“The formation of the prices of production results from the competition that denatures the essence of things, and turns everything upside down. It conceals the fact that behind the prices of production there is value, the law of value, which ultimately determines all movement. Competition makes average profit independent of the organic composition of capital, in each particular branch of production, and, consequently, of the role of living labor in the production of surplus value. It reveals that the objective of increasing or decreasing wages is to modify the price of production, something that at first glance seems to be in absolute contradiction with the relation of value of goods. Furthermore, competition reduces the oscillation of market prices for a given period, not at market value, but at a price of production completely different from this one. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 259-260) .

Regarding the fact that "Competition makes the average profit independent of the organic composition of capital", it must be established that this is verified for a particular capital, since at the level of global social capital (the macrostate of capital made up of the combination dynamic and non-linear of microstates, expressed in the concurrence of individual capitals) there is an average organic composition, which is precisely to which this profit corresponds.

"Consequently, in the world of competition, everything appears inverted. The external form of economic relations, as it appears on the surface of phenomena, in their real existence and also, therefore, in the ideas with which they are represented. Representatives and agents of these relationships pretend to see clearly in them, what in reality differs a lot and is, in reality, the inverse, the opposite of its inner nuclear form, although hidden, and of the concept that corresponds to it." The falsification of the origin of the surplus value, of the profit, is aggravated when the surplus value is dissociated in its particular forms: income, interest, etc. Rent appears to be the natural property of land, to deliver a profit to its owner. Interest seems to result, in turn, from magical virtues of capital. As noted by Marx, in the interest it reaches the fetishization of capital its highest form and finished. Interest-bearing capital, he says, is the father of all forms altered to the point of absurdity. In the "capital-interest" form, capital is reduced to an absurd and inexplicable formula by itself. (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 260) .

"In the second book of Capital, in the chapter entitled "The Trinitarian Formula", Marx shows that the formula used by bourgeois political economy to theoretically legitimize all the absurdity of the appearance of a thing that reigns on the surface of phenomena, it is stated in the following way: capital-interest, land-territorial rent, labor-salary. Thus, the internal, essential connection of capitalist relations, that of external phenomena with their base, the production of surplus value, "... seems to be definitively broken and its source completely blinded, precisely by the mutual substantiation of the relations of production linked to the various material elements of the production process." (...) " (Rosental M., The problems of dialectics in Marx's "THE CAPITAL", 1961, p. 261) .

Contrary to the bourgeois economists, Marx starts from the principle that the immediate relations of exchange and the relations that express the law of value cannot be identical. His letter to Kugelmann, dated July 11, 1868, contains

extremely important observations in relation to the study of the essence and its forms of expression: "Science consists precisely in explaining how the law of value operates. that if one wanted to 'explain' at the very beginning all the phenomena that apparently contradict that law, science should occur before science. Such is precisely the error of Ricardo who, in that chapter on value, takes as given all the possible categories that still have to be developed, in order to prove their conformity with the law of value. " And further on: "The vulgar economist does not have the slightest idea that the real and daily relations of exchange need not be directly identical to the magnitudes of value. The characteristic of bourgeois society consists precisely in the fact that a priori it does not there is a conscious, social regulation of production. The rational and the necessary are produced in nature only as an average that operates blindly. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 273-274) .

"It is seen that in Marx's opinion there cannot be an immediate identity between the law and its manifestations. But these are the external expressions of the law. They only come down to pointing out how and why the law appears in a certain form. Ricardo makes the following mistake: once the essence, the law of phenomena, has been discovered, he does not show why it is expressed in forms that contradict it, and presupposes in one fell swoop the presence of the forms that he identifies with the law, thus sowing the confusion. Thus, it immediately presupposes average profit and mistakes it for surplus value, while these two notions are far from being immediately identical. By revealing the errors of Ricardo's method, Marx writes, in the History of the Theory of Surplus Value, that this method "... jumping over the indispensable links, aims to directly expose the concordance of economic categories." "Instead of assuming this general profit quota, the indicated thing would have been to investigate to what extent the existence of this quota obeys the determination of value for labor time, and then Ricardo would have discovered that, far from obeying it, it what he does is to

contradict it at first sight, for which reason it is necessary to unravel its existence, by means of a multitude of intermediate links, which is very different from what he does by simply incorporating it into the law of value. " A simple example will indicate what Marx means when he declares that the essence and the phenomenon cannot coincide immediately and that their adequacy cannot be understood without analyzing the intermediate links. Value and price are linked to each other as the essential internal element and its form of expression. But the price differs from the value. It is known that the prices of goods do not immediately match their value. It is easy to draw from this the conclusion that the price is independent of the value, that the latter is not the real foundation of the former, and present it as a fiction. But such a conclusion implies ignorance of the fact that price and value cannot coincide immediately, that their coincidence must be effected in the mediate, that is, through a series of intermediate links: the competition between producers, the variations of supply and demand in the market, etc. Once on the market, commodities, as crystallized value, undergo different influences that do not exist in the sphere of production. The relations between supply and demand, at a given moment, and the concurrence of producers, oblige the latter, in order to be able to place their stocks, to sell them a little cheaper, all of which gives value a varied expression external in the form of price fluctuations. But whatever these fluctuations, regardless of the difference in prices in relation to the value, not why they stop gravitate to him, like planets around the sun, unable to separate from its orbit. That is why the price, which differs without any discussion from the value, is nevertheless its expression, its external manifestation. The analysis of the intermediate links thus sheds light on the adequacy of prices with value, of phenomena with their essence. Thanks to this method Marx established why the value and the price of production cannot be immediately identical, and how the price of production is nothing more than a converted form of value, that is, an expression of the law of value, and not the denial of this law. In this way, Marx solved the problem in which bourgeois economics had seen nothing but an

impenetrable mystery. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 274-276) .

“Marx masterfully analyzed the inevitable metamorphoses to which the laws of value and surplus value are exposed, when they take shape in the sphere of circulation. He examines the intermediate links, such as the influence of the various organic compositions of capital, the conversion of surplus value into profit, the role of competition in the formation of the average profit rate, and shows that for all these reasons value adopts necessarily the form of price of production. By the way, there is an essential difference between the price of production and the value. According to the law of value, capitalists should sell commodities at a price corresponding to the entire value produced, including the surplus value created in their companies. Strictly speaking, they sell their goods at the price of production, that is, at the cost of production plus the average profit, regardless of the surplus value and, consequently, of the profit realized in their companies, in their branches of production. Hence the impression that the law of value is inoperative and that there is a "contradiction" between the first and third books of *Capital* . " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 276) .

“ But Marx established that things are presented like this: each branch of production has its own organic composition of capital, that is, a determined correlation between constant capital and variable capital, and therefore different rates of profit. Under these conditions, if profit shares were not reduced to a common share, business owners would gain with a low organic composition of capital and lose with a high organic composition. However, for the capitalist the difference between constant capital and variable capital does not enter into the calculation of the cost of production. The capitalist disburses a determined capital and demands in compensation a profit at least equal to that made by other

capitalists for the same investment. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 276-277) .

Here Rosental's logic does not seem to be the most sophisticated, considering that it omits to analyze as a whole the role of technology reducing the socially necessary work time (and, consequently, *ceteris paribus* , increasing the excess work time) and of competition distorting prices (competition that arises, ultimately and in general, via prices, which implies - at least in sufficiently developed capitalisms - competition via technological innovation). It is curious to note that Rosental himself points out this aspect of the competition on pages after. It is not that the capitalist "demands" (that "smells" of idealism), but rather that the capitalist fights to the death (economically and financially, in the best of cases) against the other members of his social class to impose himself on the market of the way described above, thus managing to appropriate a part of the global surplus value that he did not extract directly from the working class. Of course, the popular saying "Thief who robs a thief has a hundred years of forgiveness" does not apply here.

"Thus it happens that the prices of production appear, different from the values produced in the different branches of production. The mechanism of competition has the effect of distributing surplus value and profit more or less equally among capitalists, with some losing what others gain. Thus "justice" is established, in the bourgeois sense of the word, that is to say, an average profit quota is formed; Each individual capital constitutes, in effect, a part of the whole of the social capital, and claims its part of the fruit of the exploitation of the work of the whole of the workers. What is essential is the fact that the sum of the prices of production fully coincides with the values created in all branches of production. Competition cannot create a single atom of value. · It is limited to redistributing the already created capital gain. Nor does competition determine the rate of profit; it only has the effect of equalizing the level of it. The profit rate is only determined by the

magnitude of the capital gain. In this way, the price of production becomes totally inexplicable, irrational, if one does not take into account the fact that it has value and surplus value as its concrete basis, that it is a modified form of value. " (Rosental M., Problems of dialectics in Marx's "CAPITAL", 1961, p. 277) .

Here Rosental fails to affirm that the essential thing is only the fact that the sum of the values coincides with the sum of the prices, since both accounting and mathematically the profits must also coincide with the sum of the capital gains. On the other hand, to affirm without additional specifications that competition does not determine the rate of profit is reductionist, because although the rate of profit responds in its origin to the surplus value (since it is obtained by dividing the mass of surplus value over the total capital disbursed), it is also true that it is precisely in competition that the average rate of profit is formed, which is the effective rate of profit that the capitalist receives in the long run and which supersedes individual rates of profit. The above described is what allows, at the level of the mechanics of the capitalist political economy system, the accumulation of capital as centralization, *ie* , as the annihilation of some capitalists by others in the context of competition.

"Starting from the limits of value and surplus value as a given factor," writes Marx, it is easy to see how the concurrence of capitals converts values into prices of production and, even more so, into commercial prices, and surplus value into average profit. But without starting from these limits it is absolutely impossible to see why the competition reduces the overall profit rate to this limit instead of that, to 15% instead of 1,500%, it can at most, reduce it to one level. But there is absolutely no element in it to be able to determine this level by itself. " The law of value governs the movement of prices, and prices of production increase or decrease as a function of the increase or decrease in the amount of labor invested in production. In the light of the Marxist theory of the essence and the phenomenon,

it is easy to answer the question so puzzling for Ricardo: Why is the wine, after some years of parking in the cellar, sold at a price that exceeds the investment? real work, when work is the only source of value? Marx distinguishes the period of production and the period of work. Where the period of production exceeds that of labor, the price exceeds the value, and the average gain exceeds the surplus value. Here too, the analysis of the intermediate links is essential, that is, of the profit leveling mechanism. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 277-278) .

Here it is convenient to define what is both work period and production time. By *work period* should be understood the "Part of production time (see), *number of hours or days of work that is invested to produce a finished product* . In this period, the objects of work are subjected to direct elaboration, to the immediate action of man. *This period does not include the time during which the objects of work are part of the production reserves or are subject to the action of natural factors , nor the time of pauses in the production process. The length of the working period depends on the character of the product being manufactured in the given branch of production, the length of the working day and the level of labor productivity . For certain branches (for example, in baking) the period of work is determined in hours; for other branches (for example, the constructs naval), in months and even years. As production is mechanized and labor productivity rises, the working period is shortened . Under capitalism, this period constitutes the fundamental part of the production time and of the entire capital turnover time, since only during the labor period value and surplus value are created. The length of the work period influences the magnitude of the capital invested in the production of the commodity . The tendency of the capitalists to reduce the working period by automating production and increasing the intensity of labor leads to the growth of the army of the unemployed. Under socialism, the turnover time of the company's funds also consists of production time and production time.*

circulation. The turnover time of the company's funds is reduced and its turnover is accelerated, accelerating the production process itself and reducing the circulation time. " (Rosental & Iudin, 1971, p. 178) .

For its part, *production time* should be understood as that time in which "(...) *capital is in the sphere of production, that is, it acts as productive capital (...)* Production time encompasses the entire process in which a certain merchandise is produced in a company, from the moment the means enter it until the product is finished . Under capitalism, such time is made up of several integral parts. In the first place, of the work period, that is , of the time during which the work process is carried out directly and value and surplus value is created . Second, of the time in which the objects of work are subjected to the action of natural forces and not of the forces of work (drying of wood, fermentation of wine, chemical reactions, etc.). In this period, no value or surplus value is created. Third, of the time during which the action of work and the means of production temporarily ceases (interruptions, breaks for lunch, etc.). Fourth, of the time during which the means of production are in the warehouses as a necessary condition to ensure the continuity of the production process and constitute a potential productive capital . The fundamental part of the production time is the working period, which can have the most diverse duration depending on the specific properties of the finished product and the level of production technique and technology. The application of new technical improvements and chemical methods to act on the work object makes it possible to reduce the part of the production time during which the work object is subjected to the action of natural forces. Thus, the natural drying of birch wood requires a year and a half to two years; the drying chambers, fifteen days, and drying with high frequency electric current, thirty-five minutes. Reducing the production time allows accelerating the turnover of capital. " (Rosental & Iudin, 1971, pp. 248-249)

“Marx peremptorily demonstrated that the difference between phenomena and laws does not prevent the former from being the form of expression of the latter, from being their necessary effect. Only the analysis of the intermediate links allows us to understand the link between the essence and its forms of expression. The high philosophical and methodological scope of the solution to this problem consists in the fact that it sheds light on the complex relationship that exists between law and phenomenon, between the universal and the individual. The essence, the law, always express the universal element of a multiple quantity of individual phenomena. For this reason the law, the essence, the universal, can never find direct and immediate expression in the individual. The essence is modified by the concrete characteristics of the individual, by the concrete conditions of its expression. The desire to discover a direct identity between the universal and the individual, between the essence and the phenomenon, leads to distort the one as well as the other. Regarding the lack of coincidence between the value and the price of production, Marx writes that this phenomenon "... is very simple for those who have known how to understand the relationship between surplus value and profit and the creation of a general share of profit. On the other hand, whoever tries to explain the profit obtained by a certain capital in a certain industry on the basis of the surplus value and unpaid labor that are contained in the goods produced in it, will be faced with a problem of more difficult solution than that of squaring the circle ... "(...)" (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 278-279) .

“ Marx emphasizes that, in his polemic against Ricardo, Bailey highlights the confusion between the " measure of value "and the essence of value. But Bailey's objections tend to deny the real existence of value, labor crystallized in the commodity. Mistook knowing the value with the price, with its monetary expression, as one single value can be expressed, and effecto is expressed in many prices, deduced from this reality of prices and the unreality of the value. This will was necessary to reach the conclusion that the value of the goods is not determined

by the labor crystallized in them, but by supply and demand, by the relations of inter change. It is also interesting to note that Marx criticizes Bailey's vulgar economist conception, showing that it is based on his inability and refusal to use the force of abstraction to solve the problem correctly. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, pp. 285-286) .

Here a categorical rejection of *the One Price Law (LUSP)* is evident .

"Whenever we talk about the distance between two objects, it is a distance within space. It is assumed that the two objects exist within space as points of it. We assume them equal from this point of view, in order to later be able to distinguish them as different points within space, of which they are part. The fact of being within space is precisely what constitutes their unity. " Scientific abstraction therefore consists, for him, in the fact that beyond the diversity of external phenomena, thought finds the common, the identical, the principle, which constitutes the expression of a single and unique essence. For example, however diverse and different the tables may be, their unity lies in the fact that they are tables. Being a table constitutes its essence, its basic characteristic. Each table is the expression and manifestation of that essence. In the same way, commodities have as many types of value or price as there are commodities, but all these expressions do not represent more than a single value. It follows that scientific abstraction leaves aside the external, non- essential relationships between objects, to shed light on their unity, on their internal, essential connections. Taking into account the surface appearance, it is found that phenomena are modified quickly and are subject to all kinds of fluctuations, and then can reach deduced that there is nothing in them stable and *du r adero*, which are found subordinate to causes purely fortuitous. This is what vulgar Bailey-style economists do . Since they consider that the terms of trade are variable, and as this is obvious on a superficial examination, they present them as the essence and come to the conclusion that

price is value and that the fluctuation of supply and demand is the main cause that determines the value of the goods. Marx opposes this conception and shows that scientific abstraction consists in discovering, behind the external variability of phenomena, what remains stable and durable through all these external modifications and fluctuations. These are always the diverse expressions, variable according to the changes of the concrete conditions, of a single and unique essence. Whatever the fluctuations in the prices of a commodity, they express a value, which is maintained by itself. Marx stresses in the respect only after entered gone, by way of abstraction, the essential unity of commodities as only then properly understood the expression or the manner of expression of the essence. "But, in order to arrive at the expression, we must necessarily find a different unit of the very existence of the commodities." In other words, from the value we can understand the price. But the reverse is not possible because value is the cause of price and price is not the cause of value." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 287-288).

The above, obviously, has a historical foundation: it is not possible to explain values by production prices (or sales prices) because historically the values appear thousands of years before the appearance of production prices and sales prices.

"By going to the investigation of this common thing, Marx shows that use values cannot be that common, identical element, present in different goods, because they are qualitatively different. What characterizes the relationship of change is precisely that disregards the values of use. Therefore, the common element can be found by abstracting from use values, that is, from the particular and the concrete." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 292).

"Here, in Book III is not to make general reflections on this unit, but, on the contrary, describe and expose the concrete forms that spring from the process of

movement of capital, considered as a whole. In his real movement, capital face under these concrete ways in which both the profile of the capital in the direct process of production, as its profile in the circulation process, are nothing but specific and determined · two moments. the manifestations of the Capital, as developed in this book, therefore gradually approaches the form in which they appear on the very surface of society through the mutual action of the various capitals, through competition, and as reflected in consciousness it has b agents itual production. " Thus, in Book I II of *Capital*, Marx takes his study to a level where the concrete appears, in all the diversity of its many determinations, as the unity of the di verse. But from now on it is a concept enriched by the entire epistemological process of ascent from the abstract to the concrete, deepened by the knowledge of the laws of capitalism. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 362) .

" In Book III of *Capital*, where he wants to play in and I thought the concrete picture of capitalist production and circulation taken as a whole, Marx continues to apply rigorously the lifting method from the abstract to the concrete. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 363) .

In fact, with statistical simulations (based on the simulation methodology that is most appropriate for said task -which requires a preliminary study in this regard-) the input-output matrices (which generally respond to the same data structure of section The crusade that Marx uses in Chapter IX of Volume III of *Capital* -where he exposes his theory on prices of production-) can be analyzed dynamically. Obviously, Marx thought about reality dynamically, but at that time there was not a tool robust enough to empirically analyze macroeconomic statistics dynamically, so that, although the method of analysis was dynamic (as has been clearly established) , the statistical tables presented were not dynamic, as verified below.

Source: (Marx, Capital. A Critique of Political Economy, 1894, p. 120) .

In addition, it is also possible to perform econometric analysis of the data of the input-output matrices considering their temporal behavior, *ie* , as panel data, as verified in (Nabi & BA, AN EMPIRICAL METHODOLOGY FOR THE DETERMINATION OF THE MAGNITUDE OF INTERRELATIONS SECTORIALS WITHIN THE SUPPLY-PRODUCT MATRIX FROM THE PRODUCTION AND USES TABLES FOR THE CASE OF THE UNITED STATES 1997-2019, 2021) .

“ The price of production makes the value included in the goods produced appear very confused. The value and the price of production are the two extreme poles of the investigation: the first was discovered as the degree of an abstraction carried very far, very far from the concrete form of phenomena; the second, as the highest degree of reproduction of the concrete. The first is the skeleton, the basis of the second. The category of price of production "clothes" this skeleton, this base, with the flesh and blood of real phenomena in all their living complexity. Between these

two poles there is a long and difficult ascent from the abstract to the concrete, but thanks to this ascent Marx was able to provide a solution to the enigmas that had made the old bourgeois political economy capitulate. Whatever the concrete shells of the value of goodwill, only because the method of elevation from the abstract to the or concrete easily recognize them in all its complex metamorphosis. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 366) .

"(...) " In the course of scientific analysis, the formation of the general profit quota appears having as a starting point the industrial capitals and their concurrence, being later corrected, completed and modified by work of the interposition of commercial capital. In a trajectory of historical development, things happen exactly the opposite . it is the commercial capital and more or less determined primarily prices of goods and values, being in the sphere of circulation which serves as a vehicle for the process reproduction, where a general share of profit is formed. " It is understood that , if Marx allowed himself such "departures" in relation to the fundamental line of historical development, he did not do so without serious reasons for it. The analysis of the latter will show that the logical or analytical method of investigation is not a simple reflection of the historical, but that, as Engels puts it, it is a "rectified" reflection according to the laws of historical reality itself : Whoever ignores of the laws, of the essence of phenomena, it will not be able to give more than a superficial description of its evolution nor will it be able to overcome the level of observation, **even** though it is sometimes penetrating. The reproduction of the historical process in thought loses all its force if it is not based on the knowledge of the motive laws of the historical process. The mystery of primitive accumulation is easily understood if the essence of the capitalist mode of production has already been discovered. But if the latter is unknown, the exposition of the prehistory of capitalism will be limited to an external description of the events of this period. These we will then appear as a Caotic bunching or deprived of any internal logic. It is understood, from this point of view, why Marx here renounced the historical succession of events and began by specifying the

essence of the capitalist mode of production, only to clarify later the mystery of the primitive accumulation of capital. As established before, the essence of capital resides in the exploitation by the capitalist, holder of the means of production, of the workers, deprived of these means. Therefore, so that the capital can appear and there had to be a whole historical period, at the junction of which the property was arranged gradually hand of direct owners and the producers were separated from the property. Such is the essence, the law of the primitive accumulation of capital. The logical study of this problem required that the materials be arranged in an order diametrically opposed to the actual historical development. " (Rosental M., The problems of dialectics in Marx's " CAPITAL ", 1961, pp. 376-377) .

The above is an optimal example of how the *Aufheben* should be carried out in the process of analysis of historical phenomena, *ie* , of how it should be decided which historical facts are discarded from the analysis when proposing *The Concrete Universal* , which is the second stage. of the return trip, that is, the return as such . In addition, it provides an ordering criterion for historical events .

In relation to the allusion previously made to the Hegelian concepts that characterize the process of development of reality (of the "set of things"), that is, to the universal, the particular and the singular (without implying a syllogistic order^[24]), it should be remembered that the Hegelian *Aufheben* does not strictly express *the singular* . This is because, in Hegel's words: "The elimination [Aufheben] and the eliminated (that is, the ideal) represents one of the most important concepts in philosophy, a fundamental determination, which re-presents itself absolutely everywhere, and whose meaning has to be understood in a certain way, and especially distinguished from nothing. What is eliminated does not thereby become nothing. The nothing is the immediate; an eliminated, on the other hand, is a mediate, it is what does not exist, but as a result, it comes out of a being. It therefore has the determination, from which it still proceeds (...) The word *Aufheben* [eliminate] has a double meaning in the [German] language: it means

both the idea of preserving, maintaining, and, at the same time, the to make cease, put an end. Conserving itself already includes the negative aspect in itself, insofar as something is taken from its immediacy and therefore from an open existence, to external actions, in order to maintain it. "In this way, what has been eliminated is at the same time something preserved, which has lost only its immediacy, but which is not thereby annulled." The aforementioned two determinations of the *Aufheben* [eliminate] can be lexicologically adduced as two meanings of this word. But it should be surprising in this respect that a language has reached the point of using one and the same word for two opposite determinations. For speculative thought, it is a joy to find words in a language that have a speculative meaning in themselves; and the German language has many such words. The double meaning of the Latin word *tollere* (made famous by Cicero's joke: *tollendum esse Octavium*, Octavius must be raised-eliminated) does not go that far; the affirmative determination goes only up to the lift. Something is eliminated only as soon as it has come to be in unity with its opposite; in this determination, more exact than, something reflected, can rightly be called a moment. The weight and the distance with respect to a given point, the mechanical moments of it are called in the lever because of the identity of its effect, however, all the other differences that exist between something real, such as a weight, and something ideal, as the pure spatial determination, that is to say the line. See *Encyclopedia of Philosophical Sciences*, 3rd Edition, § 261, note 9. More often still we will be forced to observe that the technical language of philosophy uses Latin expressions for reflected determinations, or because the mother tongue does not have any expression for them, or because even when it has them, as in this case, its expression recalls more the immediate, and the foreign language, on the other hand, more the reflected (...)

The sense and the expression more exact than the being and the they receive nothing since from now on they are moments they have to be presented (later) in the consideration of the determined being, as the unit in which they are conserved. Being is being and nothing is nothing only in its mutual diversity; but in their

truth, in their unity they have disappeared as such determinations and now they are something else. Being and nothing are the same and because of this being the same, they are no longer being and nothing and have a different determination. This unity is now its base; from where they no longer have to go towards the abstract meaning of being and nothing. " (Hegel, 1968, pp. 97-98) .

The process described above can be seen as the widely known "Journey of Return" in Epistemology Marxista, which is going *concrete to the abstract* and return to the concrete dialectically, ie, in the form of *concrete Thought* , which is the equivalent Hegelian of *Being En Sí-Para Sí* , the synthesis between the abstract universal and the particular, what generates the concrete universal , which is what Enrique Dussel exposes in an extended way and which was cited in the first chapter of this research.

This implies that, in Hegel's system, despite its idealism, there was already the concept of discarding certain elements of analysis, which are *the singular* . In turn, it shows how the Hegelian system sought to be a dual analysis system between the sphere of objective reality and the world of ideas, in which objective reality emanated from the world of ideas and, consequently, was determined by said ideal world.

"(...) Ricardo did not see and was unable to finalize the historical originality of the capitalist mode of production, the characteristics that distinguish it from other formations. But if the difference between capitalist commodity production and simple commodity production is not understood, it cannot be deduced correctly, from value, particular forms such as profit, the price of production, income, etc. Ricardo deduction precisely differs from that of Marx in the fact that the special relationship deduce concrete in a straight line starting from general- the value- regardless refractions that suffered this general element in particular historical relationships. Thus, Ricardo deducts the price of production directly from the law of value and because it is lost in insoluble contradictions found that these do s

concepts do not match, and denies in some cases the price of production and in other cases the law of value . " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 409) .

“ From this point of view, it is of great interest to study the analysis of the historical development of the political economy of capitalism, offered by Marx in the History of the theory of surplus value, which constitutes the fourth book of *Capital* .

At first Marx did not intend to make the History of the Theory of Surplus Value a separate, independent part of his work. His intention was to integrate these historical and critical materials into the text of *El Capital itself* . However, he then decided to bring together the historical analysis and criticism of the entire previous political economy in a separate volume, Book IV.

This will present "the history of the theory" -c or mo Engels called the history of the theory of surplus value as a separate book, after the three fundamental theoretical parts of *the Capital* , have a deep sense that self Marx defined in one of his letters to Engels. After indicating that the three books of the theoretical part should be followed by a fourth "historical-literary" book, he writes: " ... it is for me the relatively easier part, since all the problems have been solved in the first three books. , and that the latter is rather the repetition of the former in historical form. " (...)" (Rosental M., The problems of dialectics in Marx's" CAPITAL " , 1961, pp. 421-422) .

“ By discovering, with the help of abstraction, the basis of Marx pulverizes Bailey's own point of view, and shows why value cannot be reduced to a 'relation' between commodities. "The proportion between two things is something common to both and not exclusive to one or the other. The property of a thing is, on the contrary, something intrinsic to itself, although this intrinsic property only manifests itself in its relations with another. The attractive force, for example, is a force inherent in a

certain object, although it can remain latent as long as there is no other object capable of being attracted. " Similarly, value is an intrinsic property of the commodity, and this property exists independently of its relationships with other commodities. This has nothing to do with the fact that, as in the case of the attractive force, it can only manifest itself, in relation to other things, in the course of exchange. These same relationships are one corollary derived from the essence, that is, the value of com or work crystallized. Value is what governs these relationships, and not the other way around. Relationships between commodities can and do change over time and place, while value is their relatively stable and lasting foundation. The relation according to which commodities are exchanged with each other and, consequently, the power that each commodity possesses to buy others, is determined, according to Marx, by its value, and it would be false to say that value is determined by that power, that it is only a consequence. Thus, thanks to the force of abstraction, Marx discovers the objective law that governs commodity production: the law of value. On the surface: exchange relationships perpetually and in motion; in depth: essential relationships, law. But no matter how different the former may be, it is the law of value that governs the exchange relations.

Thanks to abstraction, scientific knowledge has fulfilled its mission: to go beyond external phenomena, which tend to make us believe that exchange relations and their magnitudes are determined by purely fortuitous reasons, and discover their real essence. "The determination of the magnitude of value by labor time is, therefore, the secret behind the apparent oscillations of the relative values of commodities. The discovery of this secret destroys the appearance of the purely chance determination of the magnitudes of the value of the products of labor, but it does not destroy, far from it, their material form. " As indicated by the example of the courage, strength of abstraction helps you discover what it takes behind the contingent, to see that same contingent for example, the incessant prices-

fluctuations is simply a form of manifestation of necessity. " (Rosental M., The problems of dialectics in Marx's " CAPITAL ", 1961, pp. 294-295) .

" Contrary to Ricardo, Marx does not wonder if the rent *absoluta* contradicts or not the law of value. After establishing that the value is the most general and abstract terms of production commercial, including capitalist production, concentrate full attention to its development in the conditions of the modern capitalist production. He showed that, as a result of the unequal organic composition of capital, and due to competition, the value is transformed into the price of production, it acquires the form of the price of production, whose components are the cost of production and the average profit. . The organic composition of capital is lower in agriculture than in industry. But the part of overwork and, consequently, of surplus value, is all the greater, for the same exploitation, the lower the organic composition of capital. In industry competition and the free passage of the capital of a branch of production to another, it makes the different masses of surplus produced according to the level of the organic composition of the capital equalize the gap to half. In agriculture, private ownership of land hinders this equalization. The surplus of surplus value is not distributed in it, therefore, in common, as in the case of the industry. This surplus is what constitutes the absolute rent, paid by the farmer to the landlord.

Consequently, absolute rent finds its source in the difference between the value of the commodities produced by agricultural capital and the price of production. This does not mean that agricultural products are sold above their value, as Ricardo feared. If industrial products are sold, in general, not at their value, but at the price of production, it is no less true that value is what regulates the prices of production, which are a converted form of value. Agricultural products are sold above the price of production. Thus, Marx was not content to confront a particular category as rent *absoluta* with the law of value; He deduced it, developed it from the latter. Ricardo wanted to directly deduce the concrete from the abstract, the

absolute income of the law of value. But since this is something impossible, he was led to deny the real facts in order to preserve the law. And this is the same as transforming a scientific truth into "formal" abstractions. Marx used the laws to explain the concrete reality, without violating at all the facts, but explaining all its complexity, understanding that the only way to explain them as an expression of the law was to rise gradually from the abstract to the concrete. Ricardo's analysis does not know any intermediate link between value and absolute income. Marx undertakes the analysis of income after a long series of investigations relating to other economic categories, which must be taken into account in order to scientifically solve the problem of absolute income. He does not lose sight of any essential link in that chain of gradual ascension from the abstract to the concrete, which leads naturally to the rational explanation of the concrete phenomenon studied. Value, surplus value, profit, average profit, price of production, income: here is how the course of the upward march from the abstract to the concrete could be represented, in a conventional and of course very approximate way in the study of absolute income. Each of the categories of this ascending series expresses, in Marx's analysis, its increasingly complex and concrete economic relations. No link can be understood without the previous one: surplus value without value, profit without surplus value, etc. The existence of absolute income can only be understood if these degrees are progressively scaled, if the changes and transformations suffered by the law of value are taken into account when they come into force in the framework of capitalist relations developed, when we pass, in our investigations of the simplest and most general determinations, to you need artificially through abstractions, the increasingly complex and concrete relations." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 343-345).

"The surplus value is" the common element", "the unit", which is manifested and expressed in multiple forms and which is the only one that can allow understanding capitalist production, not as a chaotic accumulation of coincidences, but as a logical whole. From this it is understood that Marx has assigned similar

importance to his analysis of surplus value, and also to that of profit as a general form, regardless of its concrete and particular forms: industrial profit, commercial profit, land rent, etc. In the concrete course of capitalist production there is neither surplus value in general nor profit in general. There are only its concrete forms. The existence of numerous concrete forms of profit erases their unity, their common origin. It seems that each particular form of profit exists on its own and has its own origins. The real state of affairs is complicated and adulterated, moreover, by the fact that each of these forms of profit, as indicated by Marx, is linked to a particular material factor: for example, the interest money, rent with land, profit with capital.

Marx clearly demonstrated, in the *History of the theory of surplus value*, how the dissociation of surplus value in particular forms cancels the internal, fundamental link between these forms, and makes us forget that they are nothing more than varieties, different forms. of the surplus value created by the exploitation of labor power. "From the moment - writes Marx - in which the surplus value is unfolded in different specific parts attributed to different elements of production that only differ from each other from the material point of view; from the moment in which they appear taking special forms, indifferent the some with respect to the other, independent of each other and governed by different laws, their common unit -the surplus value- and, consequently, the character of this common unit, is increasingly blurred, they no longer appear on the surface of the phenomena, rather, they have to be discovered and explained as if they were true mysteries. And this character of independence has just been outlined by the fact that each of these parts to which we refer is attributed to a specific element as a measure and a special source. of it, the fact that each of the parts of the capital gain is made to appear as a result of a specific cause such as an accident that n special cia: profit as a function of capital, income as a function of land, wages as a function of work. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 307) .

“ The criticism directed by Marx to Smith and Ricardo is briefly reduced to the following: Smith rightly states that the surplus obtained by the entrepreneur over the capital invested - that is, the surplus value - only comes from one source, namely, the capital of invested or in wages. But immediately afterwards, as Marx shows, Smith represents this surplus in the form of profit and does not reduce it to the variable part of capital from which it came, but to all capital. In other words, it considers goodwill, directly, in the form of profit. Marx here clarifies the inability, in Smith, to make abstraction of the external, converted forms, of the surplus value, to study completely their essence; Another vice of the bourgeois economists' method also stands out: their misunderstanding of the relationship between abstract and concrete categories, their inability to move from the abstract to the concrete. This problem will be dealt with in the next chapter.

Therefore , Smith confuses and identifies goodwill and profit; he cannot separate them; he cannot abstract from profit when he studies the main law of capitalist production: the law of the production of surplus value. But let's see where this identification ends. Profit is the capital gain associated with the capital as a whole. If surplus value is identified with profit, it is easy to conclude that capital as a whole is what produces surplus value. Según all appearances, moreover, it seems to be the case in the concrete reality. The more important the capital, the more profit it yields. Smith deduces from this that the profit depends on the capital invested, and that the capitalist therefore has an interest in putting large capital into his business. This conclusion of Smith is worth the following appreciation on the part of Marx: "Which is equivalent to explaining profit, not by the very nature of surplus value, but by the interest of the capitalist. It is an incoherence." (...)" (Rosental M., The problems of dialectics in Marx's" EL CAPITAL ", 1961, pp. 298-299) .

" Thus, the criticism made by Marx to Smith and Ricardo clearly shows that the weakness and failure of Abstracting theoretical constitute an obstacle to a just

solution of the problem of surplus value. As it did to solve the problem of value, Marx using thorough scientific abstraction to raise and resolve the problem of surplus value. After demonstrating that value is crystallized labor and that only living labor creates value, he postulates the premises of a correct solution to the problem of surplus value. If work is what creates value, it follows, logically, that it is the only one that can also create surplus value, and that this comes from the unpaid work of the worker. In a first stage of his study, Marx systematically abstracts from everything that might prevent him from elucidating the problem. In doing this, far from violating or denaturing objective reality, he resorts, on the contrary, to the method that allows one to penetrate more deeply into the hidden essence of phenomena. This method is that of every sage, of every specialist in the natural sciences who, when studying a phenomenon, abstracts from all accidental elements that prevent him from exposing the essence itself. " (Rosental M., *The problems of dialectics in Marx's "CAPITAL"*, 1961, p. 301) .

" Marx does not yet study the sphere of circulation in all its complexity and in all its breadth. He does it knowingly, guided by the laws of knowledge, the laws of scientific abstraction. Circulation does not and cannot suppress the fundamental, essential fact that the surplus value created by the exploited workers is the only source of enrichment for the capitalists. Such is the objective law of capitalism, which determines all its processes, all its development. However, in circulation this law is somewhat modified and complicated; it manifests itself in forms that mask its essence. It is understood then that Marx begins by studying this law in its most naked form, to then show how, as it breaks through, it is modified and acquires new forms without changing its essence at all. " (Rosental M., *The problems of dialectics in Marx's "CAPITAL"*, 1961, p. 302) .

Here Rosental provides the gnoseological key to establish that at a theoretical level [based on two historical facts: 1) the historical fact that the value precedes the production price and the latter the sale price, 2) that pure labor-values (They are

called pure because although they took resources from nature, there was no systematic, organized and conscious processing of them to fulfill the objective of making the production process more efficient and because their appearance was not how they appeared to Elías. bread that the God of Armies sent him, but was the result of previous human work) precede the means of production of simple commercial production] it is valid to abstract from prices when analyzing in a first stage whether the dynamics of global social capital that is, the dynamics of a particular capital (productive branch) or singular (company): " Circulation does not and cannot suppress the fundamental, essential fact that the plu The value created by the exploited workers is the only source of enrichment for the capitalists "

" Only abstracting from these particular forms, concrete, of surplus value and profit, and discovering by generalizing its unity, its essence, could discover its true nature and also the law of their existence and development. This unit is precisely the capital gain. Essentially in profit industry, territorial rent, interest, etc., is not their own special element of each of these particular forms, but the common, single element, which constitutes the particular forms of appropriation of work n or paid of the workers. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 307) .

" In dealing with the problem of surplus value, Marx leaves this fact aside, not considering it essential, because it does nothing but obscure the bottom of the problem. He declares that the transformation of the former into capital must be clarified on the basis of the intrinsic laws of the exchange of commodities, that is, on the basis of the exchange of equivalents. In this sense, he formulates an important methodological observation, saying that "... the creation of capital must necessarily be possible even when the price of commodities is equal to their value. The creation of capital cannot be explained by the divergence between the two. If prices really differ from values, the first thing to do is reduce them to these, that is,

dispense with this circumstance as a fortuitous factor, in order to focus on the phenomenon of the creation of capital based on the exchange of mercan CIAS not be misled in their observation per disturbing secondary circumstances and outside the real process being studied. " This is not just a scientific, methodological procedure; in the concrete reality itself, incessant price fluctuations culminate in an average price that constitutes its internal norm. "(...)" (Rosental M., The problems of dialectics in Marx's "THE CAPITAL", 1961, p. 303) .

" By not taking into account the inevitable process in the course of which the individual" merges "in general, a process that operates in the course of knowledge, one can reach the absurd conclusion that theoretical notions, categories In a word, all scientific abstractions are a fiction, an invention of the human imagination. In writing *Capital* , Marx had to fight, not only against Hegelian idealistic abstractions, but also against the vulgar, positivist contempt and denial of scientific abstractions in knowledge. Whereas Hegel only recognized the importance of abstractions in order to extract them from concrete reality, to adulterate them and present them as the absolute concept, the idea from which the whole universe proceeds, vulgar bourgeois "science" denies scientific abstractions so that knowledge does not penetrate into the essence of phenomena and does not culminate in dangerous conclusions for the existence of capitalism. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, pp. 309-310) .

He writes, quoting Lenin that : "Price is the manifestation of the law of value. Value is the law of prices; in other words, it is the generalized expression of the price phenomenon." (...) " (Rosental M., The problems of dialectics in Marx's" THE CAPITAL ", 1961, p. 311) .

" In doing so, Lenin not only revealed the real meaning of the" great lord skepticism "so fashionable in the" bourgeois social science ", but also demonstrated the high importance, content specific purpose of scientific generalizations. The scientific concept (for example, the concept of value) results from a generalization

that expresses the "mass" element, the "stable" element of singular, concretely existing phenomena. This common element is drawn from things themselves. As it is expressed in the form of scientific concepts, it is much more complex than a phenomenon taken in isolation (for example, the price of a given commodity), and only the adversaries of science can assimilate the generalizations of a scientific theory to ghosts.

Unlike speculative abstractions lists of ideas, Marx's abstractions do not neglect the character and SPECIFY of the objects studied; they include within themselves the richness of the singular and the particular. In Marx, abstraction always expresses the essence of history, the quintessence of the historical conditions in which the object appears, exists, and develops. It tries to shed light, to discover, through the generalization of the individual, the essential and specific element that characterizes the processes studied. General ideas as surplus value, capital, necessary labor and so re working capitalist accumulation, etc., serve to study the specific element that distinguishes the capitalist mode of production from other modes of production. " (Rosental M., The problems of dialectics in Marx's "CAPITAL ", 1961, pp. 311-312) .

" The process of Ricardo's reasoning that led him to deny the absolute rent and differential rent only recognize, is simple. Ricardo identified the value with the price of production. Instead of deducing the latter from the former, it purely and simply adapts the concrete to the abstract. But if the price of production is identified with the value, it becomes necessary, according to Ricardo, to recognize absolute income -which, as is known, does not depend on the degree of fertility of the soil-, to admit that agricultural products are sold at prices higher than value. Hence a contradiction of the law according to which the value of products is determined by the amount of work invested to produce it . " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 342) .

X. SOCIALISM AND COMMUNISM AS HISTORICAL NEEDS

“The law of the passage from the old to the new quality has its roots in the social nature of antagonistic formations. The historical need for a transformation of the mode of production collides with the violent opposition of the ruling class, which holds all power in its hands. Feudal society, for example, gradually sees the birth of new relations of production, of a capitalist nature . The exchange grows and infiltrates every pore of feudalism, the market expands, progresses the social division of labor, there are new classes social capitalists and proletarians -the, etc. The extension of these new relations of production, based on the impulse of the productive forces, undermines feudalism. The objective premises of the replacement of the feudal mode of production by the capitalist mode of production they are already mature. But this change implies the fall of the old ruling classes. the abolition of their privileges and of their political hegemony. These classes do everything possible to preserve their supremacy, using the political power they wield to prevent the realization of a historical necessity. Only a social revolution that overthrows its power can open the way to the free development of the new relations of production. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 140) .

On the technological change prior to the arrival of socialism, Rosental says: “ All these transformations were operated and accumulated gradually, without requiring revolutionary explosions, because they did not modify at all the very nature of the capitalist mode of production. They only signaled the passage from the lower stages of capitalism to its higher stages. " (Rosental M., The problems of dialectics in Marx's "THE CAPITAL", 1961, p. 141) .

"The evolution of bourgeois society prepares the material premises of a qualitatively new regime. But if there is no revolutionary leap, if the state power of the bourgeoisie is not overthrown, the new quality will never appear: socialism. Imperialism is the prelude to socialism, the material basis of which it prepares, but there is not and cannot be a gradual transition from one to the other. Only the socialist revolution meets the conditions for this step. While it shows that the passage from capitalism to socialism is only possible through the socialist revolution, it is also true that Marxism has never imposed on the communists such or such concrete forms for such a "leap." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 142) .

" In the Manifesto of the Communist Party, Marx and Engels Based on the general nature of the antagonistic contradictions of capitalist society, proclaimed in a famous formula, that the Communists do not hide their views and their projects, and openly declare that "their designs can only be carried out by the violent overthrow of the entire existing social order." But they never affirmed that this general formula, which expresses the fundamental trend, the essential line of development, of the transition from capitalism to socialism, exempts the Communists from carefully taking into account the concrete historical situation in each country, and in the entire world. , the traditions, the historical particularities of the evolution of each country, at the time of the transition to socialism. Marxism has always taken into account all the complexity of the historical process, the multiple aspects of the dialectic of the general and the particular. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 142) .

It should be noted that Marxism had a narrower definition of violence (the result of the fact that historical conditions determine the ideology and culture of a time, which within itself encompass language), which equated violence with physical

violence, when it is now widely known that the meaning of violence is more general than the physical meaning that is usually referred to.

"The system of actions - he writes - already involves the antithesis of the traditional way in which the social means of production appear as individual property." For Marx, the appearance of joint-stock companies testifies to a new progress in the social character of production under capitalism, and the imminence of the replacement of capitalism by socialism. " (Rosental M., The problems of dialectics in Marx's "THE CAPITAL", 1961, p. 146) .

"Far from considering these new phenomena as elements of socialism, Marx sees in them a new form of expropriation of small and medium capitalists by big capital, and of the concentration of immense fortunes in the hands of a small number of capitalists. This expropriation, Marx notes, "... is presented in an antagonistic form, as the appropriation of social property by a few, and the credit gives these few individuals the increasingly marked character of mere adventurers. Property exists here under the rule of thumb. form of actions, the movement and transfer of which are therefore simple result of the game in the Stock Exchange, where the small fish are devoured by sharks, and sheep by stock market wolves. "What right-wing socialists today call" elements of socialism, "Marx defines as the source of" ... a new financial aristocracy, of a new class of parasites in the form of of designers, founders of companies and purely nominal directors ", as" ... a whole system of speculation and fraud in the foundation of companies and in the issuance and trading of shares. " There is no need to recall here the current, well-known facts that a small number of major financial groups actually own corporations and use them to extract fabulous profits from them. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 146-147) .

“In Capital establishes that the development of bourgeois society gives birth to a whole layer of industrial and commercial leaders, whose number increases mainly with the founding of joint-stock companies. "The joint-stock companies, which are developed with the credit system, tend to increasingly separate this administrative work, as a function, from the possession of capital, be it their own or borrowed ... " With the evolution of capitalism, the rentiers who they do not participate directly in production, since administrative tasks are in the hands of special personnel. But where right-wing socialists see "elements of socialism" developing within capitalism itself, Marx discerned precisely the opposite. This fact is for him the sign that the capitalist is in evidence as a useless cog in the production process. But this in no way implies that the capitalist production process disappears in its turn, and that the class of capitalist owners evaporates as if by miracle, as the sophisms of the right-wing socialists try to make you believe. This fact only attests, among other things, that capitalism has already expired and that it must be abolished in order to give free course to development. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 148) .

In Capital, Marx formulates his point of view on this problem with perfect clarity: "However, the only historical way by which the contradictions of a historical form of production can be destroyed and transformed is the development of those same contradictions. " (...) " (Rosental M., The problems of dialectics in Marx's" THE CAPITAL ", 1961, p. 153) .

“Marx studies the concrete contradictions of a determined historical formation. Therefore, it is not possible to apply dogmatically in socialist society the conclusions that he draws from his analysis of capitalist society. It will not be forgotten that Marx has expounded in Capital, as Lenin put it, "the dialectic of bourgeois society", which "is nothing more than a particular case of dialectics." It is no less true that in applying the dialectical theory of contradictions to the

examination of the capitalist mode of production, Marx could not fail to establish and elucidate a number of fundamental principles of general philosophical importance. " (Rosental M., *The problems of dialectics in Marx's "CAPITAL"*, 1961, p. 154) .

“ From concrete facts, from living reality, Marx studies in *Capital* the development of contradictions, of their successive metamorphoses, of their reabsorption, as they occur in reality. And as in objective reality, independent of men's consciousness, contradictions are not reconciled, but are overcome in struggle, *Capital* exposes a theory of contradictions, revolutionary among all. (Rosental M., *The problems of dialectics in Marx's "CAPITAL"*, 1961, pp. 158-159) .

“Starting from the Misery of philosophy, Marx had established the fact that in the idealistic dialectic the opposites are finally reconciled and synthesized. His polemic with Proudhon leads him, as he puts it, "to expose Hegel's dialectic, which Proudhon had reduced to the meanest proportions." Marx lays bare the idealistic nature of Hegel's dialectic and shows how the development of "pure reason" - separated from living reality can be realized. "As impersonal reason has no ground outside of it on which it can settle, no object that it can oppose, no subject with which it can combine, it is forced to do somersaults, placing itself in itself, opposing itself and combining with itself: position, opposition, combination. Speaking in Greek we have the thesis, the antithesis, the synthesis. As for those who do not know the Hellenic language, we will tell them the sacramental formula: affirmation, negation, negation of negation. " (Rosental M., *The problems of dialectics in Marx's "CAPITAL "*, 1961, p. 159) .

“That letter dates from 1846. Some years earlier, in his *Environment to the Critique of Hegel's " Philosophy of Law "* , Marx had criticized the Hegelian method of"

mediation ", of reconciling contradictions. In his *Philosophy of Right*, Hegel became, first, concrete contradictions like the people deprived of the right and the power of state determinations of the Idea, to bring them together then by the force in the field of the same idea, to make its synthesis, to create the illusion of its unity. In his opponents do not go into battle against each other, as in reality, but reconciled with each other and interrupt to each other their mutual hostility. As Marx says in the work cited above, his mistake consists in conforming to the appearance of that solution and in giving it for the thing itself. By making state power the concept of the "individual" and of the people that of the "universal", he reduces the mutual relations of the state and the people to a simple logical operation. Nothing is easier than "suppressing" it and "fixing" it in the sphere of pure thought . By exposing the absurdity of such "mediation," Marx shows that it is enough to reject all idealistic speculation and address concrete social contradictions to understand that they are constantly in struggle and only resolved in a thorough struggle. Thus, from this youthful work, Marx formulates the primordial thesis of the materialist dialectic, that of the struggle of opposites, the driving force of development. " (Rosental M., *The problems of dialectics in Marx's "CAPITAL"*, 1961, pp. 161-162) .

It is of fundamental importance to highlight the contradiction between the individual and the universal that Rosental declares, because this is nothing other than the most general form of contradiction between the microstate and the macrostate. On the other hand, specifically the reflection that Rosental makes when expressing that "Nothing is easier than" suppressing it "and" solving it "in the sphere of pure thought" has a "suspicious" resemblance to "Nothing simpler, then, for a Hegelian to identify production and consumption. " (Marx, *Grundrisse*, 2007, p. 14) . What is really suspicious is that he does not even treat the *Grundrisse* as supplementary material in his study of *Capital* , considering that the former are, in Roman Rosdolsky's words , the genesis and structure of the latter.

"It underlines that opposites cannot be" mediated "or reconciled precisely because they are opposites. For the rest, they have no need for such "mediation." Marx takes a position against philosophers and economists who see evil in the harshness of the real opposition and try to impede, as far as it were possible, their conversion into extremes, "... which is nothing more than an outlet of conscience, as well as the incitement to the decision of the combat. " (...) " (Rosental M., The problems of dialectics in Marx's" THE CAPITAL ", 1961, p. 162) .

It seems that here it is necessary to consider that opposites are one thing and antagonistic opposites are another different, since contradictions can be antagonistic or non-antagonistic or, in other words, opposites can also be reconciled without mutual annihilation.

If Marx speaks in the first place of the commodity, this is also due to the fact that this elementary form of the capitalist mode of production comprises, in an embryonic aspect, all the contradictions of capitalism, since only the examination of these contradictions, of its growth and from its development, from its passage from one form to another, it allows us to penetrate the essence of that mode of production. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 165) .

What do you mean by internal contradictions? This is a problem whose scope is perfectly distinguished, since Marx studies, from the internal contradictions, the logic of its development and discovers the objective laws that govern the evolution of capitalist production. The merchandise comprises two opposing factors, the use value and the value, which condition its internal contradiction, since each of them is linked to the other, and implies and at the same time denies the other. In the framework of mercantile production there can be no use value without value, and

vice versa. In order to satisfy the buyer's need , the merchandise must have a use value. But for the one who produces it, it is worth above all as a carrier of value: the use value only interests the producer insofar as it allows the realization of the value contained in the merchandise. The value of the merchandise can only be realized if it acquires the form of its opposite: the use value. In turn, this only makes sense when it includes its opposite: value in general. These opposing are then to the correlative and exclusive time one of the other: attract and repel simultaneously. If nothing else is seen in this relationship than linkage and unity, the real nature of the merchandise is altered (as, on the other hand, that of any other phenomenon), because value and use value are far from being a single v the same thing." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 167) .

“On the other hand, if nothing other than contradiction, repulsion, denial is seen in the relationship of two opposites , and their connection is ignored. from their reciprocal conditioning and penetration, a distorted picture of things is also obtained. What allows us to understand why opposites fight is the fact that the two parties, by denying each other, tend to isolate themselves from each other, despite which they are linked from the inside and cannot exist one without the other. If these opposites had no relation whatsoever and were indifferent to each other, there could be no struggle between them. For example, if the producer of commodities could produce even a single unit of value with no use value, commodity production and exchange would suddenly disappear. But Marx emphasizes that "... the difficulty that stopped us in the first place was that in order to manifest itself as exchange value, as materialized labor, the commodity must be previously alienated as use value, find a commentator , while, at the same time, conversely, its sale as use value implies its existence as exchange value ". The reciprocal linking of the opposites of a whole does not in any way exclude its contradiction and its struggle. The connection and interdependence of opposites

accentuate their opposition. Marx made this point clear in his *Critical History of the Theory of Surplus Value*. In criticizing the trinitarian formula of the vulgar economists, he notes that the various forms of surplus value and the different categories of capitalist production (capital-profit, land-rent, labor-wage) oppose each other as "strange and indifferent, totally different, without contradiction". (...) " (Rosental M., *The problems of dialectics in Marx's "THE CAPITAL"*, 1961, p. 168).

And Marx draws this conclusion, the methodological importance of which is very great: "If there is no relationship between them, there can naturally be no antagonistic relationships." Without internal bonding, there is no antagonism, and therefore there is no conflict between opposites. This is one of the essential theses of the Marxist dialectic. Marx highlights the role of unity, of the correlation of opposites, by analyzing the internal elements of a single process such as buying and selling, the sphere of production and the sphere of circulation under capitalism. These opposites tend to separate more and more from each other, to become autonomous. But no matter how much they try to isolate themselves, they continue to be linked to each other from within, and they constitute a unit. Contradictions and conflicts are becoming more acute because of this. And it is precisely in crises - says Marx - where their unity is manifested, the unity of the disparate, the substantivity that the two factors that complement each other adopt among themselves is destroyed in a violent way. The crisis therefore reveals, the unity of the two phases substantiated one with respect to the other. Without this intrinsic unity between seemingly indifferent factors, crises would not exist. No, the apologist for economics tells us, crises can not precisely occur, because that unity exists. Which, in turn, amounts to simply maintaining that the unity of opposing factors excludes the opposition. " Marx demands that the two closely related elements that this contradiction contains: reciprocal conditioning, but also mutual negation and struggle, be taken into account in the analysis of a

contradiction . He clearly shows, in relation to the same example -the crisis-, that it is necessary to refer to both aspects when he writes: "If [the phases of production and circulation, MRJ] existed separately without forming a unit, it would not be possible they would only form a whole without fissures [that is, without contradiction, MR], neither would all violent rupture such as that of the crisis be possible. This is the imposition by force of unity between substantiated phases, and substantiation, by the form, of phases that substantially constitute a unit. " As can be seen, Marx understands by internal contradiction the relationship between two opposites that condition and deny each other. These two elements determine the struggle of opposites, the motive force of movement, that finally overcomes and solves the contradiction. Because the two opposites that condition each other oppose each other, a struggle develops between them that excludes their conciliation, their neutralization, their "mediation." ". From the moment a contradiction exists objectively, all the speculations of economists and philosophers cannot eliminate them. Its true "elimination", that is to say, its solution, is effected in the course of its movement, of its development. of the fight of the opposites. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 168-170) .

“Marx shows that the decline in the profit rate is an irresistible tendency, but this does not mean that the mass of profit decreases. In absolute form, there is growth, both in constant capital and in variable capital, an increase in the mass of surplus value, and therefore in profit, but in relation to the total growth of the total set of capital, the part of the latter invested in the purchase of living labor it decreases, which implies a decrease in the profit rate. From this follows a profound contradiction: the absolute mass of profit rises, while the share of profit decreases, and this by virtue of a single and unique cause. This contradiction can only be overcome by a new increase in the productivity of labor, by an increase in production that compensates for the progressive decrease in the profit rate, as well

as by the intensification of work. Suppose the rate of profit falls in half. In order for the absolute mass of profit to remain the same, while the intensity of labor remains intact, capital must be doubled. But the capitalist tries not only to maintain the previous amount of profit, but to increase it. Consequently, the capital invested in production must increase faster than the rate of profit falls. A further expansion of production in turn implies a rise in the organic composition of capital and, therefore, a further decline in the profit share. To compensate for this decline, an increase in labor productivity is necessary. Capital is trapped in a vicious circle from which it cannot escape. Continuously increasing production becomes for the capitalist the only means of avoiding ruin, the only lifeline. But this condition of survival is dialectically transformed into its opposite, in a condition that generates a more serious threat of ruin. The impulse of production overcomes for a time the contradiction between the decrease in the profit share and the increase in its mass, but only to make this contradiction reborn from its own ashes, before the capitalist, like a phoenix in much more formidable ways. The contradictions of the capitalist accumulation process reveal the laws of development of antagonistic contradictions in general. As they grow and become severe, they only resolve temporarily. to be reborn on a new and deeper foundation. The existence of the capitalist mode of production is for them a permanent nurturing ground. Therefore, they cannot be definitively solved within the framework of capitalism. But in the course of its growth and deepening the premises of the suppression of its own base are created. The appearance and continuous elimination of the contradictions of capitalist accumulation have the effect of accelerating more and more the concentration and centralization of capital. The small and medium capitalists cannot bear unbridled competition, and are absorbed by the large capitalists who expropriate them. The development of large concentrated production and the centralization of capital, results of the temporary suppression of the contradictions of capitalist accumulation, in turn become the cause of a more rapid accumulation and, consequently, of even deeper contradictions. All

this necessarily determines the mass socialization of production. A high degree of the social division of labor, concentration of immense masses of workers in factories and workshops, gigantic concentration of production; All these factors and others give the production a social character, make the company a single body with parties closely interlinked, requiring centralized management v planned. Precisely, Marx notes, this development imprinted on the productive forces and social labor by the socialization of production makes capitalism create, in spite of itself, the material conditions of a superior form of production. But this new character of production is in flagrant contradiction with the economic and political supremacy of a handful of capitalists. At the time of its full rise, capitalism could promote production, because capitalist relations of production, progressive in its time, favored its development. These relationships fully corresponded to the productive forces. But over time they become obstacles to the flourishing of those forces. The fundamental contradiction of the capitalist mode of production, Between the social character of production and the private capitalist form of appropriation, it engenders unprecedented cataclysms, which periodically shake bourgeois society, like a gigantic earthquake. Marx shows how capital creates in its own movement the limits that it must overcome, at the risk of colliding with new limits, until the very existence of capitalism becomes an absolute obstacle to social evolution. Capital is forced to extend production without limits in order to increase profit; but by the exploitation of the main consumers -the workers and all the workers-, it saw the branch on which the capitalist process is based.

of production. Then a second act necessarily follows, in which it is necessary to dispose of the immense quantities of merchandise and thus realize the surplus value that they contain. Contrary to the bourgeois economists, Marx shows that the conditions of exploitation and those of sale of the commodities it produces are not identical. While the development of production is only limited by the level of the productive forces and, in short, can grow infinitely, on the contrary, the realization

of goods is a function of the consumption capacity of society. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 202-205) .

"The more the productive forces develop, says Marx, the more they come into contradiction with the narrow base on which the relations of consumption rest. This contradiction makes overproduction crises inevitable under capitalism. Marx notes on numerous occasions that the final cause of economic crises is the misery of the working classes, their enslavement in the capitalist regime. The fundamental economic law of capitalism necessarily engenders this contradiction. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 205) .

"Therefore, as capitalism develops, it becomes an obstacle that must be destroyed. "The true limit of capitalist production is capital itself, it is the fact that, in it, capital and its own valorization are those that constitute the starting point and the goal, the motive and the end of production; the that here the production s nly is production for capital, and not, conversely, the means of production, simple means to expand increasingly the structure of the process of life of the society of producers. Hence the limits within which the conservation and valorization of capital-value have to move, which rests on the expropriation and impoverishment of the great masses of producers, constantly collide with the production methods that capital is forced to employ to achieve its aims and tend to the unlimited increase in production, production for production 's sake, to the unconditional development of the forces s ocial productive work. the average employee unconditional development of productive social forces- collide constantly with the end pursued, which is a limited end: the valorization of existing capital. "The suppression of this" perpetual conflict ", thanks to the development of the productive forces and the productivity of labor, creates precisely, within the very heart of bourgeois society, the material premises of the advent of the socialist regime. The social character of production can no longer

subsist under the outdated form of capitalist relations of production. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 209) .

“Starting from the Misery of Philosophy, Marx criticizes the utopians and the petty-bourgeois economists, for not having seen in the misery of the proletariat anything other than misery, without understanding its destructive and revolutionary aspect , which will overthrow the old society . Marx shows that the struggle against the bourgeoisie makes the proletariat a "class for itself", conscious of its radical opposition to the capitalist class. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 210) .

XI. THE CONTRADICTION BETWEEN ABSTRACT WORK AND CONCRETE WORK AND BETWEEN EXCHANGE VALUE AND USE VALUE

“The contradiction between abstract work and concrete work in mercantile production comes from the fundamental contradiction between the particular work of each producer and the whole of social work. Each producer works independently of the others, and in that sense their work has a private character, but also concrete, that is, according to a useful object, which tries to produce a use value. However, due to the social division of labor, the work of each private producer intervenes as a parcel, as a link in the chain of social and total labor. How does private work become social work? Marx shows that in certain historical formations work directly acquires a social character. Thus the primitive commune excludes private labor and producer; the work of each individual appears indirectly as his function as a member of the social organism. In commodity production, the social character of each individual labor can only be expressed indirectly, through the reduction of all concrete forms of labor to a single, totally undifferentiated qualitative form, or, in other words, to abstract labor. . The latter is an investment of work in general, whatever its concrete form, its particular objective. Concrete labor produces use-value, while abstract labor produces value. If different commodities can be exchanged with each other, this is because each one of them, an abstraction made of its use value, contains value, that is to say, incorporated abstract labor. Only in this way indirectly in the highest degree, is the lock expressed jo private and social work. The work that commodities produce is thus full of contradictions. General abstract work takes the form of concrete work; what is invested is abstract work. If private work becomes social work, it is because the concrete differences of the jobs are erased, and because private work acquires the character of human work in general. Abstract work and concrete

work, private work and social work, are correlative, but also different and constitute opposites. These opposites presuppose and deny each other: "... a private work - says Marx - that is directly revealed as the opposite of this, as social work ; a work applied in a concrete way, as its immediate opposite: as abstract general work. . . ."As you see, every aspect of the contradiction can only manifest itself in the form of its opposite: the private work takes the form of social work; concrete work, abstract work. In turn, social work and work generally abstract can only exist in commercial production in the forms of private work v concrete work. And precisely this inevitable internal contradiction is the origin of the double character of the commodity. It is then seen that, by means of a highly abstract analysis of the contradictions of the commodity and of labor, Marx discovers the deep concrete contradictions of commodity production. From that moment he establishes the possibility of the anarchy of production, of a production that seeks the increase of value; the possibility of crises of overproduction, the g Ermen and the beginning of a conflict between the social character of production and the private character of the ex propriation. But there is still nothing but a possibility there, which only becomes reality when it unfolds. The continuation of the analysis shows how the contradictions inherent to merchandise and work evolve and are solved. They cannot stop developing. As the division of labor expands and, on that basis, mercantile production, the social character of labor, the social link between producers, is accentuated. But the latter are private owners who work as isolated individuals, independent of each other. The more the social bond between producers is reinforced, the more the contradiction between private work and social work, between abstract work and concrete work , becomes worse . At a certain stage of commodity production, it becomes a brake on further development. Only the elimination of this contradiction opens the way to development. It is known that it is solved by the splitting of merchandise into merchandise and money, and the value is completely separated from the use

value. " (Rosental M., Problems of dialectics in Marx's "CAPITAL", 1961, pp. 171-173) .

“Marx had to analyze first the contradictions between the commodity and labor, and then between the commodity and the currency, etc., in order to then be able to extract the fundamental contradiction of capitalism: that of the social character of production with the private form of appropriation. Above it has been seen that the commodity, as a product of private labor, can only be expressed by taking the form of its opposite: social labor. But this social substance that the merchandise encloses - the value created by general and abstract labor - can only be manifested and realized in exchange. Isolated, the merchandise is incapable of translating its social character, that is, the fact that it is a product of social labor, an outer envelope that conceals the social relations of the producers. But if the value, that is, the social nature of the commodity, can only be expressed in the relation of one commodity to another, it follows that exchange is possible provided that one of the commodities, as a product of particular and concrete labor , opposes another commodity as an expression of the value of the first, as a crystallization of social work. of abstract general work. Hence the necessary appearance of the coin; therefore, the contradictions of the commodity and labor unfold and are resolved in the process of exchange, in the reciprocal relationship of commodities.

first chapter of the first book of *Capital* , in the section dedicated to the form of value. It shows that the deep contradictions between use value and value, between private work and social work, are far from appearing all at once. They begin with the simple, isolated or accidental form of value, by the simple relationship of two commodities. This form of value corresponds to the period of economic development in which commercial exchange did not yet exist and in which the primitive communes exchanged the surplus of their products at the random of chance encounters. But starting from this accidental exchange, from this simple relationship established between two commodities, there exists, between the value

of use and the value, an essential difference, the beginning of a contradiction, the starting point of a doubling of the commodity. In effect, what intervenes in the exchange are products that no longer have a use value for their producers, and that only have an exchange value. The internal contradiction between use value and value is translated into the external opposition of forms, relative and equivalent of value. What constitutes a unit and a connection in the merchandise. it is divided externally in the form of value: use value and value are distributed between two commodities. one of which acquires relative form and materializes use value. while the other acquires the equivalent form and materializes the value. "Relative form and equivalence form! Are two aspects of the same relationship, inseparable aspects that condition reciprocally, but also at the same time two opposite and antagonistic extremes , the two poles of the same expression of value; these two terms are unfolded constantly between the various commodities related to each other by the expression of value. " In the analysis of the equivalent form Marx sheds light on this contradictory character of the two poles of the expression of value. The first peculiarity of it is that the use value becomes a form of manifestation of its opposite, the value. Merchandise, which must express its own value, cannot do so on its own, but in a relative way, that is, in another commodity that has another form of use, another use-value. In this sense, use value becomes the manifestation of its opposite, value. The second peculiarity of the equivalent form is that concrete work becomes the form of expression of its opposite, that is, of abstract human work. Abstract labor has been used to produce the commodity that the relative form of value acquires in exchange. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 173-175) .

“But this commodity cannot by itself express its own value, and measure the amount of human labor invested in its production. For this, it needs to be opposed to its opposite, that is, to another merchandise. Furthermore, the other merchandise, which serves as the equivalent of the first, has to be the result of

another specific work, for the same reason that the value of a merchandise can only be manifested by its comparison with the use value of another merchandise. . Only the confrontation of commodities arising from different forms of work reveals that they result from the same abstract human labor and, as Marx says, only by this detour does each commodity recognize its soul mate in the other. Through the opposition of the products of different forms of concrete labor the reduction to general abstract labor is effected. Finally, the third peculiarity of the equivalent form is that private work acquires the form of its opposite and becomes work in its directly social form. In the equivalent form, the commodity is, like all other commodities, a product of private labor. But when it is exchanged with another commodity, it testifies to the social nature of the labor employed to produce the latter, that is, the commodity in the relative form of value. As well as being the product of private labor, the equivalent thus serves, in that form, as an immediate expression of social labor. So also in this case, the confrontation of private jobs reduces them to a single social job. Thus, in the relationship of one commodity to another, in the relationship of opposites such as the relative and equivalent forms , the internal contradictions of the commodity and of the labor that produces it find their prior expression . "Therefore," Marx sums up, "the internal antithesis between use value and value that is housed in commodities takes shape in an external antithesis, that is, in the relationship between two commodities, of which one, the one whose value is about expressed, only interests directly as use value, while the other, that in which value is expressed, interests only directly as exchange value. The simple form of value of a commodity is, therefore, the simple form in which it is expressed. it manifests the antithesis between use value and the value enclosed in it. " A from simple, accidental, as the value becomes to find this distinction, the starting point of separation between the value and use value. But it is only a starting point. The two poles - equivalent form and relative form of value - are here closely linked to each other, and exchange value has not yet acquired its independent form. The growth of production and exchange makes the producer

dedicate himself to producing especially for the purpose of exchange. Production acquires an increasingly mercantile character - more and more pronounced, the closer link between individual producers accentuates the contradiction between social work and private work; the simple form of value becomes a brake on the development of commodity production and exchange. The aggravation of the contradiction between use value and value, expression of the fundamental contradiction between private work and social work, seeks and finds a way out: the simple form of value leaves room for the total or developed form. This time it is no longer two commodities that oppose each other, but one commodity that can be exchanged for a whole series of others. This implies a new unfolding of the merchandise and a progressive separation of value from use value. The second way, Marx notes, separates the value of the commodity from its use-value more completely than the first . But the accentuation of the contradictions of work and merchandise does not stop there. The progress of mercantile exchange has the necessary effect of separating a commodity that henceforth plays the role of the general equivalent and that becomes the mirror of the value of all the others. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 175-176) .

“ If the use value of goods is left aside, they no longer retain more than a single property, that of being products of labor. Abstraction helped then to Marx to discover common and essential between the various goods. These are products of work. At the moment we only find an abstraction of the first degree, which has not yet been carried to its completion. Marx then goes further. It neglects the use value of commodities, and considers them as the product of labor. But work is by itself something concrete, existing under multiple aspects: the work of the carpenter, the shoemaker, the metallurgist, etc. It follows that goods are the product of a particular work. Why then is it possible to exchange some goods for others, even if they bear the traces of the concrete and more diverse forms of work? Once again, it is clear that this is because these various forms reveal something identical,

something common. In making abstraction of the specific nature of the work to reach the fusion that the common element is the work in general, work and workforce investment, regardless of their usefulness and their concrete results. The concrete types of labor are all reduced, according to Marx, to identical human labor, to abstract human labor. Commodities are never presented, then, simply as products of labor, but as products of abstract labor. Here we find an abstraction that is already deeper and more complete. No bourgeois economist was able to rise to this level of scientific abstraction, essential for understanding the entire mechanism of commodity production. And yet this abstraction, as all abstraction correct, reflects the essence of the processes vital to specific production own commercial. With regard to this reduction of concrete labor to abstract labor, Marx writes: "This reduction appears as an abstraction, but it is an abstraction that takes place every day in the process of social production. The reduction (*Auflosung*) of all the goods time work is not a larger or the same less real time abstraction conversion into air all organic bodies. In fact work, thus measured by time, it does not appear as the work of different individuals, but that different individuals working appear well as simple bodies work. In other words, the work, as shown in exchange values, could be qualified work human general. This abstraction of the work general human exists in the average work that every average individual in a given society can do; it is a given productive investment of muscles, nerves, brain, etc." This general human work, this work in general, is what is incorporated, what is specified in the merchandise. It is your social substance; he is the one who makes them similar despite all their diversity. Having established this point, Marx states his main conclusion: "That common thing that takes shape in the exchange relation or exchange value of the commodity is, therefore, its value." (...) " (Rosental M., The problems of dialectics in Marx's "EL CAPITAL", 1961, pp. 292-294) .

" The exchange value is not considered here as a category quantitative, except in relation to the qualitative aspect of the goods, in relation to its use value, but what appears in a case like quantitative aspect of objects it can and should be considered, in another case, as its qualitative aspect. Only in certain historical conditions and crystallizes work in the value of the goods, and it is expressed in the form of exchange value. And here there is a deep qualitative characteristic of commodity production, in particular of capitalist production. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 431) .

XII. HISTORICAL- LOGICAL FOUNDATION OF THE GENERAL EQUIVALENT OF GOODS

“Going forward, gold will play this role. In this special merchandise the value is materialized, definitely separated from the value in use; in it, social wealth is expressed, regardless of its concrete forms. The developed form of value becomes the general form and then the monetary form.

The evolution of the forms of value is confused with the doubling, the deepening of the contradiction of these two poles: the relative and the equivalent form. "To the same degree that the form of value in general develops, so does the antithesis between its two poles, between the relative form of value and the equivalent form." Natural fact, since this position is the external manifestation of the internal contradictions of work and goods. According to Marx, the simple form of value already implies this opposition, "but not yet translating." At this point it is still difficult to establish a "polar opposition." Each commodity can adopt, now the relative form, or the equivalent form. The total or developed form of value already fixes that opposition; these two terms of the value equation can no longer be inverted here without transforming the general character of the latter. Finally, the

third form of value, its general form, culminates the separation between the two poles. At this stage a single commodity acquires the universal social form, which allows it to be exchanged for any other commodity. All other commodities are devoid of this immediate social form. They are the product of private labor. But as they constitute, in rigor, links of total social work, demand, from the beginning of the development of the forms of value, that a particular commodity, adequate to attest to its social essence and to become In crystallization, in the incarnation of your social being, you separate yourself from the world of commodities and occupy a separate place. Hence the necessary conclusion of the whole process: the contradictions between use value and value, between concrete labor and abstract labor, have found their solution in the splitting of merchandise into merchandise proper and currency. In a single merchandise, the currency, the contradiction inherent in all merchandise as such is resolved. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, pp. 177-178) .

“Marx criticizes the bourgeois economists who do not understand that the appearance of the currency results from the suppression, not of" technical difficulties ", as they think, but of social contradictions , that of social work and with private work within the mercantile production, that is, in a regime in which private jobs performed independently of one another, but linked together as parts of a whole, are constantly reduced in proportions defined to their common social measure . He expresses the conclusion of his brilliant analysis of the growth and evolution of the contradictions of the commodity in the exchange process as follows : "As it develops and deepens historically, the exchange accentuates the antithesis of use value and value that sleeps in the proper nature of the merchandise. The need for this antithesis to take shape abroad within trade, pushes the value of the merchandise to take on an independent form, and does not give up or rest until it finally achieves it through the unfolding of the merchandise into merchandise and money. For this reason, at the same time as the products of

labor become merchandise, the transformation of merchandise into money takes place. " The analysis of the opposition of value of use and value, of the relative and equivalent forms of the latter. clarifies the problem of the degrees of development of contradictions. Every time he analyzes the opposition of use value and value within itself in the simple, accidental form, Marx specifies, however, that this is only the starting point of the opposition, and that the simple form does not fix still to the latter. In the early historical stages of exchange, the exchanged object does not yet take the form of a value independent of its use value. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 178) .

"Marx attaches extreme importance to the fact that the splitting of merchandise into merchandise and money raises a new deepening of contradictions." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 182) .

"It is understood that this role of accelerator of crises falls on the currency, not by virtue of its material properties, but because it expresses the fundamental contradiction of capitalism, between the social character of production and the private form of appropriation. That is the root cause of economic crises under capitalism. " (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 230) .

"The social character of work, the measure of work, the relationships between men, are manifested in and through things. Like the gods, things reign over men. Value, says Marx, makes each product of labor a mysterious social hieroglyph. Money does not reveal, but conceals the social character of the private jobs of commodity producers. Furthermore, as Marx emphasizes, the discovery of the real essence of commodity production explains, but does not dissipate, the appearance of a thing adopted by the social character of work, because this appearance, like all fetishism of the thing, is born of nature. itself of commodity production. Marx

shows in a penetrating way how the fetishization of the essential connections of the production of surplus value operates, as one passes from the sphere of production to the sphere of circulation, and that surplus value is divided into its particular forms: profit, commercial, income, interest. In the sphere of production, things are still relatively simple: "In the production process there is always more or less marked, the tendency to consider the capital as a means of appropriating the work of others. And it has always implicit, rightly or wrongly, the relationship between the capitalist and the wage laborer." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 257).

"The purchase of some shares by a certain fraction of workers creates the fiction that they participate in the businesses of the companies, and an appearance of equal rights between capitalists and workers. Of course, this appearance in no way reflects the true state of affairs. D. Davis, in Capitalism and its culture, cites interesting figures in relation to the period between the two wars, which show who are the true masters of the joint-stock companies. The 50 percent of American shareholders had only 3 percent of the whole of the share capital, while the 5 percent of the rich - the shareholders owned 70 percent of the capital. It is known that in order to become the owners of a joint-stock company, capitalists do not need to invest too large capital; for this, they only need to dominate them." (Rosental M., The problems of dialectics in Marx's "CAPITAL", 1961, p. 262). It was not possible to locate the bibliographic source that Rosental cites, although what he raises there is not a secret today.

"(...) "As shown by the development of its determinations, money contains within itself the seed and sends value which comes into circulation, maintained during circulation and the same time establishes circulation: that is the capital. This transition is also historical. The antediluvian form of capital is commercial capital, which always displays money. At the same time, true capital arises from this

money, or merchant capital, which takes control of production. " Having discovered the nature of capital, Marx clarifies the procedures for increasing surplus value. Starting from the absolute surplus value, it then goes on to the relative surplus value. Here too he is inspired by the principle that logic reflects the historical development of social production. In actual historical movement, capital began precisely with the method of producing surplus value that Marx called the absolute method of increasing value, that is, by prolonging the working day. Only the development of technology made it possible to increase surplus value by reducing the time required and increasing the worker's overwork. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 374) .

" The vulgar economists believed that the exchange value of the goods was nothing less than its value, and therefore thought that the value of goods was determined by fluctuations in supply and demand. Thus they substituted content for form. The identification of content with form thereby devalued his theory. But it is just as wrong to ignore the importance of the form of value, as bourgeois political economy did too. This underestimation of form was, for example, the work of Ricardo, whom Marx sharply reproached. "But in what specific form is work presented, considered as a unit of merchandise?" This underestimation of the form of value led to the disclosure of the true nature of the currency, which Ricardo considered as an accidental and non-essential form. On the contrary, after having specially analyzed the form of value, Marx shows that the social character of labor manifests itself as a monetary form of existence of commodities and that it cannot take any other form in developed mercantile production. In other words, the study of content, that is, of value, regardless of the forms in which it manifests itself, inevitably also leads to serious errors. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, p. 441) .

" The exchange of commodities collides with the limits of an outdated form of value and demands the advent of a new, superior and more complete form, which

engenders a contradiction between content and form. This contradiction is necessarily resolved with the disappearance of the old form and the advent of "the new form, which better corresponds to the needs of a growing mercantile production and connection. Consequently, the relations, the conversions, the contradictions of the objects, are the mirror of the dialectic of objects and of real processes. Thus it is understood why Lenin defined logic as the theory, not of the external forms of thought, but of the laws of the development of all the concrete content of the universe and knowledge of it.

The categories of the "possible" and of the "real" are directly linked like the preceding ones, and also pass one to the other. These relationships, between logical categories, like the previous ones, are not arbitrary either: they reflect the objective relationships of things. The relations between the possible and the real are analyzed by Marx, in great depth, in the pages of the History of the Theory of Surplus Value devoted to capital accumulation and crises. Economic crises are only a reality in the capitalist regime. But every phenomenon, before asserting itself in life and becoming reality, exists as a possibility. Hence the relationship between the categories of the possible and the real. Thus, in simple commodity production, the division of the commodity exchange process into two independent parts (MD and DM) already contains the possibility of crises. But this possibility, says Marx, is abstract, it is the most abstract form of the crisis, a form that still has no real content and in which the motive that triggers the crises is missing. In Marx's expression, it is the potential crisis. And he indicates that what makes this possibility of crisis a reality "is not contained in the form itself; in it there is only the form that lends itself to a crisis." and for this reason, in simple mercantile production, crises do not become reality. " When Marx says that here there is only form that lends itself to a crisis , " it is clear that this does not mean that there is no way any content that beget. Marx's thought is that this form has not yet received the concrete content that necessarily transforms the possibility of crisis into real crisis. But this form is not itself without foundation, content. It is based on the

contradictions between social work and private work, and therefore has a content, but under the conditions of simple market production it has not yet developed. Just as Marx called crisis "in its first form" to the possibility of crisis that arises from the metamorphosis of the commodity, from the separation of buying and selling, so he calls crisis "in its second form" the possibility of crisis determined by the role of currency as a means of payment.

This possibility is already more concrete than the first, but Marx also considers it abstract, because it cannot yet become reality. Only on the basis of capitalist production and linkage do these two forms receive their real content, the basis that allows them to manifest themselves. Marx examines these two abstract forms of crises under the conditions of capitalism, and shows how and as a consequence of what the possibility of crises becomes reality. In the capitalist regime, the separation of buying and selling, and the operation of money as a means of payment, are carried out under conditions in which there are all the objective bases for such a transformation. " (Rosental M., The problems of dialectics in Marx's" CAPITAL ", 1961, pp. 442-444) .

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[1] "This edition of the Philosophical Dictionary differs considerably from the previous ones; the last one appeared almost ten years ago. During this period there have been great changes in the USSR and in the world. The XX Congress of the CPSU demarcated a new frontier in the life of the Party and of Soviet society. Stalin's cult of personality, which had done very serious damage to the practice of socialist edification and to the development of Marxist theory, was resoundingly and relentlessly criticized. The Party's struggle against the consequences of the cult of personality, to reestablish Leninist principles and norms of life, created conditions conducive to the rise of scientific research in all domains of Marxist-Leninist science. At the XXII Congress of the CPSU the new Party Program was approved. In this program (...) an in-depth analysis (...) of contemporary world development is carried out and the dialectic of such development is revealed. The program poses before Marxist science as a whole, including philosophical science, a series of new problems, the investigation of which will contribute to the subsequent development and realization of the theses of dialectical and historical materialism. Naturally, all that we have just exposed and the new data from the natural sciences, in tumultuous development, demanded an essential reworking of the dictionary and that many and serious deficiencies contained in previous editions be eliminated from it. " (Rosental & Iudin, 1971, p. III) .

[2] The 1959 Spanish version claims to follow the 1955 Moscow edition, after Stalin's death, but prior to the XX Congress of the CPSU (February 1956), where Khrushchev's *secret speech* accelerates the slow de-Stalinization process. However, the orthodox Uruguayan publishing house recognizes, in a "warning", that "events and discussions after that date forced some corrections and clarifications to be made in the aforementioned text and even to write some articles again". In fact, for example, in the entry "Revisionism" the "Declaration of the Meeting of the Representatives of the Communist and Workers' Parties of the Socialist Countries (November 1957)" is mentioned, and so on. And, of course, although the articles in this version contain scattered several dozen quotes from Stalin, the corresponding entry - Iosif Vissarionovich Stalin (*Dzhugashvili*) (1879-1953) - includes several paragraphs that censor "the cult of personality ... and the mistakes made by him in the last period of his life ". (The following versions of the Soviet dictionary simply practice the most rigorous *damnatio memoriae* : the name of Stalin is no longer quoted and the name of Stalin disappears, except in the article "Cult of Personality.") These adjustments may have to do with the fact that that this second version of 1959 does not mention translator or proofreader, while in the first Spanish version of 1945 MB Dalmacio appears as translator from Russian and the third Spanish version of 1965 is signed by Augusto Vidal Roget . With this new version in Spanish, reprinted several times in facsimile, the work gradually established itself as one of the most widely disseminated philosophical dictionaries throughout the world during the 20th century, in different languages and successive revisions. The texts of all articles in the Shorter Philosophical Dictionary were incorporated into the Soviet Dictionary of Philosophy in September 2017. " (Philosophy in Spanish, 2018) .

[3] A height of the principles .

[4] " Danish physicist, one of the creators of quantum theory, winner of the Nobel Prize. Member of the USSR Academy of Sciences since 1929. He finished his studies at the University of Copenhagen, worked in Rutherford's laboratory in Manchester. Around 1913 he created the model

of the hydrogen atom and formulated the correspondence principle. The distinctive feature of Bohr's views is their tendency to give an epistemological foundation to concrete physical problems. To interpret quantum mechanics, he exposed and developed the principle of complementarity, positivist in its epistemological basis, a principle that Bohr considers applicable to the different spheres of knowledge. Overcoming the influence of neopositivism, Bohr, in recent years, came very close to the materialist interpretation of various problems in quantum mechanics and the theory of knowledge. Emphasizing the increasing importance of measuring instruments as means of inquiry and mathematical formalism, as means for the adequate description of microprocesses, Bohr points out that "the extension of the system of concepts provides the appropriate resources ... to extend objective description" (Atomic Physics and Human Knowledge, 1961, pp. 98-99). The objective content of Bohr's investigations confirms the dialectical character of the development of nature, as well as the importance for naturalists of the conscious mastery of the method of materialistic dialectics." (Rosental & Iudin, 1971, pp. 48-49) .

[5] As the reader will surely know, *Heisenberg's uncertainty relation* establishes that "(...) the impossibility that certain pairs of observable and complementary physical quantities are known with arbitrary precision. Succinctly, it states that certain pairs of physical variables, such as the position and momentum (momentum) of a given object, cannot be determined simultaneously and with arbitrary precision in quantum physics." (Wikipedia, 2021) . Regarding the uncertainty relationship, it must be stated that it is a "Thesis, formulated by Heisenberg in 1927, on quantum mechanics about the impossibility of simultaneously determining the position of a particle and its momentum with exactitude. The uncertainty relationships are expressed under the aspect of quantitative relationships between the so-called indeterminacies of conjugate variables; of position and momentum, as well as time and energy. The smaller the indeterminacy of the particle's position, the greater the indeterminacy of its momentum, and vice versa. An analogous relationship exists between the determinations of the moment of time and the energy of a particle. The relation of uncertainty constitutes an objective characteristic of the phenomena of the microcosm related to the corpuscular and wave nature of the same; the "indeterminacies" are inherent to the real state of the microobject and do not denote, in any way, any limit of knowing. Heisenberg and Bohr inferred the uncertainty relation of the influence of the instrument - determining the position of the particle - on the impulse of the latter (for example, of the influence of the hole in the diaphragm through which the electron passes, on the impulse of the electron) and the influence of the instrument determining the momentum of the particle on the position of the latter in space. In a similar way, the action of the instruments that measure time on the energy of the particle is described, and the action of the instruments that measure the energy on the possibility of the exact determination of time. From the relation of uncertainty, philosophical conclusions of a positivist sense have been inferred, such as the denial of the causal conditionality of the states of the elementary particle and the denial of the objectivity of the microcosm, of its independence with respect to cognitive activity (the so-called idealism "instrumental" [Instrument]). The criticism, from materialistic positions, of such idealistic distortions of quantum mechanics, has contributed to clarify the true meaning of said mechanics." (Rosental & Iudin, 1971, p. 398) . Special emphasis should be placed on the fact that "The uncertainty relationship constitutes an objective characteristic of the microcosm phenomena related to their corpuscular and undulatory nature; the "indeterminacies" are inherent to the real state of the microobject and do not denote, in any way, any limit of knowing", on which some issues must be mentioned. The first is to remember that the indeterminacy principle, which states that dynamic variables (such as position, angular momentum, linear momentum, etc.) are defined operationally, that is, in terms relative to the experimental procedure by means of which they are measured said variables, which shows that the intellectual birth of this principle was driven by Heisenberg's philosophical positivism, although this did not mean that he did not discover an objective fact of physical reality; however, not in the sense that he philosophically interpreted it. It shows its philosophical positivism insofar as it is a conception of the sciences in which thegnoseological validity of the methodology used is determined exclusively by the experimental results; in fact, the position will be defined with respect to a certain reference system, defining the

measuring instrument used and the way in which such instrument is used (for example, measuring with a ruler the distance from such point to the references) . However, when the experimental procedures by means of which such variables could be measured are examined, it is verified that in each experiment the measurement will always be disturbed. Indeed, if, for example, we think about what would be the measurement of the position and velocity of an electron, to carry out the measurement (*ie* , to be able to “see” the electron in some way) it is necessary that a photon of light collides with the electron, which is modifying its position and speed; that is, by the very fact of carrying out the measurement, the experimenter modifies the data in some way, introducing an error that is impossible to reduce to zero, no matter how perfect our instruments are; however, it is necessary to mention the fact that if the position of a particle or immaterial point is measured, determining the perturbation generated by the particle in the gravitational field that surrounds it, the error can be reduced to zero. Because every particle is affected in different measures by the fields generated by others.

[6] “The most important result obtained by Gödel lies in the demonstration (1931) that formal systems are incomplete (for example, the arithmetic of natural numbers, which admits formalization): in such systems propositions are always given that, in their spheres, are unprovable and irrefutable. This result, obtained by Gödel, has given rise to an intense investigation about the limiters of formal systems (works by Alonzo Church , S. Kleene, Alfred Tarski, A. Mostowski , P. Nóvikov and others), which has led to formulate the philosophical conclusion of principle about the impossibility of fully formalizing scientific knowledge. Gödel has also worked in the field of metamathematics, constructive logic, the theory of recursive functions, etc. ” (Rosental & Iudin, 1971, p. 205) .

[7] According to (Crupi, 2020) ,

[8] A fifth force has recently been discovered, as verified in (TECH2 NEWS STAFF, 2019) .

[9] The different notations in which this can be expressed are located both in the source in question, and in (DeGroot & Schervish, 2012, p. 60) , (Mittelhammer, 2013, p. 30) and (Feller, 1968, p. 22) .

[10] Different and different questions occur here that will not be dealt with in depth because in themselves they would require an investigation oriented to them (much deeper than this) and the line between Philosophy and Philosophy of Statistics would be blurred; Justifying this in the context of the present investigation requires more resources than those currently available. However, the core of this question can be found by studying the following historical moments: 1) the controversy surrounding Cantor's set theory when it appeared, 2) The appearance of the Zermelo Axiom of Choice and the reaction of mathematicians and philosophers from the time, 3) the Brouwer-Hilbert Controversy, 4) the work of Errett Bishop , 5) the review of a work of infinitesimal calculus of a formalist philosophical spirit that Paul Halmos commissioned Bishop .

[11] For example, the geometric intuition of spaces of infinite dimensions is found in the Euclidean spaces published in the work of Euclid in the time of ancient Greece, but formally these intuitions have disappeared if one speaks, for example, of functors; or, if we speak of spaces in which the metric is not induced by a norm but rather the opposite, etc. However, the intuition is there, efforts like the present investigation seek to bring it to the surface.

[12] “ (...) I do not believe in the absolute truth of Marxism in the sense that some people believe in religious dogmas. I just believe that he is close enough to the truth to make it worthy of betting my life on him against rival theories ” (Haldane, 1945, p. 257) . the Hindu Marxist biologist told to reestablish natural selection as the essential mechanism of evolutionary change (explaining it in terms of the mathematical consequences of Mendelian genetics) born on Guy Fawkes day in 1892; the translation has been carried out by the author of this research and the biographical data were taken from (Wikipedia, 2020) .

[13] An extreme example of this can be seen when Jerzey Neyman and Egon Pearson investigated in a way to generalize the hypothesis test proposed by Ronald Fisher, as verified in (Perezgonzalez, 2015, p. 3) In fact, it is in that context in which the need to redefine rational beliefs in a more intuitive way appears most strongly. It is a rational belief that formed by the human being in his

investigative facet (although they will not necessarily be supported by the scientific officialism) whose foundation is scientific practice and that the logic under which he processes his scientific practice to transform it into experience, into *expert criteria*, be a logic based on studies of approaches to the theoretical framework of the science in question and the scientific practices raised within it. Expert judgment and historical information are fundamental elements in the *meta-analysis* proposed by Ronald Fisher, which is to go far beyond the standard hypothesis test, as indicated in. This is also in line with what was stated by (Gigerenzer, 2004, p. 599), who in this regard says "What is at stake here is the importance of good descriptive and exploratory statistics instead of mechanical hypothesis testing with yes answers. -not. Good descriptive statistics (as opposed to figures without error bars, or unclear error bars, and routine aggregation rather than individual analysis, for example) is necessary and generally sufficient. "

[14] Understand this as the communion of scientific theories with scientific practices.

[15] Taken from (Nabi, Some Reflections on the Negative Binomial Distribution II (A Theoretical and Applied Analysis), 2020) .

[16] The quotation marks are due to the fact that it is not a distribution as such, as will be seen below.

[17] That it is not a probability distribution but a transformation carried out on it to optimize it, where the optimization arises, for this case, as a maximization. This is the fundamental logic of the family of methods that estimate maximum likelihood probabilities and their immediate and mediate derivatives.

[18] Thus, the definition of probabilities outlined here is compatible with the methods used by subjectivists (at any of their levels of radicalization), since such tools obey a set of axioms (elaborated by Kolmogórov, as previously explained), but not with the philosophical vision that orchestrates their scientific spirits.

[19] This research is not about the History of Mathematics, however, with full knowledge of how controversial the previous statement can be in a capitalist class society, the reader should simply refer to (Eremenko, 2020) . There it will be found that Kolmogórov's philosophical vision was dialectical-materialistic. In fact, his definition of Mathematics is the same as Engels in *Dialectics of Nature*, adding Mathematical Logic to it. Emerenko essentially cites three documents. The first and second are the Russian (<http://www.mathnet.ru/links/8cdd5dd921cd8a51ba9423f541a3118c/ppi67.pdf>) and English (<https://link.springer.com/article/10.1134/S0032946006040107>) versions of Kolmogórov's research, whose title translated into Spanish is *Contemporary Controversies on the Nature of Mathematics*, respectively; while the third is an investigation published on Friday, January 22, 2016 by the University of Ulyanovsk in Russia, whose authorship corresponds to professors Baranets and Veryovkin, which can be found on the portal of the website of the institution referred to under the following address:

http://staff.ulsu.ru/baranetz/files/2011/06/baranec_verevkin_koncep_matemat_kolmogorova.pdf. Furthermore, it is well known that Kolmogórov (from his research already referred to), although he was an intuitionist, rejected the extreme views of intuitionism and Hilbert's formalism, which goes hand in hand with the highly generalized dominance of the Soviet Union in the Soviet Union. Mathematical Constructivism, long after Stalin's ideological hunt ended, long after the tyrant's death even. So much so that to date it is the philosophical current that dominates Mathematics in Russia and its former satellite countries and the reader can account for this if he translates the Wikipedia pages in Russian referring to Philosophy of Mathematics, Mathematics and Statistics (be it topics). of Mathematical Statistics or Applied Statistics), but there were also strong constructivist roots before the systematic repression of everything that did not "seem materialist enough" raised in the Soviet Union and initiated and headed by Stalin; even long before constructivism was known as such and it is to remember the first School of Mathematics in Russia was founded by the illustrious mathematician Leonhard Euler in what formed the second most productive in the course

of its investigations (the first occurred in Germany), particularly in Moscow, to later be nurtured by intellectuals and philosophers of the stature of Chebyshev and Lobachevski. Thus, the philosophy that permeated the mathematical spirit in the Soviet Union was not only influenced by dialectical materialism (naturally - normal socialization process - and artificial - systematic repression by moving away from ideology), but also (and much more) long ago) by a long tradition of illustrious mathematicians.

[20] Dudley is a professor emeritus at North Carolina State University (see (North Carolina State University, 2020) and was a visiting professor at Radboud University, the Netherlands, as can be verified in (Radboud University, 2011). is pointed out on the page of the second university, it is famous in academic circles that investigate Medieval and Modern Mathematics, the History of Mathematics (especially ratios and proportions, the work of Jacob Bernoulli -very tailor-made for the case- and the transmission of the mathematics of the Arabs - and its resources in Greece and India - Latin America). His work is so famous that it is one of the aspects that stand out in the commercialization of the work on Amazon, as can be seen in the following link:

https://www.amazon.com/-/es/Jacob-Bernoulli/dp/0801882354/ref=sr_1_2?dchild=1&qid=1601188550&refinements=p_27%3AEdith+Dudley+Sylla&s=books&sr=1-2 .

[21] "The law of large numbers is observed in events that are attributed to pure chance because we do not know their causes or because they are too complicated." (Poisson, 2013, p. 16) . It is restricted in the sense that Poisson's interpretation involves more than the content of the quote made, however, here only that is taken and incorporated into the theoretical body proposed by Maibaum and the same will be done with respect to the concept of objective Bayesian probability. raised by Williamson, as will be seen in the annexes of this research.

[22] The content within the parentheses, as well as these, have been added by the author of this research.

[23] "If there is no general production, there is no general production either. Production is always a particular branch of production, for example, agriculture, livestock, manufacturing, etc., or it represents its totality. " (Marx, Contribution to the Critique of Political Economy, 1989, p. 134) .

[24] In Hegel's system the order of syllogisms has different implications, here we speak of the triad of Hegelian concepts in general.