ECONOMIC REALITY

THE PROBLEM OF THE RELATION BETWEEN ECONOMIC SCIENCE AND REALITY

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1. Introduction: the problem of the relation between economic science and reality.

In the past decades a comprehensive discussion about the nature of economic science has started within the circle of economists. In this it is put forward that among other things current economic science, the so-called neoclassical economics (which is presented in most reference books for education as accumulated economic knowledge), almost completely leaves aside important social problems such as environmental pollution, the arms race, urbanization and the like, and therefore does not really contribute to the improvement of society. The instrumental and conceptual apparatus of the 'mainstream economics' is, according to the critics, unable to scientifically account for a society in which concentrations of power to an important extent influence the action of supply and demand. Economics from the reference books cannot deal with a world in which the gap between rich and poor, strong and weak, is increasing all the time.

Especially on the part of radical Marxist economics, neoclassical economics is seen as a science serving to justify the existing relations of property and production. The neoclassical economists on their part reproach Marxist economics that their explanation of developments in the economic process relies on the philosophical presupposition of historical materialism. In the following we will not enter into de various reproaches of ideological prejudice, rather we want to occupy ourselves more specifically with the problems which in our opinion are hidden behind the political-ideological debate. Here we refer to the problems involved with scientifical knowledge of reality. Attention is given to this in the above mentioned discussion about the nature and task of economic science.

In this article these problems will be our subject, and our approach will be to inquire into the character of the abstractions in economic science. Following the introduction of this reader, we will distinguish a twofold perspective viz. the subjective and the objective perspective of knowing reality.
To be able to surpass the subjective perspective (compare the introduction to this reader), a simplification of reality, as people say, is necessary. The subjective perspective is limited because within this only a small part of reality is seen. Within the objective perspective, by way of a "helicopter view" much more is seen, but in a more global way. This simplification is reached by separating the relevant from the irrelevant with regard to a problem or a field of reality, and leaving aside the irrelevant. This representation immediately raises the question of what criterion is used for this distinction and on what grounds this judgement about a phenomenon being relevant or not is based.

On the basis of this still general description of abstraction it is well imaginable that the opinions about the criterion to be used may differ. It is in this difference of opinion that the relation or connection of economic science with reality is under discussion.

In order to be able to discuss this in an orderly way, a further distinction within the abstraction is helpful. The simplification of reality has various moments.

1) In the first place economists distinguish relevant from irrelevant on the basis of what they consider economics. They consider some phenomena to belong to their field of research, such as enterprises, government receipts and spendings, consumer expenditure, but other phenomena, such as electricity, schizophrenia, grammar or biblical exegesis are left aside. This is not only a matter of division of labour between the various sciences which might as well have been different, but the field of research must possess a certain homogeneity to be able to explain.

2) Another distinction between relevant and irrelevant is made with a view to universality of theories. We find this pursuit of universality in most sciences. Economists as scientists are not interested in for example the explanation of events in a specific enterprise which does not apply to any other enterprise. Nor are they interested in an explanation of the price of gladiolus at the Aalsmeer flower auction in March 1987 which does not say anything about price-making in general. All specific details, which do of course exist, are renounced.

3) A third distinction between relevant and irrelevant is made with a view to the intersubjectivity of theories. A theory should not be valid
only for a person or a certain group of persons, but in principle for everybody. If this principle is not followed, then we are back in the subjective perspective. In this perspective abstraction of all kinds of elements such as renouncing personal preferences and interests of scientists is necessary.

We now see that among economists there is a fight going on about the content of the distinctions between relevant and irrelevant which are made within the various moments of abstraction. What is called irrelevant by one person, could be considered of major importance by someone else. Thereby one must consider that in and from society there is not much understanding for endless discussions about the above mentioned distinction. People expect that there is a large extent of consensus in science about the structure of reality, and people get disappointed if this consensus does not appear to be there. In order to illustrate the fight about relevant vs. irrelevant, we will briefly explain three streams of thought which play a part in the discussion that we mentioned in the beginning, viz. neoclassical economics and the criticism on this by (neo)Marxist and (neo)institutionalist economics.

This discussion will mainly deal with the various viewpoints on what is considered to be economically relevant to the different streams of thought and which phenomena and developments are not included in the analysis.

Now it is possible to classify the discussions among the followers of these streams of thought as a fight among paradigms and thus establish a connection with discussions in the philosophy of science. We think, however, that another approach is possible. For one can associate each of the three streams of thought with a daily subjective experience formulated by a scientist. Anticipating further elaboration the three streams of thought can be connected with three experiences, viz.

a. the neoclassical point of view in connection with the experience of scarcity and the resulting necessity to make a choice;

b. Marxist economics accounting for the phenomenon of exploitation as it manifests itself in a society with capitalist relations of production;

c. institutionalist economics which focusses scientific analysis on the developments of power relations in industrialized and post-industrial societies.
2. Neoclassical economics

In the circle of neoclassical economists it is common practice to define economics, after Robbins, as the science which studies human behaviour as the relation between aims and scarce, alternatively applicable means. This definition comprises the fact that people have classified their given aims or needs in order of urgency. Given that the means to satisfy these needs are scarce, but able to fulfill various needs, the subject logically necessarily has to choose how these means will be used. Therefore economics is also referred to as the science of selection acts, the 'logic of choice', a science dealing with all phenomena which are a consequence of scarcity and the resulting decisions.

This 'logic of choice' holds true for a Robinson Crusoe as well as the central planning authority of a guided national economy, but also for people who can make decisions themselves and in doing so make use of mutual transactions of exchange. As neoclassical economics is especially interested in this last category, one can say without much exaggeration that traditional economics is the science of exchange, the science that studies the size and the varieties of flows of money and goods.

A description of the selection acts does not involve a judgement about the nature and quality of the needs. This is even the explicit aim. Prosperity, as the extent to which needs are fulfilled, is a subjective notion, i.e. determining by the subjective feelings that everyone has in his own way. Besides, prosperity is a formal concept, meaning that it includes everything that is considered to be included. This formal character makes it possible to set up theories mathematically and according to models.

For drawing up theories, however, another datum is needed that is not found in the definition. How will people handle their scarce means? Even though they must necessarily make a choice, it is not certain whether they will apply the means carelessly and wastefully or with precision in order to take full advantage of them. If Robinson Crusoe is lazy, he may regret afterwards the time he slept away, but he may also consider his given aims carefully and with understanding. As long as a large variety of behaviour remains possible, no theory can be set up, or rather, just as many theories are possible. So another presupposition with regard to the behaviour is
required. This presupposition is not given in the definition of the object because the content of the presupposition is not logically necessary. It is concomitant (be it indispensable) and as far as its position is concerned, comparable to the postulate of parallels in the row of axioms in Euclidean geometry. Well, the postulate that is employed by neoclassical economics with respect to behaviour, is that of rational action: 'economic subjects' will maximize (or optimize) the realization of their aims.

The 'mainstream economics' is therefore characterized by formalism. It makes use of a formal system of logical relations without there being a connection with reality. Characteristic to this method then, is both the use of mathematics and the development of an axiomatic deductive analysis. The starting point of this formalism is the building of a model of a system by means of a collection of definitions and postulates. Now by means of certain rules this abstract model has to be connected to concepts having an empiric content.

By way of illustration we take the example of the so-called production function. This function renders the connection between the means of production (labour and capital) and the final product that can be made with these means. The production function sums up in what way a certain final product can be made. The entrepreneur must have knowledge of this function in order to be able to judge in what way he can make the final product. The entrepreneur will be especially interested in the changes in the final product if he is going to vary the means of production. Under certain suppositions one can differentiate this function and then the so-called marginal product arises. By comparing the value of this product with the costs the entrepreneur can make a rational decision. Another example is the derivative of the so-called utility function, that is, the mathematical relation between the amount and the utility of the goods concerned. The border utility, that is, the first derivative of the utility function is of importance in letting the consumer decide rationally. In the context of the neo-classical theory mathematic quantities as it were acquire in the abstract theory the smell of an empiric content.

Fundamentally, the standard economy is based on the assumption that the structure of reality can be understood or at least be approached through the logic structure of calculus, of differential equations or of compilations. As an example of this standard method let us take the theory
of the enterprise. On the basis of postulates the enterprise is described as a theoretical construction, a rational decision-maker who strives to maximize the expected net profits, whereby it is assumed that the entrepreneur has both the information and the capacity to realize this objective.

Once the enterprise has been defined as such, 'lawlike' postulates can be derived. Thus it can be concluded that the entrepreneur keeps on producing until the marginal costs are equal to the marginal yields. These marginal quantities are the first derivatives of the total cost and the total profit functions respectively. When these two marginal quantities are equal, profits are maximal, c.q. losses are minimal. This is fixed in the nature of the model. Enterprising is reduced to an arithmetic method.

Therefore, neoclassical economics does not describe how entrepreneurs act in reality, for this acting is derived from the logic of the model. It is clear that through a change in the ceteris paribus conditions any attack on the side of falsificationists can be parried. Not only can it be parried, but also the value of empiric testing can be denied. After all implicit in neoclassical economics is the conviction that the question of truth concerning the theory is imbedded in the logic of the theory itself.

Neoclassical economics, of which we have outlined the main characteristics in a stylized way, never remained uncontradicted during its development. Within economic science itself its relation with reality has always been debated. To show what points can be at issue, we will discuss some criticisms in which certain social problems are taken seriously.

3. Marxist economics

Marxist criticism of neoclassical economics is still much alive. In the introduction it was pointed out that neoclassical economics a.o. cannot give an explanation for the developments in the relationship between poor and rich countries. Characteristic of the neoclassical outlook is the use of the expression 'developing countries'. The poor countries have remained behind in development compared to the prosperous countries, but it must be possible, also by the application of western technologies, to reach the same level. In this outlook the observation that the difference between rich and poor countries is increasing instead of decreasing, despite all
foreign aid, can only be explained by introducing ad hoc factors which are not given with the theoretical structure. In doing so the distinction between what is economically relevant and irrelevant is becoming doubtful. Exaggeratedly stated one comes to face with the choice that either the development problem is hardly an economic problem, or that the distinction relevant-irrelevant has to be revised. The latter possibility is exactly what Marxist criticism means. This criticism is based on a different distinction of what has and what has not to be counted as economics. Here we will not go into the effect of theories about development problems, but will return to the Marxist system and on the basis of the phenomenon of exploitation we will discuss the nature of the abstractions in Marxist economics.

Marx sees the miserable conditions in which the workers are living and wants to give an economic explanation for this. In economic-theoretical terms the explanation of the wage base is concerned in the framework of the distribution of incomes. In doing so Marx is especially opposed to two opinions. The first opinion states that the economic system is such that in the longer term the price of labour will not exceed the barren minimal subsistence level. Apart from temporary exceptions, workers will not receive more than necessary for the reproduction of themselves (from day to day, from generation to generation). This is considered a law pattern in the economic process and for this reason economic science in the last century has been called a 'dismal science'. However, according to the other opinion of John Stuart Mill, distribution of incomes is a matter of institutional modelling. The distribution of incomes can be changed by political decisions. Thus it is no longer only an economic problem. This opinion is still current now. In the economic process wages and profits come about; if we have an ethical objection to this outcome, if there is no acceptable distribution of wages, a redistribution can be realized by means of politics (worldwide: developmental aid). Marx opposes to both positions, because therein the minimal wage is merely one of the results of the economic process.

In his opinion, however, exploitation is the pre-eminent characteristic of the economic state of affairs and therefore an analysis has to start with this phenomenon.
In the introduction of the collection of essays (section 3.5.) it is stated that 'exploitation' implies a normative judgement, but also that with the concept can be referred to a quality of reality. Yet the normative seems to be a reduction of the objective of science. On the other hand it can be pleaded that only by virtue of normative insights can phenomena be noticed about which consequently the drawing up of a theory can be induced, stating why these phenomena occur. In this way, objective and subjective do not oppose each other, but belong together. In classical economics the prosperity of the nation is the principle of the analysis, Marx chooses a different one. But although objective and subjective may not simply be placed opposite one another, they are not on the other hand in a direct line with each other. The concept 'exploitation' does refer to a characteristic in reality, but this characteristic has thereby not yet been economically and theoretically described, so that exploitation can be explained.

The step Marx takes from the subjective to the objective perspective, is that from the concept of exploitation to the concept of surplus value. This concept is determined by the description of the economic system as a system of capitalist relations of production. Characteristic of this system is, in the first place, that production takes place for the market (the system produces exchange values) and secondly that labour in the form of manpower also has an exchange value. The formation of surplus value is then explained as follows. The worker receives in exchange for his labour power the equal value in wages, i.e., as much as is necessary to reproduce his labour power. However, the application of this labour power in production by the capitalist yields more value than the wages he has to pay. The capitalist appropriates this surplus value by virtue of the employment relation the worker has with him. In this way Marx shows that exploitation structurally belongs to the economic system. A politically and morally inspired redistribution ('higher wages and more pension') does not solve anything in principal, it is the treatment of symptoms. Those who said that minimal wages necessarily are the result of the process, are right; but they do not see that it is the law of a structure. This does not say (and that is the core of the fight against capitalist relations) that this structure will always have to be there. The so-called economic laws of nature are laws appearing as capitalist laws.
So Marxist criticism of (neo)classical economics starts with criticism of the distinction of relevant and irrelevant within the economic point of view. It is a fight about the question of how the central problem of the economy is to be defined. Neoclassical economics is the science of the society of exchange. (Neo)Marxist economics is the science of the development of capitalist relations. Differences of opinion about this have had far-reaching consequences for the development of theories. The explanations of such phenomena as money and credit, international trade, market trends and crises, are becoming coloured by them. In many cases Marxist explanations exclude (neo)classical explanations.

In the first mentioned moment of abstraction, electricity and grammar were mentioned as examples of phenomena irrelevant to economists. There will be no difference of opinion about this. However, we have seen now that there are also phenomena, such as the distribution of income, of which it is not clear to everyone in the same way whether they are economically relevant, and if so, how. Can a difference of opinion about this be settled methodically?

Marx made some well-known predictions about the further development of capitalism. The general rate of profit would decrease, the Verelendung of the proletariat would increase, a concentration of power within the capitalist class would occur. Generally speaking people hold the view that these predictions have not come true. Is that a reason to decide that Marx' principle is unsound? Certainly not to Marxists. They rather conclude that the theory about capitalism can still be improved, without giving up the principle. They also have every right to do so, because neoclassical economics does not exactly have a splendid service of records as far as correctness of predictions is concerned.

Criticism of logical consistency seems to be more serious. To be able to explain exploitation c.q. the surplus value, Marx uses the theory of labour value. This implies that goods do not only have a price in money, but also an (economic) value in terms of working hours spent in their production. At a certain moment in his analysis he is faced with a transformation problem: the conversion of labour value in prices. The way Marx executes this conversion, however, is inconsistent, because in doing so he has to use prices, whereas this very conversion should explain the prices. About this
question an extensive and rather technical discussion has been carried on in the literature. 2) What is discussed there, can also be said in philosophic language. Marx adopted dialectics form Hegel and with this method he analyzes the economic process. The criticism of his analysis is now that with this method he does try to trace the price of exchange as a phenomenon back to the labour value, as its nature, but with the same method does not succeed in indicating why the nature has precisely this manifestation and not another one. Therefore, the necessary connection between the two is not yet certain. This criticism of the consistency has serious consequences. The way in which Marx describes exploitation as a quality of economic reality is so closely connected with his method that criticism of this method is also criticism of this description.

In this way objections can be raised against Marx' point of departure. But must one on the basis of these objections decide to enthrone the neoclassical doctrine as the only legitimate explanation? In the discussion already mentioned it has become quite clear that one can also have serious logical objections to the neoclassical theory. 3) We do not intend to work out these problems any further. What we want to put forward here, is that in the difference between neoclassical and Marxist economics, evidently no fixed or objective point can be found to choose between the two.

4. Institutionalist economics.

In neoclassical thinking Robbins' definition determines the distinction between relevant and irrelevant phenomena. Summarized briefly neoclassical economics is concerned with an explanation of the phenomenon of the allocation of scarce resources. This allocation is an exchange between individuals and their given supplies of resources, thereby increasing the use, that is the satisfaction of needs that can be derived from these supplies. With the help of mathematical equations the allocation can be formulated and so the subject can calculate his maximum or minimum. It is not denied by (neo)institutionalists that allocation of scarce resources is an interesting phenomenon to economists, but in their opinion the entire field of studies is much more embracing. In practice the allocation problem is solved institutionally rather than logically. The institutional side is the real problem. In the words of one of the institutionalists: "Efficient
use of scarce means is not so much the problem as is something else: forming a consensus regarding what we want to do and implementing institutional changes which are required by this consensus." 4)

To a neoclassical economist this statement would be difficult to understand: 'what we want to do' is no more than anyone else wants, for everyone is free to set up his goals. In as far as this requires the scarce means of others, a consensus must indeed be found but that is no more than agreeing with someone about the price in an exchange transaction. It is not really clear to the neo-classic in what respect institutional changes are needed here. Institutions are a given fact in respect of the allocation problem. Thereby one considers in the first place the non-economic institutions, for instance to be summarized as 'the political and legal organization of the social environment'. 5) Next the market could also be called an institution as the place the allocation occurs and this too is a given fact, for the allocation problem with which neoclassical economics occupies itself, can be reformulated as follows: how is it possible that a decentralized, individualistic system, working on the basis of self-interest, has a coordinated outcome (whereby this outcome has in advance been defined as balance).

If the institutionalist wants to criticize this, then that is the result of an experience of reality. Just as for Marx exploitation was the experience of a phenomenon which he thought could not be ignored by economic science, so is it an experience for the institutionalist that in present reality there is no individualistic system, but that for instance large enterprises leave their marks on the course of the economic process and its developments leave their marks on 'the political and legal organization of the social environment'. By virtue of its determination of object, neoclassical economics can only place economic power as power on the market. Economic power is working itself out in supply and demand on the market and manifests itself as influence on the price and quantity. Outside the system of supply and demand neoclassical economics does not know what to do with economic power. But the experience of economic power is broader. It also comprises the influence on political decisions and on the formation of preferences and values. Economic science must explain this as well. The parallel with Marx can be continued. We saw that Marx not only opposes positioning exploitation in the non-economic sphere, but also the
analysis of exploitation as an inevitable result of the economic process. The point is that on the basis of the economic explanation a strategy can be formulated to fight against exploitation. A similar attitude is found among the institutionalists. Economic science explains developments and has to formulate strategies to solve social problems, such as for instance underdevelopment and environmental pollution, by means of institutional changes. 6)

How is it that this subjective experience of economic power is given conceptual form in the objective perspective? If institutions are subject to change, the economic analysis should not begin with a presupposition with regard to institutions, but the description should be such that very different institutional designs are possible. The following is such a description: the economy (in the sense of a field of life) is the social organization of the culturally determined whole of regulations concerning the relation between man and nature. In other words, the object of economic science consists of all the human relations wherein the material relations of men and nature are institutionalized. These material relations and the human relations connected to them are the way in which a group makes a living and is able to survive. The exchange economy, with which neoclassical economics in fact occupies itself, is but one of the possible institutional designs. The institutionalists do not deny that such an exchange economy can exist, or more than that, has existed and that neoclassical economics has been of current interest for a long time. But this topicality has been lost, because the exchange economy has been involved in a process of constant change.

We see that the idea of the economic process being organized forms the key to the analysis of this process, much as for Marx the key was exploitation. In order to see how far-reaching are the consequences of the formation of a theory and methodology, we will look into the extent to which the Marxist and neoclassical approaches are excluded by institutionalism.

5. Comparative analysis

a. With respect to Marxism it can be noted that therein an extraordinarily dominant importance is ascribed to the institution of private property.
With the help of private property of capital (goods) the process of exploitation is explained. Apart from this no more is needed than a capitalist striving for maximal profit, full competition among capitalists and a labour market. For the institutionalists this is too limited. What is the meaning of Marxist theory in a world in which for instance the dominating institution is the 'giant corporation', led by managers instead of by the shareholders-owners in which the latter generally speaking obtain merely a limited dividend. Marxism has not changed the institutional framework which is also assumed in classical economics, but only attached different consequences to it. Therefore Marxism does not have a real institutionalist approach.

But could it then be said that institutionalism is more general than Marxism, because institutionalists make room for the possibility of the social development of private property, which Marx speaks of? An affirmative answer implies that in principle the theory of Marxism is accepted, be it with a limited validity. This is not the case, however. The theory of labour value, essential for Marx's explanation of surplus value, is not adopted. This is significant, for it implies that institutions according to institutionalists function in a different manner than with Marx. The institutionalists are more on a line with the neo-classical theory of values, when they describe value very generally (thus not only economically) as a judgement by an individual or an institution as to what is desirable or highly appreciated. Institutions and organizations have more or less power in society and can in this way try to assert their value judgements. The image of the 19th century Western economies shows that those possessing capital have great power because capital used to be the most scarce production factor. The value judgements of the capitalists determine to a great extent the social consensus. This concerns not only the relations with the workers, but just as much what will be produced. For Marx, however, institutions are only interesting from the viewpoint of the influence on the relation of the worker with his product. For the institutionalists this viewpoint does not really exist; for them, all that matters is that social changes are accompanied by as few problems as possible (with respect to value judgements). The difference between the two approaches is seen most clearly in the fact that for Marx, capital is a social relation, whereas the institutionalists refer to capital as a
production factor, thus as a thing, and restrict the institutional to the
behaviour of capitalists and their organizations. It is indeed clear that
without a substantial impairment of the Marxist conceptual apparatus no
translation is possible of Marxist into institutional economics.

b. During the past ten years several attempts have been made in
neoclassical economics to involve the explanation of the institutions in
the formation of theories and to no longer leave it aside as being
irrelevant to the field of research. On this point it can become clear
whether the institutionalist approach has indeed its own character, or
whether it could be reconciled with neoclassical economics. Within
neoclassical economics there are two methods to be distinguished in this
respect. 7) The first method is that of the so-called game theory. In this
type it is accepted that individuals have different strategic
possibilities to act, their acting is not the determined result of a
consideration of value. These strategic possibilities are present in
situations in which the individual actions could provoke reactions by
others which have a substantial influence on the situation of the one
considering an action (situations which therefore differ from the situation
of full competition). One of the best known examples of this is the
prisoner's dilemma. The institutional element is now that conflict or co-
operation should be calculated as part of the solution of the game. It
would be going too far to give a detailed elaboration here, but we can
state briefly one of the most important institutionalist points of
criticism.

The game theory shows that actors in the field of strategic
possibilities can be mistaken in their choice of action. By that is meant
that for example in the prisoner's dilemma the actors can rationally make a
choice that will not lead to an optimum. It is crucial that this mistake is
defined with respect to the optimum. For the optimum is nothing more than
what the neoclassical theory already defined as the result of the process
of exchange, without including institutions. In other words, the
institutions are strictly speaking merely complications. The science which
includes these complications in the modelling analysis does not arrive at a
substantially different approach of the phenomena of the modern society of
exchange.
The second way in neoclassical economics to involve the formation and change of institutions in the explanation of the theory, is the following: Institutions belong to the delimitations within which an individual maximizes his result. But it does involve a time aspect. The fact of being given and thereby the delimiting quality only holds true for the short term. Eventually all that can be changed will in fact change as a result of individual maximizing decisions. If the period of time taken in the analysis is long enough, an economic explanation can be given of for instance, the transition from feudalism to capitalism or of the rise of the limited liability company.

Against this the institutionalists bring up among other things criticism of inconsistency. On the one hand it is attempted to change all variables that where initially explaining (therefore exogenous) into variables that need to be explained, on the other hand, the maximizing behaviour, which by definition is only thinkable with given (exogenous) limitations is maintained for the definitive explanation. The criticism could be put in still another way, viz. that people keep on thinking that functioning markets remain in existance. Here again institutions are no more than incidental complications. The institutionalist approach does not go along with this and as a result the maximizing problem is rejected as characterization of the economic problem.

c. Is institutionalism now in a better position than neoclassical economics? Much emphasis is put on the economy as an open system, in constant interaction with the surroundings, that is to say that the economy is a subsystem, a part of the embracing social system. As a result of the interactions the parts of the system among themselves and with the whole, the institutionalists do not have explanatory exogenous variables at their disposal either.

For a long time it has been a weakness of institutionalism that the methodology remained vague compared to that of neoclassical economics. Recently an attempt was made to formulate the institutionalist methodology more accurately by characterizing explanation as the formation of a 'pattern model'. 8) In short it boils down to the following. By means of participating observation it is tried to find returning themes in a certain society, such as accepted practices, standards, production methods and
recognized social goals. These themes emphasize and clarify both the total character and the individuality of the investigated system. These themes are eventually interwoven into a network or pattern, forming the 'pattern model'. Such a model has to be continually revised, because new data become available and because the system itself evolves. The aim of the model forming is not to be able to make predictions, but to understand reality.

This method raises many more questions concerning the possibility of testing the patterns. It also has a strongly inductivist streak and the question is whether the attention for the uniqueness of each system on the one hand can permanently go together with on the other hand the effort to develop from various patterns concepts which are the elements of a 'cross-cultural economics'.

6. Conclusion

At the end of section 1 we mentioned the term paradigm. The short discussion of neoclassical, Marxist and institutionalist economics can easily be understood as the description of three paradigms, all the more because they evidently exclude one another in character. The analyses in the philosophy of science concerning paradigms has led to the conclusion that no rationality by which a choice among paradigms can be made is constantly available. As far as economic science is concerned, however, we do not want to confine ourselves to this conclusion.

Concepts such as paradigms, research programs and the like have been developed as a result of scientific-philosophical and scientific-historical research of natural sciences. We do not deny that these concepts can also be useful in a reflection on economic science. Nevertheless it is notable that the situation in economics is different.

Marxist economics, for example, has arisen as a result of a major social problem, of which few (also non-Marxists) will deny that it has at the least an economic aspect. However, one can only speak of a difference in paradigm if one group of economists thinks that something has to change in the economic process itself to solve this social problem, while the other group thinks that factors outside the economic process are decisive for the solution. Both the view that the problem has an economic cause, and the wish to solve this problem, together result in a specific conceptualization
of what is intuitively understood by economics. The situation in economics can be typified more generally by using an image from the introduction of this reader in a different way. By means of scientific research and development of theories we try to discover where the paths lie in the park of economics. In this image it goes without saying that we can only enter the park through a specific entrance. These entrances are different: in classical economics it is the inquiry into prosperity of the nation, for Marx it is the inquiry into the abolition of exploitation, for neoclassics it is the inquiry into the optimal adaptation of the individual to the world, for institutionalists it is the inquiry into the change of institutions. The odd thing is now that research begun at different entrances, provides different maps of the paths; sometimes this goes on so far that there seem to be different parks. For, we saw that a synthesis between different streams of thought is highly problematic.

But why is this so strange? Because by our intuition it is not necessary that different approaches should have to exclude one another. The practical experiences of the economy are not so far apart that we are not faced with scarcity and having to choose, and with institutionalized relations of power and exploitation. Therefore we stated in section 1 that in society, the practical economic situation, there is not much understanding for the theoretical discussions about paradigmatic differences. This practical perception also implies that the problem of objectivity in economic science cannot be how we can or must choose between paradigms at hand. If this choice were the primary problem, then a cohesion in economic experience would in fact be denied. Therefore the problem is rather how we can theoretically do this cohesion justice, in other words how we can analyze various economic-social phenomena in a theory, without introducing a ranking order in advance. So the point is not to find a method by which we can make a rational choice between the paradigms, but to relativize the sharp dividing. The present article is not the place to solve the stated problem. But we can in conclusion say something about the cause of the discussed variety of paradigms and thereby something about the direction in which a solution might be sought. When discussing Marxist and institutionalist economics we saw that a step was made from experience in the subjective perspective to a theoretical conceptualization in the objective perspective. This conceptualization is in part led by the scheme
of explanation functioning in the objective perspective. The remarkable thing is now that in spite of all differences as regards content among the streams of thought mentioned, the structure of the schemes of explanation is the same and this also holds true for the neoclassical economics. This structure implies that the economic process is explained or justified in terms of a non-economic process behind it. This process lying behind or deeper determines the laws and the cohesion in the economy. When we briefly typify the three streams of thought in this respect, then the underlying process for neoclassical economics is the subjective, psychic utility experience of individuals or, if that is too psychological, the rational action itself. For Marxist economics it is the development of productive forces, unstoppable throughout history and for institutionalist economics, related to Marxism, it is the evolutionary development of technology.

At the point of the outlooks on the underlying process the various streams of thought fundamentally differ from one another. The cause of this is the structure of the explanation scheme. This scheme forces us at the chosen entrance into the economic process to inquire about a non-economic underlying process at the same time. These underlying processes do not necessarily have to show with respect to one another a homogeneity by which they are mutually combinable. Along this road one can think of even more paradigms in economics. Would it therefore not rather be commendable to revise the structure of the current explanation scheme and inquire about the forces which belong to the economic process?
Notes


2. See e.g. W. van Drimmelen, Meerwaarde en winst. Over de arbeidswaardeleer van Marx als grondslag voor zijn verklaring van de winst, Deift 1976.


4. W. Gordon, Institutional economics. The changing system, Austin/London 1980, p. 6: "Efficient deployment of scarce resources is not so much the problem as is something else--forming a consensus as to what we want to do and effect the institutional changes appropriate to that consensus."

5. Delfgaauw

6. Gordon, a.w., p. 150: "The chief duties of the economist should be working for the changes in the society seems desirable and correcting undesirable situations.

7. The following is derived from....


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