The unity of opposites

Part four of Edward Conze's explanation of dialectical materialism*

THE third law or rule of scientific method is that opposites are always united, that they are in "unity" or in "union", whichever word we may prefer. For some time this statement remains a puzzle, even for the assiduous and intelligent student. He either fails to find any opposites at all, or he regards the attempt to state their unity as some kind of intellectual trickery. It is only quite gradually that he sees how fertile the idea is. It takes some practice to be able to discern the many opposites which we encounter in practically any event or process of the world which surrounds us.

The most important reason for this delay is the lack of a general definition of the word "opposites". The forms and manifestations of opposition are so many and so varied that it has so far been impossible to give a really satisfactory definition. All normally intelligent persons, however, recognise opposites when they meet them.

Everybody who tries to give a generally valid definition of a chair will meet with the same difficulties of definition. In spite of that, we generally recognise a chair as soon as we see it.

The "unity" of opposites has a positive and a negative significance. Negatively, we must not see opposites in a rigid, dead and unconnected opposition. The mere recognition of each of two opposites as separate things is insufficient for the understanding of concrete reality. We lay stress upon their being connected — of their belonging together.

Positively, the term "unity" or "union" can mean quite a number of relations between opposites. We cannot discuss all of them here. We shall restrict our discussion to the most important and frequent form of unity between opposites. In a general form it can be stated thus: A and B are two opposites. Therefore, whenever we find A we must also meet B in the same process or event. In other words, opposites are inseparably linked together.

This statement is the result of a great number of observations, or "inductions". I know of no general reason why opposites always must be united. The study of scientific method is not yet advanced enough to give us a proof of this kind. We can, however, say that opposites have always been found to be united in all those cases which have so far been studied. This law is only a guide for concrete investigations. The main point is that it works. But the reader must be warned against using the law as a mystical formula. It tells us something about reality only when its use is combined with an exact knowledge of the facts.

Mahomet and the mountain

SCIENCE abounds in instances of a "unity of opposites". If they do not want to be regarded as victims of the state of mind which produced Madame Blavatsky and Mary Baker Eddy, dialectical materialists are faced with the urgent task of connecting their theories with the findings of science. Some of them have so long been absorbed in quoting their classical texts, that they have had but little time left to apply the dialectical method to researches into the laws and phenomena of nature. Nevertheless, they may rejoice that science, the more it proceeds the more it stumbles across just that behaviour of things which dialectical materialism might lead us to expect. By the mere observation of facts, without any knowledge of the dialectical method, scientists in many cases discovered a "unity of opposites". In this case Mahomet did not come to the mountain. But the mountain actually came to the (dialectical) prophet.

"If we want to abolish capitalism, we have just as much to take into account its forces which make for no change, as the forces which make for its movement, development and change."

Let us make that clear, first, by some simple examples. The most simple examples are the opposites which are called "polar" opposites. The negative electrical pole, for example, cannot exist without the simultaneous presence of the positive electrical pole. Where we have a positive nucleus and negative electrons; the mutual attraction between the opposing charges holds them together. This "unity of opposites" is therefore found in the core of all material things and events.

We should, however, be aware of the fact that, during recent years, things have been shown to be more complicated than was ever thought. Apart from the negatively charged electrons which revolve around a positively charged nucleus at the centre of the atom, physicists have discovered two more ultimate particles in the atom. In 1931, they discovered the "neutron" which has no electrical charge, which is electrically neutral. Somewhat later they found the "positive electron" or "positron". At the time when these lines are written the relationship between these four constituents of atomic structure is still being investigated.

I have had some "dialecticians" assure me that they did not know what the structure of the atom would turn out to be, but that they had not the shadow of a doubt that it would be found to be "dialectical". This is not the language of science, but of religion. The revelations of God are beyond correction by later scientific discoveries. We should beware of putting the dialectical method on the same level with the revelations of God. There is nothing ultimate about scientific theories, although so many people are inclined to become the dupes of the latest fashion. Science is changing, and it must be studied in its historical change. Too frequently do we petrify the science of yesterday into the dogma of tomorrow. Science demands an elastic and critical spirit.

Further examples

BOTH attraction and repulsion are necessary properties of matter. Each attraction in one place is necessarily compensated for by a corresponding repulsion in another place. Movement is the interaction and matter is the union of both.

The sex differences in organic nature are not so clear-cut as they appear at first sight. An animal or a person appears to be either male or female. But the distinction between the two is not at all rigid. No organism can be male without having also female characteristics and vice versa. Both are simultaneously present. Scientists speak of "bisexuality". Each individual is a union of male and female, although one of the two opposites is in most cases (except hermaphrodites) the more strongly developed. A "pure" male or a pure female exists only in our ideas. Reality knows of nothing but intermediate stages between them.

The anatomical study of the sex organs has revealed the fact that in each human being both genital systems, male and female, are always found together. But in most cases the one is developed, the other rudimentary and only in traces. The male sex organs show rudimentary vestiges of the female ones and vice versa.

Darwin remarks that "in many, probably in all cases, the secondary characters of each sex lie dormant or latent in the opposite sex, ready to be evolved under peculiar circumstances." If the ovary of hens is extirpated or degenerates owing to tuberculosis or old age, the hens often develop into

* This explanation of dialectical materialism was written in the mid-'30s. We have left in Conze's illustrations from what was then the latest science — the references to the "neutron" and "positron" for example — because they still serve his purpose of expounding and discussing scientific method.

cocks and acquire a spur and male plumage. Recently, similar observations have been made concerning turkeys, pheasants, ducks etc.

Some scientists, like Havelock Ellis, use the facts of bisexuality to explain the homosexual behaviour of human beings. From the psychological angle, D Bryan defines bisexuality as "the existence in every human being of two sexual attitudes, namely, a masculine one and a feminine one, and under certain conditions he or she can utilise either the one or the other attitude towards the sexual object." Common-sense recognises the possibility of male and female features being united in one person when we speak of an "effeminate man" or of a "masculine woman."

But common-sense recognises only the more striking cases, whereas science has found a general law and pays attention to all the various degrees of mixture and proportion between the two sex characters in the different individuals.

Some persons exhibit what one might call a "superiority complex". They are happy only if they can boss somebody around — in reality or at least in their imaginations — or it they can find some point in which they are better than their companions or colleagues. The psychologist Adler has shown that this sort of attitude is the result of an "inferiority complex". People who feel inferior in some respect try to compensate for this inferiority by their efforts to prove superiority in some other respect. Some physical deformity or disability, for instance, makes people feel inferior. So we find hunchbacks sometimes try to prove their superiority by indulging in biting comments on their fellows and by engaging in "wire-pulling" which gives them a sense of power. Parents, again, frequently create a sense of inferiority in children's minds. If a father always tells his son that he is good for nothing except acting as a circus clown the result in some cases may be that the son will do everything to prove the contrary — to his father and to himself. If we observe a person, we know that in his heart of hearts he feels the opposite way, that he is still "chewing on" the inferiority he felt in his childhood or perhaps even in his early manhood.

Freud has shown that we can have no feeling of love towards anyone without simultaneously having a more or less suppressed feeling of hatred for the same person, and vice versa. This phenomenon is called ambivalence. No hatred can exist without containing some love. Love is the regular companion of hatred, even if the quantity of love is sometimes microscopic.

In the light of the law of the unity of opposites we must also qualify law 2 [everything is in movement].

It is only a half-truth to say that everything is in movement. "Movement" is the opposite of "stillness". It is a fact that our houses remain still in their places, so that we know where to find them when we go home at night. We must also study things in the lack of movement and development, in their relative "stillness". If we want to abolish capitalism, we have just as much to take into account its forces which make for no change, as the forces which make for its movement, development and change. The whole point of law 2 is not to exclude stillness from our picture of the world, but to draw special attention to those aspects of change and development which usually we are more apt to overlook than the more permanent features of a situation.

Feud and help among animals

WE violate this law of scientific method when of two opposites, which in fact belong to each other, we take only one into consideration and overlook the presence of the other.

In his analysis of the causes of evolution, Darwin stresses the part which competition between the different animals plays in nature. He reads the "struggle for life" as the axis on which the wheel of evolution turns. He takes little notice of the opposite factor, of the mutual help between animals, which is of equal importance. In the *Descent of Man*, Darwin gave, in fact, as Kropotkin says, "some powerful pages" which illustrate the facts of co-operation between animals. But Kropotkin adds that these remarks were "overshadowed by the masses of facts gathered for the purpose of illustrating the consequences of a real competition for life." Even "on the very pages just mentioned, amidst data disproving the narrower Malthusian conception of struggle, the old Malthusian leaven reappeared." The Darwinians accentuated Darwin's oversight. By insisting on the facts of mutual struggle in nature, they pushed the facts of mutual help into the background, in this way arriving at an incomplete, one-sided and false view of life in nature.

What was it that blinded the Darwinians to the real facts of nature? The reason appears to be that the extent of their understanding, like that of everybody else, was limited by the range of understanding of which their class was capable, the class to which they belonged and for which they stood. Darwin, himself a stout Liberal, had received a strong impulse for this theory from Malthus. Malthus was one of the most shameless defenders of the capitalist system. Darwin read into nature the description which Malthus had given of capitalist society. In this description, the typical description of a member of the ruling class of the 19th century, be he Liberal or Conservative, only the element of ruthless competition in modern society found a place. The opposite element, the solidarity found especially among the members of the working class, always an unintelligible and disturbing thing to the bourgeois mind, was overlooked in society. Consequently it was also missing in the bourgeois picture of nature, which was understood after the model of capitalist society. It remained for a theoretician of the working class — the Russian anarchist, Peter Kropotkin — to give to solidarity and mutual help their place in the theory of nature and society.

Are facts enough?

MANY well-meaning persons imagine themselves to be on a very safe and firm ground if they demand that scientific research and thought should be based exclusively upon facts. Among the opponents of an investigation into scientific method, among the opponents of dialectical materialism, we repeatedly find those who assert that the scientific method is superfluous, for science deals only with facts. They write big books against the philosophy of Marxism, in the interests of "empirical scientific findings" which, they claim, need no philosophy to be understood. But if you read their big books you will find that they never refer to any concrete "empirical scientific finding". Actually these opponents of any philosophy merely repeat the slogans of a special branch of philosophy — a philosophy which was worked out by the English "empiricists" such as Locke, Hume and other representatives of bourgeois thought. They forget that theory is the necessary complement of fact. They forget that facts are dumb before a theory makes them speak.

Socialists who talk about monopoly capitalism and competitive capitalism should be well aware of the union between them. Lenin has made that quite clear in his study of imperialism. Some monopolies already existed under competitive capitalism. Competition was not the only fact, but was the predominant fact. Monopoly capitalism does not exclude competition. Under it a fierce competition is going on between the trusts and the outsiders, between the different monopoly trusts of one country for a greater share in the total purchasing power of the community and between the different nations for a greater share of the market and of the sources of raw material. Those who overlook the element of competition in monopoly capitalism easily underestimate the necessity of wars in this stage of capitalism and easily overestimate the possibility of avoiding depressions.

On the surface, we may imagine that planning and anarchy are rigidly opposed to one another. In actual fact, we find elements of planning in anarchic societies and elements of anarchy in a planned society. In a planned socialist society, not everything will go smoothly. Quite a number of factors will be beyond the capacity of human calculation. The variations of the weather, with their influence on the harvest, the miscalculations of sleepy and inefficient officials, the sudden changes in public taste and in the demand for goods, and to a certain extent the rate of growth of the population, and the difference in ideals between the generations are some of the incalculable factors in a planned society. Anarchic society, on the other hand, is an anarchy of planned units. Planning in the factory, in the combine, in the monopoly trust, and recently in the entire nation, is at the basis of the anarchy of the world-wide capitalism system as a whole. ■

● The second part of Conze's account of the "unity of opposites" will appear next month.