World Economy GA 340

Lecture 1, 24th July 1922, Dornach
Second part

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We as human beings have our physical bodies, which are heavy just like any other physical bodies. Your physical body will be heavier after a midday meal than before: we could even weigh the difference. That is to say, we partake in the general laws of gravity. But with this gravity, which is the property of all ponderable substances, we could do very little in our human body, we could at most go about the world as automata, certainly not as conscious beings. I have often explained what is essential to any valid concept of these matters. I have often said what man needs for his thinking. The human brain, if we weigh it alone, weighs about 1,400 grammes. If you let the weight of these 1,400 grammes press on the veins and arteries, which are situated at the base of the skull, it would destroy and kill them. You could not live for a single moment if the human brain were pressing downward with its full 1,400 grammes. It is indeed a fortunate thing for man that the principle of Archimedes holds good. I mean that every body loses so much of its weight in water as is the weight of that fluid which it displaces. If this is a heavy body, it loses as much of its weight in water as a body of water of equal size would weigh. The brain swims in the cerebro-spinal fluid, and thereby loses 1,380 grammes: for such is the weight of a body of cerebro-spinal fluid of the size of the human brain. The brain only presses downward on to the base of the skull with a weight of 20 grammes, and this weight it can bear. But if we now ask ourselves: What is the purpose of all this? then we must answer: With a brain which was a mere ponderable mass, we could not think. We do not think with the heavy substance: we think with the buoyancy. The substance must first lose its weight. Only then can we think. We think with that which flies away from the earth.

But we are also conscious in our whole body. How do we become thus conscious? In our whole body there are 25 billions of red blood corpuscles. These 25 billions of red corpuscles are very minute. Nevertheless they are heavy: they are heavy for they contain iron. Every one of these 25 billions of red corpuscles swims in the serum of the blood, and loses weight exactly in accordance with the fluid it displaces. Once again, therefore, in every single blood corpuscle an effect of buoyancy is created — 25 billion times. Throughout our body we are conscious by virtue of this upward driving force. Thus we may say: Whatever foodstuffs we consume, they must first, to a very large extent, be divested of their weight: they must be transformed in order that they can serve us. Such is the demand of the living body.

Ladies and gentlemen, to think thus and to regard this way of thinking as essential, is the very thing men *ceased* to do just at the time when it became necessary to think in terms of Political Economy. Thenceforward they only reckoned with ponderable substances: they no longer thought of the transformation which a substance undergoes in a living organism — as to its weight, for example, through the effect of buoyancy.

And now another thing. If you call to mind your studies of Physics, you will remember the physicist speaks of the “spectrum.” This band of colours is created with the help of the prism: red, orange, yellow, green, blue, indigo, violet. So far (from the red to the

violet) the spectrum appears luminous. But, as you know, before the region which shows a luminous effect, what are called the infra-red rays are assumed to exist: and, beyond the violet, the ultra-violet rays. If, therefore, one speaks merely of light, one does not include the totality of the phenomenon: for we must go on to describe how the light is transformed in two opposite directions; we must explain how, beyond the red, light sinks into the element of warmth and, beyond the violet, into chemical effects. In both directions the light, as such, disappears. If, therefore, we give a theory of light alone, we are giving a mere extract. (The current theory of light is in any case not a true one. It is significant that in the very time when mankind had to begin to think consciously of Political Economy, human thinking upon Physics was in such a condition as to result, among other things, in an untrue theory of light).

I have, however, mentioned the matter here with some reason: for there is a valid analogy. Consider for a moment not the economy of peoples, but, let us say, the economy of sparrows or the economy of swallows. They too, after all, have a kind of economy. But this — the economy of the animal kingdom — does not reach far up into the human kingdom, Possibly in the case of the magpie we may indeed speak of a kind of animal capitalism. But what is the essence of animal economics? It is this: Nature provides the products, and the animal as a single creature takes them for him-self. Man does indeed reach down into this animal economy: but he has to emerge from it.

The true human economy may be compared to the part of the spectrum which is visible as light. That which reaches down into Nature would then be comparable with the part of the spectrum which extends into the infra-red. Here, for example, we come into the domain of agriculture, of economic geography and so forth. The science of Economics cannot be sharply defined in this direction: it reaches down into a region which must be grasped by very different methods. That on the one hand.

But on the other hand — just under the influence of the very complicated relations of today — it has gradually come to pass that our economic thinking fails us once more in another direction. Just as light ceases to appear as light, as we go on into the ultraviolet, so does human economic activity cease to be purely economic. I have often characterised how this came about. The phenomenon began only in the nineteenth century. Till then, the economic life was still more or less dependent on the capability and efficiency of the individual human being. A Bank prospered if some individual in it was a thoroughly capable man. Individuals were still of real importance. I have often related, as an amusing example, the story of the ambassador of the King of France who once came to Rothschild. He was trying to raise a loan. Rothschild happened to be in conversation with a leather merchant. When the ambassador of the King of France was announced, he said: “Ask him to wait a little.” The ambassador was terribly upset. Was he to wait, while a leather merchant was in there with Rothschild? When the attendant came out and told him, he simply would not believe his ears. “Go in again and tell Herr Rothschild that I am here as the ambassador of the King of France.” But the attendant brought the same answer again: “Will you kindly wait a little?” Thereupon he himself burst into the inner room: “I am the ambassador of the King of France!” Rothschild answered: “Please sit down: will you take a chair?” “Yes, but I am the ambassador of the King of France!” “Will you take two chairs!”

You see, what took place in the economic life in that time was placed consciously within the sphere of the human personality. But things have changed since then: and now, in the *great* affairs of economic life, very little indeed depends on the single personality. Human economic working has to a very large extent been drawn into what I am here comparing with the ultra-violet. I refer to the workings of Capital as such. Accumulations of Capital are active as such. Over and above the economic, there lies an ultra-economic life, which is essentially determined by the peculiar power inherent in the actual masses of Capital. If, therefore, we wish to understand the economic life of today, we must regard it thus: It lies in the midst between two regions, of which the one leads downward into Nature and the other upward into Capital. Between them lies the domain which we must comprehend as the economic life properly speaking.

Now from this you will see that men did not even possess the necessary concept to enable them to define the science of Economics and set it in its proper place within the whole domain of knowledge. For, as we shall presently see, it is a curious thing: but this region alone (which we have compared with the infra-red) — this region which does not yet reach up into the sphere of economics properly speaking — this alone is intelligible by the human intellect. We can consider, with ordinary thinking, how to grow oats or barley and so forth: or how best to obtain the raw products in mining. That is all that we can really think about with the intellect which we have grown accustomed to apply in the science of modern time.

This is a fact of immense significance. Think back for a moment to what I have just indicated as the concept which we need in science. We consume heavy substances as food. That they can be of use to us, depends upon the fact that they continually lose weight within us. That is to say, within the body they are totally transformed. But that is not all. They are changed in a different way in each organ: it is a different change in the liver from that in the brain or in the lung. The organism is differentiated and the conditions are different for each substance in each single organ. We have a perpetual change of quality along with the change from organ to organ.

Now, it is approximately the same when, within a given economic domain, we speak of the value of a commodity. It is nonsense to define some substance as carbon, for example, and then to ask: How does it behave inside the human body? The carbon, even as regards its weight, becomes something altogether different from what it is here or there in the outer world. Likewise, we cannot simply ask: What is the value of a commodity? The value is different according as the commodity is lying in a shop, or is transported to this place or that.

Thus, our ideas in Economics must be altogether mobile. We must rid ourselves of the habit of constructing concepts capable of definition once and for all. We must realise that we are dealing with a living process, and must transform our concepts with the process. But what the economists have tried to do is to grasp such things as Value, Price, Production, Consumption and so forth with ideas such as they had in ordinary science. And these were of no use.

Fundamentally speaking, therefore, we have not yet attained a true science of Economics. With the concepts to which we have grown accustomed hitherto, we cannot answer the question, for instance: What is Value? Or, what is Price? Whatever has Value must be considered as being in perpetual circulation: like-wise we must consider the

Price, corresponding to a Value, as something in perpetual circulation. If you simply ask: What are the physical properties of carbon? you will still know absolutely nothing of what goes on in the lung, for example, although carbon is also present in the lung. For its whole configuration becomes quite different in the lung. In the same way, iron, when you find it in the mine, is something altogether different from what it is in the economic process. Economics is concerned with something quite different from the mere fact that it "is" iron. It is with these unstable, constantly changing factors that we must reckon. Forty-five years ago, I came into a certain family. They showed me a picture. I think it had been lying up in a loft for about fifty years. So long as it lay there, and no one was there who knew any more about it than that it was the kind of thing one throws away in a corner of the loft, it had no value in the economic process. Once its value had been recognised, it was worth 30.000 gulden — quite a large sum of money in those days. What did the value depend on in this case? Purely and simply on the opinion men formed of the picture. The picture had not been removed from its place, only men had arrived at different thoughts about it. And so in no case does it depend on what a thing immediately "is." The conceptions of Economics are the very ones which you can never evolve by reference to the mere external reality. No, you must always evolve them by reference to the economic process as a whole: and within this process each thing is perpetually changing. Therefore we must speak of the economic process of circulation before we can arrive at such things as Value, Price and so forth. In the economic theories of today, you will observe that they generally begin with definitions of Value and Price. That is quite wrong. The first thing needful is to describe the economic process. Only then do those things emerge with which the theorists of today begin. Now, in the year 1919, when everything had been destroyed, one might have thought that people would realise the need to begin with something fresh. Alas, it was not the case. The small number of people who did believe that there must be a new beginning, very soon fell into the comfortable reflection: "After all, there is nothing to be done." Meanwhile, the great calamity was taking place: the devaluation of money in the Eastern and Middle countries of Europe, and with it a complete revolution in the social strata; for it goes without saying that with each progressive devaluation of money, those who live by what I have here compared to the ultra-violet must be impoverished. And this is happening to-day, far more perhaps than people are yet aware. And it will happen, more and more completely. Here, above all, we are directed to the idea of the living, social organism. For it is evident that this devaluation of money is determined by the old State frontiers and limitations. The old State frontiers and limitations are interfering with the economic process. The latter must indeed be understood, but we must first gain an understanding of the social organism. Yet all the systems of Political Economy — from Adam Smith to the most modern — reckon, after all, with small isolated regions as if they were complete social organisms. They do not realise that, even if one is only using an analogy, the analogy must be correct. Have you ever seen an elaborate or full-grown organism, such as the human being, for instance, in this drawing — and immediately beside it a second one, and here a third, and so forth? (see Diagram 1) They would look quite pretty — these human organisms, sticking to one another in this way: and yet with elaborate and full-grown organisms there is no such thing. But with the separate States and Countries, this is the case. Living organisms

require an empty space around them — empty space between them and other living organisms. You could at most compare the single States with the cells of the organism. It is only the whole Earth which, as a body economic, can truly be compared with a living organism. This ought surely to be taken into account. It is quite palpable, ever since we have had a world-economy, that the single States or Countries are at most to be compared with cells.
The whole Earth, considered as an economic organism, is the social organism.

Yet this is nowhere being taken into account. It is precisely owing to this error that the whole science of Political Economy has grown so remote from reality. People will seek to establish principles that are only to apply to certain individual cells. Hence, if you study French political economy, you will find it differently constituted from English or German or other political economies. But as economists, what we really need is an understanding of the social organism *in its totality*.
So much for today by way of introduction.