We often hear it urged against philosophy that it fails to give us any coherent generally accepted theory of the world at all comparable to the results of science. If this is true, we can at least reply that there is a growing clearness as to the fundamental problem, and that this itself marks a decisive advance. It is becoming clearer that the one central problem is the existence of real individuals in a world penetrated throughout by law. This is not, of course, the question of the existence of homogeneous irresolvable atoms. On the contrary it is the question of the existence of beings which cannot be resolved into such atoms without the destruction of the nature that unprejudiced experience forces us to assign to them as irreducible wholes. This is sometimes put dynamically in the form of the existence of freedom. But freedom is itself an ambiguous word. It has a negative and a positive sense. What is valuable in freedom in the sense of the absence of necessity is that it is the negative condition of positive self-determination. If there is no real «self» anywhere, there is no positive idea which we can substitute for mechanical necessity, and in denying necessity we have only exchanged relative for absolute unintelligibility.

The significance of this question need hardly be pointed out to the members of this conference. If there be no real individuality not only is the axe laid to the root of all human values. To take a single example, what value can we assign to a tragedy like Antigone or King Lear if the assertion of the power of the human spirit over mere blind destiny in which their essence consists is illusory. In this case poetry has already upon it the mark of death. It is in the
deepest sense what Jeremy Bentham declared it to be in a superficial sense misrepresentation.

Yet it is just the existence of any real principle of individuality and freedom that modern science from the time of Galileo has been silently undermining. Descartes' application of physical principles to the phenomena of life, the discoveries of inorganic chemistry, the formulation of the law of the conservation of energy, represent steps in one long argument issuing in a revocation as startling and fundamental with regard to man's moral life as the discoveries of Copernicus with regard to his physical. It is true, that the Kantian philosophy has seemed to some to have offered a barrier to the advance of the mechanical philosophy in marking off things in themselves as a sacred preserve from the inroads of scientific knowledge. But the barrier has proved only temporary. Since the publication of the Critiques it has been realised from the side of philosophy that if we can say nothing of things in themselves, we have no more right to assign to them freedom and individuality than necessity, while from the side of science Darwinism has enabled us to explain away the appearance of teleology on which Kant himself laid so much stress.

II.

The significance of Neo-Vitalism is that it summons ethical philosophy to turn from a priori methods and the "immensities of the soul" to laboratory experiment and microscopic biology in order to verify the foundations of the moral life. "A system of Ethics," writes Edmund Montgomery (1), a pioneer in this field, "can be scientifically founded only on a correct knowledge of vitality." "Vitalism," says Driesch the real founder of it in its new form, "is the high road to Ethics. Morality would be an absurdity without it" (2).

1.° Take life at its lowest in the monera of the bacillus, so it teaches, we have something essentially different from a mere mechanical or chemical structure. Never a living organism interpretable as an aggregate of mutually exclusive homogeneous elements. Never in an organism "do separate units go to range themselves in due order in an indeal space between two points that are thereby to become

---

(1) Mind, O. S., VI, p. 322.
the cephalic and acephalic pole governed therein by laws extraneous to themselves \(^1\). Life in a word knows nothing of the equality and homogeneity that characterise the elements of mechanical aggregates. Among the cells of living things, as among men, the great and only leveller is death. Similarly with the movements and changes which are the essence of all life. What is characteristic of the living thing is not that it maintains itself in a particular form against attack that it "perseveres in its own being" by a species of inertia. The living goes out of itself in active combat with the world. It spends and is spent in the process, but it also returns to itself and brings with it a new power for further resistance, "restoration is an advance in resisting. Life means at its very rise the increased refinement and unification of its correspondence with the dynamical powers of the universe" \(^2\).

2.° More definitely neo-vitalism appeals to the new field of fact opened up by recent investigations in morphology. « The true foundation of the doctrine of neo-vitalism », writes Driesch \(^3\), « was laid in the experimental morphology of William Roux's *Entwickelungs Mechanik*. Driesch has himself built upon this foundation in order to show how mechanical and chemical action are alike at fault in offering even a plausible account of the facts of restitution and acquired immunity of organism. A machine which, after the manner of some of the lower organisms, will repair itself or out of a part will remake the whole, is upon mechanical principles themselves wholly unintelligible. Equally inaccessible from the side of Chemistry is the formation, at a particular spot or throughout the remaining part of an organism, of a chemical substance for the purpose of effecting a restoration the type of which is nowhere discoverable in the chemical elements.

Coming finally to « the very heart of life and biology » in the problem of resistance and immunity to toxins possessed by warm-blooded animals, what, it is asked, is there in the whole range of mechanics and chemistry that even remotely corresponds to the situation or is able to explain the power the organism, shows not only of producing antibodies to counteract the effect of toxins at the time, but of obtaining permanent protection by laying up a store for the future? 

\(^1\) *Mind*, 0. S., p. 481.

\(^2\) Ibid.

\(^3\) Der Vitalismus als Geschichte und als Lehre, p. 155.
3.° If the functioning of organism is inexplicable by the unsupplemented action of mechanico-chemical principles much less is their evolution to be explained by the formula of minute accidental variations the struggle for existence. It is not merely that the problem of explaining the coordination, which it is necessary the pre-suppose to have been established between various parts before a variation can be of any use, has pressed with increasing weight on biologists committed to the all-sufficiencies of natural selection from the time of Darwin himself, but we only require to make clear to ourselves the terms of the problem of regeneration to see how far we are beyond the old facile Darwinian explanations. How could the powers of restoration have been acquired in a blind struggle for resistance?

A faculty that was never exercised would clearly have no survival value. To have a chance of surviving it would have to come into operation. In other words, the lucky ancestor who possessed it would require to meet with the further piece of good luck of having itself cut to pieces in order that felix opportunitate mortis it might have the chance of displaying its remarkable gifts. Now in an environment where it was the usual fate of everything that ventured on the form e.g. of a Tubularia to be cut to pieces at a certain stage of its development and on certain definite principles and thereafter left without further molestation by its enemies, we might conceive how one that had the power of collecting itself and rising again from the dead would have an advantage in the struggle for existence. But considering the chances which experiment has shown to be considerable of all this failing to come off, clearly an infinitely better method of securing survival would be that of developing powers which would enable the creature to escape the initial catastrophe. As the variations which would favour this have clearly no connexion with the other, it is difficult again to see how the latter could have established itself at all except in some topsy-turvy world, some biological « Alice in Wonderland » where death and destruction were an advantage in the struggle for life.

It is difficulties like these that have led to such modifications of Darwinism as are represented by de Vries' doctrine of « Mutations », with its hypothesis of periods of stability and change in species, and by Lloyd Morgan's and Baldwin's theory of « organic selection » with its revived application of « use inheritance ». Neo Vitalism goes beyond
all these in insisting that the true solution is not to be sought in patching up the older mechanical Darwinism but in the recognition of the action in organic nature of a principle analogous to, and, indeed, continuous with, that of purposeful activity in conscious life.

III.

The subject of this paper is not the general validity of Vitalism as contrasted with other proposed modifications of Darwinism, but assuming its general truth, the particular validity of its claim to have furnished the foundation of a true social ethics.

One thing we may say at once. In so far as it has shown the inadequacy of atomistic and purely mechanical theories of life, it must henceforth possess a definite ethical value for those who like Huxley and Lange seemed to be committed to the principle of mechanism in their interpretations of nature and yet who found their loyalty divided between it and the apparent claims of morality. To such thinkers the alternative of materialism or dualism need no longer present itself. The idealism of their social creed need no longer be darkened by the shadow of the individualism and determinism of their biology. But vitalism is not merely a negative creed. To its criticism of mechanism it adds a positive doctrine of the existence of independent individual entities whether under the name of the « entelechies » of Driesch or the « dominants » of Reinke which are the bearers of the adaptive, regenerative powers the facts force us to acknowledge. Does this positive part of their doctrine sustain the claim which we have seen is put forward by its advocates?

To give precision to the question it is necessary to have before us the postulates on which social ethics actually rests and which in these days require justification. They may be summarised in some such form as the following:

1. Morality stands or falls with personality or conscious individuality. All moral judgment assumes a power of personal control over instincts, habits, merely natural emotions. If there is no core of personality expressing itself in and through these natural and quasi-mechanical elements, there can be no such thing as moral responsibility. 2. Morality is none the less supra-individual. It assumes that the individuality of persons consists not in isolation from the social environment but in the performance of function within it. This is the truth that is expressed in the now
familiar doctrine that what is real in the individual, what gives form and substance to his life, is not what is merely private to himself but that portion of the common life which he is able at once to appropriate to himself and to give back to the community. 3. It is impossible to rest in the social consciousness as we at present know it. The reality we attribute to the social will is itself derivative and rests upon the reality of forces whose operation is discernible in the universe at large. It is in the nature of the world in general as the conservator of spiritual values, that the ultimate guarantee of the solidity of progress and of the victory of good over evil has to be sought. 4. These spiritual values have acted from the first as the sources of an un-conscious interest, but has human life has developed have more become conscious principles with a logic of their own destined sooner or later to supersede the vague and wasteful groping we call the struggle for existence.

Real individuality, real solidarity, real progress, real vision, these are the assumptions on which social ethics as we know it rests. What has neo vitalism to say of them?

On the last, in so far as vitalism is a biological theory, it may not have much to say that is helpful; but we would seem justified in expecting some broad light to be thrown upon the others by the analogies it aims at interpreting. 1. Wherever there is life we might expect it to insist there is something different from a system of material reactions, something which cannot be distributed among conditions — something into which quantities enter but which itself is not a quantity — something non-mechanical, purposeful, total, and therefore free.

2. It would only be putting the same thing in other terms to say that wherever we have life we have parts, themselves totals, yet uniting in a form which is not revolvable into a mere aggregate of their separate totalities. And 3. wherever we have life we have not only loss but recovery and therewith certain gain. Thro’ loss there has developed a higher power of resistance, a higher potential. Instead of a law of dissipation and increasing inertia, we have a law of concentration and increasing sensibility and mobility. Yet when we turn to the conclusions of the vitalists themselves instead of finding these analogies firmly grasped and utilised in the inherent and social ethics, we have nothing but hesitation and obscurity. Everything, we have seen, turns on the possibility of a positive conception of freedom as self-determination. Yet this, we are told, is just what vitalism fails to justify. « We may speak of
freedom in a negative sense », writes Driesch (1), « in the sense of non-necessity. But our reason is unable to conceive of anything positive under this expression ». Similarly, on the second of our postulates, the individuality of the community as a true organic unity of its members, the conclusion is « as far as we know the State is the sum of the acting of all the individuals concerned in it, and is not a real individual itself » (2). After this, we need not be surprised to find that the idea of a purpose or progress in history can hope for no support from vitalism. « We do not see », Driesch again concludes, « any complication or progress in human history that might not be explained as a cumulation in the easiest way ».

If we ask what is the reason of this apparent failing of neo-vitalism to reap the full harvest of the excellent seed it has sown, we shall find it, I believe, in the incomplete conception on the one hand of organism, on the other of purpose from which it starts and with which it ends. Driesch begins his book on Vitalism by the statement that the problem is not whether vital events deserve the epithet purposeful, but whether purposefulness in them springs from a specific constellation of factors which are known from the sciences of the inorganic. And he ends his work on the Philosophy of the Organism with the definition of an organism as « a typical constellation of different elements which are each chemically and physically characterised ». I venture to suggest that both these definitions are incomplete. The vitalist is quite right at the beginning in distinguishing « external » or transcendent from internal or immanent teleology; he is quite right at the end in insisting that an organism is more than the sum of its parts. He is, I believe, wrong throughout the intermediate argument in the endeavour to exclude the idea of transcendence and to treat the organic whole as typically one consisting of unindividualised parts. In the most typical forms of life, certainly in our own which is the only form we know at first hand, organic wholes from our own bodies up to the bodies-corporate of the state and humanity we are never dealing with individuals which have a teleology of their own independent of the wider teleology which includes them. On the other hand we never have an organism which does not itself consist of parts which have

(1) Ibid. II, p. 304.
(2) Ibid. p. 346.
a relative individuality of their own. Granted there are entelechies or dominants which are incomprehensible if taken as mere terms of an inorganic series, they are none the less incomprehensible as isolated agencies cut loose from all real connexion with what goes before or after, or what surrounds them. So it was that the older vitalism which descended from ARISTOTLE conceived of its entelechies, so it is that we must conceive them if they are to be of use to us in interpreting the life of moral purpose and progress.

In developing this criticism I wish to express my gratitude for the aid I have received from M. BERGSON's brilliant allusions to the neo-vitalism I have been considering in his Creative Evolution. Under the name of « radical finalism » he accuses it of seeking to commend the idea of end by representing it as wholly internal, and in the effort to do so, only succeeding in cutting itself off from the larger finality in which individual organisms are but particularly luminous points. « Finality », he wittily says, « will not go down any easier for being taken a powder. Either the hypothesis of a finality immanent in life should be rejected as a whole or it must undergo a treatment very different from pulverisation » (1).

With this criticism I certainly agree: purpose, or, as I should prefer to say, organic unity must by everywhere or it is nowhere. The whole must be a unity of organisms, and we must be prepared to find all degrees of individuality within it, from that of the cell or blood corpuscle up to that of the human soul. But while agreeing with this general criticism, I cannot accept the conclusion to which it is made to lead up. Granted that we cannot end with the establishment of internal teleology, we do not mend matters or make our universe any more comprehensible by merely adding the conception of a transcendent vital impulse whose direction and meaning are unknown to us. Granted that pulverisation leads nowhere, volatilisation is equally unsatisfying. What we seek is not merely to substitute the wider for the narrower conception of teleology but to see the relation in which they stand to each other.

It might be said that the solution of this very question is the aim that M. BERGSON sets himself and that he finds it in the conception of life as a creative movement whose nature is as little interpretable in terms of conscious purpose as of mechanical impulse. But it is just in his failure

(1) See Eng. Tr. p. 46.
to realise what is meant by conscious purpose as we know it in the highest form of progressive social life that he seems to me to succeed only in plunging us back into mysticism. It is impossible at this point in my paper to attempt a complete analysis of the process of social determination. What I venture to press is that to say that the moral world viewed as an evolution has a fixed predictable goal (the view that M. Bergson attributes to Intellectualism) is one thing, so say that its progress is guided by a growing insight into its meaning and general direction (the real doctrine of Ethical Idealism) is quite another. The first commits us to a mechanical view of development, veil it as we may under the name of purpose: « radical finalism » as Bergson says, is herein « very near radical mechanism ». The second is merely to recognise what is a common place of social philosophy that conscious organisation has come to take the place of blind advance by trial and error. A hint of this is, I believe, already given in the phenomena of life itself, but it can only find its interpretation in the phenomena of conscious life and particularly in social consciousness. In his depreciation of this as merely instrumental M. Bergson has, I believe, thrown away the key to the solution of the problem no one has more clearly stated than he.

I have claimed that this reversal of method enables us for the first time to understand the relation between external and internal teleology. It also supplies the clue to the most fundamental of all the problems that are raised by the vitalist controversy — the relation between the mechanical and the teleological in nature. Vitalism openly acknowledges its inability to throw any light upon this relation. It leaves us with the raw edges of each facing the other. Had it approached the question from the other side it would have found in the relation between habit and the control by the idea of the self, in which volition consists, if not a complete solution at least a hint of something other than mere juxtaposition. Not only do we here see in a general way that freedom and rationality depend in a mechanical substratum, but we also see how in the meeting of these distinguishable features we are not dealing with a mysterious union of two things wholly alien to each other, but with the development into unity and coherence of elements that are meaningless when taken apart. Instincts and habits are themselves crystallisations of past self-sustaining and so far free activities, embodiments therefore of vital meanings. On the other hand, they constantly
have to be redissolved and the reintegrated if they are to remain the instincts and habits of living creatures. Volition, we might say, without volition and habit is empty habit and instinct without volition are blind. Here, again, M. Bergson has done excellent service in pointing out that there is a hiatus in ordinary vitalism and in pointing for additional light to the relation between the mechanical and the volitional element in human life (1). Yet this does not prevent him from maintaining that «free acts are exceptional» and from treating ordinary social action after the manner of mere associative i. e. Mechanical thinking. Here, again, we must insist that it is just in ordinary social action that we have the clearest case of the embodiment of a purpose or an idea as an organising principle among the mechanically acting suggestions that come from without, and the most reliable clue to the interpretation of the relation between purpose and mechanism in general.

The general conclusion to which these Criticisms are intended to lead, is that while neo-vitalism has done excellent service to social ethics in relieving it of a deadly incubus, it has failed to make the best of the ground it has won, first by interpreting finality in too narrow a way, secondly in refusing to utilise the reflex light that the analysis of the ethical consciousness itself throws upon the facts of biology.

(1) Time and free will. p. 167.