

# Humans as Hyper-Cellular Organisms

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## Summary

*As Charles Darwin pointed out, life continues to develop by means of material structures (organisms) in which the ultimate measure is capability, the fittest type surviving. Capability, however, can also be achieved by functional units not rigidly connected to the body, but able to be put aside and exchangeable. Due to his special mental capabilities, man manages to increase the effectiveness of his cellular body in such a varied way that it makes him the first "specialist in versatile specialisation". "Hyper-cellular organisms" are structures of capability formed by man which face the single- and multi-cell organisms as functionally related entities. They represent a third era in the development of life which is anticipated by some animals and plants that form artefacts.*

It is hardly possible to come up with a new assessment of man - one that is fundamentally different from others - and to elucidate and convincingly substantiate his place in the framework of evolution within a short lecture. I will therefore restrict myself to familiarising you with the most important facts and their consequences and for further information refer to my publications on the "energon theory" and "hypercellers".

Up until now our assessment of living organisms including man has been determined by our sensual perception. We experience these organisms as units clearly separate from the environment. They are brought forth by their own species, gain energy and substances from the environment, defend themselves against enemies and adversities, grow, multiply, age and die. Until today there were hardly any doubts that these are the very bodies we have to investigate if we want to know what "life" is. Nevertheless, there is a sound reason for looking at things in a principally different way.

As Charles Darwin realised, all living beings descended from common ancestors and thus continue a mutual evolutionary stream of development that has been growing constantly for billions of years. This appears to contradict the second law of thermodynamics - the entropy law. Due to the fact that energy is lost each time it is converted, conflicts between different manifestations of energy will sooner or later be stabilised. Therefore, it is legitimate to ask: How must structures be made up in order to induce an evolutionary stream continuously increasing in potency and volume? This inquiry, which does *not* start from an assessment of the organisms, what they are comprised of and their behaviour, but from an assessment of a special kind of *energetic phenomenon*, led me to realise that life-sustaining structures must inevitably be orientated on similar basic activities and are consequently all interrelated, even if they may appear quite different to our senses. I termed such structures - because for them acquiring energy is of central significance - "energons" and discovered that from this point of view it is not the naked

human body which is comparable to that of plants and animals, but rather the human-made "capability structures" which encompass all man's tools, buildings, machines and other aids. This means to say not naked man is superior to all other living things (not he is an "energon" capable of continuing and increasing the life stream), but the "specialist structures" formed by him: in other words man plus all additional units required by him for dealing with life successfully, all of his *workshops* and *business enterprises* - even indeed the *states*. In these larger structures he forms which invariably take their point of departure from man, he is merely the build-up and control unit - functionally not unlike the role of the germ cells in the body of the multi-cell organism.

The energon theory has been put into practice in industry, particularly in management strategy, and has led to some considerable success there. It has only been discussed slightly in natural sciences, above all else because it leads to fundamental new assessments mainly of man along with his structural extensions, and this is the domain of the humanities.

The energon theory maintains, and can substantiate with a host of evidence, that evolution can be broken down into three large sections.

Firstly, the *single-cell organisms* with their already highly-specialised organs; secondly, the *multi-cell organisms* with their functions largely shifted to multi-cellular organs (for example, the function of locomotion from cilia and flagella to multi-cellular fins, legs and wings); thirdly, the *hyper-cell organisms* which invariably have man as their centre and which boost the capability of his cellular body by additional units formed directly from inorganic material. In this process, too, capabilities are shifted to even more efficient units - if we continue with the example of locomotion: from multi-cellular fins, legs and wings to artificially-produced ships, cars and planes.

When we look at man in this way, he is - thanks to the special development of his brain, to his mental capacity - the first living organism which can specialise itself with additionally formed organs for the most varying tasks. Prehistoric man placed a spear in his hand and was specialised for hunting; he transformed a hollow tree trunk into a boat and a suitably formed piece of wood into a paddle - and was specialised for moving across water. He built a cooking range, formed pots and incorporated fire in his extended phenotype - thus being specialised for procuring food even better.

As you probably know, there are preliminary stages to this in animals such as spiders which catch insects by means of webs that are not attached to their bodies. However, this formation of extra-corporeal organs - "artefacts" - is invariably restricted to *one* specific specialisation. It is only in man that the function of forming additional organs is transferred from the genome to the cerebral cortex, i.e. from innate to intellectually controlled behaviour.

Seen in this light, man is the first "specialist in versatile specialisation". He is able to change these extended capability structures just as he needs. He picks up a pencil and is specialised in writing. He puts it aside, hops on his bicycle and is specialised in faster locomotion. He gets off, sits down at the piano and is now capable of conveying aesthetic pleasure.

By means of language and writing - further intellectual achievements - man can pass on instructions directly to others, such as how to produce and handle additional organs. He is capable - which had never existed beforehand - of "inheriting acquired characteristics". The transmission is no longer tied to the difficult process of gene deviation. Progress no longer necessitates the rare occurrence of favourable mutations. What proves itself over time is not only passed on to direct descendants, but can also benefit any amount of other hyper-cell organisms, which can therefore arrive at new or improved achievements a hundred thousand times faster.

Here, unfortunately, I can only superficially go into the manifold advantages additional organs offer to life development. Some hints will have to do: A fundamental advantage of additional organs lies in the fact that they can be put aside, not only promoting versatile specialisation, but also leading to many achievements which we would otherwise be incapable of doing. Just to cite one example, a ladder grown attached to the body would not be useful to us (just as little as a spider's web affixed to its body). - Furthermore, man must not necessarily form these unities himself. Several individuals can collaborate within the framework of organised communities and produce larger communal organs useful to them simultaneously or alternately. An example here would be a wagon, a well or a protective dam, or in subsequent development a railway, a library, a sewerage system or a factory. - Furthermore, within organised communities, individuals or groups may specialise in the production of additional organs. This has become the basis of professional endeavour and gainful employment, the basis of the human "economy" and how businesses and companies are formed. In these ever larger energons, man also becomes a replaceable, exchangeable unit. - Furthermore the tool "money" - not grown as part of the human body either - makes it basically possible to arrive at the performance results of others by practically any kind of own performance that is needed.

A hyper-cell organism specialised in shoe production arrives at money by selling his shoes - and, with this money, at not only food, but also at any other results of specialised performance, such as a typewriter or an insurance policy. This may well seem the most obvious notion in the world; however, from the evolutionary point of view it means almost unheard-of progress. It also means that the performance of others can even be rented, which is to say it can be incorporated in the extended phenotype for the period of time required. If I call on the services of an architect or a lawyer, then these hyper-cell organisms will become, with all their specialised knowledge and expedients, functional components of *my* potential viability structure, for the period they work for me.

As you can see from this, the interrelations prove to be much more universal than we had thought hitherto - however, they are much more difficult to define and comprehend as well. On the other hand, the wall dividing human structural formations and those of vegetable and animal bodies vanishes. Basically plants and animals are really not only material structures, but - right down to the finest detail - functional structures.

The energon theory leads to a list of more than twenty clearly definable advantages of extra-corporeal organs. They in fact explain the completely different appearance of energons in this third era of life development. They cause a constant variety of new advances with ever-increasing rapidity.

Allow me to add in conclusion two further advantages of particular biological interest. Firstly, the artificial organs must not be continually nourished by the body like those composed of cell structures. While it is true that the cell is an extremely efficient and versatile building material, it is, however, also very expensive and sophisticated. Secondly, the additional organs do not perish with the death of the person controlling them - as is the case with all organs composed of cells. They can be bequeathed to descendants or sold to other hyper-cell organisms. If a smith dies, his son can adopt his father's professional body, and this business, this hyper-cell organism, will continue to live. This means to say that the structures which carry on the life process are no longer chained to the life span of cells. Finally, what is of special advantage is that additional organs do not necessarily have to be run on the energy we take into our bodies with our food. When prehistoric man climbed into his rowing boat, he was still forced to drive the oars with food energy transformed into muscular activity. If, on the other hand, he raised a mast in his boat and created a sail, then he could force environmental energy - the wind's kinetic energy - to power his boat *directly*. This causes far less energy loss and makes much faster locomotion possible. In the same way, if we use a car we need not drink the fuel, but the energy contained in the fuel is forced by the engine to drive our additional organ, the car, *directly*.

Nevertheless the artificial organs of man do create some problems as well. One in particular is attracting attention today. Due to industrial progress the human population is increasing by 80 to 90 million individuals *per year* at the present time. In practice this means that over 50 million new jobs are needed *per year* in order to support this growing flood of people. But where are these jobs supposed to come from? Due to the fact that jobs are becoming rare even in the rich countries of the west, it is not difficult to realise that we are heading straight for a catastrophe. If we continue to regard man as creation's crowning glory capable of satisfying his highly personal proclivities as he wants, then this danger can hardly be averted. On the other hand, if we accept the role and position we actually have, then it may well be possible for us to still change matters. Due to the limited size of our planet, the *quantitative* increase of man and his hypercell organisms must be reduced to zero. Then *qualitative*, cultural progress can continue to evolve and sublimate for millions of years to come.

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