

CHAPTER I

THE IDEA OF INDIVIDUALITY

“Die Zeit ist abgeflossen, wo mir noch Zufälle begegnen durften; und was *könnte* jetzt noch zu mir fallen, was nicht schon mein Eigen wäre!”

NIETZSCHE.

“La vie manifeste une recherche de l'individualité et tend à constituer des systèmes naturellement isolés, naturellement clos.”

BERGSON.

“ACCIDENTS cannot happen to me.” So says Nietzsche's Zarathustra, and in the saying proclaims to the world the perfection of his individuality. It might be thought that such a being was far outside the purview of the Zoologist, that he himself belonged to imagination and his individuality to the most speculative philosophy, and that both he and it should be left where they belong, where they could not contaminate the “pure objective truth of science.”

That I think is an error: for the idea of individuality is dealt with of necessity both by Science and by Philosophy, and in such a difficult subject it would be mistaken to reject any sources of help. Not only that, but animal individuality with

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the advent of consciousness, though still remaining a lawful subject of the Zoologist, becomes naturalised in the proper realms of the Psychologist and the Philosopher and transfers thither the major portion of its business.

More, even were the Zoologist to confine himself to a description of non-conscious organic individuals and the deductions he drew from them, he would often find himself without a reasoned criterion of Individuality or a true idea of what he means by "higher" or "lower" individualities. It is only when the Biologist and the Philosopher join hands that they can begin to see the subject in its entirety.

There are two chief ways of enquiry into the meaning of things—the static and the dynamic. In determining the nature of Individuality, for instance, we may seek to define it by comparing the different objects we are agreed upon to call individuals and then taking their Highest Common Measure—extracting from them the utmost which is common to all and erecting that as the minimum conception of Individuality; or we may search for the movement of individuality through the individuals, and, finding that some are more perfect, some more rudimentary in their individuality, thus establish a direction in which its movement is tending, and from that deduce the properties of the Perfect Individual, possessing then a maximum conception of Individuality.

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In view of the change, the progressive change or evolution which is one of the fundamental things of Life, the second method is the more natural, and in a way includes the first. Using it in the main, therefore, but not rejecting the other as an engine, we will begin to lay siege to the notion of individuality; and so, having justified the necessity for some philosophical view of the subject, but with apologies none the less for a biologist's intrusion on another's domain, we return to Zarathustra and his pronouncement.

“Accidents do not happen to me.”—When a glance is thrown over the various forms of animal life to which the name of Individual is naturally conceded¹, it is seen that in spite of many side-ventures, they can be arranged in a single main series in which certain characters are manifested more clearly and more thoroughly at the top than at the bottom. One of these characters is independence of the outer

¹ There may appear to be a vicious circle in the use of the word individual before we know its definition; in reality there is not. The word individual has not been manufactured to label a theoretical concept, but to denote something existing. It was originally applied to human beings, and a special word had to be used for them because it was felt that they differed in certain important ways from mere *things*. Certain other objects (all of them organic, but together making only a portion of the whole organic world) are immediately recognized as possessing similar attributes, and it is obvious that they too must be Individuals, although equally obvious that we have only used, without defining, the category “Individual.”

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world and all its influences—in other words, immunity from accidents. By independence is not meant the independence of the recluse or the ascetic, but that other independence belonging to the great man of action and the inventor. These are not independent in the most literal sense—they do not “do without,” they are not proud of existing on the barest minimum; the ultimate logical end of that kind of independence is atrophy, both mental and physical. Their other, higher independence involves this much of dependence, that they employ the things of the external world as material with which to work. For the making of bricks, you are dependent upon straw: but you attain a higher independence by making bricks and being dependent upon straw than by being independent of straw and lacking bricks. They gain their independence by using the outer world for their own ends, harnessing some of its forces to strive with and overcome the rest. At the least they can resist the adverse current, displaying a purpose of their own which is not whirled away by every wind of fate. “Accidents cannot happen to me”—so spake Zarathustra, and then added this reason: “Because all that could now happen to me would be my own.”

In this making of Nature his own, civilized man has an individuality vastly fuller, more perfect, than the savage. Both in resisting adverse forces and in

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harnessing the indifferent to his will, he is far superior ; take as a concrete instance, for one the stamping out of malaria in the Suez Canal zone, and for the other the invention of the microscope.

At the other end of the series, even the simplest Protozoan has something of the same power. Although in a current against which the savage (let alone the steamboat of the civilised man) could easily swim, the Protozoan is carried utterly away, yet none the less it has some power of independent movement, and is not helpless like the inorganic grain of dust.

This gradual increase of independence up from the Protozoa to the highest animals is due partly to mere increase of size¹: the same current that carries the grain of sand in its midst and rolls the pebble on its bed, swirls powerless past the boulder.

Partly it is due to increased complexity: the actions of the caterpillar who once in his life weaves an elaborate cradle to support his transmuted pupa-self, without either practice or the sight of another to teach him, can only be due to the actual machinery of his brain, working in a way almost as stereotyped as our machines,—a long series of ready-wound clock-work which must unwind itself when a certain catch is released. The Protozoan or the Jelly-fish is not capable of such precise and ordered action because it

¹ See pp. 85—89 for some further treatment of the value of size.

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has not the requisite machinery, the requisite complication of brain and muscle.

Lastly it is due to increased adaptability, which depends mainly upon increased power of choice. Adaptability seems to be a property soon acquired by a complex and unstable substance, or rather mixture of substances, like protoplasm. Roux (16) by extending Darwin's idea of Natural Selection or survival of the fittest from individuals to the organs and tissues, the cells and varieties of protoplasm within the individual, has shown that some measure of adaptability, or useful response to changed conditions, becomes a common property of all living things. This, though very important, has been slow in action, merely automatic, and therefore limited in its usefulness, the result, to speak in metaphors, not of choice but of habit. What we call choice has only become fully realized through a special arrangement of special tissue—the brain.

Says Bergson: "A nervous system with neurones placed end to end in such wise that, at the extremity of each, manifold ways open in which manifold questions present themselves, is a veritable reservoir of indetermination" (1, p. 133). Such is the nervous system of man: and whatever value we assign to the idea of indetermination, whether we believe in the reality of choice and free-will, or think that they are only apparent, due to the relativity of our mental

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powers, the fact remains that in a brain which is constructed after the pattern of our own, and in which therefore we postulate the existence of Consciousness, a new machinery, different in kind from any machinery we have been able to construct, has been introduced; machinery that by supplying the individual with memory and reason gives him the largest scope to adjust his actions, and so himself, to the variations of circumstance.

Civilized man is the most independent, in our sense, of any animal: this he owes partly to his comparatively large size, more to his purely mechanical complexity of body and brain, giving him the possibility of many precise and separate actions, and most to the unique machinery of part of his brain which enables him to use his size and the smoothly-working machine-actions of his body in the most varied way.

But he is far from perfect independence of accidents. A being to whom accidents really could not happen might attain to that happy state through having perfected himself in any of the three qualities which have been seen to assist independence. By incorporating more and more matter—that is, by increasing in size—until co-extensive with the universe, he would obviously be entirely independent; there would remain nothing on which to be dependent. Since matter is what it is, man at least has little

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chance of advancing far along that road. By building up within himself a separate machine for dealing with each possible eventuality, independence would likewise be obtained were it not that there is an infinity of eventualities, and so the project is self-contradictory. But by perfecting his mental attributes—his means of perceiving, remembering, and reasoning—he would become capable of dealing with any one of the infinite eventualities, for though he could not construct an infinity of machines simultaneously, yet as each new eventuality cropped up, he would be able to invent a new plan to cope with it. Though Zarathustra had climbed far up this path, he probably was not quite accurate about the accidents: it is not likely that he would be able to experience everything, to remember everything, and to understand everything, but so alone would he be altogether immune from the accidental. That is neither here nor there. The chief importance lies in this: all life of which we have any assured cognizance is dependent upon or inseparably associated with a certain kind of matter—protoplasm. Knowing what we do of the properties of protoplasm, it becomes evident that no considerable advance towards independence through either of the first two methods is physically possible for life; it is only the third way, with its multiplication of potentialities, which, in spite of size really not so hugely great and mechanism really not so vastly complex, can yet give

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life a considerable fresh amount of immunity from accident.

The second quotation at the head of this chapter seems at first sight to take a very different view of the individual, conceiving of it as “a system naturally isolated, naturally closed.” By this Bergson means that in any consideration of that system, it is the unity of it as a whole that is important: more than that, even if you want to consider a part of the system by itself, you cannot do so, for it loses almost all its significance when detached from the whole. What is the meaning of the hand and its actions apart from the functioning of the whole body? More striking still, for here there are no physical connections to sever, what is the meaning of a lonely bee and its actions when it comes back to find its hive destroyed? With inorganic things on the other hand, a part does not lose significance when detached from a system, nor the system appear less perfect for the detachment of the part. The inorganic system is a Particular, but not an Individual. Cause half a mountain to be removed and cast into the sea: what remains is still a mountain, though a different one. Take away a planet, and the Solar System still works: its working is different, but, as far as we can see, only different, not less perfect.

Nietzsche's words affirmed the individual's principle of action: Bergson's point out the inner unity

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for the good of which that action is performed. From the latter we can deduce another attribute of individuality—its heterogeneity; from that very unity of the whole we can postulate diversity of its parts. This sounds paradoxical, but in reality it can be easily shown that nothing homogeneous can be an individual.

Suppose (as is highly probable) that the earliest forms of life were homogeneous in chemical composition. If so, even were they compelled by the nature of things (see Chap. II) to exist as separate masses of defined shape and size, even though, by reason of their complicated atomic structure, they could carry on all the diverse functions necessary for their continued existence with their one chemical substance, they would then not be individuals. There is no unity residing in such masses—they are the merest aggregates; whether you divided one into two or twenty or a hundred pieces it would still go on working in the same way, without a break¹, whereas if you divide a man into two by cutting off his hand, the working of the main part—the man—is rendered less effective, and that of the lesser part—the hand—

¹ That is, of course, supposing the external world and the properties of matter allowed it to exist at all when in such small masses: e.g. Lillie has proved that there is a minimum size (determined no doubt chiefly by surface-tension) below which pieces of *Stentor* (a ciliated Infusorium) cannot regenerate. See p. 47.