

SCIENCE AND THE ETHIC OF REPRODUCTION

FROM the unicellular animalcule reproducing its kind by fission in the muddy pool to the mammal suckling its little ones in the snow, the deserts and the primeval forests, there is found an incredible variety of means and ingenious inventions of living nature for the sure attainment of her universal end—namely, the propagation, provision, and multiplication of offspring. From the simple processes of conjugation in the microscopic filaments of a mould to the complex mechanisms for pollination by insects in the flowering plants one is struck by the fantastic twistings and modifications of the great mother of living beings, organic nature, to safeguard the continuance of these means.

But it is only where all relevant facts have been collected that theories can be built up and principles abstracted from what has been empirically given. Here, perhaps more than in any field, *à priori* theories and principles are likely to collapse in the exhaustive evaluation of the individual realities of nature.

A man may be convinced of a principle on philosophical grounds. But if he hopes for an oracular 'confirmation' from some aspect of twentieth century science he is usually disillusioned. Few things are more treacherous than the surface of physical nature for him who goes unwarily upon it. Principles either emerge from it more or less immediately (*e.g.* in our considering Quantity as such), or they do not emerge definitely at all. It is usually fruitless and always foolhardy for the student to venture further than the data of research literally allow. A weapon of apologetics welded from a thin collection of facts tends to snap in a generation, perhaps a decade, and frequently as soon as it is used. The misplaced enthusiasm calling it into existence is false and calls down the derision if not of its own age, then most surely of ages that are to come.

Further, the best way of preserving a tone of genuine enquiry is to give free expression to the untouched data.

The student must renounce himself all along. As a private individual he can retain his principles. Not as a scientific investigator. His business is with the limited material under his hands, whether it be the crystals in the test-tube or the living form on the stage of his microscope or the culture-pattern of a tribe.

The work of this student is to describe. He may be permitted to indicate the salient facts tending to support a theory. Indeed, the open avowal of these will clear the air, purify the intellectual conscience, and do much to eliminate unconscious forcings and suppressions of evidence. Let him state it on every page where it occurs, and in italics if necessary for his moral health. But let him avoid all pontifical conclusions, whilst a single fact, whether actually known or hypothetically conceived, challenges his intellectual honesty and candour.

This is not a denial of transcendental principles or of non-physical certitudes. It is not even a denial of those transcendental certitudes of physical things (*Ens quantum*, object of Cosmology) held to be independent of any special field of modern physics.

In fact these are by definition so independent that it is usually irrational to seek their confirmation. Those, for example, who expect inspired crucial experiments vindicating Aristotelian hylomorphism from the marvels of atomic physics often give themselves away, not having grasped the rudiments of that doctrine.

Because we cannot conclude to the validity of certain principles from the data of science, it does not necessarily mean that they are false, but that they are inapplicable to the *ratio* or level of the world which science touches.

The student will not necessarily, therefore, hope to prove apodictically from the phenomena of life and living processes, as expounded by biologists, that the mechanisms of procreation have an immutable purpose and that it is sinful to attempt a diversion.

The philosopher or the theologian may be sure on other grounds. He may be sure especially of the natural ends and their mutual subordination in the power of human procreation. But his reasons are usually antipathetic to the scientific workers who do much to sway public opinion in these matters; antipathetic because of an intellectual background congenitally averse to metaphysics. They are far more impressed by *suggestions* and *indications* from fact as to what might be a *prudent* course for the human race, than by 'criteriological' claims of *certainty* which appear monstrous and offensive to scientific ears.

That is why it seems reasonable to hope that a candid investigation of the available facts and results of research would do an incalculable amount of good in *suggesting* and *not proving* or pretending to prove) the real cosmic and transcendent forces expressing their meaning through the microcosmic activity of reproduction and sex.

Further, even an acquaintance with these facts of field and laboratory considered integrally in their native splendour is always an inspiration, and where sensibility has grown tired and jaded its restoration can be expected to bring with it fresh stirrings of spiritual life (the Gifts of the Holy Ghost are not unrelated to such appreciations), with a rejuvenation of the essentially human life-current that circles outwards to the changing world of space and time and back again to the growing subjective core. The last may be said to grow in personal subsistence as the ever new gifts of objective truth are recognised, revered and built up into the individual whole.

It is also likely that an enquiry setting out devoid of active preconceptions could do much to recover for our epoch and its unique ways of thinking that very metaphysical approach to the ethics of sex which characterised the medieval attitude and which is the background to the doctrine of the Catholic Church to-day. And it is fairly clear that the recovery would not arise from a direct study of that abstract doctrine taken by itself (except in so far as

its statement and analysis spontaneously found a place in the general movement of our enquiry: *e.g.*, as an historic theory, a fact). It would come rather from the rediscovery of a *vision*. A vision which the world had when it was young and unsophisticated, heathen and not indifferent, Christian and not merely prudent. This vision of which we are thinking would see more than childish superstition in the vegetation ceremonies of pagan tribes, would rise disdainfully above the iconoclastic prudence of the Russian Orthodox theologians in their attitude to the medieval cult of the Madonna, and would in short ignore all mean reactions and seize the *sense* of the deification of the powers of procreation by the peoples of the earth. These things share in the rhythm of the universe, and the vision that created them was something alien, something that we have surely lost. They reflect an idea sanctified by the world-religions and the inexhaustible wisdom of an ancient Tree. To utter it reveals resonance and harmony. It has deep tones, without a note either of the silly coarseness which seeks to 'shock' or the contemptible effeminacy which seeks to 'edify.' This realist apprehension of elemental things enshrines what was considered worthy of exaltation into a supernatural entity by Him Who instituted the Sacrament of Marriage.

The vital unit, the cell, is itself a centre of exchange for cosmic forces, whose origins are hidden, along the line of duration in primeval obscurity, and along the line of thought in the mystery of the Absolute. Its subsistence from one moment to another depends upon the complex harmony of interplay between such forces; osmotic and electrolytic properties of ionised solutions, acid and base, oxydiser and reducing agent. All are bound up with the life and action of the cell. They are elements in its physico-chemical equilibrium, whose disturbance easily tends towards decay and dissolution. If they be disturbed the

whole being readily begins to slide down the steep incline of corruption, consumed and burnt out of existence by the elemental powers which created it. Nor are organisms to be conceived as static mechanisms resulting from the interaction of static forces. An animalcule, a vegetable cell, is rather the constant form perceived in a collection of inter-related movements, and it has the permanence of movement, like a jet of water or the shape of a wave or the changeless perfection of a symphony. As in these analogies so in life there is found a ceaseless flow of the matter which holds the form. Chemical and physical constituents are constantly flowing away to be replaced by equivalent elements assimilated from the environment.

Nevertheless, a living unity is not a merely silent and enduring vortex in the cosmic maelstrom and the clash of subordinate worlds, chemical, electrolytic, dynamic and psychic. This unstable microcosmic monad in the universe of crushing force and flux contains in itself the power and mechanism for expansion and growth both as a unit and as a member of a vast evolutionary genus which is potentially infinite. Defiant of opposition from the inorganic medium itself, life has known how to transform for its use some of the most untractable inorganic substances. Indeed, the geological formation of the crust of the earth would be very different had life never left its impression. One may cite such giant formations as the chalk cliffs and coal seams which are the products of the action of microscopic organisms upon calcium salts in the sea on the one hand and upon the debris of primeval forests on the other. And the adaptations of the forms of life to changing conditions are so various and ingenious that the relative indestructibility of this mysterious phenomenon is almost incredible when we compare it with the instability and ephemeral duration of its minute constituent members.

Contingently occurring within the minute film wrapped around this atom of star-dust which is our globe, life swarms under a variety of forms so great that their mere

description is the subject of several sciences. Its origins are buried in prehistoric mists. We are told that it is at least as old as the visible earth, and that wherever its traces are found it multiplies. 'The *most* important fact that we know about living matter is its inordinate power of reproducing itself' (Hunt Morgan). 'If all the fifteen million eggs laid by the conger eel were to grow up, and in turn reproduce, in two years the sea would be a wriggling mass of fish . . . Hydatina produces about thirty eggs. At the end of a year (sixty-five generations) if all the offspring survived they would form a sphere whose limits would extend beyond the confines of the known universe . . .'

This terrestrial life hangs suspended between two regions of death. The stratosphere shields it from the ultra-violet radiations from the sun. The crust of the earth protects it against the infra-red waves of mother earth herself.

Instability and endurance, universal reproduction and inevitable death The wondering mind begins to question. This paradoxical conjuring-trick of divine wit, whence did it come and whither is it going? A million questions crowd upon us in our finite abasement and adoration

But first must come collection of sheer facts, where every new one may challenge the interpretation of all the old.

Indeed, more radically still, philosophical reasons suggest that a balanced judgment will depend on a general vision whose basis is *morphology*. Form is prior to function. Quantitative disposition of measurable entities is the first condition of abstract thinking and mental correlation. A good deal of the vitality of the treatises *De Animalibus* and *De Vegetabilibus et Plantis* of Albert the Great springs from his method of panorama. The medieval *Weltanschauung* is very human. Beginning from what is spatial it discovers principles. From material facts material life is drawn. It is from this that one rises surely towards the life which is spiritual. Nor is this approach

static. Examination of form by an alive mind involves awareness of function as its immediate consequence. A thoroughgoing morphology becomes a movement in the act of its achievement. Complete description of development in a bird's egg in terms of all the senses tells us more of the current of living processes and the meaning of vegetable and animal 'forms' than a blackboard exposition in terms of mechanics. Even a philosophical analysis becomes lifeless unless it arises within the fresh vision of the concrete thing, and is ever returning to it for confirmation and the assimilation of new and richer formalities, to postpone the senile decay of its own cerebrations. Since the cosmogonic trend and momentum of the reproductive life-force seems able to be grasped only accumulatively, it must be seen upon a background of multi-coloured life in its vivid sensible objectivity, in its struggle for existence and re-existence through the millennia.

One may argue about the directions of eddies in a pool. About the movement and meaning of a swollen river there can be no dispute. The thundering walls of Niagara do not go backwards.

Such a modernised restoration of an ancient world-view could do far more to bring the modern thinking world to a new realisation of the responsibility of mankind in its relations with the deep mystery of shared creative life, than the approach of a rational ethic alone. It will be only after something has been done to revive a reverence for life that an abstract statement of principle can hope for a hearing. For men do not live by principles, but by ideals, and an ideal is a luminous incarnational *fact* which englobes and transcends all our sorry apprehension of principles. Justice, chastity, virginity, and heroic Christian sanctity were never the effects of mere stoical adhesion to principle, but of the glowing love of divine *things*.

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