

Heredity & Reincarnation

TO THE FOUNDERS OF THE
THEOSOPHICAL SOCIETY

Heredity & Reincarnation

by

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"Life, after all—the greatest problem within the ken of human conception—is a mystery that the greatest of your men of Science will never solve. In order to be correctly apprehended it has to be studied in the entire series of its manifestations, otherwise it can never be, not only fathomed, but even comprehended in its easiest form—life, as a state of *being* on this earth. It can never be grasped so long as it is studied separately and apart from universal life. To solve the great problem one has to become an occultist ; to analyse and experience with it personally, in all its phases, as life on earth, life beyond the limit of physical death, mineral, vegetable, animal and spiritual life ; life in conjunction with concrete matter as well as life present in the imponderable atom."—Quoted from "The Mahatma Letters to A. P. Sinnett."

PREFACE

THE Theosophical Society, whose Jubilee was celebrated in November of last year, recognises the existence of a body of Occultists known as the Masters of the Wisdom, who not only have first-hand knowledge of the whole process of evolution that is taking place on our earth and its objective, but are instrumental in furthering its purpose. Two of the Masters were the real founders of the Society, which outwardly was formed by H. P. Blavatsky and Colonel Olcott, who were their devoted disciples in the world. "It was hoped," the Master wrote later, "that the world had so far advanced intellectually if not intuitionally, that the Occult doctrine might gain an intellectual acceptance and the impulse given for a new cycle of occult research."

It was recognised, however, that the teaching would need careful presentation, and this was clearly indicated in a letter, from which the following paragraph is quoted, written by another great Master of the Wisdom with reference to the work of the Society in the world :

"The doctrine we promulgate being the only true one, must—supported by such evidence as we are preparing to give—become ultimately triumphant as every other truth. Yet it is absolutely necessary to inculcate it gradually, enforcing its theories—unimpeachable facts for those who know—with direct inferences deduced from and corroborated by the evidence furnished by modern exact science."

This booklet is therefore intended to indicate an interesting and helpful line of investigation for those who are not yet convinced of the fact of reincarnation. It also endeavours to show how essential this teaching is for any intelligent appreciation of the method of human evolution and to demonstrate that without it no satisfactory explanation of

life's processes can be forthcoming either from the scientist or the philosopher.

The effects respectively of heredity and environment on the individual are constantly being analysed by those who feel the fascination of the problem of evolution. The task of the investigator, however, would be easier if he would recognise the existence of a soul or self acting through the brain and capable of surviving and living apart from the body, for it is impossible to estimate the effects of either heredity or environment unless more is known about the innate powers of the individual, who has to deal with the conditions that he inherits at birth.

The first chapter explains the teaching of reincarnation and how it answers life's problems. The following chapter discusses environment and heredity, and shows, firstly, how an analysis of these two influences have failed to account satisfactorily for the fact of variation in form or for the difference of mental, moral and spiritual growth in individuals; and secondly, how, arising out of the close scrutiny to which all organisms have been and are being subjected by modern science, the presence of a third force working in the inner recesses of all living organisms is now inferred. This third force, described as the function or behaviour of the organism itself, is rapidly becoming the main focus of attention of the scientific investigator into Nature's processes, for it is suspected that it contains the secret of variation and hence is the source of the creative powers displayed by all living organisms.

The searching examination of this third force working in the higher organism of man will lead ultimately, the writer is convinced, to the recognition of the fact of reincarnation, as in no other way can the varied and graded aspects of human consciousness be explained.

OLIVE STEVENSON HOWELL.

HEREDITY AND REINCARNATION

CHAPTER I

REINCARNATION EXPLAINED

THE idea of reincarnation slowly but surely permeating Western thought to-day is due to closer contact with Eastern life, which is rooted in this teaching, to the easy access now possible to the Religious, Philosophic, Scientific and Psychologic literature of the East, and to the activities of those who believe in and have proof of this teaching and are endeavouring to re-introduce it to the West. As yet, however, it can scarcely be said to have attracted the serious attention of the average man or woman, though it is finding an increasing place in the drama, the novel and the short story. Sometimes it is jokingly referred to in conversations, and on occasions it is alluded to whimsically in an endeavour to account for some of the discrepancies of life ; but as a definite explanation of life's problems, as a means whereby the sublime goal set for humanity to reach by all the world's great spiritual teachers is attained reincarnation is not yet vitally considered. Gradually, however, as it gains sway over the hearts and minds of people it will become an inspiration in the life of each one, encouraging all alike to work and achieve, for reincarnation is the method of evolution for the human consciousness and only in the light of this teaching can an understanding of God's Plan for men be obtained.

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THE NECESSITY FOR REINCARNATION

The necessity for reincarnation is seen as soon as the goal of humanity is realised. This goal has been clearly revealed in every known Religion that has ever been given to humanity during its long existence, and this unanimity of teaching must give greater confidence to the thoughtful enquirer who is anxious for an intelligent interpretation of life's purpose.

Christianity very clearly states the goal in the following words of its Founder, "Be ye perfect even as your Father in Heaven is perfect," Who thereby implied—what has not been adequately realised—the infinite power of becoming of the human consciousness. There is also the proclamation in Christianity of man's divine nature and of his unity with God. Just before the Crucifixion Christ, after speaking of His own unity with the Father, prayed "that all may be one; as Thou Father art in me and I in Thee, that they also may be one in us; . . . I in them and Thou in me that they may be made perfect in one." Again, the great Apostle, St. Paul, proclaimed the Divinity of man. "Know ye not," he said, "that ye are the temple of God and that the spirit of God dwelleth in you?"

Hinduism is no less emphatic regarding man's divine nature. "As salt in the water in which it is dissolved, as fire in the wood before the fire sticks are rubbed together, as butter in the milk that is brought forth by churning, as cream in clarified butter, so is Brahmâ concealed as the Self of every creature." Again, the "Bhagavad Gita" says, "There is nothing moving or unmoving that may exist bereft of me." Buddhism also has clear teaching outlining the Way of Life, leading to the World of Brahmâ, that must be followed by the earnest seeker after the Kingdom of Righteousness. Similar teaching is found in the Mohammedan and Jewish Religions.

It follows logically, therefore, that identity of nature

obtains between man and God and that there is no barrier save that of degree of unfoldment between the human and Divine Consciousness. Hence the possibility of perfection is due to the fact that man is potentially divine, that a power dwells within him endowed with such infinite capacity of unfoldment that actually it enables him to become eventually the man made perfect, man Divine.

Religion however is not alone in acclaiming perfection as the destiny of man, for philosophy and science alike, studying life's processes from different angles, are impelled to recognise an urge onwards towards an increasing perfection of being. Philosophy, seeking ever to interpret life as a whole, infers the ultimate end of the evolutionary process. Thus Herbert Spencer, in his "Dilemma of Civilisation," wrote: "Progress is not an accident but a necessity. What we call evil and immorality must disappear. It is certain that man must become perfect. The ultimate development of the ideal man is certain. Always towards perfection is the mighty movement—towards a complete development and a more unmingled good."

Science confines itself chiefly to an analysis of the process seeking ever to discover its factors, and, though admitting a steady progress upwards it is loth to speculate regarding the ultimate issue. Sir Arthur Keith, in the course of an address given in 1923, said: "Man has come by his great gifts, his brain, his upright posture, his nimble hand, not by any effort of his own, but, like a favoured child of fortune, has fallen heir to a fortune for which neither he nor his ancestors have laboured. The human body is the vehicle of a colossal and absorbing evolutionary experiment. The future, if to be read at all, is to be seen in the body of the embryo."

Sir Oliver Lodge, however, is more willing to enter the ranks of the prophets. Addressing the British Association in 1923, he said: "Man sometimes seems evil and ugly, but

he is immature, he is in the process of making. Man is comparatively speaking a newcomer on this planet, but he has in him the seeds of majesty."

Western religion does not indicate, however, how humanity is to reach the goal, for obviously it can scarcely be attained in the short span of a lifetime unless the individual be exceptionally endowed at birth. A good deal of the listlessness that prevails in the religious life can be attributed to the fact that the Church holds up an ideal of life which, the social order alone testifies, is still far ahead of realisation by the individual. The Sermon on the Mount, admittedly the ideal of life for the aspirant, is yet a counsel of perfection, and Christendom to-day gives no rational teaching as to how the ideal can be fulfilled, taking into consideration the present stage of human development. The transformation of the human into the divine nature takes time and, as the writings of the saints and sages of all time bear witness, is accompanied by intense struggle, suffering and inner striving. Consequently, with many people religion tends insensibly to become a matter of form instead of a living reality, whilst others remain frankly indifferent to its appeal, feeling that it is out of touch with the facts of life.

Secular thought also readily admits its ignorance of the laws surrounding the development of human faculty. Mr. H. A. L. Fisher writes: "After centuries of human experience the laws which govern the emergence of genius, the rarest and most valuable of the gifts of man, still remain in the darkest obscurity. We do not know how to breed genius." It is recognised, however, that humanity is apparently gradually perfecting itself as a whole, profiting by the labour and sufferings of those who have "had their day and cease to be"; but if perfection of being is to apply equally to the individual as to some far-distant race of mankind, the problem assumes an additional perplexity, for more

time is necessary for the process than the ordinary life of man allows. So the problem again centres round the difficulty of providing for the essential element of time in order that all the inherent powers of each one may be finally released.

Evolution is now taken for granted as the law of progress, but it still remains to be applied in the sphere of spiritual intelligence that characterises man. The evolution of thought, of ideas, of society in general, is granted, but not so the evolution of the individualised consciousness in man. That there is a continuous evolution of life as well as of form is not yet conceded. It is recognised, however, that the human intelligence, expressing itself in and through the body, is subject to the law of evolution. Modern psychology is showing that the mind and emotions can be trained, improved and developed up to a point. Evolution, however, though a steady and continuous process, is also a slow one. Great progress relatively can be made in the unfolding of powers, especially if the individual is aware of and is prepared to co-operate with the law, yet if that unfolding is to cease at the death of the body it will have to be admitted that few will ever reach the appointed goal. Yet, why should the process cease with the disintegration of the body? The fact that the body is subject to the law of death need not check the further development of the intellectual and moral nature, which together may be termed the soul expression of the individual, provided he can find further and fitting vehicles which will enable him to continue the work of unfoldment.

WHAT REINCARNATION IS

It is these vehicles that are provided for the individual by the law of reincarnation or re-birth, whereby he is re-born many, many times on earth, each time inhabiting a fresh

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personality, gradually transmuting the experiences gained in each life into wisdom and faculty, so that each incarnation represents for him a growth in mental and moral capacity and takes him one step nearer his goal—the perfecting of his being. Thus continuity of effort becomes possible, and the activities which retain interest and stimulate endeavour in one life can still be pursued in subsequent lives. Reincarnation therefore provides for the progressive unfolding of the powers of each one through recurring lives on earth, and none need be disheartened at the apparent slowness of the process, for all the time necessary for achievement is at the disposal of each one and the end is sure.

Students of Eastern religions will be familiar with the idea of reincarnation, for it is fundamental to the religious life of the East. At one time also it formed part of the teaching of Christianity, for it is on record that it was taught by some of the early Church Fathers, and was only finally ejected from Christian teachings in the sixth century by a Council of the Church. It is this loss of the knowledge of reincarnation which has made it difficult for Christendom to explain how man may become perfect, for it thus lost sight of the method of evolution for the human consciousness. There are signs, however, that it is beginning to attract the attention of Christian thinkers, and if this should one day ultimately lead to its restoration to Christianity, the message of the great Western religion will become charged with a vital reality hitherto lacking for great numbers of thoughtful people. For to the beauty of its moral teaching will be added the power of a rational interpretation of the laws of life.

THE NEED FOR DEATH

The physical vehicle, then, is the instrument of the soul or consciousness which expresses itself through the body by

means of the muscular and nervous systems, the intelligence playing through the cerebro-spinal system and the emotions through the sympathetic system. There comes a time, however, when the body begins to suffer from the strain of continued association with the soul ; it reaches the limit of its response, and when this happens the process of disintegration that is called "death" commences. It is evident that this strain can be intensified in great measure by wrong ways of living and thinking, for modern health research movements are establishing relationships between specific thoughts and feelings and their reactions on the body. The human body, being a wonderful and perfect self-adjusting piece of machinery, tends, if rightly used, to run in the smooth manner which is called health. Wrongly used it gives rise to deformities and diseases.

Moreover, each physical body and brain has been shaped to suit the capacities, predispositions and tendencies of the incoming tenant, who thus finds ready for his use a fitting instrument for his expression *along those lines*. The physical vehicle, however, cannot adapt itself to uses for which it has not been fashioned. There is a limit to its elasticity, and if the brain has not been formed at birth for the expression of a particular faculty the individual can accomplish little in that direction, however much he may desire to do so. The physical body, therefore, can and does act at times as a limitation to the unfolding consciousness, which, anxious to explore life from all angles, frequently finds that it is held back in its aspirations by the lack of response in its instrument. Further, the structural differences of body that characterise the races and sub-races into which humanity is divided, determine the fundamental type and temperament of the individual, specialising his outlook upon life. Unless this is recognised, these diversities of outlook bias and prejudice him ; they become a source of division between peoples, breeding racial

and national antagonisms, whereas, rightly understood, they but prove the need for and value of mutual co-operation, since all views are necessary for the discovery of truth.

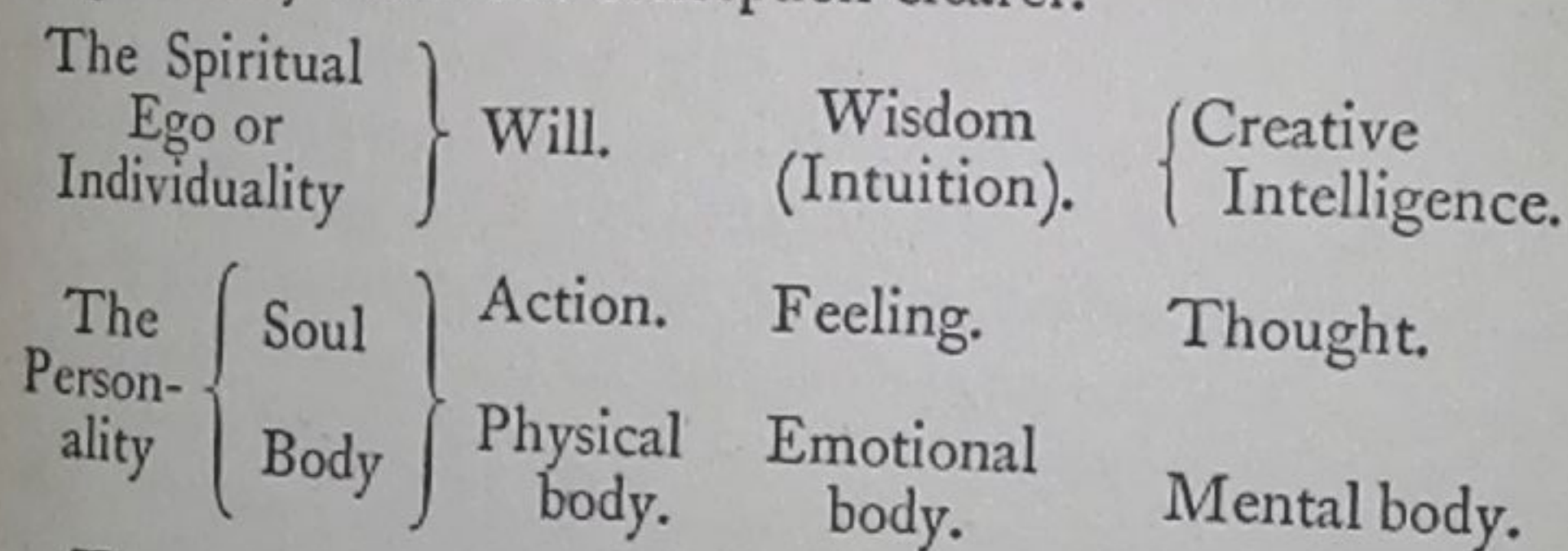
It will easily be seen, therefore, that the very condition of progress entails the death of the body. This necessity has been clearly expressed by a Master of the Wisdom in the following words: "Such breaks (deaths), in spite of the fact that they are finite, do double service to the spiritual ego, which, perfecting itself constantly, follows without vacillation, though very slowly, the road leading to the last transformation when reaching its aim at last it becomes a Divine Being. They not only contribute to the reaching of the goal, but without these finite breaks it could not be reached. The Spirit is the actor and its numerous and different incarnations are the actor's parts. Like an actor, the Spirit is bound to play, during the cycle of births, many such parts which are often disagreeable to it, but, like a bee collecting its honey from every flower, our spiritual individuality, collecting only the nectar of moral qualities and consciousness from every terrestrial personality, in which it has to clothe itself under the working of the law of cause and effect, unites at last all these qualities into one, having become a perfect being."

PERSONALITY AND INDIVIDUALITY

For any clear understanding of Reincarnation it is necessary to bear in mind the distinction between the individuality and the personality, between life and form, between spirit and body. Reincarnation recognises that man is a spiritual Being or Ego, with triple powers of Will, Wisdom and Creative Intelligence, and that he enters into relationship with matter in order to shape for himself a succession of bodies which constitute his successive personalities and by means of which he gradually gains the experiences that are necessary

for mental, moral and spiritual growth, until gradually his real nature shines out in all its beauty and strength.*

The personality includes the soul as well as the body, expression as well as form. The soul is the reflection of the three-fold nature of the Spirit, hence it also has three attributes or modes of expression and these are the familiar thoughts, feelings and actions of the human personal consciousness. For the expression of its triple nature, the soul requires three bodies or vehicles; the physical body, the vehicle for action; the emotional body, the vehicle for sensation, feeling and emotion; the mental body, the vehicle for thought. The two latter bodies, Occult Science teaches, are formed of finer orders of material than the physical, and hence are insensible to the physical senses, though visible to the trained clairvoyant who has developed the necessary finer organs of perception, which enable him to respond to impressions from such levels. The following diagram may make this conception clearer.



The centre of Being, therefore, is the Spiritual Intelligence, the Higher or real Self of man, and if he would find that Self he must learn how to retreat inwards beyond the soul consciousness. Many people identify themselves with their emotions, others with their existing mental outlook, forget-

* Sir Oliver Lodge in "Ether and Reality" writes: "Only for purposes of transmission and communication do we need the world of matter: our real existence is elsewhere and otherwise. We—our own nature—must not be confused with the atoms; they are an intermediate tool, a weapon, an instrument, a means of manifestation."

ting that these are constantly changing under the moulding influence of experience. They think their emotions and thoughts are themselves. They live in these temporary and experimental expressions of their being, and operate their whole personality from these levels. The wiser person will try to control his life from the calm region of the Spirit, by recognising that he is the power behind the personality, and hence must use it as his instrument and not allow it to use him. The individual who is discovering his real Self is easily distinguishable from others by the peace, the strength, the serenity, the dignity, and the wisdom which seem to radiate from his personality, endowing him with a natural authority which he has no need to assert.

MEMORY OF PAST LIVES

Every fresh personality having its own sphere of operations, its own experiences due to its association with a particular race, nation and family, to its sex, environment, education, heredity and opportunities, will not generally remember particular events associated with previous personalities ; but the proof of a past will appear in the special characteristics of the present personality. At each fresh incarnation the spiritual intelligence hands on to the new personality "not the experiences of the past, but the qualities, tendencies and capacities which have been made out of these experiences. Our conscience, our instinctive response to emotional and intellectual appeals, our recognition of the force of a logical argument, our assent to fundamental principles of right and wrong, these are the traces of past experience. A man of a lower intellectual type cannot see a logical or mathematical proof ; a man of low moral type cannot feel the compelling force of a high moral ideal. The character man is born with is self-made, and marks the stage he has reached in his long evolution. The good disposition, the fine capacities, the noble

nature are the spoils of many a hard-fought field, the wages of heavy and arduous toil. The reverse marks an early stage of growth, the small development of the spiritual germ." *

The source of memory, therefore, is the Spiritual Intelligence alone, as it has benefited by its various personalities and its own life has informed them all. Consequently, to remember clearly and at will past lives, the brain must be receptive of the higher consciousness of the Spirit, but this can only happen in the case of individuals of high moral and mental attainment, since for the Spirit to mirror itself in a personality the latter must be free from all barriers of selfishness, pride, prejudice, narrow views, dogmatism and separateness, as these prevent the descent of the higher consciousness into the brain. Sometimes, however, under the stimulus of renewed association with persons or places connected with vivid experiences in former lives flashes of memories of past events will be obtained. Such memories may be thrown up from a very deep and usually quiescent level of the subconscious mind or they may be sent down into the brain consciousness by the Higher Self. For full and controlled memory of the past, however, there must be harmony between the personality and the Spiritual Individuality. The discovery of this harmony is the purpose of life.

Reincarnation, therefore, dissociates life or consciousness from specific form or body, and regards the former as playing upon or working through the latter. Sir Oliver Lodge tentatively supports this view in his book, "Ether and Reality," where he posits the possibility of the separable existence of the life apart from the form as we know it. He writes: "Life and mind have entered into relation with matter. What they are we do not know; we can only study their behaviour; they use matter for a time and then disappear. They go out of our ken, but we have no right to say

* From "The Riddle of Life," by Dr. Annie Besant.

they go out of existence . . . mind may always need a vehicle, a body, a habitation ; but it need not be made of matter."

Further, reincarnation recognises that the sequential unfolding of the human consciousness requires a succession of *suitable* bodies provided for it by the evolution of form. There must be harmony between the body and the consciousness, a refined individual requiring a refined body as a means of self-expression. Occultism, therefore, sees two lines of evolution converging in man, those of life and form, and for any intelligent understanding of man's past, present and future, the mutual interdependence and interaction of these twin forces must be appreciated. Science, as will be seen in the next chapter, is closely scrutinising the form in an endeavour to wrest from it the secret of its own capacity for variation, of its powers of becoming, of the evolutionary urge, but without the teaching of reincarnation or the evolution of life no solution to the problem will be found.

EQUALITY AND INEQUALITY

A further problem which confuses thought, but which is elucidated by reincarnation, is the cause of the widely differentiated nature of humanity. People are obviously at different stages in the perfecting of their being. Some are at the very beginning of the process and have little capacity of any kind ; others have developed deep penetration of mind, moral beauty and spiritual insight. In fact, through the diverse natures that compose the human race, the various stages in the evolution of consciousness are unrolled before our eyes. Comparatively few, however, have reached the finer levels of their being, but these are they who lead the way in human progress. They are on the crest of the evolutionary wave, and were it not for their existence the arts of life might still be undiscovered.

Only two explanations of human inequalities can be forthcoming. Either individuals come into existence already variously endowed—some possessing wonderful gifts—and join the great stream of evolution at different points in its course, or a long past must lie behind each one during which the present capacities have been gradually acquired. The first implies the special creation of a spirit for every fresh body, but, just as special creation is rejected as an explanation of variety in form and structure, so must it ultimately be rejected as an explanation of human differences. The second involves the idea of reincarnation, which implies that man is the result of his own past, being what he has made himself. Viewed from this standpoint, the differences which characterise people are no longer a problem. They are the summed-up results of the experiences of previous incarnations. The birth of a genius, a saint, a sage, those remarkable differentiations from the average stock that so puzzle the observer of life, can thus easily be accounted for ; for they are seen as the product of accumulated endeavour and work carried over a period of many lives ; they but reveal the finer possibilities and powers that lie dormant in others. In them is witnessed a flowering of the Spiritual Ego.

Thus, viewed from the standpoint of the Divine Purpose, every one is finally of equal value, since all are destined to reach the goal of perfection ; viewed, however, from the standpoint of present attainment, no one individual can be said to equal another. In truth, life is a congeries of inequalities, though this fact naturally does not find favour with many people, divorced as it is from the idea of the evolution of faculty. For it implies the acceptance of inborn, hence inevitable, superiority and inferiority ; it gives rise to many abuses, for those more fortunately endowed at birth use their powers in many cases carelessly and thoughtlessly, if not deliberately, to their own advantage, unmindful of the

obligations that should always be associated with power and talent ; it also forms a source of perplexity to those who feel the need for a logical and just explanation of these inequalities. Many of the latter can, of course, be traced to a lack of opportunity either in education or environment, though this does not explain *why* one person should be favoured more than another. Lack of opportunity for full development, however, does make it difficult to distinguish the false inequalities due to these artificial handicaps from the real inequalities, for which there is no immediate remedy, due to the inborn nature of the individual. In fact, the obviousness of these artificial handicaps, which the social order allows, have led many somewhat hastily to opine that no inborn qualities are involved in the general differences of mind and body, and that the social conditions and opportunities are alone responsible for these.

Yet, though inequalities abound, every individual is necessary, for mutual interdependence conditions existence, and civilisation, or any form of social life could not be maintained without at least a partial compliance with this law. For it is obvious that the differing services of all are essential to the welfare of the modern state. Hence, every one must be looked upon as possessing something of value to contribute, according to his capacity, to that welfare, and he should be able to find his right place in the social scheme. Prior to the industrial revolution and the tremendous increase in population that has taken place during the last one hundred years, it was comparatively easy for the individual to find his own niche and sphere of usefulness, but to-day, when employment depends so much upon the operations of large industrial undertakings and international trade and financial conditions, the fitting in of the individual is fast becoming a problem involving the highest statesmanship for its solution.

The recognition that the mutual interdependence of mankind is based on the varied and unequal endowment of the

human units will ultimately entail a re-adjustment in the social organisation, for a competitive system, in so far as it affects the subsistence level, is inadmissible where the competitors are so unevenly handicapped. From each according to his capacity, to each according to his need, becomes a sane maxim to follow where a differentiated humanity is concerned, for it implies the full and free functioning of every individual and the complete development of his personality. The common destiny of man and the fact that he is an evolving being on the way to the development of higher powers still awaits practical recognition, but when this is accorded a lively sense of Fellowship with all in the great adventure of life will be created, and World Brotherhood will then cease to be a dream or a phrase and become a living reality.

THE CAUSE OF SORROW AND PAIN

Another difficulty which reincarnation helps to solve is the apparent injustices, apart from limited ability, of the conditions that surround so many people's lives—injustices which it seems almost impossible to harmonise with moral law. Why are some born to a life of misery and suffering, and others to lives of joy, happiness and achievement? Why do some enjoy love and companionship while others plough a lonely furrow? Why are some born with deformed, unhealthy, diseased and unlovely bodies whilst others have well-made, graceful, physical bodies, charged with the vital force that makes life a joy? These are questions that excite the minds of thoughtful people, yet if everything is amenable to law and order, as science is demonstrating, law must also be operating to determine the conditions into which people are born. These cannot be merely the result of chance, or even of injustice; but though the working of the law in this sphere is as yet obscure to the majority of minds, reincarnation can demon-

strate that it is capable of rational interpretation. For the law of sowing and reaping which St. Paul taught extends in its operations over many lives, and according to the deeds of the past will be the conditions of the present. After every sowing the inevitable result is reaped, joy following the doing of the right, sorrow that of the wrong. "Suffering," H. P. Blavatsky said, "is Heaven's merciful medicine for the spiritually sick." It is the means whereby right is distinguished from wrong, the true from the false, and, though pain follows on mistakes, its purpose is remedial, and if endured in the right spirit it becomes the source of future power. The knowledge of Reincarnation, therefore, not only enables man to interpret life in terms of justice and love, but it gives him a sense of mastery over his own destiny, inspiring him to achieve and to mould his life to ever higher and higher purposes, until he reaches the stature of the Perfect Man.

CHAPTER II

HEREDITY

DURING the earlier part of the last century man was generally regarded as the product of social and moral influences produced on the human mind by environment, experience, habit and education. This conception gave rise to the familiar idea that the child's mind was a clean sheet on which the educationalist could write what he wished, the faculties and behaviour of the child being the result of training, up-bringing and surrounding mental and moral influences. Adam Smith sums up this view in his "Wealth of Nations," as follows : "The difference of natural talent in different men is in reality much less than we are aware of, and the very different genius which appears to distinguish men of different professions, when grown up to maturity, is not upon many occasions so much the cause as the effect of the division of labour. The difference between the most dissimilar characters, between a philosopher and a common street porter, for example, seem to arise not so much from nature as from habit, custom and education." Locke's theory that there are no innate ideas still held sway, and J. S. Mill was maintaining "that of all vulgar modes of escaping from the consideration of all social and moral influences on the human mind the most vulgar is that of attributing the diversities of conduct and character to inherent natural differences." The generally accepted view of man, therefore, was that he was the result entirely of his reactions to his environment, that environment made the man.

Gradually, however, it was found that the differences that characterised people could not be fully explained by an appeal to environment. Experiment demonstrated that the reactions of children to identical conditions of life varied considerably. Robert Owen, a pioneer, almost a crusader in the social and industrial domain, was an ardent believer in the value of environment, and in his social experiments he relied on the adaptability of human character and intelligence by external and more or less mechanical changes in its environment. However, the failure of his social experiments with children who were taken from widely differing surroundings and subsequently subjected to the same external influences and advantages helped to disprove the idea of the value of environment as the sole moulding agency in the development of the child's mental and moral nature.

DARWIN'S WORK

The secret of differentiation between one person and another was not to be discovered so easily, though the effect of environment in its action on the individual could not be discounted. Gradually also the evolutionist view of Nature began to emerge from the obscurity in which it had lain hidden. Prior to Darwin, whose name will always be popularly associated with the fact of evolution, other naturalists had given expression to the view that Nature had gradually developed and was still in process of perfecting herself. Buffon (1707-1788) and Erasmus Darwin (1731-1802), Charles Darwin's grandfather, and above all, Lamarck (1744-1839), were all keen evolutionists and subscribed to the doctrine of the descent of species. Many other evolutionists, whose names are less well known, also preceded Darwin. It was, however, the work of Darwin as the supreme field naturalist that made evolution the keynote of

our age. Every one to-day, despite differences of intelligence, occupation and experience, is interested in the new conception of life that has gradually been released since the days when Darwin, as a result of his famous voyage in the *Beagle*, became convinced of the truth of the evolutionist view of Nature and of the common descent of species. Darwin's evidence for evolution was overwhelming, for he showed clearly that law and order were working in the realm of form and that a common plan underlay the building of all forms in the various kingdoms of Nature. Further, he presented his facts so simply and fairly that all who wished could easily grasp the idea of evolution, and thus it came with the force and fascination of discovery and made the whole world new. Evolution, therefore, implies a process of orderly change, and special significance attaches to the idea of order in connection with change, as this suggests some purpose or design in life, and that the universe in its aspect of becoming is working towards some predestined goal. Thus does Science lend support to the religious conception of a plan in life, the outcome of the Divine purpose.

The essential factors in Darwin's explanation of the method of evolution were :—

(1) That the organism is capable of giving rise from within to a number of *spontaneous* small variations, of various degrees, and in all directions. These small variations he considered to provide the raw material of progress. "The more I work," he wrote, "the more I feel convinced it is by the accumulation of such extremely slight variations that new species arise." *

(2) That these variations were heritable, the parent organism transmitting to its offspring the spontaneously acquired characteristics.

* Thus, according to Darwin, change in species is a slow process, and a series of intermediate forms must connect one species with another.

(3) That Natural Selection was the driving force behind the processes of development and variation, meaning by Natural Selection the action and reaction that took place between an environment and a living organism. Thus Natural Selection determined that only the fittest variations should survive, for those organisms that could not or did not evolve the useful variation naturally died out, being at a disadvantage. The others, however, prospered and produced offspring which inherited the useful variation, and so gradually the species became modified and progress was ensured.

(4) That the struggle for life must be maintained, in order to enable Nature to weed out the unfit individuals of any species.

There is no doubt that Darwin's insistence on the struggle for life as essential to the process of evolution had a great influence on the social outlook of a fermenting age, which was trying to re-adjust its thought to the new view of life. Insensibly it became permeated with the idea that life was a struggle for mere survival ; that men were combatants in a common fight for existence. Thus it actually seemed as if the new doctrine not only supported but justified a competitive system of social order. For Darwin the softening of the struggle meant the cessation of human progress. Logically, therefore, no room was left for a spiritual interpretation of life or for the development of the social virtues upon which human fellowship depends and which it is the aim of religion and ethics to foster.

Darwin's explanation of progress, depending as it did upon the transmissibility of variations, caused attention to be centred upon the value of the inheritance as the principal factor, determining the characteristics of the individual. The explanation, moreover, it was realised, applied equally to the evolution of human faculty as to the development of the variety of forms. Gradually, therefore, the idea of heredity

as exercising a predetermining influence on the character and ability of the child commenced to challenge the view held by the environmentalists. The child began to be regarded as the product of hereditary factors received from his parents, and to these factors was attributed the diversities of human talent and expression. This view, however, gave an unsatisfactory picture of the child limited or helped by that which had been handed on to him by his forebears, and more or less helpless in the grip of heredity.

It was small wonder, then, that this application to human life of the new teaching did not win entire approval. In fact, it aroused a good deal of opposition, for not only did it seem to detract from the free-will of the individual, but it appeared to undermine his sense of moral responsibility by leaving him more or less free to lay the blame for any moral delinquency at the door of heredity.

Time and further investigation, however, increased belief in the effect and value of heredity, for it became increasingly obvious that inborn differences obtained in children, and pending greater advance in knowledge, these could only be attributed to the hereditary law. Now Dr. C. S. Jung, the eminent psychologist, has revived the theory of innate ideas, for he holds "that they seem to be supported by the spontaneous and untaught moral reactions of children, which seem to be pre-formed or hereditary in their constitution."

Neither did the idea of the gradual evolution of all forms find general favour; its strongest opponent, however, was found in Western Religion. The thought that the human form was the crown, as it were, of the age-long experiment of the evolutionary process in the lower kingdoms of Nature was intolerable, for it was incompatible with its teaching of the special and direct creation of every form by the Divine activity, which alone brought into being the various populations of plants, animals and men that inhabited the earth. It

is interesting to note in this connection, and at the time of writing, that a recrudescence of this opposition appears to be sweeping over the lay mind in several States in America, where the doctrine of evolution is seen as antipathetic to the religious interpretation of the method of creation; this has resulted in a movement which has actually been able to force the State of Tennessee to pass what can only be a temporary measure—namely, an Anti-evolution Bill, prohibiting the teaching in all its public schools.

The antagonism of Religion was rooted in the fear that the conception of an evolutionary process in Nature, ever perfecting its work as it went along, would do away with the idea of a personal God. Since everything evolved itself, where was the need of a designer? Yet, as Bernard Shaw points out in his preface to "Back to Methuselah," had people thought, they would have realised it was just as difficult to give the initial force as to create different species." In fact, the biologist and the naturalist, in their search to discover the secret of the movement of life in all forms, are but establishing further evidence for the regularity of all natural processes, and are revealing to the religious thinker that here, as everywhere else, law is the expression of the Divine Mind in Nature.

REJECTION OF DARWIN'S EXPLANATION OF EVOLUTION

Although, however, Darwin's incomparable collection of facts established the case for evolution as the law of life, further research did not support his explanation of the *method* of the process. There was the difficulty of understanding how the first small variations avoided being swamped by intercrossing with other ordinary members of the species. Secondly, it could not be proved that all the adaptations and structural differences were an advantage to the individual

organism in the struggle for life, or indeed served any useful purpose at all. Thirdly, obscurity still surrounded the origin of the variations, for the question, How did they arise? was not satisfactorily answered. Lastly, further investigations gave no conclusive evidence for the transmission of the small variations, by the gradual accumulation of which, according to Darwin, the distinctive types were evolved.

Moreover, the study of another kind of variation, technically known as an acquired character, or modification, increased the suspicion with which the evidence for transmission was regarded. Acquired characters are the variations which take place *during the lifetime* of a plant, animal, or human organism, and constitute its response or adaptation to a change in its external conditions. On investigation they seemed to have little, if any, influence upon the next generation. No satisfactory evidence for their entailment could be secured, though Darwin himself believed in their transmissibility albeit they occupied but a subordinate part in his scheme. Lamarck, however, believed thoroughly in the inheritance of use and abuse, and, as is well known, attributed the length of the giraffe's neck to individual effort followed by transmission of the result. Sometimes these adaptations, or acquired characters, are of a very temporary nature, such as the tanning of the skin by the sun, the development of a muscle after exercise, and the change in the shape of the leaves of a plant under the influence of an unaccustomed environment. Sometimes the modifications are more lasting, and persist after the inducing conditions have been withdrawn. Whether of a temporary or lasting nature, however, they are important in proving the elasticity of all growing forms and their adaptive response to changing outside influences and to changed habits. Moreover, the power of adaptation is of immense importance to the organism, for unless it can fit in with its environment it cannot function properly, even if it continues to survive. The

human form appears to be the most elastic of all organisms, for it can adapt itself to a great variety of widely differing surroundings. Thus the environment appears to act as a kind of liberating stimulus for innate powers, just as it will have been observed that changes of environment and companionship will often provoke into expression faculties hitherto dormant and even unsuspected in the human being.

Every organism, therefore, has belonging to it a power of adaptation, but it does not follow that the specific adaptations of a particular organism are passed on to the next generation. Darwin, however, as has been seen, did not regard these adaptations that *visibly* took place in response to a change in external conditions as of any great value to the creative process. It was the small variations, or minute fluctuations, that arose spontaneously in an organism that he relied upon as the agents of evolution, for these he considered to be transmissible, natural selection determining which among them should be maintained.

These Darwin termed individual variations, and they form the minute fluctuations which, for example, take place between parent and child, or distinguish brother from brother, sister from sister ; or mark out the kittens and puppies from each other in their respective litters. Investigating this type of variation, the Swedish experimenter, Johannsen, in 1903, carried out a series of experiments with the kidney bean, in order to prove whether the small fluctuations in weight shown by these beans indicated a definite deviation from the mean, having a heritable value, for the offspring. No evidence however, could be obtained for the transmission of these fluctuations. Moreover, there seemed no reason for even supposing that these small individual variations, which meant so much to Darwin, were stages in any continuous effort at the development of new species. They appeared just to be wayward changes without any real stability ; and even when

small fresh peculiarities were persisted in, they seemed to be ends in themselves, brought about by a sudden change, and not in any state of transition. Therefore, even if the latter could be attributed to an effort at adaptation, the selective process apparently applied only to the earlier generation and not to the subsequent ones that just "sat still," content to profit by the result, making no further effort at improved adaptation. Gradually, then, critical research tended to turn down the small variations as being of little value in the evolutionary process. Evolution did not seem to be progressing through a series of gradual changes.

SEARCH FOR CAUSE OF VARIATION

The primary problem of evolution, however, is rather the process of variation itself and not what happens to the variation once it has arisen. It was evident that definite changes of a distinct nature did arise spontaneously in all forms, some having a permanent—*i.e.*, heritable—and others a transitory value ; but since they seemed to come into being ready made, as it were, the way in which they were produced could not be observed. It was difficult, therefore, to fathom whether the environment had any effect or not on their production, but naturally this became the field of research which attracted and held the attention of the investigator. So began in Weismann's time a long series of searching experiments which are still proceeding, in order to try and find out whether spontaneous variations of a heritable nature can be induced by environment, and also to test at the same time whether the acquired character or modification already referred to brought about in the lifetime of an organism by a change in surrounding conditions can be transferred to the inheritance.

To this end artificial conditions were introduced into the environment, and successive generations of offspring care-

fully watched to see if any would be born with new adaptations or modifications as a direct result of the changed conditions. Success did not attend these efforts, however, though quite recently some satisfactory results have been claimed in connection with the present-day experiments conducted at the Institute of Experimental Biology at Vienna. Among these experiments, recorded by E. W. MacBride in his book, "An Introduction to the Study of Heredity," may be mentioned an interesting one conducted with mice, in which an endeavour was made to teach an association of ideas. They were fed once a day, and each day when food was put into their cage an electrical bell was rung. It required 300 lessons to impress on these mice the meaning of the ringing of the bell. When, however, a first "filial generation of mice was bred from them, 100 lessons sufficed to teach these younger mice to seek their food when the bell was sounded. In the second filial generation this result was accomplished in thirty lessons, and in the third filial generation in five lessons." Another experiment showed that the colouring of salamanders was influenced by changes of colour in their surroundings, and that the effect of the change made itself felt in the constitution of the young. Both these experiments, in the opinion of the investigator, gave proof of the inheritance of an acquired characteristic.

Many of the other experiments conducted at this Institute are of a character revolting to the moral sense and even if they do enable any real or useful advance in knowledge to be made, which is extremely questionable, that advance can hardly be justified by the means used. Frequently, however, they add nothing to what is already known and hence it is to be hoped that these particularly futile, and, even with the use of anæsthetics, cruel experiments will soon cease; for they offend not only the sensitive kindly side of human nature, but also the æsthetic sense as well, and raise grave doubts in the

minds of many as to whether truth can ever be approached by such methods. If the secret of progress is to be penetrated by the human mind it must surely be discoverable by a better, more legitimate and less debasing use of the intellect, which will not alienate the finer feelings in man.

The above detailed experiments, however, do not give any conclusive evidence for the transmission of the new character as to warrant assuming that changes in species can take place in that way. Prof. MacBride himself observes, in connection with the experiments: "Of course, the newly-inherited habit does not persist in its full strength if the young are not exposed to the same conditions as their parents." This seems to suggest that the response of the parent has but enabled the offspring to make a similar response in a shorter time, but has not transferred a quality as such, and that the innate capacity for temporary adaptation is wider and deeper than had been estimated. For any definite change in species something more than a habit is required. The change induced by the habit must be capable of remaining relatively stable, as too much plasticity would scarcely enable it to be used as a point of departure or a "jumping-off ground" in the development of something new. In other words, for a character to be proved heritable the young must be capable of maintaining the change even when the inducing conditions are removed.

Experiment and observation along these lines, therefore, have, up to the present, failed to record with any degree of satisfaction, whether an organism responds to its environment in a way sufficiently definite to produce an entire change in structure or capacity which would be also heritable. Adaptation may be taking place, but the process cannot be detected. To all appearances, the organism makes the change at its own sweet will and in its own time. So it began to be suspected by many investigators that changes were not so much the result of natural selection, followed by a transference

to the inheritance, as induced from within, and that every fresh variation was an expression of an innate capacity, hitherto latent, but now thrown outward by the organism. Professor J. A. Thomson describes these variations or mutations as expressions not impressions ; they are outcomes, he says, not dints ; " they are not wrought upon the creature from without, but arise directly from within."

NEW DEPARTURES

Moreover, there was a distinctive kind of spontaneous variation, which lent support to the new view, that could not be fitted in with Darwin's scheme of gradual change. These variations, it was noted, occurred rarely, but when they did they gave rise to sudden and conspicuous new departures from the common stock, which were definitely heritable. Their arrival could not be traced to any unusual condition in the environment or nurture, neither did they seem to be adaptive in their nature or to serve any useful purpose. Here, then, was no gradual evolution, but a sudden emergence, the cause of which was and still remains a source of perplexity to the biologist. In popular language they are spoken of as sports and novelties, and those concerned are quick to take advantage of their arrival, and they become the starting point for new varieties of plants and breeds of animals.

Darwin knew of these larger variations, but he attached no importance to them, as he considered they had no staying power and had nothing to do with the main flow of the evolutionary movement.

These variations, however, became full of significance for later investigators, and led to the new conception of the creative process so clearly defined by Professor Bateson. "Variation," he said, "occurs as a definite event, often producing a sensibly discontinuous result ; the succession of varieties comes to pass by the elevation and establishment of

sporadic groups of individuals owing their origin to such isolated events." The new form thus produced is sharply and completely separated from the species out of which it sprang ; it becomes an independent species, producing offspring like itself.

THE SYNTHETIC NATURE OF VARIATION

When such a distinctive variation arises, however, it is rich in potential characteristics which it then proceeds to analyse out gradually in detail. The variation is in essence a synthesis, but capable of displaying its component parts, just as white light, though a synthesis of colour, is capable of being split up into its seven divisions. It can ring the changes on its central theme, gradually revealing the secret of its contents through a multiplicity of forms, without whose aid it could not display its possibilities. Thus, in its early history, the sweet pea produced two varieties, which Professor Bateson can only conceive of as spontaneously arising, though no doubt, he says, the profusion of forms that we now have was made by the crossing of these original varieties.

Professor Thomson points out, referring to this process, that "when domesticated rabbits of different colours are bred together promiscuously their descendants tend to be eventually all grey like the wild rabbit. Man," he says, "has sifted out all the various colours from the complex coloration of the wild stock, and when the long-separated items are brought together again by unrestricted interbreeding there is a reconstruction of the original grey colouring."

Further examples of the potentialities of new departures are obtained from a study of the evolution of the rose, the apple, the pigeon, and the domesticated animal. These instances are all the more interesting, since they illustrate the

measure of control that man has gained over the law of evolution. Although man cannot originate fresh variations, or even understand the process, his co-operation seems to be necessary if all the potentialities of new departures are to be released. Thus the cultivator and the breeder are seen as the instruments whereby the beauty and richness of their contents are gradually unrolled, though it must not be forgotten that man is but aiding a process that is already at work in Nature, as the immense varieties of butterflies and moths bear witness to. Man, therefore, is evidently used and required in the process of evolution, and he can aid Nature's processes by endeavouring to understand and to provide the conditions that she requires. These conditions include not only intercrossing but an appreciation of the effects of nurture, such as changes in food and surroundings. The effect of environment, therefore, cannot be ignored or discounted, since the results obtained by the experimenter prove that it is an enabling factor in his work. A different *rôle*, however, to that previously allotted to it is gradually being assigned to its influence, as has already been seen, by the main body of considered opinion. Due to a readjustment in ideas, it is assuming more and more the aspect of a liberating stimulus instead of that of a formative agent. As such it is a factor, but not the only one, in progress.

The variations, however, still continue to maintain a distinctive character, however much they reveal the versatility of their nature. The rose remains a rose though numberless varieties of roses have resulted from the original rose. The horse remains a horse though various strains may be bred from the type. Moreover, the variations seem bent upon retaining their distinctive characteristics, for they are conservative in their habits and will not lend themselves readily to the production of new species by intercrossing, though they will blend quite freely with members of their own species. No

result of any value is obtained by crossing an apple and pear, but the different varieties of these two species will mate quite happily amongst themselves, a fact which is used by the gardener to produce the varieties of apples and pears familiar to all. When members of different species are crossed with one another they are generally sterile ; sometimes they produce offspring which are called hybrids. The latter, however, are usually sterile, as in the case of the mule, the result of crossing a horse with an ass. The possibilities and limitations of this method in the production of new species are well described in a few words by Professor Bateson. He suggests that once distinctive types have arisen, new species may have been derived from their crossing and subsequent re-combination. New species, he says, "may be now in course of creation by this means, *but the limits of the process are obviously narrow*. On the other hand, we see no change in progress around us likely to culminate in the evolution of forms distinct in the larger sense. By intercrossing dogs, jackals and wolves new forms of these types can be made, some of which may be species, but I see no reason to think that from such a material a fox could be bred in indefinite time or that dogs could be bred from foxes." Thus Nature would seem to protect her species once they have been evolved, though each species is extremely versatile in itself and has great freedom of expression, especially when cultivated, within its own particular limits.

Under the general term "variation," therefore, are included two distinct kinds :—

- (1) The larger spontaneous variations giving rise to new species and which almost always breed true from the first.
- (2) Individual or ordinary variation which takes place also spontaneously within the species and which includes :—
 - (a) The varieties which result from the analysing out, through the agency of man's deliberate work or

Nature's unseen care, of the potentialities of the larger variations.

- (b) The small minute fluctuations peculiar to an organism, to which modern science attributes little if any staying power, but which Darwin believed to be stages in the development of new and constant characters leading to the formation of new varieties and ultimately to new species.

The phenomenon of individual variation, which cannot overstep the limit of a species, must not, then, be confused with that of the emergence of the entirely new departure—the larger variations which remain relatively stable. The two form distinct though related processes. The cause of either is not yet distinguished by modern exoteric science, though readily recognised by Occult Science, which has its own methods of investigating Nature's secrets.

By artificial selection, then, man can separate out the ingredients of a variation, as in the example of the rose and the apple, and by repeated selection can maintain the desired result. His work, therefore, is not only evidence of the complex nature of a variation, but of the possibility of discovering and isolating a particular quality. He can, however, only play with the factors that have been provided for him. He cannot induce any distinctly new forms to arise. A new species appears all at once; it originates from the parent species without any visible or gradual transition.

THE CREATIVE ENERGY OF AN ORGANISM

It was not surprising, therefore, that the study of these larger variations began to lead to the conclusion that they provided the raw material for the evolutionary process and that Darwin had made a mistake when he turned so com-

pletely away from them ; for they pointed to the existence of a creative energy within the inner recesses of the organism. So the organism and its powers became the centre of attraction, the point of investigation being the nature of the creative energy which produced the changes in form and quality.

Thus did critical research gradually come to reject Darwin's theory regarding the method of evolution, and lead Professor Bateson to state in his Address to the British Association, in 1914 : "Modern research lends not the smallest encouragement or sanction to the view that gradual evolution occurs by the transformation of masses of individuals. . . . We have done with the notion latterly favoured by Darwin that large differences can arise by accumulation of small differences. . . . We go to Darwin for his incomparable collection of facts, we would fain emulate his scholarship, his width, and his powers of exposition, but to us he speaks with no more authority. We read his scheme of evolution, delighting in its simplicity and its courage."

Transmission, to the lay mind, seems such an easy method of progress that one is tempted to wonder why it does not occur, but Professor J. A. Thomson gives very clearly the case against transmission in his book, "The Control of Life" : "If individually acquired gains could be entailed the same would also apply to individually acquired losses. From the point of view of racial welfare, modifications are not entailed, because an advantageous constitution is thus saved from being damaged by dints and buffetings incident upon the chequered life of the individual body."

Though Darwin's method has been rejected, however, it must be borne in mind that no other alternative explanation is as yet forthcoming from modern science, for so far no one has been able to penetrate to the heart of the mystery. Thus, as to the causes of the isolated events of variation modern

science is, as Professor Bateson says, "absolutely without surmise or even plausible speculation"—a statement the substance of which was again substantiated by the President of the zoological section of the British Association in 1925, who, in the course of his Address, said: "For some species we know fairly certainly what has happened and where and when and why; shall we ever know how?"

The great secret of the organism, so far as science is concerned, remains unreleased, though further investigations of a fascinating nature have added considerably to present-day knowledge of the subject.

WEISMANN AND THE GERM PLASM

As a result of the transference of interest from the environment to the organism itself the nature of the germ plasm, as the reproductive material, became the centre of discussion and analysis. For variation to arise, it was argued, some change must take place within the germ cells, thus influencing the growth of the organism. It was the researches of Professor August Weismann in this connection that profoundly influenced modern ideas of heredity, for he established the case for germinal continuity. He showed conclusively that the germ cells, as distinct from the body cells, lead a segregated life in the organism. They are set apart at the very beginning of the embryonic life and enjoy a sheltered existence until they in their turn are required, on the maturity of the organism, to produce the marrying cells which shall give rise to fresh offspring. Thus, the first care of every growing organism is to provide for the steady continuance of its own kind, for the fact that at the very beginning of the new life some portion of the germinal material is put aside ensures that like shall produce like; the specific organisation persists through the medium of the ever-protected germ cells, and thus the offspring is made in the image of the parent.

"Life is like a current," Professor Bergson says, "passing from germ to germ through the medium of a developed organism." The rest of the germinal material, meanwhile, is used to form the basis of the building material out of which the body of the offspring is built up. These body cells it is that have to face the battle of life, and share in the experiences of the individual, and though they may suffer considerably from the activities of the latter, yet they cannot communicate either their grievances or their enjoyments to the isolated germ cells, which remain intact and unaffected by what has happened to the body and mind of their bearer.

If, however, nothing of an extrinsic nature can affect the germ cells, the influence of heredity is not lessened. In fact, it will be seen at once that heredity assumes an even greater importance if acquired characters and experiences cannot be transmitted, for this implies that nothing can be added to the inheritance. All powers and qualities of whatever kind, all capacities for variation therefore, must be latent within, pre-existent, awaiting only the right conditions for their expression. Evolution, then, to quote Professor Bateson, can be "represented as an unpacking of an original complex which contained within itself the whole range of diversity which living things present. At first it may seem rank absurdity to suppose that the primordial form or forms of protoplasm could have contained complexity enough to produce the divers types of life. But is it easier to imagine that these powers could have been conveyed by extrinsic conditions? Of what nature could these additions be?" Thus the final blow seemed to be given to the idea that characters acquired by a parent could be transmitted, since the germinal material is not apparently ready to receive any further contributions in the way of additions.

OCCULT SCIENCE

The idea of germinal continuity, therefore, led to the inference that variations must be due to a change of arrangement or of motion in the inner recesses of the germ plasm, and that each fresh departure, whether large or small, whether of the nature of a new species or of a variety of the latter, is the result of an original effort at expression, somehow initiated by the organism itself. It is of great interest to note how closely the above inference approaches to the teachings of Occult Science regarding evolution, for one of the Masters of that Art who was jointly concerned with one other in the founding of the Theosophical Society wrote: "The potentiality which develops finally in a perfected Planetary Spirit lurks in us is in fact that primordial cosmic atom. Neither this atom and its companion atoms nor their derived atoms, which form the roots or are the developing causes of new genera, species, classes, etc., have lost one tittle of their original force or life essence by the evolution of their derivatives. The force there is not transformed into something else, but with each development of a new centre and acting from within, it itself multiplies *ad infinitum* without ever losing a particle of its nature in quantity or quality, yet acquiring as it progresses something plus in its differentiation. This 'force' so called, shows itself truly indestructible and may be said to grow and expand into something else, while neither its own potentiality nor being are in the least affected by the transformation."

MENDEL'S FACTORS OF INHERITANCE

The study of heredity received a great stimulus in 1900 from two related sources: one, the publication of a work by Professor Hugo de Vries, of Amsterdam, entitled "The Mutation Theory," giving an account of his experiments

and observations on the origin of species in the vegetable kingdom ; the other, the re-discovery of Mendel's epoch-making investigations, published in 1865 and then lost sight of. Mendel did not concern himself with evolution as a process, but he discovered the "law of Heredity"—that is, he discovered that certain factors corresponding to definite characters in an organism inhere in its germ cells, and that law governs the distribution of these factors in the descendants. It was by his experiments, mainly conducted with the ordinary pea, that he revealed the existence of factors (or characters or genes, as they are also called) within the germ cells. The pea is habitually self-fertilised, but Mendel crossed a giant variety with a dwarf variety and waited for the result. The first generation of peas were all tall, but evidently the factor for shortness was still present in the germ cells, though overshadowed for the time by the factor for tallness, for when the tall cross-bred peas were left to self-fertilise or inbreed some of their progeny (the second generation) were talls and some were dwarfs in the definite proportion of three to one. The dwarfs of this second generation were then left to self-fertilisation, and it was then discovered that the factor for tallness had been inhibited, as all the offspring were dwarfs, and further generations bred from them were also dwarfs. Evidently, then, the dwarfs had rid themselves from the taint of the cross to which they had been subjected.

When the talls of the second generation, however, were inbred it was found that, though some bred true, as did the dwarfs, yet others again gave off the dwarf variety, thus showing that a factor can remain in the germ cells yet be prohibited from expression by the presence of another factor which seems to dominate it or hold it in check.

Further experiments showed that this Mendelian law of inheritance applied to a number of characters in plants and animals, and that a knowledge of its working would enable

the practical cultivator and breeder to analyse out undesirable characters from a variety and to blend together desirable strains. Great benefit has already been derived by the application of the law in agriculture, and it is being used to advantage on the sheep-farming ranches of Australia.

Mendel, therefore, came to regard the inheritance as built up of a number of factors or determinants, each one corresponding to a characteristic in the animal or plant. These factors are of a separable nature ; they do not blend ; they are either in evidence showing out as the special characteristics of an organism, or they are latent, unexpressed, held in abeyance by the dominance of another factor. Further, these factors are distributed in the offspring in accordance with definitely ascertained laws. Thus, desirable and undesirable characters reappear faithfully under this law unless the former are deliberately weeded out. Every so often, however, another kind of change takes place amongst the factors, and when this happens the larger variations (the sports) come into being. Something distinctively new is created, which almost always breeds true from the first without any need for repeated selection. As de Vries says : "The new species appears all at once ; it originates from the parent species without any visible preparation, and without any obvious series of transitional forms."

Further investigation has revealed the fact that numbers of these unit characters appear in the human inheritance and follow the same law of distribution in the progeny as they do in the other kingdoms of Nature. Obviously it has not been possible, however, to experiment with this law to the same degree in the human kingdom, but ample evidence of the inexorableness of its working is obtained in the cases of insanity, feeble-mindedness, dwarfness, hare-lip, night-blindness, etc. The defect persists generation after generation, and once a Mendelian undesirable factor becomes

isolated or separated from the mass of the inheritance, the only way to obviate its reappearance, since it cannot be weeded out deliberately, is to segregate the individuals who possess its corresponding characteristic and prevent them from marrying. The well-known Jukes family of America may be quoted as illustrating the inheritance of a unit-character. The Jukes came of bad stock originally, and it is true that under the influence of improved environment and inter-marriage with better stock some improved, and eventually were able to hold good positions in society. In 1915, however, there were still 600 feeble-minded and epileptic Jukes, the descendants of five Juke sisters.

THE NEED FOR RATIONAL SELECTION

The increase of knowledge that has thus been obtained regarding the heritable nature of these undesirable characters is causing many social reformers and biologists to seriously consider whether the welfare of future humanity will not necessitate steps being taken to prevent the multiplication of these unfit individuals. Another factor which increases the complexity of the problem is the increasing kindly social feeling and sense of solidarity of the age. For this demands that care shall be taken of every child born, and thus there is a greater preservation of unfit child life than ever before; this applies not only to the definitely unfit abnormal child, but to the weak or diseased though otherwise normal child as well.

The struggle for life also is now less severe and will become still less so as fellow feeling intensifies. Hence natural selection no longer weeds out, as it has done in the past, those who physically and mentally might not otherwise be able to stand the strain of life. Moreover, many diseases which swept away thousands of people in the past, and necessarily those having the weakest resistance power, have now been controlled by advance in sanitary and medical knowledge. The

problem of the composition of the future population of the world, therefore, is now added to the perplexities of a changing age. All types of individuals have now a fairly equal chance of at least surviving, and, since there can be no return to the old conditions of life, progress itself demands that social or rational selection shall be increasingly substituted for the natural selection of the past.

The race must be improved by sustained and systematic endeavours to better the physique, the moral and the mental development of the individual. Even a little analysis of the present social conditions in connection with the education and housing of people, must convince even the casually humane person that all is not as it might be, and that much could be done for the immediate improvement of the human race by some readjustment in the social order.

FACTORS IN HUMAN INHERITANCE

The working of the Mendelian factors in human heredity seem easier to follow in the abnormal cases of which instances have been given ; for they stand out so clearly. It has, however, been proved that the colour of the eyes follows this law, and there is, as Professor Thomson says, "a growing body of evidence that some of our mental peculiarities belong to the unit-character type . . . such as the roving impulse that runs in families. The same may be true of well-defined temperaments—*e.g.*, excitable or nervous, phlegmatic or quiet ; of curious mental twists that make their possessors see everything crooked ; and of those agreeable idiosyncrasies and originalities which add a charm to life." Wherever any definite trait stands out in the inheritance continuous from one generation to another, even if of a minor kind or superficial sort, such as the shape of the nose and the ear, or the kind of hair, a unit character is involved ; a unit character can be only so determined by its behaviour in the inheritance,

for such characters work in isolation and refuse to blend with any others. Therefore their presence gives rise to definite results in the organism.*

The inheritance, however, is not composed only of unit characters, for there are characters which blend when crossed in the offspring ; but as the result of Mendel's work the principle of genetic inheritance was firmly established, so that the natural inheritance is now assumed to consist of a number of factors or genes present within the germ cells of all organisms. In the human inheritance the factors generally appear to work together as a whole, producing the average more or less harmonised individual, of similar development, with few exceptions, to his parents, since the law that like produces like obtains as much in the sphere of consciousness as it does in the realm of form.

The hereditary qualities, therefore, modern science now considers, are carried by representative particles in the germ cells ; these act and re-act upon each other and, entering into combinations and intricacies of their own, influence the growth of the organism and determine its characteristics and qualities. "Progressive evolution," Professor Thomson says, "probably depends on a sifting and singling of the continuous crop of germinal variation." Each organism, therefore, has a rich background of possibilities to draw upon, and the differences between parents and children will be accounted for by the re-arrangement of the hereditary factors, or the inhibition of a factor, or the release of a factor hitherto held in check. It was this interesting interaction that presumably takes place between the factors that caused Professor Bateson to exclaim : "I have confidence that the artistic gifts of mankind will prove to be due not to something added to the make-up of an ordinary man, but to the absence of factors which in the normal person inhibit the development of these gifts. They

* The thoughts and feelings of the mother also act as direct and potent influences on the unborn child, sometimes strongly affecting its physical traits.
H.R.

are almost without doubt to be looked upon as releases of power normally suppressed. The instrument is there, but it is stopped down."

Thus, each child is, as it were, a new experiment in combination and expression of the factors of inheritance. As to what causes the interplay that takes place for each new creature nothing is known by science, but the activities of these factors during the development of the germinal life will determine the limitations and possibilities of the individual during the lifetime, for the body and brain will be shaped accordingly. Hence, no amount of training can create a new talent, for the physical body, as stated in the previous chapter, cannot adapt itself to uses for which it has not been fashioned. The effort at expression, however, is not lost, since it is invaluable to the spiritual Ego, who will see that it finds fruition in a future life through a suitable vehicle.

It is very interesting to note here that a parallel to the larger variations that occur suddenly in the lower kingdoms is found in the equally sudden emergence of the man or woman of genius. Here, however, the analogy ends, for genius is not a new variety. On the contrary, it stands alone, a unique individual experience, yet shows by its arrival the possibilities of the inheritance from which it sprang. The genius is, perhaps, the greatest problem to the biologist, for there is not only the problem of his arrival, there is also that of his departure; not only whence he came, but whither has he gone; for, so far as the inheritance is concerned, he seems to leave no trace behind him, and his offspring (if he have any, for genius is often sterile) do not generally profit in the biological sense by the supernormal powers of their parent. With him departs the glory of the inheritance. The special factorial combination that produced him is dissolved.

Apart, however, from these special cases, the general law operating between parents and children is that like tends to

attract like, and thus the more or less stratified nature of society is explained. For parents usually attract to birth in their midst children who are generally of their average of refinement and mentality, though they may express the endowment in totally different ways to their parents. Thus a parent may be a mathematician of some ability, indicating a certain high degree of mentality. The children, however, though possessing equal mental ability, may express it along other lines and may even have no capacity for mathematics at all.

Thus there is no evidence to suggest that mental qualities follow any system of descent, as Mendel's unit-characters do. Therefore it is not possible to rely upon any special characteristic of the parent being again singled out for expression in the offspring. So the problem of human inheritance is complicated by its uncertainty, and this very uncertainty suggests that some other vital influence is at work in the determination of human destiny.

THE PROBLEM OF THE FACTORS

The issue, therefore, that now confronts the evolutionist is how to account for the movement that takes place amongst the factors in any inheritance. Hence the questions that hold the attention of the biologist are : What is the nature of the force that plays upon the germ-cells ? What determines that one characteristic rather than another shall be expressed ? What is the cause of the assignment of the varying gifts and capacities to each human being at birth ? At present, ignorance of the law of variation is freely admitted, and thus the evolutionary experiment can only be seen by the observer as a series of effects, the causes of which have still to be ascertained.

THE THIRD FACTOR IN THE EVOLUTIONARY PROCESS

Various suggestions have been put forward to account for the phenomenon of changefulness. It is suggested that the

paternal and maternal lines of descent provide the factors in the germ cells with the opportunity of making fresh and intricate permutations, combinations and rearrangements. Or, where new departures are concerned, it is surmised that the germ plasm may be stimulated by changes in diet and hence in the blood, or by changes in environment. Professors Thomson and Geddes, however, in their book "Evolution," favour the theory of the modern vitalists' movement which, denying the mechanistic interpretation of life, assumes that the power of unceasing creation belongs to every living creature. "The secret of variation," they suggest, "lies deeper still in the very nature of the living organism itself. It has been a proteus from the first; changefulness is its most abiding quality; in short the essence of the creature is its own innate creativeness. To-day," they state, "the biologist is compelled to recognise the persistence of some originative impulse within the organism which expresses itself in variation and in all kinds of creative effort and endeavour." Professor Bateson also says: "The facts of heredity and variation unite to prove that genetic variation is a phenomenon of individuals. Each new character is formed in some germ-cell of some particular individual at some point of time." Whence this impulse is derived and why new characters should appear still, however, remains to be determined, but it is of intense interest to note that a third force is being thus associated with the evolutionary process. Besides environment and heredity there is this third factor which may be defined as the function of the organism itself. This includes (1) its inherent power to initiate a change from within in response to some as yet undetermined stimulus; (2) its behaviour during its lifetime, the way in which its informing consciousness reacts to environment, or in other words, the dynamic relationship that exists between the organism and its surroundings.

Recognising the interaction of this third factor, Professor Thomson writes : " Our inheritance is like a number of buds to which we cannot add ; but the environment is like the soil and the rain, which determine that this bud shall unfold generously while this other shall haply remain asleep. Some of us are one-talent men, more of us are five-talent men, a few are ten-talent men. We cannot be born again biologically. But what we make of our talents depends upon what we make of our nurture, *which is in some measure within our control.*"

OCCULTISM AND THE HIDDEN PROCESSES OF NATURE

Much help may be derived in the elucidation of this aspect of function, which covers such a wide field of operations, from a study of Occult Science which has knowledge of the hidden processes of nature. Occult Science recognises that certain powers are latent in man which when developed will greatly extend the area of his personal investigations, and will enable him to obtain direct knowledge of the process of evolution. One such power is the psychic faculty. Its expression, however, is dependent upon the functioning of the Pituitary Body and the Pineal Gland, two organs located in the brain which, when active, add considerably to the perceptive powers of the individual. As the sense organ of the eye focusses certain waves in the ether called light vibrations so these two organs, when vivified, focus other and finer vibrations enabling the individual to recognise the phenomena of the subtler worlds as objective realities. The Pituitary Body and Pineal Gland thus act as additional sense centres in the brain.

The development of the psychic faculty can be stimulated, but it involves a certain discipline of life which few are prepared to follow. A Master of the Wisdom, writing of the conditions which must precede first-hand knowledge of the inner worlds said : " Fasting, meditation, chastity of

thought, word and deed ; silence for certain periods of time to enable nature herself to speak to him who comes to her for information ; government of the animal passions and impulses ; utter unselfishness of intention, have been published as the means since the days of Plato and Iamblichus in the West, and since the far earlier times of our Indian Rishis."

The knowledge that Occult Science possesses, therefore, is the result of first-hand investigation on the part of those Seers who have fully developed and trained the latent powers of the human consciousness. Much of this knowledge is recorded in Eastern literature. The "Puranas" of India contain the story of the world, and the "Secret Doctrine" by Mme. Blavatsky gives an outline of that story from beginning to end. A study of the Secret Doctrine would well repay the investigator into the process and purpose of evolution.

Occult Science knows of the existence of great Orders of Beings who play a very important part in the evolutionary process. All around in space, that is, in the other invisible worlds which are in relation to the physical world, are multitudes of intelligent conscious beings who pursue their lives as we pursue ours. Christian teaching recognises the existence of these hosts of beings of various grades under the general name of Angels. Very little, however, is understood about the nature of their activities. Although they are assumed to be active agents in the service of the Supreme, their work is not defined with any degree of precision. In fact, they play very little part in the economy of Christian thought.

Part of the work of the Angels (or Devas as they are called in Eastern Religion) is to watch over and help the evolution of forms in the lower kingdoms of nature. They are the agents of the evolutionary process and under their guidance and with the help of the vast hosts of Nature Spirits and

fairies * the development of the mineral plant and animal organisms takes place in orderly succession. Theirs is the creative impulse which working upon the factors in the germ cells, releasing them from latency, and regrouping them periodically, causes fresh variations to arise seemingly "spontaneously." Gradually under their care, and occupying immense periods of time, the evolution of form proceeds, culminating eventually, by a further rearrangement of the factors, in the emergence of a more highly organised form capable of expressing at last the powers of self-consciousness. When this form appears on the evolutionary stage, man, the thinker, takes possession of it, and begins his long pilgrimage.

In the animal, consciousness is automatic, instinctive ; but when the human organism is evolved automatic action ceases, and man begins to work out his own salvation as he then becomes responsible for his own actions. In Occultism, "Man" is defined as that being in the universe in whom highest Spirit and lowest Matter are joined together by Intelligence. For a long time, however, he is hampered by the passions of his animal ancestry which have been woven into the materials out of which his physical body is formed.

IS MAN DESCENDED FROM THE APE ?

The anthropoid ape is commonly regarded by anthropologists as man's ancestor. Professor Wood-Jones, however, holds strongly to the view that the anthropoid apes are really man's descendents. He dates the arrival of man back to Eocene times where he places him as a contemporary of *Tarsius* at the very base of the primate stem. "Tarsius," he writes, "is a curious little animal which still lingers to-day, a specialised primitive primate, nearer akin to man than any

* An account of the activities of the Nature Spirits is contained in "Fairies at Work and at Play," by Geoffery Hodson, and interesting evidence for their existence is detailed in "The Coming of the Fairies," by Sir A. Conan Doyle.

other animal known to the zoologist. . . . He is found in the Malayan Islands. In the next geological period (Miocene), the remains of real anthropoid apes occur, so we are certain that their specialisation away from the more primitive pro-human form took place early." *

Occult Science supports this view, for it asserts that the anthropoid apes are the late descendents of an unfortunate mixture of some members of the human and the animal kingdoms which took place some millions of years ago about the beginning of the Eocene period. Wholly dominated by their animal instincts these primitive human beings mated with ape-like animals not very different from themselves in form. From this union there sprang a race half-human and half-animal from which the apes of to-day are descended.

THE RACES OF HUMANITY

In the human kingdom, as is pointed out by one of the Masters, "from the first appearance of man, the structural intention of his organisation has not radically changed. Ethnological characteristics, however varied, affect in no way man as a *human being*. The fossil of man or his skeleton, whether of the period of that mammalian branch of which he forms the crown, whether cyclop or dwarf, can still be recognised at a glance as a relic of man. Plants and animals, meanwhile, have become more and more unlike what they were."

Variations, however, involving factorial changes, take place within the human species, producing the very marked differences between the three recognised races of mankind—the Negroid, the Mongolian, and the Aryan races—into which humanity is divided to-day. Each race, moreover, is a synthesis in itself, and possesses the same capacity as the large variations in the lower kingdoms of

* "The Problem of Man's Ancestry," by Professor Wood-Jones.

Nature for analysing out its potentialities. This it proceeds to do through a succession of sub-races or off-shoots which differ somewhat from the parent stock, but yet retain its essential characteristics. These differences are the result of a gradual process of differentiation similar to that which is visibly taking place in America to-day, where the formation of a new type is receiving definite recognition by ethnological experts.

Occult Science has a great deal to reveal regarding the formation and distribution of the different races in the world. Thus the Aryan race was subject to the same law of gradual evolution, but the experiment took place in Central Asia, around the shores of the Gobi Sea, which is now the Gobi Desert, at the back of the Himalayan mountains. It was there that the root stock was finally fixed about 60,000 B.C., and there that its off-shoots were developed by a process of segregation in certain mountain valleys of the Himalayas. These off-shoots or sub-races, four in number, emigrating in turn from their home, moved westward and northward, building civilisations which subsequently passed away, whose ruins are now being studied anew, and slowly giving birth to the civilisation of the present day. It is interesting to note that the archæologist is beginning to turn his attention to this district at the back of the Himalayas, and the zeal of the investigator may soon give scientific corroboration of that which is knowledge to the occultist.

Professor G. Elliott Smith states * that though men have lived upon the earth for vast periods of time, civilisation did not begin till about sixty centuries ago, and diffusion of culture did not take place till about 3,000 B.C. Here Occult Science comes sharply into conflict with scientific teaching, for early humanity was never without its teachers and guides

* See Chapter on "Anthropology" in "Evolution in the Light of Modern Knowledge."

who instructed man in the arts and crafts of civilisation. During Eocene times a fine civilisation existed belonging to the Atlantean race, the race which preceded the Aryan, of which the Mongolian peoples are the descendants to-day. This civilisation was destroyed in a cataclysm about the middle of the Miocene age, 4,000,000 years ago.

The root stock of the Aryan race finally went into India, and gave birth to the wonderful civilisation that obtained in India for some thousands of years. Thus the pure Indian Aryan represents the mother stock of the race, and the new type in America, when it is properly fixed, will form its sixth sub-race.

This process of fixation, which involves factorial recombination, is not, however, an automatic one. It takes place under the guidance of one of the Masters of the Wisdom, a great adept, who is known as the Manu, or leader of a race, and part of whose work it is to watch over and direct the gradual evolution of a race and its sub-races. The Manu forms in his own mind, after the conception of the Great Architect of the Universe, "the plan of the man that is to be, which he will gradually realise along the lines of natural evolution. These laws of evolution are used by the Manu with scientific knowledge, and therefore with certainty. In the same way that a scientific breeder, dealing with the animal kingdom, can breed towards a desired type, so, on a higher plane, does the Manu of a race mould by the same laws of evolution the physical form of the race he desires to evolve." * It is obvious from a study of the causes which are producing the new type in America that inter-crossing of the human stocks and the effect of environment are two of the means used to this end, but the existence of a third influence, to which reference will be made later, needs to be recognised for a full comprehension of the process.

* From "Evolution and Man's Destiny," by Dr. Annie Besant.

PSYCHOLOGY

In the human inheritance, apart from the factorial changes that produce the divisions of the races and sub-races, function is constantly operating in the two-fold way already described.* It is evident that in the very beginning of the embryonic life it determines the endowments of the future individual by bringing into prominence certain factors in the germ-cells for the purposes of the new being that is to be born. Secondly, it is the power or will or energy that shapes the individual life, and which each one possesses in different degrees.

From the biologist's point of view, not much is known about the behaviour of this third force, but the work of the psychologist provides him with a clue where the human kingdom is concerned, since function includes the working of the human consciousness, of the free-will, of what religion calls the soul or spirit in man, of what Theosophy defines as the powers of the spiritual Ego. The aspect of function, therefore, in human inheritance is of great complexity, as it embraces all the powers, potential as well as actual, of consciousness. Further, it is the most important of the three forces of which man is the product; for it is conceivable possible to secure, by joint human effort, a good social environment for all, but no educational facilities, no favourable surroundings will create a talent, or endow a person with qualities. Neither does a good inheritance ensure capacity since common-place children are born from distinguished parents and *vice versa*. What do matter far more are the innate powers and tendencies in given directions that each one brings with him through the gateway of birth. These are sometimes so marked in an individual that they enable him to dominate adverse conditions and humble origin, as in the case of the poet Burns, of the late Socialist

* See page 52.

leader, Keir Hardie, and other outstanding figures in the various departments of human activities.

The analysis of the aspect of function and the general agreement that mental and moral qualities are not transmitted clearly shows the necessity for a readjustment of views regarding the part played by heredity in the evolution of the higher creatures.

DISSOCIATION OF LIFE AND FORM

Another significant trend of thought which it is of great interest to note is the increasing tendency, though only very tentatively expressed at present, to dissociate life or consciousness (function) from form or body and to regard the former as playing upon or working through the latter. For this tendency the modern psychologist and biologist are in the main responsible, since both alike are concentrating their energies on the science of behaviour of living organisms. Thus Dr. Burt, M.A., in his Address to the British Association in 1923, emphasised "the supreme importance for *right psychological diagnosis* of viewing body and mind as a single organism. A man is something more than a carcass coupled with a ghost. Material and spiritual are reciprocally involved, and the two together are to be treated as inseparable aspects of one highly complex whole."

Professor Tansley says : " We do not know exactly what is the relation of psychic energy to physical energy . . . just as we do not understand the relation of mind processes to brain processes, though we know that such a relation exists. Our picture of the structure of the mind is vaguer and less complete than our picture of the structure of the physical universe. This is because we do not obtain the picture of mind structure and mind energy directly through our senses, but indirectly through inference and reflection, and these are much less capable than are the senses of giving us sharp and vivid pictures."

Research work in mental diseases is also helping to dissociate mind and body, for it is showing that it is the body that becomes diseased and not the mind, which latter remains unafflicted but incapable of balanced expression due to the defects in its vehicle. Thus the problem of intellectual and emotional disorientation is rooted in bodily disturbances.

The circle of enquiry, therefore, is being narrowed down more and more to the region of life or consciousness, and, though Western psychology is only just beginning to subject the human mind and emotions to close scientific analysis, it seems likely that further investigation will lead to the inference that this is the region whence operates the force that plays upon the factors in the germ cells, making fresh demands upon their resources and their powers of combination and regroupment. This inference, however, implies that life is something distinct from form, and that, though an intimacy of co-operation exists between the two, yet the former has a continued and independent existence of its own and subordinates the physical vehicle to its requirements.

THE RE-DISCOVERY OF REINCARNATION

Further, when consciousness in its immense range of varied expression is studied with the same patience and persistence as the evolution of form, the great differences intellectually and morally between people will assume a new significance. For the question must arise why in one case, when the life is associated with form, does it give rise to exquisite emotional, mental or spiritual expression, whilst in another case it creates the moral delinquent? And it may well be that the endeavour to answer this problem will lead to the further inference that two lines of evolution converge in man, those of life and form, and that just as a long past lies behind the evolution of his body so does a long past lie behind the unfolding of his consciousness. Then, if and

when this is conceded, will inevitably follow the further question : Where, and under what conditions has the consciousness unfolded or unpacked its powers? And so finally by a process of logical reasoning, based upon and arising out of the facts of life, the mind in man will be led to the discovery, comparable to that made by Darwin when he glimpsed the truth of evolution in the world of form, that life is a continual process of unfoldment, and that repeated incarnation in a multiplicity of forms is the method of evolution for the human spirit. Some of our advanced thinkers seem already to be on the verge of this discovery, but it will not be made by any single department of knowledge alone. It is too magnificent a generalisation to be released by any one line of investigation. Rather will it be a summation of effort to which the naturalist, the biologist, the geologist, the philosopher, and the psychologist will each have contributed his share. Nor must it be forgotten that the intellectual avenue is not the only approach to the understanding of the secret of life. As Professor Thomson truly says : " Do we not at times come nearer to it through sympathy? Wordsworth, Emerson, Meredith, these and many other Nature-poets, are perhaps the truest because the deepest biologists of us all." The quality of sympathy is closely allied to that of the intuition which Bergson defines as " the wider faculty of knowing, of which intelligence is the contraction." For the intuition is a direct expression of the spiritual man, as the Theosophical classification of the several states of human consciousness clearly shows, and by its means an identification between subject and object can be obtained, resulting in an inner understanding of the object observed. The contemplation of the evolutionary process is the contemplation of God's plan for men, and since each individual life expresses part of the plan the latter can be apprehended by man if he be in sympathetic accord with the whole of Nature's work.

It is, therefore, not surprising to find that some of the most forceful and beautiful corroborations of the fact of reincarnation come to us through the intuition of the poet. In virile, almost challenging tones, Walt Whitman proclaims his belief :

“ I know that I am deathless,
I know that this orbit of mine cannot be swept
By a mariner's compass.

As for you life, I reckon you are the leavings of many deaths
No doubt I have died myself ten thousand times before. ”

Tennyson also, seeking to unravel the mystery of the feeling of human intimacy with another, suggests the idea of Reincarnation in the following lines :

“ So, friend, when first I looked upon your face
Our thoughts gave answer each to each so true,
Opposed mirrors, each reflecting each,
That though I knew not in what time or place
Methought that I had often met with you
And either lived in either's heart and speech. ”

Sir Edwin Arnold, in his wonderful exposition of the Lord Buddha's teaching, writes :

“ The Books say well my Brothers ! each man's life
The outcome of his former living is ;
The bygone wrongs bring forth sorrows and woes,
The bygone right brings bliss.

“ Who toiled a slave may come anew a prince
For gentle worthiness and merit won ;
Who ruled a King may wander earth in rags
For things done and undone. ”

REINCARNATION THE SOLUTION TO THE PROBLEM

The fact of reincarnation throws a flood of illumination upon the problem of the nature of the interaction between environment, heredity and function, and enables an approximately correct estimate to be obtained of their respective

values. Moreover, a critical survey by the individual of each of these forces as affecting his own life will enable him to obtain some insight into the experiences, aspirations, and work of that long past of which he is the outcome, whilst the understanding of the ultimate aim of human development will help him to recognise something of the purpose of his present incarnation and to eliminate those defects and weaknesses of his nature which act as hindrances to the releasing of his inherent divinity.

Reincarnation provides an answer to all those problems that so mystify the scientific investigator. It explains the source of the originative impulse within the germ cells of the human inheritance by revealing the nature of the force that plays upon the factors in the inheritance. For it is the character, faculties and needs of the reincarnating Ego that act as the selective agencies within the germ-cells, utilising unit characters in the inheritance, and picking out those factors which will result in the fashioning of a certain type of body adapted to his requirements. Thus every child, as modern science surmises, is inevitably a new experiment in expression by the factors.

Reincarnation also sheds light upon the persistence of the undesirable unit or Mendelian factors in an inheritance. For they must be causally related to greater or lesser defects of character, or to wrong ways of living and thinking in the past. They constitute the logical outcome of the infringing of Nature's laws of health and conditions of progress. When we know how to live cleanly and purely, these abnormalities will disappear.

The fact that consciousness unfolds gradually by means of the process of reincarnation, explains the differentiation of humanity into races and sub-races ; for all qualities cannot be developed at the same time. Human perfection must be accomplished by the development and fixation of various

qualities, mental, emotional and spiritual, in various races and sub-races. Thus the individual by taking successive births in these divisions of mankind, gradually develops that synthesis of expression which is characteristic of the spiritual man who is approaching perfection of being.

At the present time a distinctly new attitude to life is being released. Mankind, disoriented in many ways through the experiences of the Great War, is endeavouring to recover equilibrium at a higher level. The ideal of Brotherhood is being more and more insistently pursued, and as this means a fundamental readjustment in outlook, it is not surprising to find that, correspondently, the beginnings of a new race type are already discernable in the world. The unfolding consciousness in man, therefore, is the hidden cause of the emergence of the new type in America which is being slowly fashioned by the forces of environment and racial blending.

It will be some hundreds of years, however, before the type will become fixed, but as it gradually progresses towards stabilisation, it will slowly assume a leading position in the world. "Civilisation," to quote from the Master's words, "is an inheritance, a patrimony, that passes from race to race along the ascending and descending paths of cycles. During the minority of a sub-race, it is preserved for it by its predecessor which disappears, dies out generally, when the former comes of age."

From the standpoint of reincarnation the supreme importance of heredity, apart from its insurance of the continuity of a like form, lies in the kind of material, the matter, that is provided by the parents for the building of the body of the future entity; the choice of the materials, and hence of the parents, will be determined by the ideals and mode of life of an individual in the past.

Mrs. Besant clearly illustrates the relation between heredity and function in the following quotation from "The

Ancient Wisdom" : "The physical heredity of the family affords certain types and has evolved certain peculiarities of material combinations ; hereditary diseases, hereditary finenesses of nervous organisation, imply definite combinations of physical matter capable of transmission. An Ego who has evolved peculiarities in his mental and astral bodies needing special physical peculiarities for their expression is guided to parents whose physical heredity enables him to meet these requirements. Thus an Ego with high artistic faculties devoted to music would be guided to take his physical body in a musical family, in which the materials supplied . . . for building the body, would have been made ready to adapt themselves to his needs, and the hereditary type of nervous system would furnish the delicate apparatus necessary for the expression of his faculties. An Ego of very evil type would be guided to a coarse and vicious family, whose bodies were built of the coarsest combinations, such as would make a body able to respond to the impulses from his mental and astral bodies. An Ego who had allowed his astral body and lower mind to lead him into excesses, and had yielded to drunkenness, for instance, would be led to incarnate through parents whose nervous systems were weakened by excess, and would be born from drunken parents, who would supply diseased materials for his physical envelope. The guidance of the Lords of Karma* thus adjusts means to ends, and insures the doing of justice ; the Ego brings with him his karmic possessions of faculties and desires, and he receives a physical body suited to be their vehicle."

This physical relationship obtaining between parents and children explains how it is that diseases such as consumption can be transferred from parent to child without the germ cells being contaminated in any way. The tendency hitherto

* The Recording Angels of the Bible whose work it is to administer the law of cause and effect and to see that every individual reaps what he sows.

has been to regard certain diseases as hereditary, due to defects in the germ cells, and hence inevitably transferred to the offspring. Experiment, however, with environment is demonstrating that consumption obtains no secure hold on the individual provided he is removed sufficiently early from the contaminating surroundings and is subjected to the most favourable conditions possible, so that the body has a chance of throwing off the diseased materials, thus regaining its equilibrium.

Again, the fact that character and ability determine the kind of physical body required explains why birth is taken in a particular nation and family ; for these are chosen for their capacity to provide suitable materials wherewith to build the body and suitable surroundings for the early years of life. Hence the same average of development is generally maintained in a family, like attracting like. Many exceptions, however, to the general rule do occur, and not infrequently a person finds himself born amid conditions of life that are quite out of harmony with his temperament and his own quality of culture and ability. When this happens such an individual is often called upon to do some special work in the world for which knowledge of particular conditions is imperative. Perhaps a class, a nation, a race requires to be helped, and so some one having the necessary superiority in mental and emotional endowments or spiritual discernment is guided to take birth in unusual or peculiar and incongruous surroundings.*

Reincarnation, moreover, is not only necessary to any rational interpretation of the creative process, but it is essential to justify the ways of God to man ; for the concrete mind, freeing itself from tradition and religious dogma, and fearlessly examining the facts of existence, is challenging the love

* The thoughts and ideals of parents also help to determine the kind of individual who will take birth in their midst.

of the Supreme, which seems lawless in its distribution of sorrow and joy to man and incomprehensible in its method of working. Reincarnation, however, restores justice to God and reveals the perfect love behind the law which ordains that everyone shall reap where he has sown, for only thus can he realise the consequences of his thoughts, words and deeds, and only thus is he led to discover that the law ultimately compels obedience to the great principle of brotherly love for, so long as the latter is infringed, so long is peace or lasting happiness impossible to man.

Many years ago, in ancient Egypt, a Master of the Wisdom, a member of the Occult Hierarchy that governs our world, gave certain basic Truths to a young disciple, which the latter was instructed to give out to the people. A careful analysis of these Truths will reveal not only that they are fundamental to every religion but that they form a clear and concise statement of the evolutionary process.

"There are Three Truths," the Master said, "that are absolute and which cannot be lost, but yet may remain silent for lack of speech.

"(1) The soul of man is immortal and its future is the future of a thing whose growth and splendour have no limit.

"(2) The principle which gives life dwells in us and without us, is undying and eternally beneficent, is not heard or seen or smelt, but is perceived by the man who desires perception.

"(3) Each man is his own absolute law-giver, the dispenser of glory or gloom to himself; the decreer of his own life, his reward, his punishment.

"These truths, which are as great as is life itself, are as simple as the simplest mind of man. Feed the hungry with them."

SUGGESTED BOOKS FOR READING

- "The Secret Doctrine." By H. P. Blavatsky.
"Popular Lectures on Theosophy." By Annie Besant.
"Man's Life in Three Worlds." By Annie Besant.
"A Study in Karma." By Annie Besant.
"The Pedigree of Man." By Annie Besant.
"Evolution and Man's Destiny." By Annie Besant.
"Man Visible and Invisible." By C. W. Leadbeater.
"How We Remember Our Past Lives." By C. Jinarajadasa.
"First Principles of Theosophy." By C. Jinarajadasa.
"The Control of Life." By J. A. Thomson.
"Evolution." By J. A. Thomson and P. Geddes.
"The Problem of Man's Ancestry." By F. Wood-Jones.
"An Introduction to the Study of Heredity." By E. W. MacBride.
"Ether and Reality." By Sir Oliver Lodge.

The above books may be obtained from or through the publishers of this volume.

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