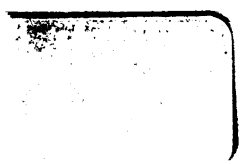

THE GRAMMAR OF LIFE

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BY
G. T. WRENCH

In the last stage of civilisation, poetry, religion, and philosophy will be one, and there are glimpses of this truth in the first. H. D. THOREAU.

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INTRODUCTION

PERIODS of great international communication have of necessity been accompanied by a great variety of thought expression and a multitude of conflicting creeds, religious, philosophical, and political.

The most notable period of such intellectual activity and unrest, previous to our own era, was the time when Rome was trying to unify her dominions under an Empire that stretched from the British Isles to the borders of Persia, and from the Danube and the Rhine to the desert of the Sahara. The various parts of this wide Empire were linked together by military roads and a postal system, and the constant intercourse between nations led to the intermingling and contention of religious and political creeds. From Greece came Epicureanism and Stoicism, the latter of which philosophies found especial favour

from the existing though decaying patriotism of the nobler Romans. From the North the Germans and Goths brought the warrior creed of Teutonic Heathendom. From Egypt and the more visionary nations of the South came Mysticism, Neoplatonism, and the recondite ritualism that was characteristic of the worship of Isis and Serapis. Throughout the Empire the vast slave class formed a discontented and dangerous political element, and their power was accentuated and the possibility of their freedom exalted by the rapid spread of the Christian religion.

Amidst the confusion due to the conflict of these and many other intellectual expressions of man's relation to life, there grew up, firstly, a despair of any definite conception of morals, and, secondly, an intense and eager desire for some positive religious belief, a desire which eventually was embodied by Constantine, when, by a bold stroke of statesmanship, he adopted Christianity as the official religion of the Empire.

At the present day we witness a still wider intercommunication of nations. Practically the whole habitable globe has been visited and described by members of the more highly educated

nations of Europe. We are able to read of the savage tribes of Africa and the Animism that is their method of answering the life mysteries that surround them. Students who have enjoyed Dr. J. G. Fraser's *Golden Bough* and Professor Tylor's *Primitive Culture* have gained thereby a wide acquaintance of primitive beliefs. Elsewhere amongst the races of men we can learn about a vast variety of religious and philosophic expressions. To name only a few that find their homes in the East, there are Muhammadanism, Buddhism, Brahmanism, Confucianism, Babiism, and Shintoism, all of which have their advocates amongst distinguished European thinkers such as Dr. Leitner, Professor Rhys-Davids, Mrs. Annie Besant, Professor James Legge, Mr. E. G. Browne, and the late Mr. Lafcadio Hearn.

On the student these religions of the East, that have long served for the moral aspirations of many millions of men and women, cannot fail to make a deep impression. Most of us, however, are more closely affected by the number of conflicting beliefs that are so evident in our midst. The Christian religion, torn asunder by many internal factions, unites only to face the attacks

of Rationalism and Skepticism. Rival philosophies, such as Positivism, Idealism, and Materialism, make their bid for popular attention. New religions spring up constantly and spread amongst those eager for a new revelation with the swiftness of a prairie fire, whilst practical men, wearied of the din and conflict of dissatisfying rivalries, shrug their shoulders and abandon altogether the field of metaphysical speculations. Even they, however, cannot escape from the rapid transitions of thought that follow upon the trail of the vastly increased means of intercommunication, and innumerable political remedies are offered to them as panaceas for innumerable national and class troubles.

On a larger scale, Capitalism wars with the increasing power of Socialism, Toryism assaults Liberalism, Secularism challenges the sway of the Churches, and now and again the assassin's knife or the explosion of a bomb comes as a reminder of the dread spectre of Anarchism. Not even Science, to which many turn in the hope of rescue, is free of contention, and though Evolution, under the masterly hand of Charles Darwin, has won a definite and decided victory, many

rival theories still rouse the ire and enthusiasm of their opponents and supporters.

Amidst all this confusion of tongues, two things have arisen to-day similar to those that characterised the Pagan Roman Empire. The first is a certain despair amongst those who have not sufficient time to devote to the comprehension of the multitude of creeds and philosophies, and of obtaining a definite understanding of morals, and correlated to this is an intense desire for some positive conception of the duty of man and the proper exercise of his higher nature.

Perplexed and troubled by the chaos that existed, and the vexation of intellectual unrest, I set myself some ten years ago to attempt some solution of the problems that surrounded me. I conjectured that my best method of doing so was as far as possible to gain all the experience I could, and gather from it the common qualities and formulae of knowledge. To that end I read books of as varied a nature as I could obtain, comprising philosophies, religions, sciences, histories, general literature, and fiction. I had at times opportunity of travel, and though limited

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CHAPTER I

KNOWLEDGE AND PURPOSE

MAN's knowledge of the universe is founded on the perceptions of his senses. The senses are numbered as those of sight, of hearing, of taste, of touch, of smell. All man's knowledge of things ultimately depends on the perceptions his consciousness receives through these senses.

The Nature of Knowledge.

The knowledge that is imparted to him by the speech of other men or by a new perception is recognised and received by him in terms of his stored, previous perceptions. Thus it is easier to give a description of St. Peter's, Rome, to a man who has seen St. Paul's, London, than to a native of Borneo, who has never left his island. The first has had the previous similar perceptions to enable him so to group those perceptions in his mind as to form a mental picture of St. Peter's, Rome.

Conception is the power man has of variously

grouping his memorised perceptions and producing mental pictures. For instance, he can recall the face of a friend or he can group his perceptions of blood and his perceptions of the sun and conceive the sun being turned into blood.

In grouping his perceptions he will find certain perceptions are like to each other and certain are unlike. For example, the perceptions of things by his sight depends on those things having visibility. They differ from the things he perceives by his ears, which have audibility. This recognition of the common quality of things perceived will be called abstraction in this book, and the recognition of difference differentiation.

Man's knowledge of the universe or of anything in the universe, it must be repeated, depends ultimately upon his perceptions. Consciousness itself depends on previous perceptions. Without memorised perceptions, with which to compare the present perceptions, consciousness would not exist.

His knowledge is a description of these perceptions and of their relation to other previous perceptions. All his knowledge, therefore, is ultimately dependent on the perceptions he has received.

Examples of the Dependence of Knowledge on Perception:

For example, what a man knows about a pencil is what he discovers by sight and touch and what others tell him through his ears about writing with it or through his eyes by drawing and writing with it. The geometrist will tell him its shape, the chemist its constituents, the physicist its structure, and so on.

His full description of it would be an account of all these perceptions, and his knowledge of the pencil is the sum of these perceptions.

On the other hand, to an animal such as the cat, whose perceptions are different from ours, a pencil would appear merely as a stick and not in any peculiar way different from other sticks.

Again, a man looks at the clear sky and describes it as blue, he looks at grass and describes it as green, but to a man blind from birth colour can have no meaning, he has no perceptions of it, and therefore can have no conceptions of it, for conceptions are groups of memorised perceptions.

Man's universe, then, is not the universe in itself, but his description of the perceptions he himself receives of the universe. Man's Universe.

This is a principle of knowledge of profound importance, that things in themselves man does not know, but only the perceptions he receives from them. As to the nature of things in themselves he cannot know. *His knowledge of the universe is relative to his perceptions and is a description based on his perceptions.* Relativity is the key to the understanding of life.

An illustration:

As an illustration let us take the motion of living creatures and the molecular motion of iron.

Man, being a living creature, is more intimately concerned with the first type of motion, and his sensory organs have been evolved in such a way that they notice especially the motion of living matter. But the molecular motion of iron does not intimately affect man and his senses are quite incapable of recognising it directly. This distinction is not due to its minuteness, for the stupendous motion of the earth revolving at the rate of eighteen miles a second is also not directly noticed by man.

The differences in these motions, therefore, depend on man's perceptions of them. Any intrinsic difference between the motions as things in themselves is beyond the sphere of man's

knowledge. Their qualities and their existence in man's universe depend on man's perceptions.[1]

The Question of the Purpose of the Universe.

Having laid down as a dogma that the universe as man knows it depends on his perceptions of it, we now go on to ask what is the purpose of this universe in which man lives as a conscious being? What is the purpose of the universe, what is 'put before' it, what is its aim? To answer this it is necessary to find out what the students of the Man-Universe can tell us about it.

Students of the Universe and their Knowledge.

The men who have applied their perceptions to the universe in the commonly accepted use of the term, viz. the stars and the planets, their nature and composition, and compared these perceptions in thought (thought being the comparison of perceptions), are the astronomers, the physicists, and the chemists. Their knowledge of the universe is founded on the perceptions they receive from their senses, aided by such instruments as the telescope, the balance, and the test-tube.

Their united evidence tells us that the universe is indestructible and eternal, that there is no evidence that it ever had a beginning, that it will

[1] A fuller exposition on the nature of knowledge will be found in Professor Karl Pearson's *Grammar of Science*, to which book the present writer is in many ways greatly indebted.

never have an end, and that it is in a state of eternal transition.

The Astronomers, with the aid of the physicists, tell us that the universe is composed of matter in motion, in innumerable forms and conditions, and that these conditions grade into one another.

The nebula in the heavens is the initial condition of a system of stars and planets. It is a mass of attenuated matter, glowing with light due to its electric state or meteorites heated by constant collisions. By condensation the nebula becomes a hot sun. Planets arise either by being flung off from the revolving sun or by centres of condensation of vapour and heated meteorites forming in the nebula. Thus a solar system, as we now see it, is formed. By comparing and grouping perceptions of the stellar universe as it now is, astronomers can conceive a general arrangement and order in this process, and they tell us that the planets will become cold like the moon, that finally they are drawn nearer and nearer to the sun, until at last, instead of revolving round the sun, they become again incorporated with it.

All this time both sun and planets have been dissipating heat into space. Thus astronomers trace the cycle of evolution of a solar system, viz. from the widely spread attenuated gaseous

nebula to the cold revolving sun with planets incorporated.

The next step, the recharging of the cold sun with active motion, light, heat, and energy, and its return to the nebulous state, and the beginning of a fresh cycle will occur. The exact method by which this will be brought about, astronomers have not yet clearly conceived or formulated.

Collisions of the heavenly bodies result in the conversion of potential or locked-up energy (the locked-up heat of a piece of coal is an example) into active energy (*e.g.* the heat and light the coal gives out when alight). The collision lights up the stored energy into active energy, much as two flints struck together produce sparks. Such a collision with another large body would restore a cold sun, that had lost its heat, to the nebulous condition, and this is one way in which the cycle of change may be restarted.

But what of the dissipated energy, the heat and light poured into space? Is that lost? It is impossible that it should be so. Nothing is lost in the universe, its condition is only changed, its relation to other things altered by motion, even as our relation to our surroundings is constantly changing by our motion and the motion of our surroundings.

If not lost, is it diffused and will the eventual

state of the universe be one of diffused energy? Will the energy of the stars and systems eventually reach a condition of general diffusion. This is also impossible. Matter in the presence of matter always produces motion. The sun affects its planets with active motion and the planets their sun, star affects star, system affects system. Energy is only another name for this motion, and motion is that which results from matter being in the presence of matter. Thus energy cannot be separated from matter; it is a condition of matter. What happens, then, to the so-called dissipated energy? No certain answer can be given, yet we have glimmerings of a possible description.

Some modern scientists state that energy and matter grade into each other, they are different forms of the same thing, that matter in its ultimate composition consists of what are named electrons, which are the elements of electricity.

If this is so, then as matter attracts matter, it is not difficult to apply this property of matter to energy and conceive energy, dissipated into space, flung out from stars and systems as heat, light, and chemical rays, attracting dissipated energy and forming into masses of electrically glowing vapour eventually seen by the astronomer through his telescope as nebulae.

However this may be, the main thesis of the astronomer is that the universe is eternal and eternally in cycle transitions, and that *in spite of the brief nature of human life and the study of astronomy* compared to the life history of a star, he is able to see with his telescope most of the stages of the stellar cycle in the starry heavens. He can perceive stars in embryo as faintly luminous nebulae, he can see stars in being, he can see stars growing more condensed, and he can detect them when they have lost nearly all their active energy. From these phenomena he abstracts common qualities, viz. evolution, the uprise and the growth, and devolution, the downward grade, the decay. All this he can perceive and conceive, and sometimes he has seen a new star blaze forth into the heavens, which may be the rebirth of a dead star. The stages of dissipated energy he cannot perceive. As to its fate he can only conceive of it. He perceives that matter attracts matter. The physicist tells him that solid matter, fluid matter, and gaseous matter (*e.g.* ice, water, and steam) of like molecular composition differ according to the degree of motion there is of the molecules, that the more rapid the internal motion with which matter is imbued, the less and less material it becomes, in so far as matter means that which

is capable of being recognised by our senses, until matter seems to merge into motion. In other words, matter and motion have no line of demarcation between them. Possibly, then, as matter attracts matter, dissipated energy, which is active motion, may attract energy, and so again become condensed, and be restored to the condition that is perceptible, namely, matter.

The Physicist confirms the astronomer and is co-worker with him. He has found that, as the universe according to the astronomer is in eternal transition, so are matter and energy eternal, indestructible, but ever-changing. He has found that the total of energy and matter is ever the same and always will be the same and must always have been the same in the universe which man perceives and of which he has knowledge.

The Chemist tells us that the elements of which the outermost stars, the nebulae, the sun, the earth, and man's own body are constructed are the same, that the vast universe is constructed of the same matter, although the actual form of this matter and its chemical composition is ever-changing, sometimes being built up into more complex substances, sometimes being broken down into simpler substances.

Thus astronomer, physicist, and chemist are united in stating that the universe is eternal and

in eternal transition. Nothing in it is ever destroyed, it is only changed.

Significance of the Eternity of the Universe as regards its Purpose and Aim.

What, then, is the purpose of the Universe? Can there be a purpose to the Eternal? There is ever the same amount of matter and motion, active and passive, ever and for ever the same amount, ever and for ever changing in an eternity of cycles. It may seem colossally absurd, this stupendous labour, if aimless. Yet how can there be aim to what is eternal, to the ever-revolving wheel? An aim must some time be fulfilled. When fulfilled that which is aiming has served its purpose and its existence, in so far as that existence is a continued tendency towards the goal, with attainment ceases. Having fulfilled this purpose, it may pass on to another, but an eternity of aims result in an eternity of attainments, not in any final purpose. The Eternal Universe must needs be aimless, from the very fact of its eternity. It may seem absurd that so vast a structure should be aimless. But it is a fact, nevertheless, it is the fact as expressed in the terms of man's knowledge. It is the bottom fact he has touched and beyond which, not he cannot reach, there is nothing to reach. It is the bottom fact of all.

The Riddle of the Universe, the 'Why does it

exist?' that has been asked again and again by Theists, Pantheists and Philosophers, is answered. And the answer is, 'There is no riddle, there is no Why, there is no purpose, there is only one fact, viz. the Universe is, was, and ever shall be. It is eternal.'

People seem to have a difficulty in understanding that the eternal must needs be purposeless. Let us take an example. Suppose a man sat watching a see-saw year by year, swing and fall, ever the same, without change except for the eternal swing and fall, bound by the same rule of eternal repetition. Would he see purpose in it? Would he not say, 'This see-saw is indestructible and all it does is to swing and fall perpetually. There is no reason, no why to this perpetual cycle of repetition. It is so, that is all I can say. As long as I watch it, it is so.' Scientists can view the universe over long aeons, can see cycles of short duration and cycles that encompass many million years. Yet in all they find the same rise and fall, change from active to passive and passive to active, evolution and devolution. 'It is so,' that is all they can say, but in so speaking they state the most ultimate fact.

Man, a dweller in the universe, composed of the same matter and motion, subject to the same

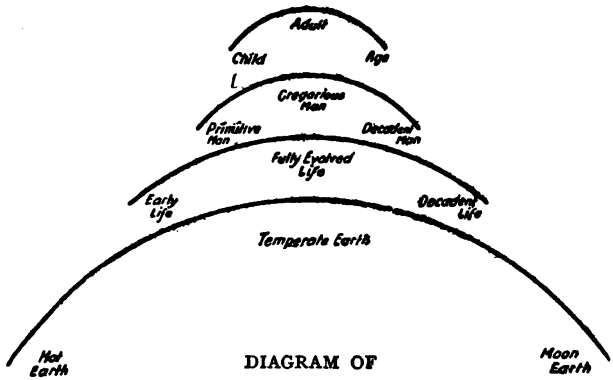


DIAGRAM OF
SUPERIMPOSED EVOLUTIONS AND DEVOLUTIONS

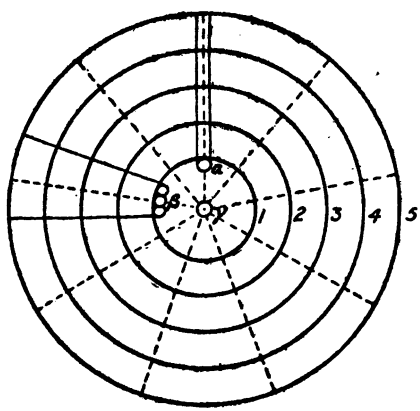


DIAGRAM TO ILLUSTRATE THE SUPERIMPOSITION OF THE CYCLE OF HUMAN LIFE (1); ON THE CYCLE OF LIVING MATTER (2); OF THE EARTH (3); OF THE SOLAR SYSTEM (4); OF THE UNIVERSE (5).

The Greek lettering, α, β, γ, represent graphically the growth of knowledge explained in later chapters, and especially on pp. 131-136. α represents the thought of the strictly individualistic man, seeing himself in everything. β, representing class thought, is an extension of the individualistic type of thought. γ, situated centrally and with dotted radii, represents gregarious thought, seeing similar cycles in all things and everything in himself.

Significance of the Absence of Universal Purpose as regards Life and the Life of Man.

laws, what is his final purpose? Obviously, as far as the universe is concerned he serves no ultimate purpose, he has no great destiny. To be part of that which has no ultimate purpose implies an absence of any ultimate purpose in the part. Man's life and all life is part of the eternally revolving wheel, so tiny a part of the curve that it has been mistaken for the straight line. The destiny of life on the earth is but a wheel within wheels and follows the formula which may also be read from the stellar system, viz. an evolution to its greatest power and abundance, so that the earth is filled with the active form of motion we describe as life, to be followed as the earth itself becomes cold by a less active form of life, by more difficult conditions, by devolution, by the cessation of organic life on the earth.

Life is a cycle imposed upon another cycle, the planetary condition of the Earth. Animal life is the half of the cycle of life, the other half being vegetable life, which ultimately depends on animal life, as animal life ultimately depends on vegetable life. Human life is one of the forms of animal life.

Consequences of the Absence of Universal Purpose to Life.

Many readers will think that the belief or discovery that there is no ultimate purpose to life, and especially to human life, is pessimism. As the word pessimism means the creed of misery

and despair, they will naturally reject it, for they do not feel miserable and men seek happiness and not misery. If such readers will persevere in reading this book or in looking at life as our present knowledge perceives it to be, they will realise that pessimism is impossible. Nor is optimism justified, in so far as it means that life is as happy as possible now. They will, in short, find no 'isms of any sort, but an attempt to describe things as they are, neither refusing anything because it is miserable, nor jumping at it because it seems good.

The Impossibility of Practical Pessimism.

Let us, however, for the moment take the pessimistic point of view, see the world as it is to those whose instinct for life is overwhelmed by the difficulties of life.

They see a vast factory of life pursuing ruthlessly a process of elimination of the weak for the strengthening of the race, and by a prolific fecundity ensuring that the struggle for survival will be a severe test of fitness, they see a life force sometimes brutally cruel, sometimes intoxicatingly delightful, sometimes monotonously dull, always impersonal and unjust. When men see life as cruel as this, yet in the end purposeless, what wonder that with Maelander they consider suicide and extermination the wisest of practices? Even

as the Jews of the eleventh and thirteenth centuries under persecution perished in large numbers by their own hands, or a Siberian tribe which a few years ago was reported to have assembled together and allowed the chief to slay each one and finally himself, so men under the lash of unending misery should league together and slay all life upon this earth, rob the tiger of its prey, the snake of its victim, the fossorial wasp of the paralysed beetle, held captive to be eaten alive by the grub, and man of his misery. All life should be ended, vegetation destroyed, continents swept bare and seas poisoned. And then? Why, certainly some spark of life would be left, life motion would be restored, and the whole process of evolution would begin again.

Hence there is no practical pessimism. Life is with us, and the profligate vigour of life we cannot stop, even if we desired to do so.

Man and Animals.

When once the idea, that there is no purpose to the universe, is grasped, it is clear that man is solely concerned with his own life and the life of others in this world, in the same way in general as is the wolf, the bee, the ant or other gregarious or herding animals.

As the same rules or formulae govern and describe man's life as describe the lives of other

gregarious animals, they will be recounted with especial relation to man, because human rather than animal life is the main theme of this book. But with modifications, owing to the difference of species and degree of evolution, the same formulae that apply to man apply to all other animals that live together in herds or communities, or, as they will be called throughout this book, gregarious animals.

The Purpose of Man.

The purpose of man cannot be considered in terms of eternity. It is no more use for him to ask the Whys and Wherefores of his existence in terms of eternity, than it would be for the ephemeral butterfly to live in a dream of eternal purpose. There are no such Whys and Wherefores.

Like other animals he is but a part of the universe, and is wholly subject to the rules that he discovers in that universe. Like many other animals he is evolving, he is on the upward slope of evolution, he is rising to his zenith. But in the far future the conditions of life will become increasingly difficult owing to the coldness of the earth and the lack of atmosphere, or to some other condition that cannot be foretold. When this era begins, devolution will begin, and man will gradually fall back in the struggle for ex-

istence, and his species will finally become extinct as the Ichthyosaurus, Mammoth, Dodo, and other species are now extinct. Like all life, the one driving purpose, the desire to live, that is so strong in him, is that he shall adapt himself and his instincts to environment.

As the sun rises and sets owing to the motion produced by its matter on the matter of the earth, so the matter of the universe, as man's environment, acting on the matter of which he is made, produces motion or change, which motion we perceive as life and describe as the adaptation of man to his environment.

The subjects of matter and motion, life and environment, will be more fully discussed in the next chapter.

Recapitulation.

Several important rules of the Grammar of Life have now been stated. They are: —

(1) Man's knowledge of the Universe is ultimately founded on his perceptions of it.

(2) Of 'things in themselves' man can know nothing, his knowledge being dependent on his perceptions of them, and not on the actual nature (whatever this may mean) of the things themselves. His knowledge of the Universe is relative to his perceptions, and is a description based on his perceptions.

(3) Relativity is the key to the understanding of life.

(4) The Universe is Eternal and in a constant state of transition, being composed of an eternal series of cycles.

(5) There is no purpose to the Universe.

(6) Man and his species, as a part of the Universe, also have no ultimate aim or purpose.

(7) Man has an earthly aim, which is comprised in his adaptation to environment that the race may reach its zenith.

CHAPTER II

MATTER AND MOTION. LIFE AND ENVIRONMENT

Matter.

MATTER has already been defined as that which is perceived by our senses, by touch, sight, smell, taste, or hearing. Some may claim that this is incorrect, for we can see light, we can hear sound. But we do not see light, but what is lighted. When objects are visible, we say we see them because it is light. We do not see the light itself, and the light that we see in the vault above us in daytime is due to light impinging upon tiny particles of suspended meteoric dust, and it is they that we see, not light itself. The well-known Bunsen burner, in which there are no unconsumed particles of carbon, gives no light. Nor, strictly speaking, do we hear sound, but the motion certain matter imparts to other matter. For example, if a clock is put in a bell jar and the air is exhausted, no air is put into motion, and consequently we hear no sound.

Ether or Imperceptible 'Matter.'

Matter is always in motion. The motion may be *en masse*, in which case we perceive it, or it may be the motion of the myriad tiny masses of which matter is composed. These are called molecules. Physicists tell us that the molecules of all matter, even for example those of a block of iron, are always in motion, and changing their position with regard to each other.

Now, as the internal or molecular motion of matter becomes more violent, matter becomes more and more attenuated, and eventually will become imperceptible. The last stage in which we can perceive it as matter with the senses is called the gaseous condition.

What is it to be called, this matter, when its internal motion is so active that it is more attenuated than gas, and we cannot collect and weigh it, or otherwise detect it with the senses? It seems that motion predominates so much over all other qualities that it has become more motion than matter. Thus matter seems to grade into motion, as all things tend to grade into one another.

This attenuated matter that is always in motion is called Ether by the physicists. It depends, of course, for its existence upon man's perceptions. It is an abstraction he has made from the perceptions he has received mainly from electric phenomena. It is the medium through which

light, heat, and other forms of active motion or energy act. As to the exact relation of the motion to the ether, and whether they are to be looked upon as one and the same or not, is a question that has not been decided.

Until this interesting question as to whether matter and motion are ultimately one has been decided, it is better to separate them in definition, and leave the nature of the connecting-link that is called Ether to the physicists.

Matter, then, for the purposes of this book, is that which we can perceive with our senses.

Motion is the effect of matter on matter,—in other words, when matter is in the presence of matter, what we call motion is produced. A common example is the motion of the earth in its ellipse due to the presence of the sun.

Mobility and Stability.

We now come to a point of supreme importance in the description of life, or grammar of life.

We have seen that matter is always in motion, for it is always in the presence of matter, that a molecule in the presence of a molecule produces motion, and that a mass like the sun produces motion in a mass like the earth. When the internal motion is not great, what is called solid matter results. Add motion to it in the form of

energy such as heat, the solid will become liquid, in other words its internal motion will become of greater degree. A further stage of matter is the gaseous, and a yet further stage is one in which motion is so great that matter has lost the qualities of matter as we know it.

The particular condition of matter depends on the degree of its internal motion. *The phenomena of the world are in their simplest analyses illustrations of the struggle of the tendency of matter to become stable, to store its motion as weight and the opposing tendency of matter, to lose its stability and become more and more imbued with motion. It is the struggle between stability and mobility.* It is seen everywhere. It is seen in the conquest by stability of the diffused nebula into the concentrated star, until the cold moon stage seems a final victory for stability. It is seen in the gathering of diffused water vapour to form clouds, then rain, then rivers, lakes, and seas, which evaporate and thereby again form water vapour. It is seen in human life, in the mobility of youth and the stability and hardening of age.

Rest and change, convention and progress, Conservatism and Radicalism, age and youth, the stability of the species and the mobility of the variety are all expressions of it. It is another feature, another expression of the evolution and

devolution of the cycles, small and great, of which the universe is composed.

Life.

Since all the phenomena of the universe are summed up in matter and motion, life must be a cycle of matter and motion. To our perceptions it is capable of being influenced by and influencing surrounding matter in motion, which is technically termed the environment. Life does not depend, either in its origin or its outcome, on the individual possessors of it, but on its own special forms of matter and motion and the nature of the matter and motion that forms its environment.

Environment.

Environment may be defined as the matter that produces motion in the living organism and has motion produced in it by the presence of the living organism.

It is true that within the organism one part of it forms environment to another. Thus the different organs form environment to each other: the liver affects the heart, the heart the brain, and so on. But to this relative effect of the organs on each other within the organism the term correlation is usually applied. In this book the word environment will be confined to that which is not a part of the organism as a whole.

Interaction of the living Organism and Environment.

When matter is in the presence of matter the motion produced may be either that of attraction or repulsion or some grade between the two. Thus when atoms of hydrogen meet atoms of oxygen, the two are powerfully attracted to each other and form molecules of water. When a lover meets a lover, the motion produced is that of attraction. On the other hand, much motion produced is repellent. Two bodies charged with negative electricity repel each other, two positively charged repel each other. Frequently the motion produced by matter on matter is practically imperceptible to us, and therefore we are indifferent to it

Living matter seems to us capable of partaking of a great number of different motions, and to be greatly influenced by environment. The difference, for instance, between a man and a stone is obvious. Consequently, to understand the nature of living matter, in its infinitely varied forms and reactions, may seem almost a hopeless task. But, as a matter of fact, the formulae by which one can describe life are not complicated, it is the illustrations of them which are so innumerable. These formulae and their application to life form the subject-matter of the remainder of this book. The object of this chapter will have been accomplished if the following four rules have been stated with sufficient clearness :—

(1) All universal phenomena are expressions of the effect of matter on matter producing motion.

(2) Life is a special form of matter in motion.

(3) The motion of living matter displays itself in many forms and is greatly affected by environment.

(4) The manner in which living matter reacts in the presence of environment constitutes the phenomena of life.

CHAPTER III

ADAPTATION

'The Laws of Nature.'

In spite of the innumerable varieties of the adaptation or fitting of life, animal and vegetable, to innumerable varieties of environment, the progress of knowledge has enabled us to group apparently different phenomena more and more, and to abstract the common element of them all. Such an abstraction is known as a law of nature. The term law of nature is apt to be misleading. They are not strictly laws as the word is commonly understood, something made which has to be obeyed. They are rather the formulae by which man *describes* his perceptions of nature. For example, Newton's laws of gravitation are the formulae by which man describes the effect of matter on matter, and which connect under one description such apparently diverse phenomena as the fall of an apple and the movements of the solar system.

The Instincts.

All the varied aspects of life can be described

as adaptations of living matter to environment. Living matter may be regarded as having two aspects, the individual aspect and the race aspect. Both of these have corresponding adaptations to environment. The adaptations of the individual are grouped under the term the individual, self, or self-preservative instinct; the need of the continuance of the race and the methods by which this is attained are grouped under the term reproductive instinct.

In addition to this there is a third instinct in man and other herding animals which is of fundamental importance in understanding the nature and tendencies of man, viz. the social or gregarious instinct. As the word social is often used in a more narrowed meaning, as referring to smaller groups of people in the herd or community, the word gregarious will be used in preference.

The Grammar of Life.

The Grammar of Life has for its object the tracing of these three instincts—the individual or self-preservative, the reproductive, and the gregarious, and their adaptations in the infinite variety of the phenomena of life.

The Purpose of Life.

It is this adaptation that constitutes the purpose of life, and the purpose of human life, and its

only purpose. The reader will realise the importance of this more and more as he proceeds. Its importance is supreme. It is the one really important subject to man, for it is the fundamental purpose of his existence. Other purpose there is none.

Nor need any one despair that this is the purpose of man, for in it is entailed that highest and noblest of virtues, self-sacrifice. Only by understanding this purpose can the need and object of self-sacrifice be fully appreciated.

The Relation of the Individual to the Race.

In the new-born baby we see the adaptation of its instincts without the modification or qualification of self. All the world over the new-born baby instinctively maintains its life in the same way. It breathes the air and sucks the breast without any need of education.

It possesses by inheritance appliances of body (such as muscular lips, tongue, etc.) and of the motion of life to enable it to feed and live. But as yet it has received no training, it has had no experience, it has no knowledge. It has in fact no self, but is a little bundle of racial and stock tendencies. It is the seed which, according to its inheritance and its environment of food, air, and circumstance, will pass through the cycle of human life.

But the self soon begins to be acquired. For example, although a baby instinctively takes to its mother's breast, yet in certain cases, where the nipple is not well shaped, the baby fails to grasp it. The baffled instinct of self-preservation results in the baby crying. A little 'training' and 'coaxing' will help the baby, and when once the baby has succeeded, it remembers the knack by which it feeds itself.

A new factor has now come into being, viz. that of training or experience. This experience is not shared by all the babies in the world. It is different from the sucking movement of the lips, which all babies exhibit. It is special to the baby in question. It is in fact the dawn of the individual or self. The nipple was not quite normal, a little special adaptation of the instinct was needed, and the special nature of the adaptation and its adoption by the baby is the beginning of the baby's experience, the beginning of self.

So little by little the self gets built up upon the experience of special adaptations of the instincts, which instincts in themselves are common to all men and to other gregarious animals. As the self grows and expands, the struggle for its existence absorbs it, and its experiences may seem to the individual to be the whole of life. But at the base, as the impulse of every

action, every thought, every feeling are those same instincts which with the hereditary adaptations alone composed the individual at the first moment of its life. They are the dominant, ruling powers, however they may be obscured to the individual's own view by the special knowledge and adaptation that make the sum of his personal existence.

The Relation of Thought to Action.

The importance of the differentiation between the self and the instinct cannot be overestimated. Upon it depends the relation of thought to action.

Now thought is the comparison of perceptions with other perceptions. Thought depends on memorised perceptions. In short, thought depends on self.

The origin of action is always the impulse of one of the instincts, either the self-preservative, the reproductive, or the gregarious.

Now this action may or may not be modified by thought. In the first case, when it is modified by thought, the action is *a thought-guided action or rational action*; in the second case, when it is not modified by thought, it is *a reflex or instinctive action.*

The process, then, by which action is produced is as follows. First an impulse or stimulus is received owing to the interaction of the living matter and environment. This impulse, under

the guidance of one of the instincts, produces action, or it enters the consciousness, where it produces thought, which guides or controls the action. Thought is accompanied by feeling, and instinctive action, when recognised afterwards by the consciousness, is also accompanied by feeling.

Examples of Instinctive Action.

As examples of instinctive action, the action of the baby in taking to the breast has already been given. Other examples are the sudden gasp of any one who is frightened, the shutting of the eyes in a sudden light, the drawing up of the injured foot when it treads on something sharp. All these actions are instinctive actions, the instinct concerned being the self-preservative. The gasp fills the chest with air and prepares the individual for effort, the shutting of the eyes protects them from danger, the raising of the foot withdraws it from further injury.

It is to be noticed that although no thought precedes such actions, they are frequently followed by thought. The action is perceived, and it and its cause are compared to previous knowledge. But such thought is a comment after, not the controller of the action.

Example of Thought or Rational Action:

The man of the previous example, on treading on something sharp, immediately lifted his foot.

Instinctively any man of any nation would do the same.

The perception is then compared to previous perceptions by thought. He compares his perceptions of the injured foot with his memorised perceptions. As a consequence he resolves on further action. The nature of his action now depends on his knowledge. A savage may break the stone, the demon in which inflicted the damage. An European would go to a chemist and have the foot bound up.

The action, one perceives, is still self-preservative in intention. The action is aimed at restoring the injured foot to health by treatment in the one case, by destroying the malign and inimical influence in the other. In both cases the man is fitter in the struggle for existence with a sound than with an injured foot.

The difference between the action of going to the chemist and the initial drawing up of the foot is that, although both are under the dominance of the self-preservative instinct, the first action is directed by the knowledge of the individual. The first is, in fact, a rational or thought action, the second an instinctive action. Hence the secret of thought in its relation to action lies in this, viz. that all actions at base are instinctive; they are under the dominance of the self-preserva-

tive, reproductive, or gregarious instincts; but many are modified and controlled by the knowledge and thought of the individual. Constantly repeated thought actions become habit actions, but they should still be classified as thought actions.

Default of Reason.

Some one may object that the action of the savage in breaking the stone to punish the demon in it would do no good to his foot, that the action was not reasonable.

No one, of course, will deny that reason is often faulty and experience is fallacious, and that actions under their control may be actually harmful to the individual or race. For instance, a man may come across a dangerous snake for the first time. His instinctive action is to shun or kill the unfamiliar, thus preserving himself. But he may have had previous experience of snakes, which the one he sees resembles, and found them harmless. Acting on his knowledge he may go near or even pick up the snake, with the result of death to himself. Yet, though the action resulted in destruction, the definition of a rational action must be maintained. The action was one directed by thought. Clear knowledge is only to be obtained by the clear definition of the words used, and a clearly defined use of a word is better than

allowing the word to be used loosely in a number of different meanings.

The Evolution of Thought and Knowledge.

Like everything else, thought and knowledge are in a state of transition. They are being slowly evolved. They constitute man's latest, but chiefest acquirement in the struggle for existence and power. Slowly and painfully they are being evolved to be efficient weapons to man in his adaptation. Those whose knowledge and thought are most at fault tend to become eliminated. Those survive as the fittest whose thoughts guide action more and more accurately, so that knowledge becomes a safe guide to action. The more man can abstract from his perceptions common qualities, and the more he differentiates different qualities, and the more constant these abstractions and differentiations remain in his experience, the more readily man understands his perceptions and the safer he feels in trusting action to knowledge. The simpler his formulae of life, the easier will he find his comprehension of life. The great advances of knowledge have been in the elucidation of formulae, which connect and describe a large number of previously unconnected phenomena. Newton's formulae of Gravitation and Darwin's of the Survival of the Fittest are the most striking examples.

Examples of the Influence of Knowledge on Rational Action:

It is almost constant in man's experience that in England no animal is likely to hurt him or endanger his life. Acting on this knowledge, he goes for country walks in England without any prospect of danger.

Yet put the same man without special knowledge in an African jungle. He starts at every movement, protects himself against the bites of strange insects, shuns every reptile. Instinct tells him to fear the unfamiliar, and lack of knowledge makes him trust to his instinct. In fact, at a sudden sound, he may leap aside or draw back, themselves instinctive actions. The environment is quite strange, and instinctive action is more likely to protect him than faulty rational action, which walking fearlessly, as in an English forest, would be.

In short, rational action presents the advance of and instinctive action the conservatism of action. As evolution progresses rational action displaces instinctive action, and with the advance of education rational action displaces faulty rational action. The educated are fitter for the struggle than the uneducated, they acquire more and more power over environment by means of knowledge.

The educated man can, in short, adapt himself to a far larger and more varied environment than can the savage.

The Connection between the Motive a man gives for his action and the Instinct upon which it is based.

The motive a man gives for his action is rarely the basal instinctive motive. It is nearly always the superimposition of previous experience on the basal instinct. But, whatever motive he gives, the action can always be traced to the basal instinct.

Example:

A gentleman meeting a lady of his acquaintance in the street takes off his hat. His comment on the action or motive he gives for it is that, knowing her, he so salutes her. He relates the act to previous experience and previous experience tells him it is customary. His forefathers similarly saluted ladies, though with some excess of elaboration.

If you inquire why he does it, he replies, 'Oh! I know her.' If you argue, so does he know the housemaid he just passed without recognition, he looks at you with astonishment and scarcely veils the contempt of his answer, 'That's a different thing. You don't think I would take off my hat to a housemaid.' Further than that he cannot go, and if you persist, he will quarrel with you.

The basal reason of his salute is that taking off

his hat is a mark of acquaintanceship amongst a certain class; it is a class or caste recognition. To this class he belongs. It is the human environment to which he has been adapted by birth and education. His strength and safety is dependent on its strength and safety. It is a class united for strength, and its unity presents a powerful front to the so-called lower classes, over which it wields power. To salute his housemaid would be to recognise her as a member of his caste. It would be giving the enemy the password. It would be endangering the class to which he belonged by allowing members of subordinate classes to share its carefully protected privileges. As the individuals of the subordinate class are probably fully as capable with equal chances as the individuals of his own class, he would seriously impair his own chances in the struggle for existence.

Hence his action in taking off his hat to a lady is a class preservative action and eventually a self-preservative action.

Instincts not materialistic.

Although the instincts work through the agency of matter, it is inaccurate to describe life as materialistic. Man does not depend on matter, but matter depends, as we know it, on man's perceptions. Living matter is dependent on or governed by the instincts. It takes various forms

and shapes, all of which are but adaptations of the instincts to environment. The prehensile hand is adapted by the self-preservative and reproductive instincts. It seizes the food, fashions the tool, or grasps the beloved. In the shape, colour, scent and bloom of the flower one sees the adaptations of the reproductive instinct to the insect world or other means of fertilisation. Everywhere it is the same in living matter. Heredity itself is but the perpetuation or stability of certain forms and means of adaptation. Thus the instincts, consisting of two or at the most three, are of wider significance than the various forms and motions which they take to fit the vicissitudes of environment. They are the formulae by which we can most easily generalise and describe the infinite variety of life.

Capacity of Human Life to adapt itself.

The manifold diversity of human life is so evident, it scarcely needs illustration. One example, however, is so striking and unique, that its insertion it is hoped will be pardoned.

The example is that of Miss Helen Keller, the famous deaf and blind American.

As a child of nineteen months, Miss Keller lost completely both her sight and hearing. In spite of these disabilities she was educated, and amongst other striking accomplishments she has learned to

appreciate music, of which she has become extremely fond. She recognises airs and tunes by laying her hand on the instrument played or on the singer's throat, thus receiving the vibrations.

Yet more remarkable is the fact that she is able to recognise and name tunes played on the piano, when she is standing away from the instrument, apparently from the vibrations imparted to her feet. The thrush seems to recognise the presence of a worm by the vibrations imparted to its feet, but in the instance of Miss Keller we have the remarkable fact that by education she is able to differentiate and recognise musical vibrations, for the conduction of which to the musical centre in the brain other folk require the delicate and slowly evolved apparatus of the ear. This power of Miss Keller is scarcely credible, were it not authenticated by medical men of known repute. It is a striking and unique example of the human capacity for adaptation.

The Extent of Man's Environment.

The Universe is the extent of man's environment, yet so distant are the stars and planets that their effect is very trifling compared to the immediate environment of the earth upon which he dwells.

Man shares with living matter the command of the reproductive instinct to increase and multiply.

The desire for extension and increase is seen everywhere, in the profligacy of reproduction and in the effort to spread the species over larger environment. Everywhere there is Excess, as a means to extension, a quality of life that is seen in human life in many forms and will be referred to in the next chapter. As evidence one sees the immense number of winged seeds the elm will bear in spring, the myriad tiny spiders that venture in autumn on their perilous voyages in aerial ships of gossamer. The weed seeks to spread over the whole field, the animal species seeks to conquer, wherever it can live. The mighty struggle between individual and individual, between species and species, results in the abortion and destruction of a vast quantity of life, which is much greater in quantity than that which encompasses the full cycle allotted to it.

In this struggle man shares and excels. As the latest evolved mammal with the most evolved means for adaptation to and extension of environment, he is gradually becoming master of the living and inanimate world. From the small clearing in the forest, living in fear of the beasts of prey and the demons of the wood, man has advanced to the tribe, the state, the nation, and now the most advanced races spread themselves over the world in Empires, and nationalism tends

more and more to widen to imperialism and internationalism.

What is to be the end, what is the final environment over which man will extend and to which he will be adapted? Possibly the whole earth, one conjectures, and recently this conjecture received possible confirmation in an unexpected manner.

Professor Lowell in his work on Mars has shown by skilful argument how the level surface of that planet is intersected by a system of what he believes to be canals. Of these canals he has taken many photographs. He considers that the object of these canals is to convey water from the melting snows of the polar regions over the otherwise arid surface of Mars, for the planet has no rain. Along these canals are belts of vegetation, which wax and wane according to the seasons, those in the north increasing with the northern summer and melting of the northern snow, and those in the south increasing with the southern summer.

If this explanation is correct, these canals show that the whole cultivated surface of Mars is under one governance, and that the creatures who rule and direct it must have considerable mechanical and engineering skill. The inhabitants of Mars thus have adapted themselves as one gre-

garious body to the habitable surface of their globe, and mutually share the life-giving properties of the canal network.

Surely, when we see the unity of plan of the universe, and still more when we see the extraordinary power of extension that man possesses, it is no false prophecy to state that in the future man or superman is to master the whole globe of the earth that can be bent to the service of man.

In a country like England one already sees this mastery of man over inanimate nature and over plant and animal life already in being. The mastery can and will be improved, but even now the whole land is well within man's power. Noxious life, as that of harmful microbes, has yet to be eradicated, social conditions and the relations to the outer world are still very far from being regulated by clear and defined knowledge. Yet England may be said to be largely a garden of man, and Japan still more so.

This mastery of man will extend throughout the world. Hill, valley, and jungle will yield to him. Noxious life he will eliminate. He alone can shackle and curtail the cruelty and injustice of that infamous slaver and most subtle of charmers, Nature. All shall be bent to his

usages. Not only is the salvation of man himself in man's hands, but he can chiefly mitigate the suffering and distress of the animal world. The creatures that ruthlessly afflict those weaker than themselves can be exterminated or tamed. The horrible cruelty that sears the heart of mercy can be controlled. The weakling and the idiot can be cared for or painlessly deprived of life; miserable old age and disease mitigated or abolished; poverty destroyed; tolerance, tenderness, and love increased; ignorance give way to knowledge; kindness and all that increases gladness of heart cultivated.

We see it all in progress now. The student of history must see that there is a greater kindness amongst men, imperfect though they are. It is the most cheering fact that history teaches. As adaptation becomes more accurate under the guidance of knowledge, so happiness grows, for happiness is accurate adaptation and adjustment and is the reward of the right man in the right place.

Truly one Saviour alone can life look to with hope, and that Saviour is Man.

What of devolution? some one may ask. Well, devolution is a long way off. We are on the upward wave of evolution. We can leave devolution to the wisdom of superman.

Chief Means by which Extension of Environment is attained.

In surveying animal life from the lowest to the highest forms, taking the lowest as that which has the smallest environment, we see the great difference between them is the increase of efficiency of the means of communication.

Thus, the power of a single-celled organism is very limited. The water animalcule known as the amoeba, for instance, lives a precarious existence in ponds. As an organism advances in the scale of evolution, there is seen as the evidence of this advance a division of labour amongst the cells of which it is composed and an increased facility of communication between those cells. These means of communication in the animal world become differentiated as nerves. In the vegetable world fibrils are found passing from cell to cell, which probably have the same function as nerves. Upon the nerves the efficiency of the muscles, glands, etc., of the organism depends. Above all, they enable the organism to act as a harmonised whole. Man himself shows his superiority over other animals in the extraordinary development of his brain and nervous system.

So it is with a people. Every increase in its progress is connected with an increase in the efficiency of the means of communication; such means being either those of knowledge or material. Knowledge enormously increases the means of

communication of people with each other. They understand each other, as the phrase is, and gregarious knowledge that refers to the common phenomena of life is above all valuable.[1]

Of the extension of environment that has been brought about by material means, the telegraph, cable, railway, steamer, etc., afford ample proof. Further progress will be made as man discovers more and more efficient methods of linking the whole world into one gregarious and corporate body. The intercourse of foreign peoples will eventually dissolve national barriers. It will increase the familiarity of race and race. With familiarity comes better adaptation, clearer and more accurate thought to guide rational action. With better understanding of the formulae which govern life and the common purpose of man's existence, there will come a greater friendship between man and man, between race and race, for trust and familiarity will banish fear.

The end is far distant, but it can be seen by hope like a tiny beacon on the far horizon shining over troubled waters.

[1] Language is, of course, the chief means by which this result is effected. Lately attention has been paid to what may be a means of communication in an early stage of evolution. I refer to telepathy or the transference of thought from one man to another without the employment of language.

Recapitulation.

(1) The purpose of all living matter is to adapt itself to environment.

(2) The two instincts which control and describe these adaptations to environment are the self-preservative and the reproductive.

(3) To this in herding animals, such as bees, ants, sheep, wolves, man and other animals that live in communities, a third instinct must be added, viz. the gregarious instinct.

(4) The baby, when first born, is the inherited material form through which its instincts will work.

(5) Its actions are at first purely instinctive, but as experience of special environment is received, a self is evolved.

(6) All action is promoted by the instincts.

(7) Action which is due to the instincts, without the modification of the knowledge of the self, is pure instinctive action.

(8) Instinctive action which is directed by the memorised perceptions or knowledge of the self is rational action.

(9) Reason is the application of the instincts to the needs of the time under the guidance of thought, which is the comparison of perceptions.

(10) Reason is often in error, owing to faulty comparison of perceptions. With the evolution of knowledge, reason gains in accuracy.

(11) The motive a man gives for his action is nearly invariably related to his knowledge, and not to the basal instinct to which the action is really due.

(12) Instincts are not founded on matter, but matter is the agency through which the instincts work.

(13) Human life has an unmeasured capacity of adaptation.

(14) Man's eventual environment will be the whole habitable world.

(15) The most important method by which he extends his adaptation is the increase in efficiency of the means of communication and combination.

CHAPTER IV

DEFINITIONS AND ILLUSTRATIONS

Necessity of Definitions.

IT is essential in a thesis such as the present one that no confusion as to the meaning of words and terms used should be allowed. The loose use of words, without any accurate definition of their meaning, has led to more needless disputation than any other propensity of man.

Words are the vehicles of thought, therefore the loose usage of them implies a looseness of thought. Words in this book are used as descriptions of the perceptions and conceptions of man that form what has been called man's knowledge. Their meaning is relative to the knowledge of the man who uses them, even as his knowledge is relative to his perceptions.

Metaphysical Use of Words.

Words are not always used in a relative sense. They are constantly used in a metaphysical sense; that is, an absolute standard is implied. The things to which they refer are held to be things

in themselves and not descriptions of the speaker's perceptions and conceptions. Thus the word truth is used as if there were an absolute truth, and goodness as if there were an absolute goodness. Yet every nation and nearly every individual differs as to the exact quality of goodness and the nature of truth. We see, in fact, both goodness and truth depend for their exact meaning on the speaker's own thoughts of what is good and true, and that their meaning is relative to him.

Even a commonplace word like shoe is simply a description of perceptions. When it is used by any one, the speaker conveys to his hearer in a single compact word his perceptions of a foot-covering. If his perceptions differ from those of his hearer, he has to use a fuller description than the single word, to convey an accurate notion of his perceptions to his listener.

For instance, if a lady of Edward IV.'s court mentioned to a lady of Edward VII.'s court the word shoe, unless long explanations were undertaken, they would soon be at loggerheads, for the shoe of the first had some twelve inches or more of tapering shoe toe, and that of the second is noted for its pointed heel.

Therefore the word shoe does not refer to the thing in itself, but is a description of the perceptions of the speaker who uses it.

Words, then, do not describe absolute qualities or things in themselves, but are descriptions of our perceptions and conceptions.

Words that are frequently used in this book will now be defined.

Instincts.

Living matter cannot be freed from motion any more than any other matter. It is always in the presence of other matter, and when matter is in the presence of matter it produces motion. This production of motion is the fundamental formula of our perceptions of the universe.

The motion produced by the sun on the earth results in the swinging of the earth around the sun in an ellipse, and the formulae by which we describe this form of motion are known as the laws of gravitation or simple gravity.

The motion produced by other matter on living matter is obviously different in many points from the regular swing of the earth. Its peculiar nature we describe as life.

The instincts are the laws or formulae that fundamentally describe the phenomena of living matter. These instincts are two in number: (1) the individual or self-preservative; (2) the reproductive; and in herding animals there is a third, viz. (3) the herd-preservative or gregarious instinct.

The Individual or Self-preservative Instinct.

The individual or self-preservative instinct is the instinct that preserves the individual. Without it the individual would perish.

The Reproductive Instinct.

The reproductive instinct is the instinct by which the race is preserved. Without it the race would perish.

They are both descriptions. Our perceptions tell us the race does not perish, that individuals are constantly being reproduced.

The Gregarious Instinct.

The gregarious instinct is the instinct that binds herding animals together for the sake of mutual self-protection. It is the instinct that preserves the community. Without it the community as such would perish.

Sub-instincts.

Between the self-preservative and pure gregarious instincts are grades, which will be called sub-instincts. They are class-preservative, trade-preservative, caste-preservative, national, etc. They are infected with self, whereas the true gregarious implies the sacrifice of self for the good of the whole community.

Action.

Action is the emitted motion of the individual produced by the presence of other matter. We

perceive it in muscular movement or in change. As an example of the latter take the stiffening of the muscle, producing complete stillness and silence in the presence of danger.

Rational Action.

Rational action is action directed by instinct, but controlled and modified by knowledge.

Instinctive or Reflex Action.

Instinctive or reflex action is action directed by instinct, but unmodified by knowledge.

Consciousness.

Consciousness is the acquirement by the individual of the power to profit in the struggle for existence by previous experience. Even as sight is not common to all living matter, so consciousness is not common to all living matter. As sight enables its possessor to profit by visual perceptions, so consciousness enables its possessor to profit by memorised perceptions. They are both specialised methods by which adaptation of the instincts is wrought.

Consciousness of a perception is, in other words, dependent on a comparison of the perception with memorised previous perceptions.

As an illustration of this individualisation of a perception by the consciousness, take a child lying asleep ; some one tickles the exposed palm, the fingers close over the palm. The action is uncon-

scious, instinctive, and protective of the palm. Similarly will the sensitive plant and the anemone on the rock close when touched, or a snail draw in its horns.

But if the child is awake, the tickling is individualised, it is compared to memorised experience, and the child will desire the game of 'the moon is round, has two eyes, a nose and a mouth' to be continued.

Memory.

Memory is the record or stability of perceptions and conceptions. As an analogy, a corn may be said to be the memory of a tight boot. If the boot is removed the corn will gradually disappear. In the brain the stimulus of a perception produces a memory. Remove the perception and the memory gradually fades. Constantly repeat the perception and the memory becomes more and more permanent.

Experience or Knowledge.

Experience or knowledge may be defined as the sum-total of memorised perceptions and conceptions.

Free-will.

Free-will is the measure of the power knowledge has of controlling or modifying instinctive action. Rational action appears thus to be an action of 'choice,' because the form it takes

depends on the conscious knowledge of the individual, and therefore it is differentiated from reflex instinctive actions, which are common to the race and unconscious; *e.g.* every healthy new-born baby of every nation will cry when smacked. Yet the particular form the rational action takes is invariably related to the individual's knowledge. It never arises *de novo*. There is no creative power in free-will, by which would be meant a choice of a course of action unrelated to and independent of knowledge. The so-called voluntary actions and thoughts are not any more voluntary or creative than involuntary, reflex actions. They have the quality of self or consciousness, they are self-actions and thoughts, but they are not voluntary in the strict meaning of the term.

For an act or feeling to be voluntary, there must be creation, for voluntary means self-created. Creation means the making of something out of nothing, and in this sense it is that the words and actions of man are commonly held to be voluntary. His will is 'free,' it is bound by no rules or formulae. It is independent of what has gone before. It can choose to do this or that without reference to previous experience. In short, its actions are inexplicable, and cannot be shown to depend on the past, or at the very least there is

a something, a certain element in the action, which is inexplicable, because it is creative and independent of the past.

But as a fact the words, thoughts, feelings, expressions, and actions of man are not inexplicable. None of them are. They are, on the contrary, explicable, and being explicable they are recognised to be as involuntary and inevitable as is the course of a river or any other natural phenomenon.

Relativity has been shown, and will be further shown, to be a key to the understanding of life. Inevitability is no less important. In Relativity, Change, and Inevitability lies the whole secret of understanding. They express in other words the formula that matter in the presence of matter produces motion; in consequence of which motion in matter is inevitable, change is inevitable, and the nature of the change is relative to the matter concerned.

Suggestion.

Suggestion is the knowledge a man receives from his fellows. It is the modification his perceptions and conceptions receive, owing to the fact that he is a gregarious animal. The speech he uses, the mode in which he interprets his perceptions in thought, his methods of living are all shaped by the fact that he is gregarious and lives

with his fellow-men. In a man's younger days suggestion is spoken of mainly as education; but the effect of suggestion is continuous throughout life, and is of supreme importance to the welfare of the flock or community. The consideration of suggestion and heredity forms the subject-matter of a later chapter.

Imagination.

Imagination is another word for conception, being the grouping of perceptions. When the consciousness is 'awake,' unless it is actually occupied with perception or action, it must be occupied with conception. At a time when perceived relations to environment do not engage the attention, imaginative relations take their place; they supply to the consciousness what is lacking in reality. A lover imagines himself in the presence of his beloved. An ambitious man imagines his ambitions realised. Imagination, in short, may be said to be the rival of reality. When perception is predominant, imagination declines, and when perception is in abeyance, imagination holds the stage.

Extension and Excess.

In the struggle for existence, a species contends with other species, and an individual with other individuals. There is a constant struggle for mastery over new environment as well as better

adaptation to old environment. This desire for extension is seen in the spread of weeds when the garden is unprotected, in the Empire of Rome and the spread of Goths and Vandals when Rome became weak, in the self-made man and in the imaginations of the oppressed, who desire to change their lot for the freer and more powerful one the imagination pictures.

Extension usually occurs in one line, for fear of the unfamiliar. Thus thought is piled up on previous thought, action on previous action, further adaptation on previous adaptation.

Allied to this desire for extension is the fact of over-production, which leads to the elimination of the weaker and the survival of the better adapted. This excess is seen everywhere, in the waste of life, work and imagination, in all branches of human and other existence. In nothing is excess so exhibited as in the excess of reproduction. Thousands of seeds are produced for the few that take root and prosper. Thousands of insect eggs perish for the few that come to full life. Infant mortality even in civilised countries is very high, and the excess of the reproductive instinct is also shown in the existence of prostitution and unproductive profligacy.

Power.

When man masters his environment and

survives, he exhibits power. He may show the power of physical health or he may show the power of conscious thought.

For example, some races of men live in malarious countries. By a gradual elimination by early death of those individuals who are too weak to resist malaria, a race is evolved more or less immune to malaria. Such a race shows physical power over the malarial environment.

But the struggle between man's self-preservation and malaria was transferred to man's consciousness, and from his perceptions he conceived better and quicker methods of conquering malaria. He discovered that the malarial poison was conveyed by the bite of a mosquito. He now kills and destroys as far as possible mosquito larvae, with the consequence that malaria has been greatly diminished or stamped out where these measures have been taken. Thus thought-controlled rational action becomes a triumphant application of the self-preservative instinct over dangerous environment.

Weakness is the failure of man to master his environment and is the opposite of power. **Weakness.**

Custom is due to stability. When matter is **Custom.**

adapted to matter there is rest and an opposition to change. Thus, when a man gets accustomed to a mode of life or to a set of friends, he does not as a rule wish to change his conditions. He prefers the familiar to the unfamiliar; in fact, most men doubt their capacity of mastering the unfamiliar, and in its presence show weakness or the correlated sensation of fear. They adhere to the old environment because their instincts are adapted to it, and changed conditions demand renewed effort of adaptation, with the possibility of failure.

But mobility does not allow a perpetuation of stability. Customs may die hard, but they have to die as environment changes and new customs take their place.

The Conventional and Unconventional.

This struggle between stability and mobility is seen in human society in the differentiation of men and women into the conventional and the unconventional. The conventional strive to maintain the old adaptations to environment, to perpetuate custom. The Chinese as a nation are an admirable example.

The unconventional strive to extend and to master new environment and the changed conditions of old environment. Japan as a contrast to China may be taken as an example

of a nation eradicating old and adopting new customs.

What is seen on a national scale is seen in individuals. Most men are conventional. Their instincts are adapted to familiar environment. Familiar means constant, which means safe environment, because many adaptations will have been tried and the unsuccessful will have been eliminated. The successful adaptations will be adopted by the large majority. It requires less effort, less struggle in the area of consciousness for man to adapt himself by familiar methods that have been suggested by conventional education, the similar conduct of neighbours, or by those in power, in the shape of authority. The conventional, in short, represent mass matter striving to stability by cohesion.

Opposed to the conventional are the unconventional, who constitute what biologists and botanists describe as the variations of the stock or common type, such as is a buttercup with six petals. The word unconventional unfortunately, like most negative words, conveys the definite notion that individuals so designated are those who merely refuse to obey the conventions. As a fact the unconventional are, if successful, the founders of conventions. They lead, for the conventional to follow, when their adaptations have shown them-

selves capable of surviving. They and their acts and thoughts are tentative adaptations of the instincts to changing environment. In them the chief struggle for adaptation takes place. They are the pioneers that represent mobility.[1]

Genius.

Genius may be defined as the capacity of an individual to overcome new environment by seeing in it, though unfamiliar, resemblances to familiar

[1] EXAMPLE OF THE CONVENTIONAL AND UNCONVENTIONAL

(Leading Article, *British Medical Journal*, October 1906.)

'It may indeed be said that every new discovery has had to overcome not only the *vis inertiæ* that exists in every man of formed opinions, but hostility and active opposition. The introduction of cinchona bark (quinine) into practice was resisted, as if the substance were a deadly poison, and antimony was for a whole century the cause of bitter feud and mutual anathema in the Paris Faculty of Medicine. The pioneer of the modern treatment of consumption was scoffed at for his "beefsteak and porter system"; while Henry MacCormac's advocacy of pure air was treated as an insult to the intelligence of the leading medical society in London. One of the pioneers of ovariotomy was threatened with the coroner by an enlightened colleague. The contagiousness of puerperal fever, when propounded by Oliver Wendell Holmes, was treated as foolishness by the men of light and leading in American Midwifery; and Semmelweiss's professional career was wrecked by the storm which followed his demonstration of the causes of that disease. The grave and reverend seniors of the profession denounced the laryngoscope as a toy. It would be easy to extend the list. . . . We have here purposely mentioned, not brilliant generalisations, but truths of direct practical importance, for the perception of which only eyes that could see were required.'

environment. It is genius that makes the unconventional successful.

Narrow-mindedness, on the other hand, is suitability to small environment and resistance to change. Narrow-mindedness.

Youth is the period of mobility and unconventionality. It is the period of tentative adaptations, successes and failures, accompanied by the correlated feelings of success or failure, viz. joy and misery, trust in the future and fear of it, exaltation and depression. Youth.

Age is the period of stability and conventionality. The struggle for adaptation has in the main passed away, a plan of life has been chosen, the instincts respond to environment in certain definite ways with a minimum of effort. The number of adaptations is greatly curtailed compared to the period of youth, just as the suppleness of limb, the elasticity of the skin, and the degree of accommodation of the eye (all adaptations of the instincts) have decreased in the range of their adaptability.[1] Age.

[1] The confessions of Tolstoy afford a good example of the change from youth to age. For long Tolstoy tries to adapt himself to the new environment of increased knowledge and to make the

Environment is always changing, and if any sudden change is introduced the aged and conventional have either to eradicate and kill it at its birth or undergo a difficult readjustment, which in the aged is often unsuccessful.

Consequently any radical change of environment is opposed by age, and the constant antagonism of crabbed age and youth affords another example of the struggle between stability and mobility.

Acts and Feelings.

Acts are man's adaptations to environment, feelings the correlated sensations in his consciousness. When an act, either imaginative or actual, is presented in the consciousness, it is always accompanied by a sensation or feeling, which judges of its success or failure in adaptation.

riddles of life clear to himself by some general formulae. But, in spite of his brilliant genius, he fails in the complete conquest. He finds the difficulties of being a pioneer too great for him, the discordance between facts and his comments on them too painful. So in his old age he falls back to the familiar, viz. the conventional of the peasants. His intellect does not make for itself a new kingdom, but it adapts itself to the old familiar. He is no longer unique, no longer unconventional, no longer a pioneer, but joins the conventions of the community. Thus, after the warring mobility of his youth, the stability of his old age finds a refuge, and at last content, viz. the feeling correlated to adaptability, comes to him. This simple transition from youth to age constitutes the whole confession.

The feeling, as well as the act, is memorised after the act itself has passed.

Fear is the feeling that accompanies weakness in response to environment. Fear.

Dread and worry are distrust of one's power to meet coming environment. Dread and Worry.

Regret and remorse are the result of weakness of adaptation to past conditions. Regret and Remorse.

Misery is correlated to non-adaptability, and absence of power over environment. Misery.

Shyness is the fear of new environment. Shyness.

Folly is maladaptation of rational action to environment. Thus, if a highly educated genius were suddenly transplanted to Tristan da Cunha, he would find great difficulty in adjusting his opinions to the inhabitants. One of two results would ensue. Firstly, he might eventually conquer by his superior intellect. Secondly, he might fail. In the second case he would be looked upon as a harmless eccentric or confined for being a public nuisance. For all his great capacity he Folly.

would be a fool, one whose rational acts were non-adapted to his environment.

Shame. Shame is the fear of public opinion by one who has done an ungregarious action.

Sympathy. Sympathy is gregarious, and means feeling with others.

Trust. Trust is the feeling correlated to power over environment.

Pleasure. Pleasure is the feeling resultant on successful adaptation to environment, whether imagined or actual.

Pleasure is allied to power, when the individual does something well, such as playing the piano well, etc. It may be due to the absence of pain or fear. For example, a bullied wife feels pleasure when her husband is kind to her, and a timorous man in the presence of the police or the absence of shyness produced by alcohol. Most commonly it is due to the meeting with familiar environment, such as the return home and the association of friends. Imagined pleasures are easier to obtain than the actual, and are largely dwelt upon by Hazlitt, Stevenson, and other writers. The

pleasures of the stage mainly belong to the imagined pleasures and to the repetition of the familiar. Thus I have heard a Japanese audience cheer and cheer again because of a fire arranged upon the stage. Fires are a familiar terror to the Japanese. The familiarity of the fire, minus its terror, constituted it a pleasure.

Happiness. Happiness is the feeling correlated to adaptation to environment. The common dream of happiness is to be like the gods and have complete power over environment, instead of being so frequently baffled by it. The common idea of happiness is to be largely possessed of that great symbol of power and safety, viz. money.

Fun, Humour, and Ridicule. The state of happiness is one in which fear is absent. Anything unfamiliar, either actual or imaginative, which does not arouse the feelings of fear, arouses those of fun, viz. laughter or curiosity. There is also the laughter of successful adaptation. Allied to this is humour, by which some unfortunate or disastrous adaptation is robbed of its misery by laughter, which causes it to be associated with happiness, and thus the maladaptation is ignored. Laughter is therefore self-preservative. The 'saving grace of humour' is a common phrase. Ridicule transfers, by means

of laughter, the unfamiliar from the state in which fear of it is felt to one in which there is no fear.

Conduct.

Man is a member of a community, and his actions affect some members of that community. This gregarious quality of human action constitutes conduct. The questions of good and bad, and of morals will be considered in a later chapter.

Bravery.

Bravery depends on the trust a man has of mastering environment, or the hope he has of gaining the praise and goodwill of others.

Cowardice.

Cowardice is distrust of one's own weapons, the instinctive repulsion to unfamiliar or stronger environment. Both bravery and cowardice are, like all else, relative to the individual. Thus a dandy would fear the ring, but not the drawing-room, whereas a prize-fighter would fear the drawing-room, but not the ring.

Body and Limbs.

The lowliest forms of animal life with which we are acquainted are the protozoa. The little water protozoon, known as the amoeba, inhabits wayside ponds. It is composed to man's perceptions of a jelly-like substance named protoplasm

and a more or less central mass named the nucleus. Far removed from this little animalcule is man with limbs, body, head, eyes, ears, and brain. He seems much more and inherits much more than the amoeba. Yet the instincts, except the gregarious, that infuse the life of each are the same. Man's environment is wider and more complex. That is the main distinction. Limbs, body, and brain are but more elaborate adaptations of the instincts. They enable man to preserve himself and to reproduce, just as the little projections the amoeba shoots out round a floating speck of food serve its self-protective instinct. There is no essential difference between man and the amoeba. It is only a question of degree, of evolution to a larger environment.

Opinions. Opinions are an individual's comments on actions and feelings, actual and imagined, his own and others. Thus the opinions of adaptation are happy and optimistic, the opinions of maladaptation are unhappy and pessimistic. Opinions are secondary to the condition of adaptation. It follows that when a man expresses an opinion, he really is describing himself and his adaptation, either actual or imagined. Various though the opinions of men are, they are scarcely more varied than the petals of flowers. All petals,

though infinitely varied in colour, number and form, serve the same instincts as do the various opinions of man. They also help to indicate the botanical type, the species, even as opinions are the indications of the type to which the man belongs. Again, as the colour and grace of the buttercup or the ugliness and taint of the water figwort seem far removed from the instinct they serve, so do the multiple opinions of men seem far removed from the instincts from which they are derived. Those of one man approach and resemble those of all other men according to the variety of environments to which he is adapted. The narrow-minded man finds few outside his circle who will agree with him, whereas gregarious knowledge attempts to account for and comprehend all men's opinions.

Finally, opinions being man's thought adaptations, he shows as great an unwillingness to surrender them as to lose a physical adaptation, such as a limb.

Recapitulation.

It is not necessary to repeat the definitions. A few formulae only will be repeated.

(1) Inevitability, like Relativity, is a quality of the phenomena of life.

(2) Adaptation results in happiness.

(3) Mal- or non-adaptation results in fear or misery.

(4) Imagination supplies the consciousness with relations to environment when reality is lacking.

(5) Opinions are men's thought adaptations to environment.

CHAPTER V

THE INSTINCTS AND THEIR ANTAGONISM

THE three instincts which promote the action of mankind—the individual, reproductive, and gregarious—do not act in harmony. Between them is the same ding-dong battle, the same struggle for existence, the same desire for stability, the same necessity of change. To understand the phenomena of life, it is essential to realise this struggle between the instincts for mastery.

The Gregarious and Individual Instincts.

The word citizen sums up the struggle between these two instincts. If a man wants another man's property and is stronger than the owner, he will not be allowed to use his superior strength in taking the property by brute force. He can make arrangements with the owner for its purchase, but the whole transaction is carefully conducted by law, by which in such a case the gregarious instinct modifies and curbs the individual instinct. Often, too, a kindly feeling

towards his fellows prevents a strong man using his strength for his own advantage: his gregarious is stronger than his individual instinct.

At the same time the gregarious instinct is opposed by the individual instinct repeatedly. The ambition of a single man rides ruthlessly over the feelings and self-preservation of the many. Tyrants throughout the world's history illustrate the excess that the individual instinct for power exhibits over the gregarious instinct represented by sympathy and the care of others.

The Gregarious and Reproductive Instincts.

The uncurbed reproductive instinct is recognised by the gregarious instinct as a danger to the community. Over-population is attended by the difficulties of adapting the poor and the dangers of disease to the community. Profligacy, caring not whether children are born with a fair chance in the battle of life, is against the interests of mankind. Marriage laws are introduced by the community to prevent this, and the reproductive becomes partly controlled by the gregarious instinct of self-sacrifice. As it is, men, whether monogamous or polygamous, are not able to play fast and loose without incurring the risk of punishment by law or ostracism by public opinion.

Yet in spite of these laws and gregarious con-

science (see chap. vii.), the fact that the reproductive instinct results frequently in acts that in no way help the community is evident to all.

The Self-preservative and Reproductive Instincts.

'He, who hath wife and family, hath given hostages to fortune,' says Bacon. The responsibility of marriage adds to the difficulties of self-preservation. Even in trivial incidents the antagonism may readily be seen. For instance, it is seen physically in the line 'Day in a breathless passion kisses night.' In the insect world it is very drastic. For example, the female spider often eats her male lover. Other instances are innumerable, and the whole of the stupendous ritual of primitive peoples known as sexual taboo is due to the opposition of these two instincts.

A modern example may be seen in the rise of the suffragists, who wish to assert their self-preservative instinct now that the decrease of marriage and increase of competition impels upon so many women their own self-preservation in the struggle of life.

Decreasing Birth-rate. Another modern example, the history of which is instructive, is the decreasing birth-rate.

In the early days of modern industrialism that followed the discovery of coal and its application to the working of machinery, the wealth of the

north of England was enormously increased and work and wages were to be found in abundance. The population, owing to this successful extension of power over environment, increased by leaps and bounds. In 1801 the population of Great Britain was 9,000,000. Two centuries previously it had been 7,000,000. In 1821 it had risen to 14,000,000. Self-preservation being rendered easy, reproduction exerted power that met with little restraint. 'Boys and girls married early, and families were large at this time in all classes of society. The Queen herself had given birth to nine sons and six daughters, and it was no unusual thing to find fifteen and twenty children in a family—a rate which peopled our island with astonishing rapidity' (Synge, *A Short History of Social Life in England*).

At the present time, however, no great discovery has come into being to create a quantity of work and wage. Rather we see the reverse. Great Britain under the present conditions of labour has her full complement of workers. Competition is keen, and emigration and colonisation have not greatly relieved the heavy burden of those at home.

Consequently, in the contest between the self-preservative and reproductive instincts, the self-preservative mainly guides the actions and inspires

the thoughts of men, marriage is on the decrease and is contracted at a later age, and the birth-rate is lower than it has been for a century.

The Overpowered Reproductive Instinct.

It seems to be a formula of human life that *an overpowered instinct asserts itself in an obverse character*. Self-preservation becomes self-destruction in reckless living, drink, drugs, or suicide; gregariousness turns to the hatred of mankind, and the violence of anarchism. In modern life there is abundant evidence of the reproductive instinct showing itself in the obverse, viz. as passion, which refuses offspring, instead of love, which desires children. Thus the most melodious singer of our land calls upon his muse to sound the beauties and voluptuous charms of mistresses; free love is no longer banned from public discussion, and both plays and novels gain popularity by dealing with subjects of passion instead of ending the tale with the melody of marriage bells.

Importance of the Adjustment and Antagonism of the Instincts.

Upon the adjustment of the three instincts depend adaptability and happiness. The successful individual, however wealthy he may be, is discontented if he is under the contempt of public opinion; the youth, who is prosperous in business, is unhappy if his love is not returned, and the fortunate lover contends with constant

anxiety if his wage affords himself alone a bare subsistence, or his marriage is only possible at the sacrifice of power, or familiarity in the form of social position.

On the other hand, the man who is prosperous and the head of an affectionate family and is at peace with his neighbours, is generally reckoned a happy man, and the nation that can boast that its men are sturdy patriots and respecters of the law, and its women the mothers and nurses of healthy children, commands both happiness within and power and respect amongst other nations.

Upon the harmonious adjustment of the instincts depend happiness and the true successes that add to the welfare of mankind; upon their antagonism depend the tragedies, dramas, comedies, characters, histories, and insanities that make up the vast pageant of life.

The rest of this chapter will deal with some examples of the antagonism of instincts, but as the subject is unlimited the reader need not spend time in their perusal, but can readily see in incidents better known to himself the formula of the antagonism of instincts.

Insanity.

No more terrible example of the antagonism or

overpowering of the instincts can be taken than those which pass under the term insanity.

A common period of insanity is that of adolescence. Up to the time of adolescence the individual has been scarcely affected by any other instinct than the sub-instincts of family and class, by which he learns the habits and customs of his people, and a respect for those in authority and public opinion.

But at adolescence a great test comes. Two rival instincts spring into being, the individual and reproductive, and strive for the mastery of his life. The youth has to work to keep himself alive, but often is unable to make more than a modicum, on which he is able to exist. Yet he is constantly prompted to multiply his own overburdened life by marriage. If he abolishes the idea of marriage from the fields of actuality, his imagination will probably summon up pictures of wedded bliss. Yet his individual exertions, however strenuous, not only fail to enable him to fulfil his desires, but they even fail in the great pressure of competition to feed the ordinary ambitious desire for personal recognition or power. The baffling of his instincts produces in him the correlated feeling of despair. In the evening hours, when he has some leisure, the thwarted reproductive instinct becomes his master,

and though some relics of his family traditions may restrain him, as a rule he does astonishing things.

A healthy devotion to any one of the three instincts will save him. He may retain the influence of his home and upbringing and be prevented from acting beyond the range of its wishes. He may have chances of cultivating his ambition and become the earnest student or enthusiastic worker, or the love of a girl may become the unalloyed impulse of his life.

But if his salvation does not come, if the contest between these instincts and the constant opposition they meet with in the outer world overpower him, if the wind blows first this way and then that, so that no course can be steered, still more if the man comes of a weakling stock ill adapted to the struggle, then insanity is likely to be the outcome. Its particular form matters little except to his attendants, whether it is that of mania or melancholia or stupor. The fact of interest is that the insanity of adolescence is produced by the difficulty the lately arisen instincts have in adapting themselves to the environment and to effect a harmony between themselves.

Adolescence is the period when in the majority of mankind the battle of adaptation first becomes strenuous. In the declining years of age once

again the weapons of self-preservation tend to become ineffective, with resulting insanity. The following case is an example.

X. was, as a girl, brought up with all the advantages of a comfortable home. Her parents died, and owing to misarrangements of their property, she found herself penniless. She spends in consequence a life of unremitting toil for her own self-preservation, in a position she considered suitable to her social standing. The fight is a severe one and the weapons with which nature has furnished her were of a mean order. She contrives, however, to maintain herself until the approach of old age deprives her more and more of the feeble strength upon which she relies.

She fails, and in the phenomena of an obversed self-preservative instinct, she is named insane. The interpretation her obversed instinct presents in her consciousness is that her immediate environment, namely her friends, who during her sanity did their best to help her, have entered into a conspiracy against her. The trust of the familiar is changed to fear.

For instance, she receives a green cheque when she is accustomed to one of pink colour, as the part of her small salary. She concludes that this is a plot to make her commit forgery on the strange-coloured cheque.

Ignorant that instincts are at the bottom of actions and opinions, doctors and relatives join issue with her on this point and show her green cheques that other shareholders have received. But she passes easily to another delusion. Her tiny room in London has been ransacked by burglars, she asserts. To London she is taken and the room, undisturbed, is shown to her. Apparently the refutation is triumphant, but she denies that the contents of her room are genuine, and states that they have been put there with the attempt to deceive her. Other delusions follow about letters, which she knows are not from those who profess to write them. Again doctors and family argue interminably to disillusion her. So they do goose-step from delusion to delusion, until finally she shrieks in a madness and they rush her to an asylum.

She was an example of baffled and then obversed instincts.

Neurasthenia, which is so prominent a feature of the strenuous life of modern days, is evidence either of the antagonism of the instincts or the difficulty of adapting them to the needs of the time. The animal, fighting a losing battle, becomes exhausted. Fear takes the place of power, melancholy of happiness, suicidal thoughts replace

those of joy and ambition, bodily strength gives place to weakness, physical adaptations become obversed, the digestion fails and dyspepsia results, the working brain produces headache and disconnected thoughts, the limbs feel fatigue after even slight exertion.

Alcohol.

The effect of alcohol well illustrates the removal of the individual self and the loosing of the instincts in their more primitive, less thought-controlled, form.

Thus a respectable man, of good manners and education, married to a woman of his own station, is in some way induced to take more alcohol than he is wont to do. The instincts lose the control his knowledge imposes upon them. He becomes friendly to all men, a friendliness which readily passes to pugnacious individualism if he is opposed. The adaptations of the social grade to which he belongs he forgets, the fear of public opinion and the more lately evolved gregarious instinct yield to the demands of the reproductive, and he openly espouses a woman of the streets.

Many interesting derivations can be made by tracing the symbols of an instinct, the loss of their

distinctive purpose, their maintenance by custom and capture by another instinct.

The Appropriation of Symbols of One Instinct by Another Instinct.

In all danger an animal protects the most valuable and evolved adaptations. Thus a child suddenly alarmed impulsively shuts its eyes, puts its hands over its ears, closes its mouth, holds its breath, crouches to protect the more weakly defended abdomen, and waits until the danger has passed or the blow fallen.

Now primitive man believes in the material transmission of personal qualities. Thus, if a holy man touches a charm, the charm partakes of his holiness, and will ward off danger in the materialised form of demons. These charms men and women wore in the ears, nose, lips, fingers, wrists, ankles, and other vital parts that required protection from materialised evil.

Gradually, however, the use of these charms as charms was disputed by the reproductive instinct and sub-instinct of social status. Skill was brought to bear upon them, and imitations of natural objects and the fancies of men adorned them. Their original use simply as charms against demons and danger passes by custom into their value as ornaments, that is things familiar, but not useful. Not only are they ornaments favouring the fair, but they also become a means of

storing wealth safely, being fastened on to the owner of the wealth, and then they become a measure of wealth and an indication of the social status, and the symbol of the sub-instinct of class distinction.

Nor did they remain as symbols of wealth only. They also became symbols of other class distinctions and orders; and marks of individual merit and courage.

Of their use in all these capacities we see examples to-day. The Catholic Irish wear medallions blessed by the priest to avert evil, and many soldiers in South Africa wore beneath the vest small lockets hung from their necks, in which was the hair or picture of the beloved woman to act as talisman. Burmese women prefer to store their wealth as diamonds rather than to deposit it in a bank. Indian women carry their wealth on themselves, as bangles and anklets, and coster-girls in London invest their saved money in marriage rings, which they wear strung from the neck. The use of brooches, earrings, and rings to add to the charm of fair women is as well known as the medals, crosses, and stars men receive for individual merit.

Many other similar instances can be found by any one willing to pursue the subject. For example, the history of tattoo is practically identical

with that of ornaments, except that tattoo obviously is not a means of storing wealth.

Recapitulation.

(1) The three instincts struggle amongst themselves for mastery, and this struggle is always being illustrated in the phenomena of life.

(2) An overpowered instinct asserts itself in an obversed character.

CHAPTER VI

THE GREGARIOUS INSTINCT

THE Gregarious Instinct describes the spread of altruism and the evolution of larger bonds of sympathy between the races of man and between man and other forms of life. As yet the gregarious instinct in man is in the stage of development. It is at the present stage by no means master of the two primal instincts, for man is one of the latest evolved of animal species, and is even now slowly progressing to his full power as a gregarious animal. By constant change he advances to a wider environment, and the stability of the most complete adaptability to the widest environment. The history of man has been the history of the increasing power of the gregarious instinct, *i.e.* of combination uniting those things which were previously disunited. The future history will be of its further increase of power, until he has organised as perfect a system as now governs the hive of the honey

bee. The dominant note of the gregarious instinct is sacrifice, a quality perfected in the hive.

Evolution of the Gregarious Instinct.

In far distant times primitive man lived in the unconquered forest, making a cave for his dwelling, and in later times a hut, by which he protected himself from the sun, the rain, the attacks of wild beasts, and other dangers with which the forest abounded. A family occupied a hut, and a cluster of huts formed a village. Being dependent on each other, the men of a village were bound by mutual desire for self-protection, and built a palisade round the village, or protected the camp. But for the rest, there was little distinction between man and man, scarcely any more than there is between wolf and wolf in a pack. As the wolves have a leader of the pack, so this little community chose a headman or a committee of the older men, who imposed the rules and commanded adherence to the customs necessary for its organisation. It is true that the reason of man largely betrayed him at this early stage, and in the study of savage tribes at the present day, their rules appear to civilised man surcharged with superstition. Still their purpose was for the welfare of the individuals of the community. In all things the village or camp was

communal. The hunting grounds about the camp, or the land cleared and cultivated around the village (this is largely so in Russia, India, and savage villages of to-day), were worked and shared in common. Hunting and fishing expeditions were undertaken by the men in common. At times of danger the community, as a whole, armed itself for the defence of the home. The gregarious instinct, in short, is exhibited as a village or camp sub-instinct.

As the uncultivated forest was further cleared, and the hunting grounds extended, and man triumphed over the dangers of his environment, the community came into touch with other communities. Struggles of rivalry ensued, but eventually the rivals bound themselves together as tribes to protect themselves against other tribes. Then states formed to protect themselves against states, nations came into being, empires were formed by conquering nations, and to-day we have the prospect of a federated empire. Thus as the gregarious instinct gains in strength, it passes from the family preservation to that of the village, the tribe, the state, the nation, and the empire.

All these subdivisions are with us to-day, and are named sub-instincts in this book. The family sub-instinct is seen in family unity and nepotism,

the village in village rivalries, the tribal in the clans of Scotland, the state in the rivalries of counties, the national in the distinction of the countries of Great Britain, and lastly, overruling all, the imperial sub-instinct, which demands and receives the sacrifice of the other sub-instincts, if need be, for the safety of the Empire in times of danger and the maintenance of Government, Army, and Navy in times of peace.

In the evolution of the body we see similar increase of function and organisation from the simple cell to the complex structure. The action of the various organs is harmonised for the existence and the welfare of the body as a whole. The animal becomes more powerful as its organs become more efficient and the communications between them and the harmony maintained is more effectual.

The body and communities advance in a precisely similar manner, namely, first by increasing efficiency of the cells or individual units, secondly the efficiency of the separate organs, or in man the classes of men performing certain functions and bound by the sub-instinct of class distinction, and thirdly by a more rapid and exact communication and harmony between the whole.

The complicated body of man has still, like the communities, many disabilities. Organs that are

of no value to him are still perpetuated by a material persistence strictly comparable to the effect of custom Amongst them the vermiform appendix is accountable for much disaster. Man's physique is not yet adapted to the many changing environments it meets. Illness is probably far more rife amongst mankind than amongst animals. Yet the body is attaining to greater perfection. Illness is decreasing, the average of life is longer, and civilised man can adapt himself to far more variable conditions than can the savage.

The History of a Nation.

The history of a nation may be divided into (1) the history of the national sub-instinct and the action it produces in its relation to other nations, its wars, treaties, and intercommunications; and (2) its internal history, the history of the antagonism of the sub-instincts, the struggle between classes and castes.

The history of England, since it became a nation after the Norman Conquest, is the history of its wars, its defeats, and conquests. In the struggle of nations she has exerted power and become mistress of great portions of the globe. More than any other nation she has increased the power of man in his conquest of and adaptability to a wider environment, so that at the present day the Britisher has a wider environment, to which

he can become adapted, than the members of other nations.

The account of the social progress of England has been ably presented in Synge's *Short Study of Social Life in England.* I have made great use of this book in this chapter.

The Internal History of England.

The Working Class.

At the time of the Normans the working class had no sort of organisation between themselves. The feudal system, which was inaugurated by those in power, allowed no chance of such organisation to arise. The land, upon which the food of the nation depended, was taken possession of by the conquerors, and the common people were separated and confined to small feudal communities. The common man was completely dependent on his feudal lord. In times of war he had to serve his lord's self-preservative instinct and desire for power, fighting for him in wars and quarrels, in which he had no share and of the causes of which he was frequently ignorant. In times of peace he cultivated the soil, but the profits went to the lord of the land. His condition, though similar in some ways to the factory hand of modern times, was greatly inferior in freedom. He earned no wage with its gift of partial independence, and he

paid his rent in forced labour. He was not allowed to leave the locality in which he was born, except to serve in the wars, and thus all chance of combination with his fellows was forbidden him. Further, to keep him wholly in subjection, his lord and master maintained a body of favoured henchmen ready to crush the labourer should he show any signs of rebellion, which he rarely, if ever, contemplated doing.

The class of 'nobles,' who owned the land, from which the food, shelter, and clothing of the nation was obtained, continued to hold power as long as agriculture was the staple industry of England. But as food began to be imported and commerce to increase in value, the nobles began to become less adapted than those in commerce, the means of power began to slip from their hands, and by the repeal of the Corn Laws in 1846 power was largely transferred to the hands of the merchants.

But for the centuries from the Conquest to the period of commercialism, the power was in the hands of the nobles.

The complete thraldom of the labourer continued until the occurrence of the Black Death in the reign of Edward III. Up to that time the 'system of social inequality had passed unquestioned as the divine order of the world.' Owing to the terrible destruction of the Black Death

labour became scarce, and the labourers found that they had their price and, with value, the dawn of power. 'A smouldering discontent arose, which could not be smothered. John Ball voiced the general feeling—"Things will never go well in England so long as goods be not in common and so long as there be villeins and gentlemen. By what right are they whom we call lords greater folk than we are? On what grounds have they deserved it? If we all come of the same father and mother, of Adam and Eve, how can they say or prove that they are better than we, if it be not that they make us gain for them by our toil, what they spend in their pride? They are clothed in velvet and warm in their furs and their ermines, while we are covered with rags. They have wine and spices and fair bread; we have oat-cake and straw, and water to drink. They have leisure and fine houses; we have pain and labour, the rain and the wind in the fields."'

For the first time a class sub-instinct begins to stir in the labourers, and that long-continued antagonism between the labouring class and their employers began its active career, an antagonism which may perchance be settled finally in favour of the labourer before the present century closes.

Indeed, it is not until the nineteenth century that the combination of the labourers brought

them any genuine measure of power. In France, it is true, they overturned their rulers and took for a time the reins of government, for which they were not adapted by evolution or previous experience of power. In England their recognition arose partly from their own combination and partly from the spread of gregarious sympathy amongst the more powerful classes, which exhibited itself in the increased powers the poor received in the form of education, the better conditions of work and higher wages.

Up to the nineteenth century Synge states that 'Like a Hindu caste each class kept strictly to themselves. . . .' He continues: 'Times were changing every day, and the barrier between class and class was breaking down at every stage. . . . But when all is said and done, the most remarkable development of society during the nineteenth century has been in connection with the People. So far they had played no part in the government of the country, which was still wholly in the hands of the wealthy and powerful, while they, the workers—those who toiled with their hands, who gave their lives, courage, patience, skill, endurance, obedience; who suffered and died, struggled not ignobly—had no share, nor was it possible for them to rise in the social scale. Truly this was impossible, as they had no know-

ledge and little or no education, while excessive gin-drinking was sapping away their very manhood.' These folk exhibit the virtues of labourers, those named patience, endurance and obedience, but they make no great effort for power; rather their wearied self-preservative instinct in the moments of their leisure tends to show itself in the obverse, the self-destruction and despair of excessive gin-drinking.

But their class sub-instinct began to assert itself more vigorously. Reform bills were passed in 1832 and 1867 extending the franchise to the lower classes. Education, too, was instituted, and now 'a modern Englishman of any birth, class, or occupation can represent his fellows in the House of Commons and rise to the House of Lords, he can have a seat in the Cabinet and attend the highest social functions in the land.' The largest class of the nation are thus day by day gaining power. Already they are strong enough to antagonise with partial success the power of their employers. The welfare of the greatest number plays one of the most important parts in the Parliament of the day, and, except that weaklings must fail until the time arrives when the gregarious instinct will control the reproductive, the welfare or adaptation of the people, as well as that of richer classes, occupies

the thoughts and guides the actions of the makers of laws and customs.

The Middle Class of Trade.

Similarly in history is seen the struggle between the class sub-instinct of those in trade and the possessors of the land.

The tradesfolk, having money, held more power than the labourers, so that instead of complete indifference, contempt was the weapon used by the nobles against them, the contempt by which a man holds himself superior, more powerful, fitter in the struggle for existence than another. 'The merchant class were heartily despised by barons and nobles. Yet in the thirteenth century, when the labourer was completely subject to his lord, the merchant class possessed "unions of traders to regulate trade and to exclude foreign rivals."'

By the time of Queen Elizabeth the nation recognised the value of the commercial classes, and much of the extreme contempt of the nobles had passed away. We find the Queen herself opening the Royal Exchange. Trade grew apace, and 'shopkeepers, merchants, farmers, manufacturers, all grew rich and prosperous.' As trade increased merchants grew in importance and power, yet George III. decreed that 'no individual engaged in trade, however ample might

be his nominal fortune, should be created a British peer.' Two generations later, however, the noble class were striving to absorb the power which wealth brings, and thus maintain the ground they were losing in the contest, by marrying into the fortunes acquired by the merchant class.

Finally the repeal of the Corn Laws in 1846—laws which protected agriculture, upon which the wealth of the land depended—largely transferred the power from the owners of land to the owners of trade. The supremacy of the merchants is already challenged by the working class, and seems unlikely to continue for anything like the period of time their old rivals, the landlords, held sway.

The same struggle of class sub-instinct with class sub-instinct constitutes the history of domestic life. The subject of dress will be taken as an illustration.

Dress.

Dress, besides its self-preservative and attractive applications, has also been one of the principal weapons of the powerful class sub-instinct to hold the other classes in check, to prevent these classes overstepping the barrier, and to keep each class like a Hindu caste strictly to itself.

In the thirteenth century the nobles wore gorgeous tunics 'literally shining with gold

thread,' and ridiculous long-pointed shoes, inconvenient as many of the Brahmin caste observances are inconvenient to the all-powerful Brahmins who obey them, inconvenient because change adds to that which is familiar, and so the toe of the shoe gets longer and longer until it becomes a nuisance and inadaptable, after which its length declines or it is altogether discarded. 'The dull uniformity of sombre hues of our modern dress were left for monk and merchant, for each profession had its distinctive costume, each social grade was distinguished by the cut and texture of its garments.'

In the fifteenth century 'the rising power and wealth of the middle classes made the nobles feel that their dignity was at stake, when their fashions in dress were copied by the democracy. Laws were passed enforcing the social barrier as far as dress was concerned.'

At the time of George III. 'the distinction between the dress of the quality and the commercial classes was being obliterated,' and at the present time the class distinction of dress is not great.

Fashion, the pursuit of the élite by the vulgar, the striving of the weaker to share the power of the stronger by similar appearance, is still potent. Though it scarcely would compel a court lady to

swallow 'gravel, ashes, and tallow,' as the ladies who strove to attain the pallor of Queen Elizabeth are said to have done, yet still the highest take the lead, changing each time they are nearly caught by the pursuers, who imitate the changes as fast as they can and stretch a tenuous purse to gain the badges and symbols by which they preserve their caste or strive to attain to a higher social state.

The Lady, as differentiated from the womanly qualities, is a term denoting the collection of social conventions and barriers that still exist to keep the lady superior to other women who are not ladies, although they claim the title in the presence of their equals or inferiors.

Thus when a man goes to see a lady he must have his boots brushed carefully, his trousers turned down, hold his hat in his hand, leave his umbrella in the hall, be ushered up to this 'superior' being by an 'inferior' being with a white apron, bow, partake of tea, talk irreproachably and unapproachably, and leave with the thankfulness that he did not live in days when etiquette was more strict, and a feeling that the lady had been kind and gracious, but not human and companionable.

Very rigidly does the lady uphold the barriers

of social caste, as rigidly as the Hindu she condemns. She is gracious to girls who work in shops and elsewhere, but she will resist their invasion into her territory with an almost tigerish ferocity. She condemns novelties that threaten the stability of the many conventions that maintain her position, yet to those who form her familiar environment she shows the gentleness and charm of her womanhood.

Law.

It has already been shown that laws were passed regulating the dress of the respective classes, and that the lower classes were not allowed any voice in the government of the nation. Laws, in short, are forms in which (1) the national sub-instinct, or (2) the class sub-instinct, or (3) the gregarious instinct exhibits itself.

Taxation and the maintenance of the army and navy are examples of the first.

The many laws by which the ruling class protects itself and limits the powers of other classes are examples of the second.

The introduction of the Plimsoll mark is a worthy example of the third.

Laws depend for the form they take upon the knowledge of the legislators, which is frequently at fault, and consequently the law fails to fulfil the

purpose for which it was destined, and its result may be entirely opposed to the intention of the framers, just as a savage in cutting his cheek to let out the demon that is giving him toothache really adds to his afflictions. Yet even as the basis of that action can be discerned in the self-preservative instinct, so at the bottom of the multitude of laws framed and passed by practical men can be discerned the impelling instinct. This instinct in reality produces the law, however obscure and overlaid it may be by the knowledge of the practical men. Originally in the internal economy of England, the laws were in the main the expression of the individual instincts of the king and royalty, later they express the sub-instinct of the nobles, then of the merchant rulers, and now, howsoever legislators may talk and debate, the sub-instinct of the people and the gregarious conquest of individual interests is constantly evidenced.

Summary.

In this brief sketch of internal history it is clear that, generation by generation, the narrowness of class distinctions is gradually yielding to a wider community and a greater equality. The working man is no longer merely the serf of his lord, the merchant class cannot be robbed with impunity by the noble, the insignia of each caste

are giving way to a greater uniformity of dress, the vagaries of fashion are regarded with lenient amusement by rational men, the lady yields to the nobler impulses of womanhood, and law more and more recognises the rights of each member of the community instead of being the weapon of the powerful to keep the people in subjection.

Whatsoever subject is traced from the past to the present, whether it is law, morals, dress, literature, etc., the widening influence of humanity will be found. Man more and more sees himself as a member of a community to each member of which he has duties of personal sacrifice.

But the gregarious instinct, the spirit of sacrifice, has not gained the full mastery of the other instincts. Man in his organisation is still far from the perfection of the hive. The struggle of class against class is still bitter and intense, and the struggle of progressive altruism against the stability of those in power becomes keener day by day. Yet the result of these struggles with many vicissitudes is mainly the greater justice between man and man, the widening of environment, the greater understanding between nation and nation. The mastery of the globe by man is slowly being attained, and Internationalism already challenges the narrow confines of Nationalism.

The savage trembled if he ventured alone beyond the limits of his village. The environment of the civilised man comprises the greater part of the habitable globe. The range of the familiar widens and man passes from the stage of fear, which is habitual to the savage, to the state of mutual trust, and the confidence of power over environment.

Recapitulation

(1) The history of man is the history of the spread of the gregarious instinct.

(2) The future history of man will be that of the further increase in power of the gregarious instinct.

(3) The external history of a nation is the history of the struggle of its national sub-instinct with other national sub-instincts.

(4) The internal history of a nation is the history of the struggle of class sub-instincts with each other and the evolution of the true gregarious instinct or altruism.

CHAPTER VII

MORALS

Non-gregarious and Gregarious Animals contrasted.

THE most familiar example of a gregarious animal is the dog, and of the non-gregarious animal the cat. A dog belongs originally to the wolf tribe, which lives and hunts in packs. The dog as a gregarious animal likes company, is friendly to those who are kind to it and of whom it is not afraid, gets bored when it is not in company, hates to be chained up, unless another dog is with it, and exhibits great delight and gratitude when any one releases it from its loneliness. The cat, on the other hand, is a non-gregarious animal; it hunts alone, lives alone, and is content to sit out alone in the cold. The dog, being gregarious, has to be trained to suit the tastes of others. It learns habits of cleanliness, habits of obedience, to come to a call and to take punishment when it offends its master or public opinion.

The cat has natural habits of cleanliness, never learns obedience, flees when called for punishment and is indifferent to public opinion.

In play the same distinction is seen. All play of young animals, children as well as kittens and puppies, is the rehearsal and trial of the body and mind in the adaptation of instincts. Much, of course, is imaginative, from the very fact that play is a rehearsal and not called forth by the actual need of the time. But the gregarious animal's play is also largely imitative. A kitten's play, on the other hand, is rarely imitative. It frolics by itself, and in its play we see the practice of future powers, its catching and killing powers.

It runs after a cork, catches it, bandies it between its paws as later it will bandy the captured mouse. Or it lies on its back and clutches the cork or worsted ball with its teeth and fore claws, and kicks at it with the hind claws, which is the method in which a cat fights or destroys the life of its larger prey, such as a rabbit. But as an adult, the cat ceases to play. Two adult cats will not play together.

The puppy, on the other hand, is less entertaining in its play than the kitten. It likes to be played with and is incapable of amusing itself, except by gnawing things. With other puppies it will have great games, and it is charmed if an elder dog will bear it company and pay heed to its unwieldy attentions. Also, a puppy will imitate other dogs and will add its shrill note

to another's bark, though it does not know the provocation. Finally, when it becomes a full-grown dog, it does not lose its love of play, as does the cat, but enjoys the test of speed and skill in the chase of a ball with other dogs, as much as men enjoy their football.

Example:

As an example of the difference between the non-gregarious cat and the gregarious dog, I remember once seeing two small Yorkshire terriers, urged by a boy, making a great show of fight against a tiny kitten. Darting forward and back with much shrill barking was the mode of attack adopted. The kitten, on the other hand, took no notice of this demonstration, but sat looking here and there with complete indifference. Once and once only the attackers, urged by the boy's 'Go it!' ventured within reach. Immediately the kitten lifted herself, spread her claws, spat and won an easy victory. The little dogs slunk away, to come again to the boy's call to receive chastisement for their lack of spirit. The kitten continued without further interruption her review of life. She cared nothing for public opinion one way or the other. Entirely dependent on herself, she awaited the moment of real danger, acted with promptitude, and having succeeded,

did not trumpet her victory, not desiring public admiration.

The dogs, on the other hand, being gregarious, acted in concert to the commands of their superior, the boy. They undertook a job, in which they had no heart, by command and for the sake of public approval. Afraid of the kitten, they nevertheless made a great show of courage for the deception of the onlookers, their conduct seeming hypocritical from the clashing desires to preserve whole skins and at the same time to win public applause. But in the one attack the severity of the danger overcame the force of education and the desire for praise. The danger being removed by their retreat, once more the public quality of their act, its effect on others and their opinions of it, regains possession of their consciousness, they slink away and then come obediently to their master to receive punishment. The dog thus has a respect for and fear of public opinion; he has a sense of shame, a feeling that he has done wrong and will come to punishment. In a word, the dog has a conscience.

The cat has no care whatever of public opinion, recognises no superior, has no elation from victory, no sense of shame, and will not come for punishment.

The cat has no conscience.

This is a very important differentiation between gregarious and non-gregarious animals.

Upon the fact that man is a gregarious animal depends the fact that he is a moral being and has a sense of right and wrong.

Moral Actions and Thoughts.

Moral actions are gregarious actions, actions which affect other members of the flock. The great majority of actions, therefore, have a moral aspect.

The presentation of these actions, actual or imagined, in the consciousness of man produces comments on them, viz. their comparison with previous actions stored in the memory. They may have originally been instinctive actions, but the comments or opinions on them will frequently be concerned with their effect on others. Rational actions, of course, are preceded by thought. These thoughts and comments, when they are concerned with the quality of the action in its relation to others, whether that relation is actual or imagined, are the moral sentiments.

It is essential to remember that thoughts and sentiments are always concerned with actions, either actual or imagined. Their value and merit is judged by the actions they would provoke. They have no intrinsic merit apart from these imagined or actual actions. Thus the ideal of

perfect love implies that the actions of the sharers of this perfect love would always be of the highest possible benefit to all parties, and would never be harmful.

Morals are either ethical or religious.

Ethical Morality is the consideration of right and wrong between man and man and other animals. It considers right and wrong to be purely relative to man.

Religious Morality is the consideration of right and wrong in relation to a standard of absolute goodness, as differentiated from the ethical morality, which regards good and bad as simply a matter between man and man. With regard to religious morality, we know nothing of 'things in themselves,' and the existence of things is from our point of view solely dependent on our own senses and perceptions, and the word 'things' refers to what we perceive.

So with 'absolute goodness,' 'absolute truth,' and final standards of any sort, they have and can have no clearly defined meaning. Things as described by man in his thoughts and words depend upon his perceptions and conceptions of them. Over and beyond this man knows nothing of them. It is clear, then, that 'things in themselves and absolute goodness' are metaphysical, indescribable, indefinable, inconceivable.

With the exception of a few men, the proper understanding of this fundamentally important fact has not yet become part of the conscious knowledge of mankind. The reason of this and its relation to the increasing power of the gregarious instinct will be described in the next chapter. At present and in the past, the adherence to the metaphysical and absolute, rather than to the relative, is far more general amongst mankind. Inextricable confusion is the result. No man or woman can define what they mean by badness or goodness, and yet they are always using these words; in fact, none are more common or more important in daily, social, and national life.

Until the fact is grasped that morality like all else is purely relative and is always in a state of change, and that absolute goodness does not exist, and cannot exist any more than a final universal purpose can exist, this confusion will remain.

Good and Bad.

The word *good* applied to an action, actual or imagined, is connected with the effect the action has on other people. A man will sometimes say that his own action is good with regard solely to himself. He will, for example, say that the meat he eats is good, by which he means that it

is pleasing to himself, though the blowfly prefers it when putrid. No moral quality is attached to the word in such a case (in fact 'pleasing' or 'safe' would be more accurate) except the implication, if he made the declaration to his neighbour, that his neighbour would also find the edible good.

But in their moral use the words *good* and *bad* are synonymous with the words *right* and *wrong*, which will be used in this chapter in conjunction with good and bad.

It seems well to give an illustration of the dependence of the sense of right and wrong on the gregarious quality of man. The instances of the dog and cat have already been given. The present one is quoted by Crawley in the *Mystic Rose*, a book from which a great number of illustrations both in this and later chapters are taken, and to the laborious studentship and learning of its author the present writer is deeply beholden. This is the illustration in the words of the traveller Seeman: 'Of the Kurnai it is said that the gratification of self is choked in them, as in us, by a sense of duty and affection. Speaking to a Kroatun young man about the food prohibited during initiation, I said, "But if you were hungry and caught a female opossum, you might eat it, if the old men were not there"; he replied, "I could not do it, it would not be

right." Although I tried to find out for him some other reason, he could give no other than that it would be wrong to disregard the customs.'

Grades of Morality.

A man has a relation to another man, he has a relation to the class to which he belongs, to his nation, and to the world and life at large. The question of morality will be dealt with from these different standpoints. The relation of individual to individual, or of individual instinct to individual instinct, will be described under individual morality ; of class sub-instinct to class sub-instinct under class morality ; of national sub-instinct to national sub-instinct under national morality ; and, lastly, the sacrifice of the individual instinct to the good of the race will be described under altruistic or gregarious morality.

Individual Morality.

Individual morality results from the relation of an individual act, actual or imagined, to another individual.

Thus, in speaking of the action of another in its relation to himself, that which he thinks preserves or would preserve his own safety and familiar environment, or add to his power, a man calls good or right ; that which he thinks does not or would not accord with his familiar environment or diminishes his power, he calls bad or evil.

Examples:

As usual, examples for a general formula of life are innumerable in the experience of all.

Thus, if a man falls down and breaks his leg, and another man ties his leg to a splint and helps him home, the injured man calls the action right or good, for it helps him back to safety, which is endangered by his injury.

If a man knocks down another and breaks his leg, the injured man considers the action bad or wrong.

If a man's wife runs away from home, he calls her action a bad or wrong one, because it shatters his familiar environment.

Death is looked on as an evil in the same way.

A friend, one of a man's familiar environment, is constantly spoken of as a good fellow.

So, too, a man regards his own opinions, his thought-adaptations in the struggle for life, as good or right, but those of his opponent he considers bad or wrong.

The Individual Act and the Moral Motive.

The fact that man is swayed both by his individualistic and gregarious instincts leads to an anomaly that has been the cause of much bitterness and ignorant accusations between man and man.

A rational action is committed in compliance with the demands of the individual instinct.

Other members of the community demand from the actor the motive of his action. They make this demand in actuality, or the actor forestalls it by stating the motive. Now his action was individualistic, but in stating his motive, he submits it to the judgment of his fellow-men, whose knowledge and whose judgments, therefore, are in many details different from his. But in his gregarious relation to them, he has more common knowledge with them than they have with the non-gregarious individualism of his action. Consequently, and unconsciously or consciously, the reason he gives for his individual action is a gregarious or moral reason, giving a gregarious or moral quality to the act which it never possessed in reality.

The frequency with which, following an impulsive individualistic action, a moral comment upon it, or motive for it, is unconsciously given is probably far more frequent than the instances when the self-preservative instinct deliberately gives a gregarious reason to escape opposition in the form of punishment.

The contrast between the impulse of the act and the motive given by the actor leads to constant accusation of humbug and hypocrisy, an accusation which springs readily to the lips, until one understands the constant struggle of the instincts and

the tendency of the individual instinct to shield itself from public blame under the gregarious.

Perhaps the most striking instance of this in modern times is the moral motive of the 'white man's burden' given for the annexation of India, South Africa, and elsewhere. That this desire of the white man to bear his dark-skinned brother as a burden was not the reason of their annexation, every one knows. The primary motive of annexation and exploitation of these countries is for the good of the Britisher and not for the good of the natives, although the ingrained gregarious humanity of the Britisher has in many ways greatly benefited the native as a secondary effect.

Faults.

If a man uses his knowledge in guiding an instinctive impulse to an action, which results in harm to himself or his class, he commits a fault.

There are two ways of regarding the fault, the first by its result, the second by discovering the instinct and the rational guidance of the action and its inadaptability to environment. The first may be described as the practical method. It requires a conventional knowledge, by which easily attained measure the fault is quickly judged. The second is the method of the man of gregarious sympathy, who sees in men and women illustrations of the adaptations of the instincts to

Other nment. The first calls the maladaptation a fault or sin and demands punishment as the remedy. The second traces the default of reason and adaptation, and believes the recognition of this default by the perpetrator to be the initial step in the remedy.

For instance a child in the East-End is caught in an act of theft. The first method sends him to the police court for punishment. The second finds out where he lives and the influences by which he is affected, and attempts to alter those, so that the child learns the morality of citizenship.

Class Morality.

Men bound together in a class hold that to be good or right which maintains the preservation of or increases the adaptability of the class, and that to be wrong or bad which endangers it.

Examples:

I have in my hand by chance a report of the Mercantile Marine Association, and under its operations I find 'it has improved the conditions of Masters and Officers by obtaining redress of wrongs; reforms in Courts of Inquiry and Boards of Trade procedure; amendments in oppressive Shipping Laws, and in many other ways,' all good things from the class sub-instinct point of view, many of which were probably resisted as

bad and unnecessary change by the ship-owners' sub-instinct. There is also a clause which, dealing with a more altruistic instinct, claims the higher title of virtue. 'It provides for the Widows and Orphans of Members.' This Association claims, in short, 'the greatest record of good work for the Mercantile Marine.'

To take an example from history, Synge writes of the guilds of the thirteenth century, that it was their business 'to punish short weights and measures, to censure shoddy material, to remove unskilled workmanship—in short, to ensure commercial morality. . . . It was this early insistence on honest dealing which made the English merchant respected throughout the world, and finally helped to raise him to a position unequalled by European traders.' Dishonesty in such a community would be held a vice. It would shake the safety and power that resulted in trade supremacy. This supremacy was the reward of best adaptation, which was due to the familiarity and trust resulting from an understandable and worry-saving method of intercourse, named honesty.

Far different is that body of men who preserve themselves by preying on the public. Yet even amongst thieves there is honour, that is a relative sense of right and wrong.

To the genteel class there is no greater offence than a mésalliance, except the still more dangerous indiscretion of one of its unmarried daughters, an error scarcely condemned, even looked upon as necessary, by a section of the poverty class.

Virtue as a weapon against opponents.

Class virtue is often used as a class weapon against its opponents in the struggle of class with class. On this point no one is more eloquent than Nietzsche in his *Genealogy of Morals*. He makes the error in the passage quoted of disregarding the growth of the gregarious instinct and singling out a single feature of its exhibition. He is, in fact, fighting for the spirited class to which he belongs, a quality that will certainly survive, if it is needed in the adaptation of future man to environment. 'The chivalric, aristocratic valuations presuppose a powerful corporality, a vigorous, exuberant, ever extravagant health, and all that is necessary for its preservation,—war, adventure, hunting, dancing, sports, and in general, all that involves strong, free and cheerful activity. . . . The Jews dared to subvert the aristocratic equation of values (good = noble = powerful = beautiful = happy = beloved of God), and with the teeth of profoundest hatred (the hatred of impotency) clung to their valuation, "the

wretched alone are good ; the poor, the impotent, the lowly alone are good ; only the sufferers, the needy, the sick, the ugly are pious ; only they are godly ; them alone blessedness awaits ; but ye, ye, the proud and potent, ye are for aye and evermore the wicked, the cruel, the lustful, the insatiable, the godless ; ye will also be, to all eternity, the unblessed, the cursed, and the damned. . . . Let us be different from the bad, let us be good."'

Here is another example of a similar nature. In the South Seas large, black, evil-looking birds, called stink-pots, follow sailing ships. There was a superstition firmly held amongst sailors—I do not know if it survives—that these offensive creatures were inhabited by the souls of the deceased skippers. Thus, as the Jews retaliated on the aristocrats, the sailors were able to retaliate on the villainies of skippers.

National Morality.

Many adaptations are striving for power, according to the many forms the instinct takes in the thoughts of individuals. They come into being and struggle for existence. Those that have the support of the most powerful interest, or are urged by the greatest enthusiasm and also bear a definite relation to the needs of the time, survive and becomes virtues or laws, and if, owing to their suitability, they continue from generation

to generation they become customs. When conditions change, the customs, being allied to previous conditions, are a hindrance to the new circumstances, and must either modify themselves, the usual course, or they have to be extirpated. The Council of Trent's decrees are an example of the first and Luther's reformation of the second process.

But customs fight to the death, as stability always does against mobility. Consequently in all morals there is always the struggle of the old morality against the new. The present day being a time of marked change, there is abundant evidence of the revolt against the conventional, so much so that a brilliant writer states the paradox that any one who adheres to the conventions of the age is grossly immoral.

But certain widespread virtues necessary to the self-protection and welfare of the nation still reign supreme. It is only natural that they should do so. With man's adherence to the familiar, the nation to which he belongs gains his attachment : his stock has belonged to the nation, his environment is the same, the language and customs he has learned are the same. More of his affinities, therefore, are satisfied by the country in which he is born and trained. Loyalty, Patriotism, and Imperialism still reign supreme

in national morality, and any one who offends against them is marked out as peculiarly evil and deserving the ignoble title of traitor. Especially is this so in times of war. Then, too, the enemy is bad, cruel, and treacherous, and God and right are on our side; such is the moral interpretation of the imperilled national sub-instinct.

Other good or right acts as judged from the national sub-instinct are: proper government, the organisation of trade, better sanitation and hygiene, physical training and national education.

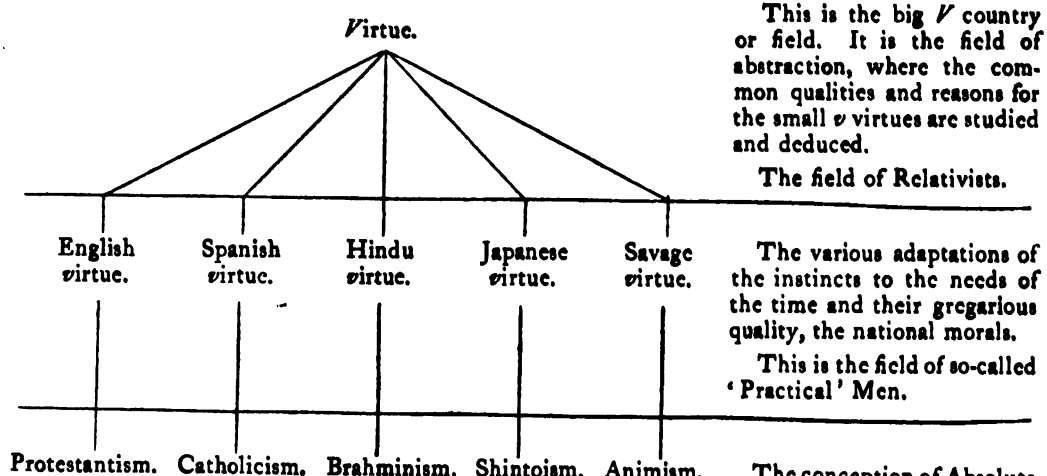
Excessive consumption of alcohol, thieving, dishonest trading, forgery, etc., are all considered bad and wrong.

Yet national morality is, like all else, purely relative to the nation. There is no better way of illustrating this than by taking a scheme to show the various national applications of the instincts, these applications being looked upon as right and good by the members of each particular nation, with the corollary that those of other nations are inferior, and in the opinions of narrow-minded people wrong and bad.

For instance, in Scheme II. the Chinese, Marquesan, Sardonic, and Fijian methods would be regarded as murderous, and the Ledic and Thibetan immoral, by most English people.

Scheme I. illustrates the general plan:—

SCHEME I.



This is the big *V* country or field. It is the field of abstraction, where the common qualities and reasons for the small *v* virtues are studied and deduced.

The field of Relativists.

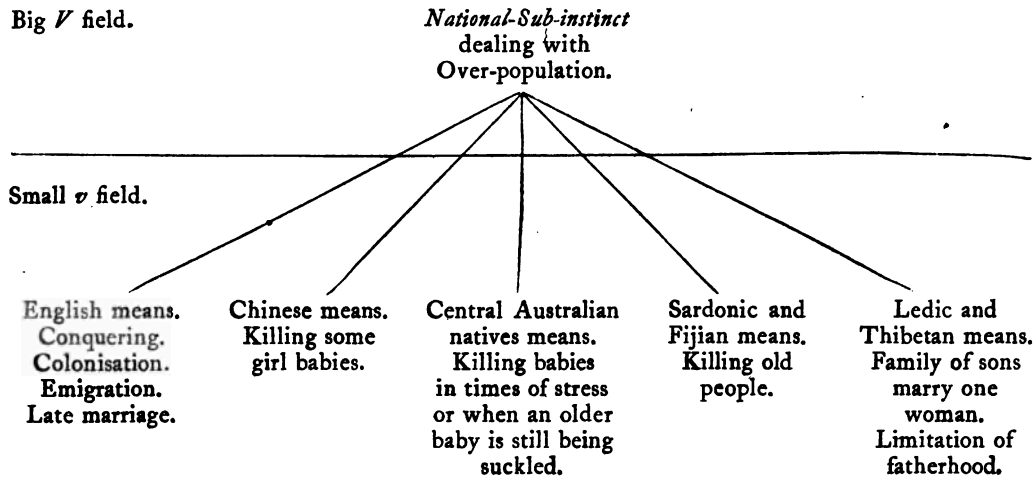
The various adaptations of the instincts to the needs of the time and their gregarious quality, the national morals.

This is the field of so-called 'Practical' Men.

The conception of Absolute Virtues as the source and aim of the national morals.

The field of Metaphysicians and Religionists.

SCHEME II.

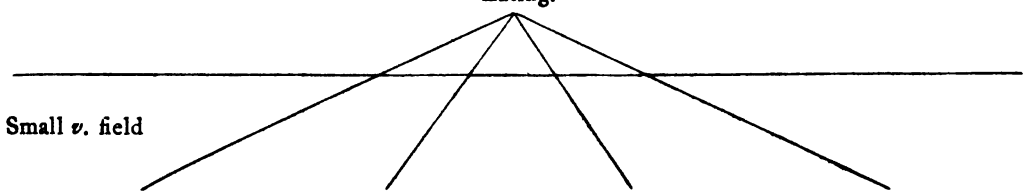


There are also religious reasons for these different means. Thus the Central Australian native justifies his action by believing that the spirit of the dead baby will again enter its mother or a woman of the same totem. The Fijians kill the older folk before they are feeble, so that they may not be feeble in the next world. The English rely on Imperialism and the White Man's Burden.

Note.—This scheme is only illustrative. It makes no pretence to accuracy.

SCHEME III.

Big *V* field. *Self-preservative Instinct.* Eating.



Small *v.* field

Poor Englishman. Knife, fork, chair, table, beer, bread, cheese. Cost of meal 4d. Appurtenances to meal, per meal $\frac{1}{4}$d. Total 4$\frac{1}{4}$d.

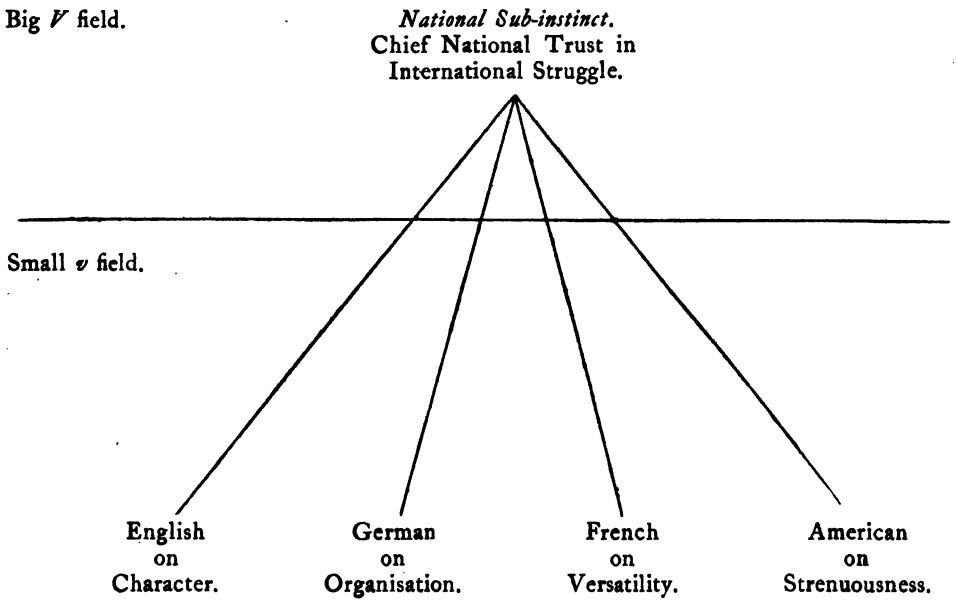
Rich Englishman. Silver plate, linen, servants, 6 courses, wine. Cost of meal 10s. Appurtenances to meal, per meal 2s. 6d. Total 12s. 6d.

Poor Irishman. Fingers, pot, turf fire, potatoes, water. Cost of meal 1d. Appurtenances to meal $\frac{1}{8}$d. Total 1$\frac{1}{8}$d.

Poor Chinaman. Rice in bowl, water, chop sticks. Cost of meal $\frac{1}{2}$d. Appurtenances to meal, per meal $\frac{1}{50}$d. Total $\frac{52}{100}$d.

Rich Burmese. Rice, curry, vegetables, water, low table, fingers, bowls, plates. Cost of meal 4d. Appurtenances to meal, per meal $\frac{1}{4}$d. Total 4$\frac{1}{4}$d.

SCHEME IV.


Big V field.
National Sub-instinct.
Chief National Trust in
International Struggle.
Small v field.
English
on
Character.
German
on
Organisation.
French
on
Versatility.
American
on
Strenuousness.

Such schemes can be multiplied to illustrate individual, class, and national morality and other adaptations of instincts.

Altruistic or Gregarious Morality.

The gregarious instinct has a wider range than that of classes and nations. The gregarious man recognises his duties to other men of whatever nationality they may be, and to other life.

There are many ways of considering this question of altruistic morality.

Firstly, it seems wise to repeat once more that the term gregarious instinct is a description of a common element to many acts and thoughts we perceive in man. It is not a 'thing in itself' and must not be regarded as the instigator of the acts and thoughts which are described as under its charge. The instigator of such thoughts and acts is described in the statement that matter in the presence of matter produces motion. Now as the motion imparted to the hand is evidenced in actions rendered specific by the muscles, nerves, shape and training of the hand, and result in manual motions, so motion may be said to be rendered specific by the gregarious instinct and result in gregarious actions and thoughts.

Secondly, the gregarious action, actual or imagined, has, as its characteristic, the sacrifice of the individual to the welfare of others,

whether to a single individual, to a class, to the nation, to the race of men or life in general by an extension of human sympathy to the welfare of animals. The essential characteristic of gregariousness is that it is not individual. The result of this is that all great teachers, all of whom were gregarious men concerned with the welfare of others, have recognised that the impulse of a gregarious action was not selfish and therefore seemed to come from without, and to this impulse from without they render their service and sacrifice.

'Not my will, but Thine' are the words of the Founder of Christianity. Epictetus says: 'I am of one mind with Thee, I am Thine. Send me whither Thou wilt. Clothe me as Thou wilt. I decline nothing that seems good to thee.' Laotze urged upon his followers to act only in answer to what is suggested by the Tao, the spirit of calm and unselfishness. Gautama urged the abandonment of all selfish desires, that virtue might be gained. Emerson writes: 'For all things proceed out of the same spirit, which is named love, justice, temperance, in its different applications, just as the ocean receives different names on the different shores which it washes. . . . It is the beatitude of man.' R. W. Trine writes: 'The great central fact in human life is coming into a

conscious vital realisation of our oneness with this Infinite Life and the opening of ourselves fully to this divine influence.' And, lastly, Lecky in support of the school of intuitive moralists writes: 'We may decide particular moral questions by reasoning, but our reasoning is an appeal to certain moral principles which are revealed to us by intuition.'

In short, the gregarious instinct is recognised as being differentiated from the individual.

Thirdly, as the instincts are common to all men, a great number of these gregarious actions, actual or imagined, are recognised by all men as virtues of the noblest kind. It is true that the gregarious virtues are differently valued by different civilisations, but in the main the great test of all virtues is the sacrifice of the individual interests entailed in the act or the control the conscience exercises over the individual desires.

Lastly, we are accustomed to explain life retrospectively, we trace everything back. We refer things to the past. Yet retrospection does not explain the full complement of life, and time itself is but a method by which man measures his perceptions. In the myriad cycles of the universe, the rise to the highest attainable perfection and adaptability is constantly repeated. Cannot aspiring thoughts of these teachers have sprung

from the future as much as the past? For this instirring of the future in the consciousness of the great gregarious teachers of men I would suggest the use of the word prospective as opposed to retrospective.

The gregarious quality of man is exhibited in the manly qualities of courage, healthiness, honesty, sexual morality, justice and kindness.

As examples of gregarious courage we have the deaths of Socrates and Jesus Christ, willing fearlessly to sacrifice their lives for the sake of what they held to be good for others.

Honesty is a gregarious quality refusing to take advantage over the weak and the ignorant.

Sexual morality devotes itself to the reproduction and care of children, and denies itself the individual indulgence of passion.

Justice is understanding the acts, motives, and sentiments of others, and allowing men the right to live their lives free from the oppression of those in power.

Kindness denotes the absence of the selfish use of power over the weak and the exercise of sympathy.

Thus it is seen that all virtues are gregarious.

In the womanly virtues of affection, chastity, motherliness, unselfishness, is seen the same gregarious spirit of sacrifice. Hence to assess

the value of human right or wrong, the welfare of the stock or race has to be estimated rather than the welfare of the individual.

Recapitulation.

(1) A gregarious animal has a conscience, a non-gregarious animal has no conscience.

(2) The moral quality of an action, actual or imagined, is the effect it has or would have on the other members of the flock.

(3) The thoughts and comments on actions, actual or imagined, which affect or would affect other members of the community, are the moral sentiments.

(4) The essential nature of gregariousness is the sacrifice of the individual interests to that of the community.

CHAPTER VIII

RELIGION

Religious morality was defined as the consideration of right and wrong with reference to an absolute and not a relative standard of goodness. **Religious Morality.**

As all human actions and thoughts are related to the instincts, so must the conception of things in themselves and absolute standards be connected with the instincts. **The Relation of the Conception of Absolutes to the Instincts.**

This is the relation that the conceptions of 'absolutes' and 'things in themselves' bear to the instincts. They are dependent upon and correlated to the individual instinct. The conception of relativity, on the other hand, is correlated to the gregarious instinct.

Primitive man is mainly under the dominance of the individual instinct. The gregarious instinct only affects him in a minor degree as a village or tribal sub-instinct, and is then deeply tinged with **The Correlation of Absolutes with the Individual Instinct.**

individualism, each member of his village or tribe being a potential danger to him. This intense individualism of the savage is exhibited in what is termed anthropomorphism. 'He thinks,' writes Crawley, 'of everything in terms of himself; he attributes to agencies which he does not understand, not only the conscious power and methods of human beings, but the involuntary influence or deleterious properties of dangerous men, such as enemies or diseased persons. His ideal creations of supernatural beings are generally in his own image or in the image of animals which for him are manlike as possessing such close similarities of structure and function.'

Now fear, which is powerful in its effect upon civilised man, is yet more powerful in its effect upon the savage. This fear the savage treats as something material, an enemy threatening him personally. Thus, Mr. im Thurn writes of the Guiana Indian (quoted in the *Mystic Rose*) that he 'always sees a spirit in any instrument which does him harm. When he falls on a rock, he attributes the injury to it. If he sees anything in any way curious or abnormal, and if soon after an evil befall him, he regards the thing and evil as cause and effect.' Of this savage quality, Crawley, in the *Mystic Rose*, gathers a great number of examples. 'In Egypt the Ginn pervade every-

thing. . . . The Karalets believe that the air is peopled with invisible spectres. . . . The New Caledonians imagine that demon agencies pervade the Universe. . . . In Siam evil spirits swarm in the air,' and so on.

Again, the intense individualistic thought of primitive man is illustrated by the fact that 'he believes that he can transmit himself or his properties to others. . . . Thus in love-charms we find the lover believes he can transmit his feelings or rather himself, full of love as he is, to his mistress . . . and in sorcery we find that men transmit their feelings of envy, hatred and malice to the person concerned.' 'Food that a man has touched is permeated by his properties, and accordingly can transmit these to others; it is also on the same principle a part of himself, and any injury done to it is believed to affect himself.' The savage viewed life, as it were, in a looking-glass. Everywhere he saw himself and things like to himself. Believing, as must all conscious creatures, in the reality of his own conscious existence, he believed in the existence of the things around him as things in themselves, for were they not each imbued with a similar spirit? Living a life of comparative isolation, separated from any companionship with his wife by sexual taboo, and from that of his fellow-tribesmen by

fear, believing that they could injure his individuality, or infect it with theirs, any gregarious sympathy of insight was utterly unknown to him. With his thoughts under the dominion of the individual instinct, he lived a life of intense egoism, believing in his own existence and in an existence and spirit like to his own in the objects about him.

The Correlation of Relativity with the Gregarious Instinct.

Compare the individualistic savage to the student who is able to abolish self from tyrannising over thought. He has attained the power of abstraction and differentiation, powers which enable him to contemplate perceptions in groups, even as he regards his feelings and actions as group feelings and actions, seeing in them the similarity to the feelings and actions of others.

In his perceptions and conceptions of things he sees the group feature, the common quality, and the process by which he recognises this group quality is called abstraction. In a number of perceptions he notes and abstracts a quality, which he names, for instance, the quality of goodness. Now, if the individual instinct still has power in this thought of his, the goodness is viewed by him anthropomorphically, that is to say, it has a spirit like to his own. Consequently the goodness exists in itself, for he endows it with

that which is the essential quality of existence, viz. part of himself, and of his own conscious existence he can have no doubt. Goodness becomes invested with a spirit or life similar to what the thinker himself possesses, and this living spirit is evidenced in the belief in a living God, who possesses the abstracted qualities of rightness, and a living Devil, who possesses the abstracted qualities of wrongness.

As long, then, as the thinker allows self to colour his thoughts, so long will he regard things anthropomorphically, and believe in a being invested with characters similar to his own, and in the existence of things in themselves.

But let the thinker divest himself of all individualism, and regard himself as the constantly changing field of the instincts common to the race and other kinds of life and the result of stored motion in the form of heredity and training reacting with environment motion. He sees that the environment, or world about him, exists in terms of his knowledge. Over and above this he has no consciousness of them. Over and above this he cannot endow them with separate existence. Their character is relative to his existence. They do not possess an independent character similar to that of his conscious self. In short, the savage and individualistic thinker

sees himself in everything, the gregarious thinker sees everything in himself.[1]

The idea of God will now be considered, as morality was considered, from the individual instinct, the class and national sub-instincts, and the gregarious instinct.

The Individual God.

The Individual God grants the prayers of the individual worshipper, giving personal success, health and happiness.

The Class God.

The Class God is seen in the two hundred odd sects that are recognised in England at the present day.

The National God.

The National God is principally bound up with the idea of war, the struggle of nation with nation. In the *Iliad* the Gods ranged themselves on the sides of the Greeks or Trojans, according to their prejudices. In the late South African war, both the British and Boers prayed that God would favour their arms. In the national hymn of the British Empire, a request is made to God that He will scatter the King's enemies and retain for that purpose the warlike qualities and racial prejudices of the Jewish Jehovah.

The Gregarious God is opposed to the national

[1] See diagram on p. 13.

God. They are antagonistic deities, to the same degree, as the instincts upon which they ultimately depend are antagonistic. The loss of life, the cruelty and suffering of war are not in accord with the humanity of the Gregarious God. As the Gregarious God grows stronger, so the God of War and Vengeance on the nation's enemies grows weaker. The Gregarious God.

Tribal savages, though faithful to each other, are cruel and without feeling to their enemies. Similarly the English in the Irish rebellion of 1798 were tarred and feathered, if captured by the Irish, and the captured Irish tarred and feathered by the English.

Nowadays in England such conduct would create amongst the public a horror of repulsion. Mercy and toleration to other nations are gradually ousting callousness and cruelty. The Gregarious God grows in power accordingly, and the power weapons that were exercised in the name of religion, such as the Spanish Inquisition or the Penal Laws of Ireland, are hateful to His loving sympathy. Tolerance, justice, mercy and the gentler virtues are the qualities by which He appeals to the hearts and wins the love of His worshippers. Finally He is recognised as not a thing in itself, but as an expression or description of the gregarious instinct.

Religions in their practical Aspect.

Individual Action.

A man fearing danger will consult the oracles, will make a sacrifice to the Gods, will pay the priests for a blessing, will cross himself frequently, will wear amulets and charms, will crawl on his hands and knees great distances, will starve himself, will give to the poor, will practise celibacy, will inflict penance upon himself and so on. As a typical instance of individual religious action, a Japanese summons his God by ringing a bell or clapping his hands (the national methods of summoning any one to come to the house door), tenders his prayer, makes a small offering and departs satisfied.

Another satisfaction the individual worshipper will always find in a temple is the satisfaction of stability, the feeling of rest. Here in the temple, a place set apart from the business and struggle of life, the sight is soothed by the dim light, sound is hushed or muffled, and the smell is lulled by the lingering perfume of incense. The desire that makes for stability repels for the time tireless mobility; and rest, Nirvana, heaven, the peace of a summer evening or the repose of the wide circle of the calm ocean, restores the storm-driven self.

Class Action.

Religions are largely modified and controlled

by the class sub-instinct, but the effect of the class sub-instinct is not seen at their origination. Religions start as altruistic schemes. They are founded by gregarious men, who, absorbing some comprehensive abstraction, by their eloquence and character and power make it appeal to other men, who though in part gregarious, in the main are influenced by the individual instinct and class sub-instincts. The interpretation of the followers of the religion are therefore in the main individual or class interpretations. Thus the early Christians looked with hope to the second advent of the founder of their religion. They expected it to occur during their own lifetimes, and to result in everlasting bliss for themselves and their class and in everlasting damnation for those not belonging to their class, an interpretation still retained by many sincere Christians.

Even the founder of a religion is also under the influence of other instincts than the gregarious.

Christianity is again a good example. It was started by its founder as a true gregarious scheme of brotherhood and fellowship of men, and as the deliverer of the noblest message of altruism, his name will always be one which men should love and reverence. Nevertheless he was not able completely to emancipate himself from the class sub-instinct. He was a poor man, and this drove

him to be the champion of the poor against the rich. Thus we find the expression of the altruistic instinct and of the class sub-instinct both in his mouth and antagonising each other. 'Love your enemies,' he says to his disciples, but to his enemies he says 'O generation of vipers.' As a champion of the poor he says 'Blessed are the poor,' but as an opponent of the rich, 'Wo to you that are rich.'

In a few generations after the death of the founder, this spirit of the antagonism of the virtuous, God-beloved poor against the evil, damned-for-ever rich, is marked. More and more class sub-instincts gain power over the original gregarious spirit. Bishops and priests no longer wholly serve the welfare of their flocks. More and more power comes into their hands, as they are supposed to be specially allied to the absolutes, to God and the heavenly powers, and the fear of the unfamiliar is provoked by their mysterious powers. As in all history, the rulers of the people, seeing this new form of power, the ecclesiastical, arise, made compacts with it and absorbed as much of its power as they could into their class, even as the nobles now absorb the power of the mercantile class by intermarriage. Christianity sinks to a class weapon, a means of persuading the poor to patience and obedience in

this world and hope of happiness in a future one, or, in other words, to submit tamely to inflictions and tyrannies from those in power, which no educated people would tolerate and no gregarious people would impose.

A yet more striking example of the capture of religion by the sub-instincts is to be seen in the well-known Hindu caste system in India. In the *Natural History of Hindu Caste*, the Rev. M. A. Sherring writes: 'Caste exercises the strongest power of disintegration the human race has ever been subjected to, and only displays a spirit of binding and uniting, in relation to those selfish creatures who belong to one and the same caste, and who are thereby kept apart from all the rest of mankind by an unnatural divorce.' Each trade has its caste, and a member of one caste is not allowed to cook for, visit the houses of or intermarry with the members of other castes, so rigid is the barrier. 'Every event pertaining to the Hindu and his family in their mutual relations, in their intercourse with the members of their own caste and in relation to other castes, was controlled with extraordinary punctiliousness, so that they became abject slaves to a thousand ceremonial formalities intrinsically trivial and puerile.' Here is the explanation of these laboured fetters. Early in the history of Hinduism the main castes

were the Brahmans or priests, the Kshatrujas or warriors, Vaisyas or farmers and merchants, and the Sudras or serfs and outcasts. 'As the influence of the Brahmans extended they became more jealous of their own privileges,' says Max Müller, 'and while fixing their own privileges, they endeavoured to limit the privileges of the Kshatrujas and Vaisyas. Those who would not submit to the laws of the three estates were treated as outcasts.'

Enough has been said to show that a set form of religion originates as an abstraction born to the gregarious brain. In Christianity it was altruism, in Hinduism the universality of the creative and destructive powers. The founder gathers his abstraction from the heights and depths of heaven and earth, from the trivial and the great. He teaches others, and their gregarious instinct responds to his message, and their need for strength relies on his strength and personality. But he dies and his abstraction only survives in its essential purity with men swayed by a gregarious instinct like to the founder's. Beneath the great gregarious truth seethe the class and individual antagonisms, struggles, cruelties, and imposed moralities. As henchmen of the feudal lord abused the poor not from courage, but with insolent confidence in their lord's protection, so

priests cower under the protection of the Great Truth. They preach its purity and shake the brazen money-box of their power at the same time. Under the cover of its lofty aspiration—unfamiliar to and far removed from the common mind—they rob the poor of money, of freedom, of even the effort to strive for freedom. They rob them of their manhood and implant the shivering demon of fear. And what can the poor do? Let them blindly imitate and obey these holy men. Let the dogs eat of the crumbs that fall from their master's table. Let them, like the Hindu devotees, purify themselves in foul water and smear themselves with the sacred ashes of cow dung. Yea! and when the famine comes, let them starve!

Thus does the class sub-instinct subvert the gregarious instinct in religion.

National Acts.

The commonest form of religious national action has already been given, viz. the prayer for the favour of God in times of war. Great functions and national festivals also entail some form of religious service. The division of religion into classes and sects naturally weakens it from a national point of view, but when the nation is united on the point of religion, the power it exerts is unequalled. The spread of the Arab Empire

under the inspiration of Mohammedanism is perhaps the most remarkable example of this power of combination.

Altruistic Acts.

Altruistic Acts are acts of sacrifice and the care of others. The famous couplet of Coleridge describes the essential quality of altruism :

> He prayeth best, who loveth best
> All things both great and small.

Recapitulation.

(1) The conception of 'absolutes' and 'things in themselves' is correlated to the individual instinct.

(2) Relativity is correlated to the gregarious instinct.

(3) Religion, in all its various aspects, is strictly dependent on and derived from the instincts and sub-instincts and their adaptation to the needs of the time.

CHAPTER IX

HEREDITY AND EDUCATION

ANIMAL life, it has been shown, is an adaptation of instincts to environment. Its apparent complexity is due to the variety of methods dependent upon individual knowledge, individual structure, and the variety and change of environment, by which it attempts adaptation. In the history of man many of these attempts are very crude, and in the process of elimination those that are unsuitable die out, those that are less crude survive. Thus slowly better forms of adaptation are found, adaptations to wider environment which adjust themselves more readily to the constant change of environment.

The plan by which improvement is brought about is common to all forms of adaptation, and the evolution from the clumsy paw to the delicately governed hand is similar to the evolution of the crude thought of the illiterate mind to the clear thought of the abstracting mind.

Two factors bring about these results in animals —(1) the factor of heredity common to all life, (2) the factor of knowledge.

Now the knowledge of gregarious animals is profoundly influenced by the factor of suggestion, the influence of fellow-creatures. The power of suggestion has already been illustrated again and again in this book; in this chapter the feature of it, differentiated as education or the training of the young, will be considered.

The relations of knowledge and heredity are not always clearly imaged. Special means of adaptability are inherited. Rational applications of these special means of adaptability to the needs of the time are due to knowledge, of which education is really a synonym. As an example of inheritance take the hand. With its peculiar shape, its muscles, fingers and joints that make so effective and pliable an organ, it is nevertheless wholly a special form of the adaptation of instincts to environment. It can grasp food, it can wield a weapon serving self-protection, it can clasp the loved one and tend the child, it can sign to others or pull with others serving the gregarious instinct.

Evolved through long aeons by a process of elimination of the unadapted and perpetuation of the adapted, all its peculiar actions can nevertheless be traced to the three instincts it serves. In

like manner, we each of us inherit some peculiar temperamental or mental groundwork of adaptation to instincts, and to some sort of environment we shall respond better than to another. As simple examples, an Eskimo is better suited to Greenland than a Cingalee, and a Scots pine will not flourish in the tropics, nor a cocoa-nut palm in cold climates.

It becomes of extreme importance, therefore, in attaining to a proper grasp of the grammar of life, to understand the laws of heredity and to be able, by applying them and by observation, to realise to what the particular young life is most suited, and will most readily conform, and from which it will extend.

The Laws of Heredity.

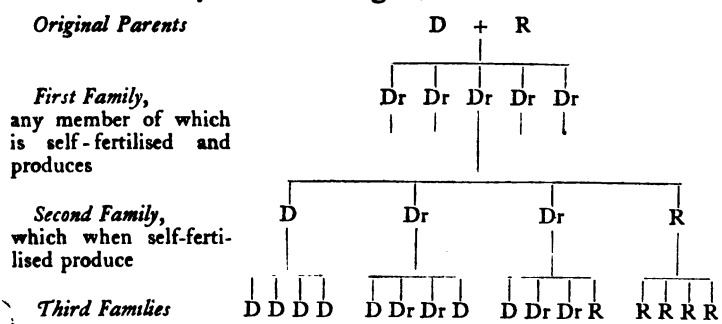
Very little of any definite value as regards heredity was abstracted in general formulae until the monk Mendel abstracted from his garden experiments formulae, which Professor Bateson and his colleagues at Cambridge show may be generally applicable to life.

Though the elucidation of the formulae of heredity is at present very limited, yet the encouraging fact remains that the gregarious instinct, seeking to know what is common between man and man, is impelling men to further discovery, with the hope that by applying the

acquired knowledge the different members of the community may be better allocated to their several life tasks. By the help of such knowledge we shall learn to some extent with what weapons we are born. We diminish chance. Some cry out in protest that life will become mechanical. The question is not whether life will become more mechanical, whatever that may mean, but whether life will become happier, or in other words whether men and women will be better adapted to environment. That the latter will be so seems certain, provided the formulae are applied mainly in the gregarious spirit and not monopolised and subverted by individualistic or class interests.[1]

Mendel's Formula.

Mendel's formula in its simplest expression is illustrated by the following scheme :



[1] Further information on the subject of heredity may be found in the works of Darwin, Weismann, Karl Pearson, and various monographs on Eugenics.

D represents what Mendel called a Dominant parental character, and *R* a Recessive parental character. His chief work was with the leguminous (plants that bear peas or beans in pods) plant known as Pisum Sativum.

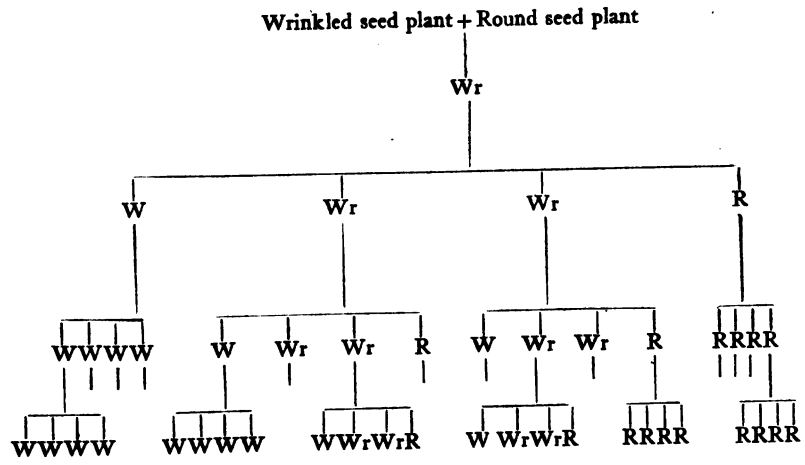
Professor Bateson gives a brief summary of Mendel's work in his first report to the Evolution Committee of the Royal Society, 1902. 'From the many varieties of peas he first chose pairs of varieties, for crossing, in such a way that the members of each pair differed from each other in respect of one definite character.' He took seven pairs of such characters in all, but as an illustration of his law, we will take the first pair only, viz. 'the shape of the seed, whether rounded or irregularly angular and deeply wrinkled.'

The pollen of a plant bearing rounded seeds is placed on the ovule of a plant bearing wrinkled seeds, or the pollen of the plant bearing wrinkled seeds on the ovules of the plant bearing rounded seeds.

The fertilised ovules become seeds, which compose the first family. These seeds are planted, and when their blooms are nearly mature, they are covered with paper-bags, which prevent the ingress of insects. The blooms are self-fertilised and the seeds of the second family are produced. These seeds are planted and their blooms pro-

tected before and during maturity, and again the pollen of the bloom fertilises the pollen of the same bloom. The third family results, and so on. By this experiment the wrinkled seed (*W*) is found to be dominant to the round seed (*R*) and the following table shows the results obtained :—

Parents



First Family.

The seeds are all wrinkled, *W* being dominant and *R* recessive. The seeds produced by the self-fertilised blooms of these *Wr* plants result thus as the

Second Family.

Three plants out of every four will, on average, bear wrinkled seeds and one round seeds. These seeds are planted, their blooms self-fertilised and resulting in the

Third Family.

By a similar process the

Fourth Family

results. The wrinkled seed stock remains pure wrinkled seed, the mixed wrinkled and round produces similarly to the mixed seed of the First and Second families, and the round seed stock continues as pure round seed.

Professor Bateson has himself worked out a great number of Dominants and Recessives in vegetable and animal life, the results of which are published in his Reports I., II. and III. to the Evolution Committee of the Royal Society, 1902, 1905, 1906.

He has also worked out the results of inter-crossing three or more prominent characteristics. The work is very exhaustive, but in the main the result of crossing a dominant with a recessive character is that, as an average in every four of offspring, one will be pure dominant, two mixed dominants, and one pure recessive.

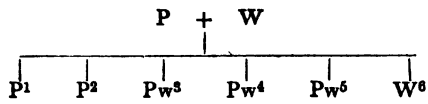
An example of Mendel's formula in human character.

Every one must have known in their experience of a girl or boy in a large family, who seems 'different from the rest.'

The characteristics of such a child are (1) that his tastes are distinct from the other children's; (2) that the distinction between him and the others is more marked, when all the childrer. are together; (3) that it is yet more marked, when his sisters and brothers have young friends with them—he either shows off at or shuns the party, his distinction exhibiting either a claim for superiority in the conceit of showing off, or a fear of adaptability; (4) that in the sole company of one particular brother

or sister he will talk freely and happily on topics he loves and often about himself.

To fit such a character to the Mendel scheme, let us suppose we have a family of six children sprung from parents *P* and *W*, illustrated by the scheme



P is the Dominant, but one of the family lacks the dominant, and is pure *W* stock.

W^6 will find very little in P^1 and P^2 to which he can adapt himself. Living in the same house, etc., will give them some common interests, but they will never be close friends. But W^6 can be friendly and find something familiar with *w*'s of the three children Pw^3, Pw^4, Pw^5 when alone with them. If the three *Pw* children and W^6 are together, *P* is three times dominant and W^6 tends to be inadaptable. When all the children are present, *P* is five times dominant, and when these children summon their friends, the friends will be adapted to the dominant *P* and so poor W^6 will be entirely in the cold or else will claim superiority by some odd display, and get punished by his elders for showing off.

Many people will condemn such a forced use

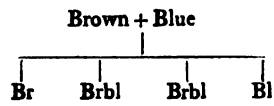
of Mendel's formula to explain character, especially as the research in its application to man has scarcely been initiated.[1] Such use may be premature or unjustified, but it is a fact that the formulae of life are simple and very widely applicable.

Education.

With a sufficient knowledge of the formulae of heredity we shall be able to anticipate, more certainly than we can at present, the reaction of the individual to environment. We shall in fact be able to educate wisely. We shall be able technically to adapt the young to the work for which they are suited and we shall be able to equip them mentally.

Mental education up to the present time has been a process by which the impulses of the instincts have been read and interpreted in terms of experience. The object of future education will be the reverse of this, viz. to read and interpret experience in terms of the instincts. The first kind of education teaches the conventional and historical adaptations, but ignores the instincts upon which they are based. Adaptations are learnt in a disconnected fashion to be

[1] As far as I know it has been tested in one locality in eye colour and found to apply. The scheme in eye colour was found to be



stored as goods are stored in a grocer's shop. The new education will teach the fundamental instincts and show how these conventional and historical phenomena are adaptations of them to the particular environment they met. Then and only then will the advice, so often delivered—'Know thyself'—be accomplished.

Capacity of Adaptation.

This subject has already been treated on pages 39 and 40, but it is a subject of such importance that some repetition is desirable. Especially in the case of Miss Helen Keller it is hoped repetition will be forgiven. Her case is reported by Dr. Waldstein in his book entitled *The Subconscious Self in Education and Health.* In the experiment of Dr. Waldstein, Helen Keller was standing with her back to the piano, when at his request a tune called 'The Ten Virgins' was played. This tune had been frequently played to her when she was a baby, but after the illness that destroyed her sight and hearing, at the age of nineteen months, it was never again played until the occasion of the experiment, owing to the painful memories it evoked. When the tune was played at Dr. Waldstein's request, a remarkable thing happened. Miss Keller, keenly susceptible to the musical vibrations, cried out: 'Father carrying baby up and down swinging her on his knee; black crow! black crow!' Black

crow referred to another melody often sung or played to her as a baby, as well as 'The Ten Virgins.' The vibrations of the latter tune, felt but unheard by Miss Keller, actually aroused the musical associations and memories received by the baby before she was nineteen months old.

Another example of the great receptivity of even the baby mind to education is that furnished in Richard Evelyn, who, his father tells us, 'at 2 yeares and halfe old could perfectly reade any of the English, Latine, French or Gottic letters, pronouncing the first three languages exactly.'

With this marvellous pliability of the stock or of the child, it is clear that the power of suggestion is of superlative importance in adaptation. In history and modern times its overwhelming influence is seen. The great mass of men receive their opinions, faith, morals, customs, dress, speech, thought, from suggestion, the suggestions of their fellow-men. Thus it comes about that the great mass of education is the branding of man with the stamp of the herd, the forcing upon him of the conventions, the triumph of custom owing to the necessity of herd qualities in a member of a herd.

Individual Education.

Even as a puppy has to be trained to the house, so has a child to be trained to tend itself,

to dress, and wash, to learn the use of knife and fork and all the various arts by which it is enabled to fend for itself.

Class Education.

The child also has to learn the manners that distinguish the class to which he belongs, and generally to act and think as do other members of his class.

National Education.

He also learns the national language, by which he can communicate with any member of his nation. He learns patriotism, he learns the spirit of sacrifice of his own interests to the extreme urgency of his nation, and to pay taxes and obey the laws.

International Education.

There is a further education he will need, viz. the international education. He should learn some foreign languages, the history, geography, produce, coinage, laws and customs of other nations.

The Gregarious Quality of Education.

The process of abstraction, which is so important a means of acquiring knowledge, is essentially gregarious. For example, since the statement of Newton's laws (or abstracted formulae of matter and motion) the incident of a falling apple loses its individuality. It is no longer a

separate phenomenon, but an instance of a general rule. So with the spread of knowledge, each man is not seen as a separate phenomenon, but as an instance of the general rules of life. As with all men he shares the functions of breathing and the circulation of the blood, so he shares the instincts, and with gregarious knowledge he learns more and more that he is a sharer rather than a possessor. Thus each piece of knowledge he receives he shares with the giver and the wider-reaching that knowledge, the more people share in it. The chief type of such shared knowledge is the scientific, and Charles Darwin, with his readiness to give unselfish and equal attention to the opinion of friends and opponents, is the best individual example of a man imbued with gregarious knowledge. All over the civilised globe, in Europe, America, Australia, India and Japan, the formulae of science, of chemistry, physics, biology, and the law of evolution that embraces them are known. Science forms one great bond of conscious knowledge that shall bind the peoples of the earth, even as all civilised men can share the bonds of international communication, the ocean-going steamers, the post and the cable.

The Tyranny of the old over the young.

Education being a process by which the young

Instances of Education.

are trained by the old, it is not surprising to find that the old use their powers to curtail the mobility of youth, which is opposed to their own stability, with a vigour that often amounts to cruelty.

Thus Synge writes of the education of the children of the sixteenth century. 'The school itself, we are told, was like a prison or dungeon. . . . It is hard to realise the mass of useless information which was forced on the unfortunate boy—a barbarous Latin taught in a still more barbarous manner, freely interrupted with pitiless floggings to subdue the animal spirits.' The pathetic Lady Jane Grey speaks of the education she received to fit her to her station in life. 'When I am in the presence of either father or mother, whether I speak, keep silence, sit, stand or go, eat, drink, be merry or sad, be sewing, playing or dancing, or doing anything else; I must do it as it were in such weight, measure and number, even so perfectly as God made the world; or else I am sharply threatened—yea, presently sometimes with pinches, nips, and bobs, and other ways (which I will not name for the honour I bear them) that I think myself in hell.'

In the seventeenth century there is much the same tale: 'A finished education of this period

consisted "in a little Latin and less Greek," beaten into him either at one of the public schools or at home by the French tutor. . . . It was eminently an unhappy age for schoolboys.'

Gentility.

Yet there was more than 'the little Latin and less Greek' to differentiate the class of future English gentility. Boys were taught 'how to enter a room, how to carry the head and hands and to turn out the toes,' and the girls 'to be able to dance and sing, to play on the bass viol, virginals, spinet and guitar, to make waxwork, japan, paint upon glass, to make sweetmeats and sauces'; and both girls and boys were taught how to play whist by experts at a guinea a lesson.

These were, in short, all adaptations of the class sub-instinct, and are abundant illustration of the fact that education in the past and at the present day teaches the conventional and historical adaptations and ignores the instincts upon which they are based.

The English Gentleman.

At the present day, Latin and Greek, though of very little use practically, and in no way to be compared in value to French and German, are still part of the equipment of the gentleman's

education. He is taught them at public schools, and those strongholds of the gentleman class, the Universities of Oxford and Cambridge. In fact the education an University man receives is a guarantee, not that a man is clever or has a mass of facts or can speak languages, or even knows the square root of nine, but that he is a gentleman, that is, he will speak the conventional decent speech, be courteous and in other ways maintain the traditions of his class. As a gentleman he may not have much knowledge, but he has one thing which makes him the ruler of a great part of the world, viz. the aristocratic value, the sense of superiority, and the capacity of ruling those who have the sense of inferiority. In any company, however strange, he will always retain his dignity, he will never flinch in the face of danger, he will be cool and contained, though all around is chaos; he recalls at such times that his country's honour and his are one, he prefers death to dishonour, he abhors treachery and reveres fair play, and, lastly, the cry of a woman in distress binds him to her instant service.

Upon the strength of this type the Empire and more especially the Indian Empire was built. The Sahib type is still held by custom to be the ideal type for India. Thus a Sahib need not be clever or original. He is required to fulfil his

type. His nest is made for him. All he has to do is to fill it as his predecessors and fellow Anglo-Indians fill theirs. His position is ready for him, his salary, his servants, his bungalow and the deference of natives. Yes! though he knows not a word of the language on his arrival, his environment is given to him compact, shaped according to a fixed standard, and to that standard he is supposed to adhere from the start to the end. He has to be aristocrat, and the traditions of the English gentleman and the condition of India uneducated, enable him to be aristocratic and to remain aristocratic. In the East bribery is still largely adopted in the struggle for existence. The Sahib avoids bribes, else he is no Sahib. He does not make the fortune he could, were he to adopt the native morality. He follows the traditions of the English gentleman, who values power and honour above trade and gain. His fixed salary is comparable to the income from land his prototype possessed. The Sahib, in short, is the country gentleman with modern conventions transplanted to India. There he rules successfully and on the whole generously, as did the country gentleman. But little as the country gentleman understood the needs of the people, still less does the Sahib understand the native of India.

Therein lies his danger. He represents a class sub-instinct. In India at the present day gregariousness is spreading rapidly. It is spreading rapidly because it is making use of the swiftest means of which it can avail itself, namely education, community of speech in the English language, and the intermixing of peoples by the spread of railways. The widening of gregariousness in India already shows itself as a national sub-instinct, and the Sahib opposes his class sub-instinct against this national sub-instinct, just as the landlord opposed the people of England before the Reform Bills, and still opposes them. The English people are gaining their power by constitutional means. The natives of India are also striving slowly to gain theirs by constitutional means. According to precedent the Sahib sub-instinct will either slowly yield to the wider national sub-instinct, or if it resists too vigorously, the thwarted national sub-instinct will show itself in the obverse, in rebellion and anarchy.

Were the education of gentlemen to teach them, besides character, the fundamental instincts, and show how these conventional and historical phenomena are adaptations of the instincts to environment, were it to teach them to read and interpret experience in the terms of instinct, the

danger arising from the clash of sub-instincts would be greatly lessened.

Gentleman Education and Technical Education.

The gentleman type fares less well in commercialism than as a Sahib. He is a survival type. He is the survival of the noble and country gentleman type, who owned the land and ruled the tenants. All who strove to be gentlemen followed the fashion and imitated the country gentleman, though they did not possess land.

When the country gentleman's power was overpowered by commercialism, in accordance with the rules of custom (especially custom in Universities where old men and stability reign) the gentleman-education persisted, and moreover persisted as a pure type and made no compromise with commercialism. So technical education and commercial education, evolved to meet the new environment, arose outside Oxford and Cambridge.

The typical gentleman-education product of these Universities finds himself ousted in the stress of commercialism by the technical-education product. If he fails to join the governing class of Sahibs, unless he can get to some coffee or tea plantation, he can only earn a precarious living by being private tutor or secretary or other genteel occupation. This difficulty of University

men to get work would never have occurred, if the ruling powers of the Universities were themselves gregariously educated and learnt the formulae as well as the facts of life, and had emerged from the narrow class type known as the pedagogue.

Yet as man advances his capacity becomes wide-embracing. He can combine the qualities of ruler and ruled, justice and power with gentleness and self-sacrifice. He can combine the technical knowledge, the art of doing, with the gentleman, the art of being. By the simplification of gregarious knowledge he need no longer be a type due to but can be master of his environment.

The Education from Art.

Art [1] renders the essential service of making the senses more efficient. An artist will make his pupil see more in amount, and in a more orderly manner, than he has seen before. The painter and designer educates and increases the efficiency of the visual mentality, the musician has a similar effect on the auditory and musical mentality, and the littérateur on the expressive mentality. With the increased power the pupil gains he experiences the correlated feeling of pleasure, and the exercise of skill and power gives pleasure to the teacher.

Drawing pictures, music and literature, have all

[1] See also pp. 217-219.

grown out of the gregarious need of communication, the picture being originally a form of writing, which itself developed to literature, and music being at first a form of attracting attention in courting, and therefore also a challenge between male and male. It becomes a bond between warriors, a stimulus to their courage as well as the language of love. The love song and the march are still the most popular forms of music.

We all inherit the capacity and desire for many adaptations, we all could do and be many more things than we actually are. Art describes for us these possibilities and we get the pleasure of imagined adaptation. It also describes familiar environment and we receive the pleasure of the associated adaptation.

Further, art is above all the chief expression of the adaptable, orderly sequence of perceptions known as harmony.

Education of Play.

Play is, like all else in life, based on the instincts. It, too, is a training of the young to adult efficiency. With success and satisfaction of the adapting instinct, there is the correlated feeling of pleasure. Thus a child runs after its mother, catches her, and laughs merrily at its success in capture. The capture of the pursued is a success

and pleasure to all hunting animals. When the mother, on the other hand, runs after the child, and the child laughs at its success in escape, the mother knows well she must not catch it too easily, however much she consoles it with maternal love for its want of success. At this game of pursuit puppies, too, love to play, and the kitten spends much of its youth at catching and killing a cork or a roll of paper.

In later life the games of boys and girls become less primitive than run and capture, which, however, always remains popular.

Girls play with dolls and imitate social functions. Through their play they develop the maternal sub-instinct of the reproductive instinct, and gain pleasure thereby.

The boys develop the self-preservative instinct. They play at hunting and fighting.

For example, the cultivation of aim either individually or in concert is common to many games. It is seen in the sling, the catapult, the spear, the bow and arrow, the gun, in bowls, billiards, cricket and football. He who is a good aimer or defender, and he who is a good leader, still earns a great repute and gains pleasure in his skill and the admiration his fellows accord to his exhibition of power.

Punishment.

Punishment is either the direct injury of the self-preservative instinct or makes the offender egregious.

Corporal punishment is the commonest example of the first, and even 'the mummy won't love you any more,' which threatens the baby, belongs to the same category.

A quotation from Synge amply illustrates the injury of the gregarious instinct as a punishment, by a process that makes the offender egregious. In the early part of the nineteenth century 'punishment by ridicule was the fashion, though the stick was never absent. Thus the idle boy was rocked in a cradle by a girl, the fidget had his legs tied to logs, the truant was fastened to his desk, bad boys were yoked together, and sluggards were put into a basket and hoisted up to the ceiling by a rope.'

The set back and injury to the developing instincts brought about by punishment has the opposite effect to the set forward produced by games. The child feels misery instead of pleasure.

Recapitulation.

(1) Special means of adaptability are inherited.

(2) Rational applications of these special means of adaptability to the needs of the time are due to knowledge, of which education is really a synonym.

CHAPTER X

WOMAN AND MAN

Difference between Woman and Man.

In woman, as is recognised by all peoples of the world, the reproductive and maternal instinct is the main impulse of action.

In man, on the other hand, the self-preservative and gregarious instincts, whether class, national or altruistic, promote many more actions than does the reproductive instinct.

Again, the reproductive instinct in man distinctly antagonises the self-preservative and frequently the class and national sub-instincts. The self-preservative instinct of woman is, on the other hand, less antagonised, because the vast majority of women in the world are almost completely dependent on others for their self-preservation.

This antagonism of the self-preservative and group sub-instincts of man by the reproductive instinct is one of extreme importance in the understanding of the relations of man and woman. *Women and men are themselves but the objective representations of the instincts, and their relation to*

each other is simply the antagonism or yielding of those instincts, the woman representing mainly the reproductive, man mainly the self-preservative instinct and the group sub-instincts.

The Antagonism of Man and Woman.

This difference of dominant instincts has always led to a certain antagonism between men and women, except when they are united by the common instinct of love or parentage.

As Crawley says in the *Mystic Rose*:—'Now when we look at mankind in general, we find that men as a rule prefer to associate with men, and women with women, except on those occasions when the functional needs of love, for instance, call for union and sympathy between the sexes.' The self-preservative instinct and group sub-instincts of man fear the overwhelming power of the reproductive instinct. Moreover the absence of sufficient physical power in woman to serve the former instincts is also dreaded by man. Man dislikes weakness, for it spells failure in overcoming environment. Man dreads effeminacy, for he knows its danger to him in his desire for power and struggle for existence.

Sexual Taboo.

In primitive people this antagonism of sex and, in its narrower sense, the fear man has of woman

resulted in a number of rational customs inaugurated by man as the stronger physical animal.

Crawley quotes a host of instances of Sexual Taboo from anthropological writings. Thus in the training for war (national or tribal sub-instinct) or hunting (self-preservative instinct) 'among the regulations the most constant is that which prohibits every kind of intercourse with the female sex. Thus, in New Zealand, a man who has an important business in hand, either in peace or war, is tapu and must keep from women. On a war party men are tapu to women, and may not go near their wives until the fighting is over. Nootka Indians before war abstain from women. In South Africa before and during an expedition, men may have no connection with women. In South-Eastern New Guinea for some days before fighting the men are sacred, helega, and are not allowed to see or approach any woman. A Samoyed woman is credited with the power of spoiling the success of a hunt. Among the Ostyakes harm befalls the hunter either from the ill wishes of an enemy or the vicinity of a woman. Amongst the Ohts whale fishers must abstain from women. A Motu man before hunting and fishing is helega; he may not see his wives, else he will have no success. . . . In some South American tribes the presence of a woman lately

confined makes the weapons of the men weak, and the same belief extends amongst the Tschutches to hunting and fishing implements. Amongst the Zulus women may not go near the army when about to set out. Old women, however, who are past child-bearing may do so; for such "have become men" and "no longer observe the customs of Llonipa in relation to the men."'

In primitive (individualistic) people the suggestive effect of man upon man is materialised. Thus if any one touches another he transmits some of his qualities by his touch. If a piece of food, for example, is touched by a person, his qualities are imparted to it. Food touched by a woman is, therefore, held by many peoples to be imbued with effeminacy. Consequently such food is dreaded by the man. 'The Beni-Hareth would not eat or drink at the hands of a woman, and "would rather have died than break the rule." . . . A Hindu wife never eats with her husband. "If his own wife were to touch the food he was about to eat, it would be rendered unfit for his use." . . . In Malekula men and women cook their meals separately, and even at separate fires, and all female animals, sows, and even hens and eggs are forbidden articles of diet. A native told Lieutenant Somerville that a mate of his had died of partaking of a sow. In New Caledonia

women may not eat together, nor brother and sister, nor the two sexes generally. Young men may not eat of food left by women. . . . Ellis's account of the state of things in the Society and Sandwich Islands is as follows:—'The institutes of Oro and Tane inexorably require not only that the wife should not eat those kinds of foods of which the husband partook, but that she should not eat in the same place nor prepare her food at the same fire. This restriction applied not only to the wife with regard to her husband, but to all individuals of the female sex, from their birth to their death. The children of each sex always ate apart. As soon as a boy was able to eat, a basket was provided for his use, and his food was kept distinct from that of the mother. The men were allowed to eat the flesh of the pig, of fowls, every variety of fish, cocoa-nuts, and bananas, and whatever was presented as an offering to the gods; these the females, on pain of death, were forbidden to touch, as it was supposed they would pollute them. The fires at which the men's food was cooked were also sacred, and were forbidden to be used by the females. The basket in which the provision was kept, and the house in which the men ate, were also sacred, and prohibited to the females under the same cruel penalty. Hence the inferior food for the wives and daughters was

cooked at separate fires, deposited in distinct baskets, and eaten in lonely solitude by the females in little huts erected for the purpose."'

'The biological basis of this separation is the universal practice by which boys go about with the father as soon as they are old enough, and the girls remain with the mother. This is the preparatory education of the savage child, beginning about the age of seven. Girls and boys till the age of seven or eight, and sometimes till puberty, are often classed as "children" with no distinction of sex, as amongst the Kurnai. In Leti, Moa, and Lakor, children are brought up together till about ten years old. The girls then begin to help the mother, and the boys go about with the father. So in the Babar Islands. Amongst the Kaffirs, as amongst most peoples, boys and girls till seven or eight live with the mother. As soon as they are old enough, the boys are taken under the father's charge. In Samoa the boys leave their mother's care at seven years of age, and come under the superintendence of their father and male relatives,' and so on.

'Woman has generally been debarred more or less from public life and civil rights of men. This is an extension of the biological difference of occupation, sometimes exaggerated into seclusion amongst polygamous races, and into some-

what of inferiority in martial and feudal societies. We may instance, to go no further, the Australian natives, the Fijians, who have religious grounds for the exclusion, the Sumatrans, the Hindus, and Muhammedans, and most civilised races.'

Modern Times.

In modern times a similar separation of the sexes is observed. Girls consort with girls, and boys with boys. The male enjoys better sport if he is unhampered by the female, and when dangerous expeditions or war are undertaken, the women are left at home. Restaurants have special rooms for ladies, and smoking-rooms for men. A man will ask another man to come and have a drink, but he does not as a rule ask a woman. The pugnacious qualities wrought by alcohol are not considered to be quite ladylike. Men sit together at the table enjoying their wine and smoke, whilst the ladies await them in the drawing-room, or the men meet at the public-house whilst the women wait at home. The father still fears that his sons will be coddled too much, and the danger of effeminacy to the fatherless child is even greater. Man still reserves to himself the right to propose, and, lastly, women have little or nothing to do directly with the government of civilised countries.

The Self-preservative Instinct in Women.

As was stated in Chapter V., when competition becomes keen and the struggle for existence overstrenuous, then the need for a great number of children is lessened. Consequently the function of women to bear and protect children is not of such paramount national importance, and the stressed self-preservative instinct asserts itself. At such times the number of unmarried women is increased, many of whom have not private means or homes upon which they can be dependent. The number of women, who must needs protect themselves, becomes very large.

In the olden times of Catholic England, such women usually entered convents. 'It would be impossible,' writes Lecky in his *History of European Morals*, 'to conceive any institution more needed than one which would furnish a shelter for the many women who from poverty, or domestic unhappiness, or other causes, find themselves cast alone and unprotected into the battle of life, which would secure them from the temptations of gross vice, and from the extremities of suffering, and would convert them into agents of active, organised and intelligent charity. . . . Most unhappily for mankind, this noble conception was from the first perverted. Institutions that might have had an incalculable philanthropic value were based upon the principle of asceticism, which makes the

sacrifice, not the promotion, of earthly happiness its aim, and binding vows produced much misery and not a little vice.' Yet the improved conditions of modern convents form a refuge for such women in Catholic countries.

The majority of women who have to preserve themselves enter into competition with men, an adaptation of their instincts rendered easier by the fact that men in town do not earn their living by fighting and hunting, for which women are physically unsuited, but by methods for which mental qualities are needed rather than muscular.

Lastly, in all history there is the woman who subverts the instinct to bear children and makes it serve the instinct of self-preservation. Reproduction, which is the chief of her functions for the preservation of the race, she avoids. Marriage, by which the community assures the safety of children, does not sanction her, and thus she offends against the instinct of the race. A man, on the other hand, cannot subvert his reproductive instinct for his own self-preservation, and though its excess is evidenced in his illicit pleasure, yet he can at the same time serve his nation in the manner expected of him by his courage and industry.

Thus it happens that the indulging of the reproductive instinct without marriage by a woman

meets with bitter censure from the class that never has to experience her struggle for existence, whilst the man, who is co-partner in her act, is scarcely blamed. The reproductive profligacy of both is a witness of the excess of reproduction over preservation seen throughout the realms of nature. Thousands of seeds are produced, but only a few take root and prosper. Thousands of insects' eggs perish for the few that come to life.

'The writings of Malthus have proved,' writes Lecky, 'what the Greek moralists appear in a considerable degree to have seen, that its normal and temperate exercise in the form of marriage, would produce, if universal, the utmost calamities to the world, and that, while nature seems in the most unequivocal manner to urge the human race to early marriages, the first condition of an advancing civilisation in populous countries is to restrain or diminish them. . . . It is also an undoubted truth that, however much moralists may enforce the obligation of extra-matrimonial purity, this obligation has never been approximately regarded; and in all nations, ages, and religions a vast mass of irregular indulgence has appeared, which has probably contributed more than any other single cause to the misery and degradation of man. . . . Under these circumstances,' he continues in language of noble appeal,

'there has arisen in society a figure which is certainly the most mournful, and in some respects the most awful upon which the eye of the moralist can dwell. That unhappy being whose very name is a shame to speak; who counterfeits with cold heart the transports of affection, and submits herself as the passive instrument of lust; who is scorned and insulted as the vilest of her sex, and doomed, for the most part, to disease and abject wretchedness and an early death, appears in every age as the perpetual symbol of the degradation and sinfulness of man. Herself the supreme type of vice, she is ultimately the most efficient guardian of virtue. But for her, the unchallenged purity of countless happy homes would be polluted, and not a few who, in the pride of their untempted chastity, think of her with an indignant shudder, would have known the agony of remorse and despair. On that one degraded and ignoble form are concentrated the passions that might have filled the world with shame. She remains, while civilisations rise and fall, the eternal priestess of humanity, blasted for the sins of the people.'

Further Characteristics.

The reproductive instinct's dominant influence in women is shown in their talk, friendships, habits, dress, etc. Thus their talk is most eager

when discussing marriages, engagements, babies, romantic plays, or the physical qualities of other men and women. The eagerness of the mother to get her daughters married, and the plans she makes in pursuit of that object, far surpass anything the father attempts, if he attempts anything at all. As Weininger says of women, 'match-making is the fundamental trait of their beings.'

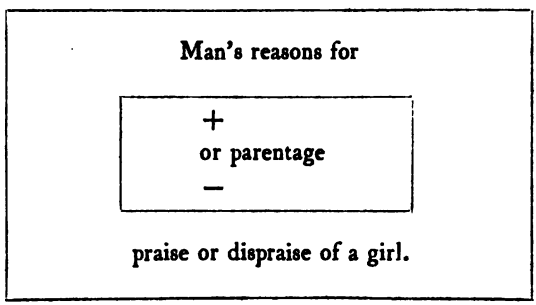
In more ways than one woman is like to the flowers to which she is so frequently compared, and some name of which she often bears.

The beauty of the flower, the colour of petal and sepal, the nectar that lies within its cup allures the unwitting insect to become the bearer of the pollen and the means by which the racial purpose is fulfilled.

So, too, the woman charms by her grace and beauty, by her ready response to man, by the lightness of her wit, the love of her eyes and the sweetness of her lips. Man, measuring her instinctive adaptations by his own, which are adapted in the main to different purposes, condemns her for her lack of justice and reason, and sneers perchance at her 'hypocrisy,' because she exerts her charm that she may, in vulgar parlance, catch him. Should he chance to fall in love with her, he says he has done so, because she is pretty, kind, musical, has a sweet voice, or he may

indulge in more high-flown hyperbole. But in neither case, in the first when he disparages her, and in the second when he praises her, are his thoughts anything but comments on the impulse of love or repulsion, which may graphically be shown thus :—

Superimposition of man's reasons on the instinctive reasons.



The Yielding of the Individual Instinct to the Reproductive Instinct.

The individual instinct yields to the reproductive and there is love.

The sacrifice of the individual to the love instinct has always been held in high esteem by man, and ranks next in value to the sacrifice of the individual to the gregarious instinct. In savage courtship this desire to yield the individuality to the beloved overcomes the sexual taboo. Man and girl try to transmit their personality to

the other, and, if the beloved returns personality, love is assured. Crawley quotes many instances of this:—'A man or woman in the Arunta and other tribes can charm another's love by "singing" a head band, which is then given to the person to wear; a man can inspire a woman's love by "singing" the shell ornament he wears in his girdle. As they express the result, the woman sees "lightning" in it, and it makes "her inwards shake with emotion." . . . To inspire love, the people of Makisar place secret charms in the footprints of a man or a woman. In the Kei Islands herbs mixed with woman's hair and hung in a tree are used for this. The women arouse love in the men by charming betel which they have themselves prepared. Sympathetic charms are used by men and women in Buru to excite love. One takes some betel or tobacco, and, after speaking a charm over it, places it in the betel box. When the man or woman against whom the charm is directed makes use of this betel, he or she falls in love with the owner. The same effect is produced by muttering charms over the oil which the woman uses for her hair, or over a piece of hair one has got from a woman. The most potent method, however, is the burying of a piece of prepared ginger, with the muttering of one's desire, in some spot where the woman

usually passes. . . . In Urtar engaged couples exchange locks of hair, gifts, especially clothes that have been worn, in order to have the smell of the loved one near them. Lovers in Amboina exchange hair, rings, and clothes they have worn. After their betrothal a Timor-laut girl takes the girdle of the young man, in order to make him faithful to her. In Amboina lovers drink each other's blood.'

'Between lovers, besides love tokens, lovers' knots, and so-called charms and the like, the relation of ngiangiampe' (the self of each is given as a trust into the other's keeping) 'underlies the kiss, the embrace, and any contact.'

Crawley also points out how favourite a commonplace of poetical and popular thought is the reflection in the eyes, and quotes the Digit of the Moon: 'And she threw round his neck the necklace of her arms, and so chose him as her husband. And she said, "See, thy image is reflected a thousand times in these gems that resemble thee; yet look in my eyes and thou shalt see thyself through them reflected in my heart." Then the King looked into her eyes, and saw himself reflected in them like the sun in a deep lake. And he whispered in the shell of her ear: "Thou hast robbed me of myself: give me back myself in thy form."' Again in this same

story one reads the yielding of the self to love. 'Then she said, "Thou art my deity, and I am possessed by thee in every particle of my being."' With this one can set Tennyson's lovely stanza:—

> Now folds the lily all her sweetness up
> And slips into the bosom of the lake.
> So fold thyself, my darling, thou and slip
> Into my bosom and be lost in me.

The 'I will die for you' of the passionate lover is the same. In both man and woman there is the same desire to sacrifice the individual completely to the imperative demands of love: for as Henry James says in *Master Eustace*, 'Love is either a passion or it is nothing. You can know it by being willing to give up everything for it —name and fame, past and future, this world and the next. Do you keep back a feather's weight of tenderness or trust? Then you are not in love. You must risk everything.'

This mingling of the personalities of lovers is, in fact, a superimposition on the mingling of the male and female elements which results in offspring.

The Self-sacrifice of Woman and Man.

In man the sacrifice of the individual (in addition to the love sacrifice) is made to his country or to the welfare of his fellow-men. His sacrifice is gregarious, affecting a large number of his

fellow-men, many of whom are completely unknown to him.

The self-sacrifice of woman is not for her nation but for those she loves, for her home. If her home is threatened, or her children's safety, or she thinks they are threatened, her feeling to the accuser becomes one of dislike and anger, which often amounts to an almost tigerish ferocity. The rights and wrongs of the question of the accusation made against her home do not affect her, the danger to her home alone directs her conduct, and its protection is the sole impulse that possesses her.

To woman's self-sacrifice to her home and those she loves, her response to the needs and affections of those about her, to these, man, more selfish than she, can only offer his devoted reverence. In the words of Lecky: 'The unwearied fidelity of Penelope, awaiting through long years the return of her storm-tossed husband who looked forward to her as the crown of all his labours; the heroic love of Alcestis, voluntarily dying that her husband might live; the filial piety of Antigone; the majestic grandeur of the death of Polyxena; the more subdued and saintly resignation of Iphigenia, excusing with her last breath the father who had condemned her; the joyous, modest, and loving Nausicaa, whose figure

shines like a perfect idyll among the tragedies of the *Odyssey*—all these are pictures of perennial beauty.' Yes, and these pictures can everywhere be seen in the daily lives of women, be they the happy mothers of children or the gentle and tender Miss Mattys of the world. The self-sacrifice of woman to her home and her response to those she loves is the perfection of the sacrifice of the individual interests for the welfare of others. With the gradual evolution of human fellowship and trust in place of fear, and the consequent closer association of man and woman, man is enabled more and more to recognise the quality of woman's sacrifice, and with the suggestion of her example to make his own actions and thoughts more and more gregarious or self-sacrificing. In short, woman has arrived at her perfection, the sacrifice of love, before man has attained to his, namely that of gregarious unselfishness.

Recapitulation.

(1) In woman the reproductive instinct and maternal sub-instinct mainly govern thought and action.

(2) In man the self-preservative and gregarious instincts and sub-instincts mainly govern thought and action.

(3) The relation of man to woman is the relation of the instincts they represent to each other.

It has been chiefly that of antagonism, save when united by the common purpose of love and parentage.

(4) Love, like gregariousness, entails the sacrifice of the individual interests.

(5) Such sacrifice woman often shows in its perfection.

(6) Owing to the greater association with woman, which man obtains with the increase of human trust, the suggestion of her sacrifice to her home stimulates his sacrifice to the welfare of the community and of other life.

CHAPTER XI

TRUTH

We have reached the final question, What is Truth?

Truth. Truth is a description of the relation of the instincts to environment, expressed in terms of knowledge.

Examples:

Matthew Arnold gives the following picture of Goethe.

'When he was told such a thing must be so, there is an immense authority and custom in favour of it being so, it has been held to be so for a thousand years, he answers with Olympian politeness, "But is it so? Is it so to me?"' Goethe was at such a time not convinced that the description was one of the relation of his instincts to environment.

Again, a man, whose instincts are very ill-

adapted to environment, will hold it to be true that this world is 'a vale of wrath and tears,' whereas a young man full of exuberant vitality will say 'Here are we in a bright and breathing world,' and the lover will swear to the truth that it is 'love that makes the world go round.'

Individual truth is the description of the relation of the individual instinct to environment. Individual Truth.

Examples:

The childishness of Dora in at first refusing to believe that David Copperfield was a beggar is an example, given by the hand of one of the greatest describers in English literature.

Dora's instinct was adapted to comfort. Her father and friends were rich enough to exclude the spectre of poverty, therefore what David said was not true, it was not a description of the relation of her instinct to environment. How can you tell such stories? she says.

But David persists, and owing to his persistence the poverty becomes dimly a part of her environment. She shows her relation to it by tears and telling the environment to go away, please. And we, who are fortunate enough to read Dickens's description, feel how true it is.

The whole passage is so charming, and shows

such insight and observation of himself as a young man, of Dora and of Jip, that we are almost astonished at its truth :—

Dora came to the drawing-room door to meet me; and Jip came scrambling out, tumbling over his own growls, under the impression I was a Bandit; and we all three went in, as happy and loving as could be. I soon carried desolation into the bosom of our joys—not that I meant to do it, but that I was so full of the subject—by asking Dora, without the smallest preparation, if she could love a beggar?

My pretty, little, startled Dora! Her only association with the word was a yellow face and a night cap, or a pair of crutches, or a wooden leg, or a dog with a decanter-stand in his mouth, or something of that kind; and she stared at me with the most delightful wonder.

'How can you ask me anything so foolish?' pouted Dora. 'Love a beggar!'

'Dora, my own dearest!' said I. 'I am a beggar.'

'How can you be such a silly thing,' replied Dora, slapping my hand, 'as to sit there telling such stories? I'll make Jip bite you!'

Her childish way was the most delicious way in the world to me, but it was necessary to be explicit, and I solemnly repeated:

'Dora, my own, I am your ruined David!'

'I declare I'll make Jip bite you!' said Dora, shaking her curls, 'if you are so ridiculous.'

But I looked so serious, that Dora left off shaking her curls, and laid her trembling little hand upon my shoulder, and first looked scared and anxious, then

began to cry. That was dreadful. I fell upon my knees before the sofa, caressing her, and imploring her not to rend my heart; but for some time, poor little Dora did nothing but exclaim, Oh dear! Oh dear! And oh, she was so frightened! And where was Julia Mills? And oh, take her to Julia Mills, and go away, please! until I was almost beside myself.

Cardinal Newman, in an eloquent passage in *The Development of Christian Doctrine*, describes the Catholic Church as regarded by others, and his own relation to it as the truth, in a triumphant peroration :—

If there is a form of Christianity (he writes), now in the world which is accused of gross superstition, of borrowing its rites and customs from the heathen, and of ascribing to forms and ceremonies an occult virtue;—a religion which is considered to burden and enslave the mind by its requisitions, to address itself to the weak-minded and the ignorant, to be supported by sophistry and imposture, and to contradict reason and exalt mere irrational faith; . . . a religion which men hate as proselytising, anti-social, revolutionary, as dividing families, separating chief friends, corrupting the maxims of government, making a mock at law, dissolving the empire, the enemy of human nature, and a 'conspirator against its rights and privileges'; a religion which they consider the champion and instrument of darkness, and a pollution calling down upon the land the anger of heaven;—a religion which they associate with intrigue and conspiracy, which they speak about in whispers, which they

detect by anticipation in whatever goes wrong, and to which they impute whatsoever is unaccountable;—a religion, the very name of which they cast out as evil, and use simply as a bad epithet, and which from the impulse of self-preservation they would persecute if they could;—if there be such a religion now in the world, it is not unlike Christianity as the same world viewed it, when first it came forth from its Divine Author.

Lastly, how true this stanza from Swinburne's *Garden of Proserpine* must be to those who are ill-adapted to life and interpret their ill-adaptation in the feeling of God-abandonment and the recognition of the supposed vanity of life, which brings them personally no happiness:—

> From too much love of living,
> From hope and fear set free,
> We thank with brief thanksgiving
> Whatever Gods may be
> That no life lives for ever;
> That dead men rise up never;
> That even the weariest river
> Winds somewhere safe to sea.

Class Truth.

Class truth is the description of the relation of the class sub-instinct to environment.

The question of illustrating class sub-instinct truths is an important one, and many examples will be given. The relation to environment described is of course either actual or imagined.

Examples:

The speech of John Ball has already been quoted on p. 93. The context will here be given, for it forms an example both of the labouring class sub-instinct truth, or description of the labourer's relation to environment, and the aristocrat class sub-instinct relation to environment as described by the chronicler of the time, Sir John Froissart, who was himself one of the ruling class. The extract is from an edition published by Messrs. Routledge in 1891 :—

In order that this disastrous rebellion may serve as an example to mankind, I will speak of all that was done from the information I had at the time. It is customary in England, as well as in several other countries, for the nobility to have great privileges over the commonalty; that is to say, the lower orders are bound by law to plough the lands of the gentry, to harvest their grain, to carry it home to the barn, to thrash and winnow it; they are also bound to harvest and carry home the hay. All these services the prelates and gentlemen exact of their inferiors; and in the counties of Kent, Essex, Sussex, and Bedford, these services are more oppressive than in other parts of the kingdom. In consequence of this the evil disposed in these districts began to murmur, saying, that in the beginning of the world there used to be no slaves, and that no one ought to be treated as such, unless he had committed treason against his lord, as Lucifer had done against God; but

they had done no such thing, for they were neither angels nor spirits, but men formed after the same likeness as these lords who treated them as beasts.

But Sir John Froissart has no pleasure in them, and, bound by his class, persists in considering them 'evil disposed,' 'crazy,' and 'wicked,' terms representing the description of his class sub-instinct relation to them. 'This,' continues the narrative, 'they would bear no more; they were determined to be free, and if they laboured or did any work they would be paid for it. A crazy priest in the county of Kent, called John Ball, who for his absurd preaching had thrice been confined in prison by the Archbishop of Canterbury, was greatly instrumental in exciting these rebellious ideas.' Sir John then recounts John Ball's speech (p. 93), and tells us that the Archbishop of Canterbury, on being informed of it, had him arrested and imprisoned for three months; 'but the moment he was out of prison, he returned to his former course. Many in London, envious of the rich and the noble, having heard of John Ball's preaching, said among themselves that the country was badly governed, and that the nobility had seized upon all the gold and silver.' Sir John does not pause to consider whether there is any 'truth' in this from the poor man's point of view, but calmly recounts:—'These wicked Londoners,

therefore, began to assemble in parties and show signs of rebellion ; they also invited all those who held like opinions in the adjoining counties to come to London, telling them that they would find the town open to them and the commonalty of the same way of thinking as themselves, and that they would so press the king, that there should no longer be a slave in England.

'By this means the men of Kent, Essex, Bedford and the adjoining counties, in number about 60,000, were brought to London, under command of Wat Tyler, Jack Straw, and John Ball. This Wat Tyler, who was chief of the three, had been a tiler of houses—a bad man and a great enemy to the nobility. When these wicked people first began their disturbances, all London, with the exception of those who favoured them, was much alarmed.' Thus continues the chronicler, until the final consummation. 'John Ball and Jack Straw were found hidden in an old ruin,' and the king 'had their heads cut off' and placed with that of Wat Tyler on London Bridge.

The Truths.

We will now take a series of truths, which are of considerable importance at the present day. They are all relative to class sub-instincts. But they have been conceived of individualistically as

absolutes (pp. 131-134), or, in simpler language, the individual has endowed the truth with an independent and definite existence like to his own. Consequently all these truths or descriptions of the relations of the class sub-instincts to environment become The Truths. There are a great number of them. They include both actual and imagined relations, the imagined being the complete adaptation the desire for adaptation engenders.

Early Teutonic Truths.

Our Teuton forefathers, like to all primitive races, described things individualistically, endowing every object, such as stones, rocks, trees, clouds, birds and beasts with independent and definite existences and spirits like their own.

Valhalla was their imagined complete adaptation. It did not include rest and peace, as do our modern dreams of freedom from struggle and of happiness. On the contrary, Valhalla was a vast hall, from which the chosen issued at cockcrow to fight fiercely the one with the other. But this individual struggle, corresponding as it does to the individual belief that each stone, etc., had a similar spirit to oneself, had no disastrous ending, as it might have had on earth in actuality; for all wounds received in the celestial fracas, however severe, were healed by noon. Back to

the vast Valhalla strode the warriors, keen of appetite and dry of tongue. Eight hundred of them could march abreast through any of the five hundred and forty doors. They then sat themselves down to the feast, eating of swine's flesh and drinking mead from the skulls of their enemies. Theirs was a warriors' complete adaptation, a fighters' paradise; like the dreams that Queen Mab could give, when

> Sometime she driveth o'er a soldier's neck,
> And then dreams he of cutting foreign throats,
> Of breaches, ambuscadoes, Spanish blades,
> Of healths five-fathom deep.

Buddhistic Truths.

I had the advantage recently of talking to perhaps the most able exponent of Buddhism, the priest prince of Siam, who like his Master, Gautama, has 'retired from the world.'

He said to me, 'I have found peace here, such as I never had at court, the peace of freedom from the struggle from existence.' He was happy in his little bungalow, for he was adapted. The description of his relation was that of adaptation and was his truth. By endowing it with a separate existence it became The Truth.

The complete adaptation or heaven of Buddhism is Nirvana. The prince priest had begun to

anticipate the Great Peace, in which personality 'which is subject to desire' is lost. Nirvana is the Rest of Selflessness, 'the Goal of our Religion, the glorious life of utter Peace, the incomparable security' (Ananda Metteyya, *Buddhism*: September 1903).

Muhammadan Truths.

The imagined perfect relation of the instincts to environment of the Muhammadans is often described in the Koran. In it there is the conception of peace and rest from the struggle of life, the reproductive instinct is satisfied and the self-preservative easily supported. The following account is from Sura 56 of the Koran, as translated by J. M. Rodwell:—

> Then the people of the right hand—how happy the people of the right hand!
> These are they who shall be brought nigh to God,
> In gardens of delight;
> A crowd from the ancients,
> And few from later generations;
> On inwrought couches
> Reclining on them face to face:
> Immortal youths go round about to them
> With goblets and ewers and a cup from the fountain;
> Their brows ache not from it, nor fails the sense:
> And with such fruits as they shall make choice of,
> And with the flesh of such birds as they shall long for:
> And theirs shall be the Houris with large dark eyes like close-kept pearls,

A recompense for their labours past.
No vain discourse shall they hear therein, nor charge of sin,
But only the cry of 'Peace! Peace!'

Such is Muhammad's description of the relation of complete adaptation, which is now an official description of the Muhammadan heaven. Those who were opposed to his class sub-instinct, the inadaptable (many were relatives in his case), are thus described by him as suitably related to environment.

But the people of the left hand—how
Wretched are the people of the left hand!
Amid pestilential winds and in scalding water,
And the shadow of black smoke,
Not cooling, and not pleasant.

Christian Truths.

The imagined best relation of the instincts to environment or Christian heaven is a place where desires will be satisfied, and all the correlated qualities of adaptation such as happiness, joy and peace will be the possession of all who gain that estate. Whatsoever they ask will be given to them. It is a very different picture to the vast banqueting-hall and blood-stained battle-ground of the old Teutonic heroes. The description from the book of Revelation is that of the perfect relation of the poor and oppressed, not

of warriors. 'And God shall wipe away all tears from their eyes; and there shall be no more death, neither sorrow, nor crying, neither shall there be any more pain; for the former things are passed away.' Surely this is a beautiful comment on the instinctive desire of mankind, to be rid of sorrow; but it is only a comment. The same writer four verses later describes those who are not directed by the same class sub-instinct. 'But the fearful and unbelieving, and the abominable, and murderers, and whoremongers' (many slaves were murdered in these days and many used for lust. Christians were almost entirely of the servile class), 'and sorcerers, and idolaters, and all liars, shall have their part in the lake which burneth with fire and brimstone.'

His religion is The Truth to the writer, it is the 'water of life.'

At the present day, though all Christians dwell in imagination under the canopy of a prospective heaven, The Truth is subdivided into many The Truths, each of which is really only a description of the particular relation of the various classes to environment.

The quotations, with four exceptions, are from the writers or lecturers collected in the book entitled the *Religious Systems of the World*: Swan Sonnenschein, 1905.

Roman Catholicism is '*the* Church Universal—the Living Voice of God, in Christ's revelation unto all people, through all time.'

The *Greek Church* hopes: 'May she continue in this progress, and, by making the banner of orthodoxy shine forth afar, be the means of uniting the whole of mankind into one flock and fold of Christ.'

Of the *Church of England* it is said: 'They who believe in her commission, and know her history, are they who have the firmest faith in her future.'

Of *Presbyterianism* it is affirmed: 'In some senses one may say it is the only phasis of Protestantism that ever got to the rank of being a faith, a true heart communication with heaven.'

The writer on the *Independents* says: 'It is the belief of the Independents that Church fellowship in every place ought to be broad enough to include all practical and consistent Christians, and narrow enough to exclude all who, whether in theory or practice, offer violence to essential Christianity.'

The *Methodists* assert: 'Meanwhile Methodists thank God and take courage, and turn with a bolder face than ever to the surrounding masses of the people, rich and poor, Christian and non-Christian, and say, "Here is a form of Church

organisation which offers to you full use of every faculty you have, naturally or by acquirement, if only it is unreservedly devoted to the service of God and of His people the world over."'

The *Quakers'* claim is: 'Their testimony to Christ, as Almighty and Divine, was a practical testimony; and as such it was more definite and unequivocal than that of any other religious community.'

Mrs. Eddy, for the *Christian Scientists*, makes a similar claim in her book entitled *Science and Health*: 'The question, What is truth? is answered by demonstration—by healing both disease and sin. . . . Those only quarrel with her method who have not understood her meaning, or, discerning the Truth, come not to the light lest their works should be reproved.'

The *Mormons* maintain: 'That we do bring this doctrine, and that it is true, is the testimony we now give, and which we will meet before the pleading bar of the Great Jehovah, the Eternal Judge of both quick and dead.'

The writer of the *New Theology*, the *Rev. R. J. Campbell*, Congregationalist minister, makes this assertion in his book that defines his The Truth. He is speaking of pain and evil. 'Theologians may tell us that we should never have known anything about it but for man's first disobedience;

and humanists may maintain that it is impossible to reconcile it with belief in the goodness of God, but they are both wrong. There are some things impossible even to omnipotence, and one of them is the realisation of a love which has never known pain.'

Lastly, *Sir Oliver Lodge*, in the *Substance of Faith*, modifies the Apostles' Creed for the Christian Spiritists. The final clauses of his creed are: 'I believe that the Holy Spirit is ever ready to help us along the way towards Goodness and Truth; that prayer is a means of communion between man and God; and that it is our privilege through faithful service to enter into the Life Eternal, the Communion of Saints, and the Peace of God.'

Further Class Sub-instinct Truths.

We now come to non-Christian Truths. It will be observed in the few quotations that truth is still held to be a thing in itself. Certain things must be true and certain things untrue. Truth is not considered as a description of the relation of instincts to environment.

The *Unitarians* are 'believers in one God. They are not so presumptuous as to imagine they can define the Infinite.' Here, too, it is quite clear that the Infinite is considered to be a 'thing

in itself' instead of a method by which man describes certain conceptions.

The *Theists* maintain that 'this belief will alone enable us to explain the great problems of life and bear its troubles, while it ennobles all our pleasures and heightens all our joys, gives patience and fortitude in life, and sweet peace and brightest hope in the hour of death.'

Nor are the *Mystics* backward: 'Mysticism is not nonsense, but good sense; nay, the best.'

The *Swedenborgians* protest that 'if the New Church is not a philosophic and spiritual interpretation of man and his surroundings, it is nothing.'

Theosophy 'claims to be this Secret Wisdom . . . as of old, in the hands of a mighty Brotherhood, variously spoken of as Adepts, Masters, Mahatmas, Brothers, who are living men, evolved further than average humanity, who work for ever for the service of the race with a perfect and selfless devotion.'

Haeckel concludes his essay on *Monism* thus: 'May God, the Spirit of the Good, the Beautiful, and the True, be with us.'

The writer on *Skepticism* declares: 'We might define Skepticism as the Religion of Truth,' and gives this heaven for hope.

'The Greek Skeptics affirmed—it was part of

their belief that the investigation of Truth induced that high philosophic attitude which they termed Ataraxia, *i.e.* mental serenity.'

Mr. Frederic Harrison supports *Positivism*: 'That which marks off the Positive scheme from all purely scientific systems of thought is this: that it makes religion the beginning and end of life, seeking to inspire every corner of life with a living sense of devotion to an overruling Providence.'

The lecturer on the Ethical Movement says: 'We believe that right conduct is the way, and the only way, of a joyful, peaceful, inspiring life.'

The *Secularist* writes in commingled despair and amazement: 'Every religion—nay, every sect of religion—draws from Revelation its own peculiar answer, and accepts it as infallibly true, although widely at variance with others derived from the same source. These answers cannot all be true.' But he still holds to the absolutism of the word true. Into the various political truths and their heavens, the Utopias, there is no need to enter. Nor need we go into the various philosophic attempts to define The Truth. Up to the time of 'the Bacon of the nineteenth century,' Auguste Comte, who died in 1857, they are all recounted in a convenient form by G. H. Lewes in his *Biographical History of Philosophy*.

Mr. F. C. S. Schiller in his essays on *Humanism*, published in 1903, gives the most modern philosophic definition: 'As regards the psychical fact of truth-valuation, Truth may be called an ultimate function of our intellectual activity. As regards the objects valued as 'true,' Truth is that manipulation of them, which turns out on trial to be useful, primarily for any human end, but ultimately for that perfect harmony of our whole life, which forms our final aspiration.'

The Principle of Ignoring.

The animal that has to get adapted to a large number of conditions, does so as far as possible. Conditions to which it fails to get adapted, it tends to ignore and banish from consciousness, so as to avoid the misery of maladaptation. This ignoring of the unfamiliar and unpleasant is a common feature of life. It is a very distinctive feature of the relations of the class sub-instinct to environment and The Truths which describe them.

Examples:

A pet dog is urged to pursue a cat, which refuses to flee. When near to the contemptuous cat, the wee dog will suddenly pull up, begin to sniff around, and pretend to be occupied by something altogether different from cat-chasing.

Sheep, too, try to ignore danger by putting their heads together.

We all ignore any criminal relatives we chance to have. It is 'bad form' to speak of them.

At a strange house we do our best to ignore the pointed remarks of the *enfant terrible.*

Ladies 'cut' disagreeable persons.

A girl, who is not pretty, scarcely knows of her disadvantage. Often enough she is a 'jolly' girl, and ignores her defect, until it is no defect to her.

A pretty girl meets with a lamp accident, and her face is burnt and scarred. What a distress to her! How she dreads appearing with her ruined beauty amongst her friends! If she has a lover, and her lover says to her, 'I do not mind, darling. I love you for yourself,' what a passion of grateful tears will be called forth! How she will forget and ignore her defect in the soothing presence of her lover's tenderness.

A man has committed a serious social fault, and the weight of it is heavy upon his consciousness. With time he will forget it. If at the time of the initial shame some friend comes forward and, perhaps, only takes his hand in a firm grasp, what joy to find once more a safe environment! How passionate is the desire for adaptation!

So when Sir Oliver Lodge defines Good as

that 'which promotes development and is in harmony with the Will of God,' and says that although he cannot define God, the Will of God is 'in some sort synonymous with the "law of the Universe,"' he is obviously ignoring cancer, cruelty, a weasel sucking the throat of a rabbit, a tiger toying with its victim, for these, too, are in accordance with the law of the Universe.

The late Mr. F. W. H. Myers gives a yet more striking illustration of the principle of ignoring in *Human Personality and its Survival on Bodily Death.* 'To a spectator of the world drama,' he writes, 'what we call evil may seem as relatively infinitesimal in the unimaginable sum of things, as for us are the whirl and clashing of the molecules in the dewdrop, which cannot mar for us the vision of its crystal purity.'

The Rev. R. J. Campbell ignores pain by saying that there are some things impossible to omnipotence.

Haeckel, too, ignores in the quotation given.

Mrs. Eddy states: 'The nothingness of nothing is plain; but it should be understood that error is nothing, and that its nothingness is not saved, but must be demonstrated to prove the somethingness—yea, the allness of Truth.'

Theists, Unitarians, Theosophists, and Positivists all ignore.

As the pet dog ignores the cat, so they ignore evil. And as the pet dog by ignoring the cat escapes the pain and disagreeableness of maladaptation, so do they ignore maladaptations and their disagreeableness.

Christians and Muhammadans are more radical. They have a God of Evil called the Devil, and a Heaven of Evil called Hell.

Consequently when people speak of The Truth, they are describing their relation to environment, coupled with the expectation of complete adaptation in Valhalla, Nirvana, or Heaven.

The principle of ignoring is known as Faith. It is an inevitable feature of the passionate desire for complete adaptation, when this desire is interpreted individualistically, instead of racially, when it is recognised as the principle of evolution. I do not thus define faith in any spirit of mockery. It has been my lot many times to stand by the bedside of the dying and the dead, and to the sorrowing relatives again and again have I desired to offer the consolation of faith, to suggest and encourage them to ignore the evidence before their eyes and in their hearts, that the world is not one governed only by pity, love, and gentleness.

Before leaving this subject I cannot refrain from one long, but instructive, illustration of

this quality of faith or ignoring. It is taken from Sir George Trevelyan's eloquent account of the terrible story of *Cawnpore*.

At the commencement of 1857 (he writes) the condition of the native army was unsatisfactory in the highest degree. An impartial observer could not fail at every turn to note symptoms which proved beyond the possibility of a doubt that a bad spirit was abroad. But, unfortunately, those who had the best opportunity for observing these symptoms were not impartial. The officers of the old Bengal army regarded their soldiers with a fond credulity that was above suspicion and deaf to evidence: and no wonder: for on the fidelity of that army was staked all that they held most dear—professional reputation, social standing, the means of life, and, finally, life itself. It was in deference to their pardonable but most fatal prejudices that on this ominous subject silence was enforced during the years which preceded the outbreak. It was to please their pride of class that the tongues of more discerning men were tied and their pens blunted. It was in vain that General Jacob, the stout Lord Warden of the Scinde Marches, wrote and expostulated with all his native energy and fire. Threatened and frowned on by his employers, sneered at by his fellow-officers as an agitator and a busy-body, he was at length brought to acknowledge that the tone of the Bengal army was a matter on which a wise man did well to hold his peace. Sir Charles Napier, whose excellent military judgment, matured in European camps, revolted at a state of things so fraught with peril and scandal, learned too late that not even

the glory of Meeanee could protect him from the consequences of having presumed to call in question the faith of the sepoy. As the only apparent effect of his admonitions, the turbulent and warlike province of Oude was annexed to our territory, and the ranks of our army were swelled by the addition of thousands of disaffected native mercenaries. That discipline was lax, that insubordination was afoot, had long been known by many who dared not speak out the truth. . . . Even in 1857, at the time when mutiny and murder were rife from Peshawur to Dacca, each particular colonel was firmly impressed with the idea that his battalion would be the Abdiel of the army, faithful only to its oath and salt, to the recollections of bounty-money and the hope of pension. 'Pity,' writes an officer of the Sixty-fifth regiment, 'that Europeans abusing a corps cannot be strung up.' On the 22nd of May a letter appeared in the *Englishman* newspaper from Colonel Simpson, who commanded the Sixth Bengal Infantry at the all-important station of Allahabad. He was very indignant at the suspicions which had been expressed concerning the intentions of the men under his charge, who, according to him, 'evinced the utmost loyalty. So far from being mistrusted, they are our main protection.' Not many days after, he was glad to escape into the fort with a ball through his arm, while his officers were being butchered by the men on whom he had placed so unbounded a reliance. The 'staunchness' of the sepoys was at the time so common a topic with their chiefs that the expression became a by-word among Calcutta people; for at whatever station the colonel most loudly, pertinaciously, and angrily declared

his regiment to be 'staunch,' it was to that quarter that men looked for the next tidings of massacre and outrage.

National Truth.

National truth is the description of the relation of the national sub-instinct to environment.

Examples:

Lafcadio Hearn writes in *Japan, an Interpretation*: '"Militant societies," says the author of the *Principles of Sociology*, "must have a patriotism which regards the triumph of this society as the supreme end of action; they must possess the loyalty whence flows obedience to authority,—and, that they may be obedient, they must have abundant faith." The history of the Japanese people strongly exemplifies these truths. Among no other people has loyalty ever assumed more impressive and extraordinary forms; and among no people has obedience ever been nourished by a more abundant faith,—that faith derived from the cult of the ancestors.'

Rather, the cult of the ancestors is the expression the national sub-instinct assumed. Had Lafcadio Hearn himself lived to read how the Japanese, in the siege of Port Arthur, spiked the Russian bayonets by throwing themselves on them, so that their comrades might cut their way

through the ranks of their enemies, he would have felt more fully that these truths were indeed the descriptions of the relations of the national sub-instinct. Similarly the belief of the French people in the truth of the guilt of Dreyfus was a description of the relation of the national sub-instinct to the representatives of power and authority, namely the generals and ministers.

The truth of love is the description of the relation of the reproductive instinct to environment.

The Truth of Love.

Examples:

Lovers will agree to the truth of the following descriptions.

When Curio in *Twelfth Night* asks the Duke Orsino if he will go hunt the hart, the Duke replies :—

> Why, so I do, the noblest that I have:
> O, when mine eyes did see Olivia first,
> Methought she purged the air of pestilence!
> That instant was I turn'd into a hart;
> And my desires, like fell and cruel hounds,
> E'er since pursue me.

Tennyson portrays it in 'The Gardener's Daughter':—

So home I went, but could not sleep for joy,
Reading her perfect features in the gloom,
Kissing the rose she gave me o'er and o'er,
And shaping faithful record of the glance
That graced the giving—such a noise of life
Swarm'd in the golden present, such a voice
Call'd to me from the years to come, and such
A length of bright horizon rimm'd the dark.

The relation of this instinct in woman to her lover has been exquisitely described by the writer of the Hindu love-poem, 'The Heifer of the Dawn.'

And now, I will show thee what thou hast never known, the sweetness of thy life. For when thou art joyous, I will double thy joy: and when thou art sad, I will halve thy sorrow and remove it, and it shall be a joy to thee, deeper than joy. And when thou art well, I will surfeit thy soul with amusement and variety, and when thou art sick, I will nurse thee: if thou art weary, thou shalt sleep upon my breast, and it shall be thy pillow; and night and day my spirit shall be with thee and my arms around thee. And when thou dost not want me, I will be absent; and when thou wishest me again, I will be there. And if I should die before thee, it is well, and thou shalt miss me, but if thou leavest me behind, then will I follow thee through the fire, for I will not live without thee, not even for a day. For like a dream, and like moonlight, and like a shadow, and the image on the surface of a pool, I must vanish into nothing, when that which gave me substance and reality

is gone. For what am I, but a double and a copy and an echo of a Being which is Thou? Churn me only with the mountain of thy love, and, like the milky ocean, I will give thee up my essence, and show thee that a faithful wife is the butter of beauty, and wine of youth, and syrup of pleasure, and salt of laughter, born of the foam of the waves and the lather of the sea. And I will be to thee a nectar and a kamphor and a lotus and a sweet, and show thee the essence and savour of thy life; and thou shalt own that without me, it was a blank, and a word without meaning, and a night without a moon.

Gregarious truth is the description of the gregarious or non-individualistic relation to environment. The description is one that is not affected by what either the individualistic or reproductive instincts, by what the class or national sub-instincts, hold to be good or bad for individual, class, or nation. In short, gregarious truths must be descriptions of the relations of all forms and of groups of life to environment. They are transferable from one form of life to another and are independent of special environments. As an example, the gregarious truth that describes why a man takes off his hat to a lady also describes why a kitten grabbing at a cork extends her claws; for both actions fundamentally are self-preservative. Gregarious Truth.

Ultimately by abstraction we come to the description that covers all our perceptions of the universe, the description of the one quality they all share. It is conveyed in the words, that 'matter in the presence of matter results in motion'; or as stated by the founder of Buddhism some five hundred years B.C.: 'Whether Buddhas arise, O priests, or whether Buddhas do not arise, it remains a fact, and the fixed and necessary constitution of being, that all its constituents are transitory. This fact a Buddha discovers and masters, and when he has discovered and mastered it he announces, teaches, publishes, proclaims, discloses, minutely explains, and makes it clear that all the constituents of being are transitory' (Añguttara-Nikāya, iii., *Buddhism in Translations*, Henry Warren). Before closing this chapter it is necessary to outline the nature of Art and Science and their relation to truth.

Art.

Expression is the outward sign of the relation to environment, actual or imagined. By outward I mean some act on the part of the individual or group of individuals that can be perceived by another individual. Thus when a boy whistles on a gate, we conjecture that he is happy, because experience tells us that whistling in the main is an expression of happiness.

There are a number of ways man can express his condition of adaptation, and as other men express themselves in a similar manner, expression conveys to others the condition in which the expresser is. At the same time there is no need for the expresser to wish to convey his condition to another. A man or animal suddenly frightened will assume the position of terror though it is dark, and a boy will whistle on a gate irrespective of company. But if a maid is passing by who flaunts him, he may whistle on the gate to convey to her the defiance of his happiness in spite of her cold demeanour.

Now Art is above all personal. The artist says, 'That is how I myself would fashion it; this is what I admire.' He selects that to which he is adapted either actually or in imagination; the rest he eliminates. He does not ignore it, by denying its existence; he only says he does not admire it, and leaves it to those who do, or who have under fate to submit to it. What the artist selects is not to be named Truth, but Beauty, although those who write on Art often muddle the two. Beauty itself is relative to his selection. It is his or her personal expression of a desirable or ideal relation, and *Art is a personal expression of a selected relation to environment either actual or imagined.*

The means of expression themselves are selected. All art-forms are characterised by rhythm with a modicum of variation, rhythm itself being a repetition of that to which we are adapted, and which therefore gives us pleasure, and with each repetition the pleasure is repeated. The general formula of Beauty and of art-forms is the same as the formula of life, of race, of species, of the individual, namely repetition with a certain modicum of variation, the latter forming the small proportion that changes the state of stability, convention, the nature of species, etc. In short, Beauty and art-forms are selected adaptable forms of expression, following the general formula of life; and harmony, melody, rhythm are all words applicable to modes of expression to which we are adapted either by heredity or education.

We cannot realise all the varied aspects of life without confusion. We cannot face some of the horrors of life without failing courage and the scourge of misery. The value of Art is that it provides a home for the consciousness, a selected harmonious rhythmical mode of expression, which rests us from the confusion of life, and which can relieve our overburdened thoughts on the unhappy side of life and the ill-adapted, by taking those thoughts and feelings and giving them expression in a harmonious way, until the harmony over-

comes us and beauty steals upon the wearied brain, even as sleep steals upon the tired child at the sound of its mother's cradle-song. I know no better example of this than the contrast between the actual 'rarity of Christian charity' and the beauty Hood casts over the greatest cruelty of humanity by means of his exquisite poem 'The Bridge of Sighs.'

The value of Art is also seen in the capacity art-forms have of giving us the delight of a perfect adaptation for the time being here on earth.

Science.

Man is already dominant animal in the world, and his dominance is due to the greater power of rational action he possesses, the action that is modified by previous experience. It has been said that another animal distinguished for its rational action, the ant, is master of South America, and that ants 'have acquired in many respects the art of living together in societies more perfectly than our own species has' (*Cambridge Natural History*, Insects, Part II.); but in means of communication gradually spreading over the face of the globe man excels. In the spread of man's dominion he is continually meeting with new conditions to which he must adapt himself. The chief means by which he is able to do so

is by action founded on knowledge. Each man employs a certain amount of his rational action for individualistic adaptation, but there is a further gregarious adaptation, which is becoming more and more urgent as the world is becoming linked into a whole, and as travel, microscopes, experiments, the spread of literature, increase the number of man's perceptions.

Art is individualistic and personal, but Art does not proclaim truth, but beauty.

Religion is individualistic or class, and proclaims the truth.

Science differs from both Art and Religion in not being individualistic, but in serving an antagonistic instinct, the gregarious or impersonal and selfless. This is the aim of Science, but it must be acknowledged that much of the science of the present day is not impersonal, but is largely adulterated by personal bias. In a word, it is largely anthropomorphic, anthropomorphism being the endowing of environment, whether living or inanimate, with the qualities of our own personal consciousness. For instance we say, 'We see a lamb skip with joy.' Now, we perceive the lamb skip, and if we say we see it skip our description of our perceptions is accurate. But when we attribute joy to it we have to be more careful, for we may be attributing a feeling of our own consciousness to

it, and we cannot be sure the lamb feels the joy we attribute to it, for it is possible that it skips without any particular feeling at all. More gross instances are to be seen in the savage who attributes a malignant hatred to the stone that cuts his foot, or in the startled baby, who thinks the Jack-in-the-box alive.

I am fully aware that in this book I have used anthropomorphic language. When speaking of Art, I used the word 'select' as if man chose by his own free-will, whereas I meant to describe the inevitable need man has of a certain amount of adaptation and adaptable expressions as one of the consequences of the effects of the interaction of matter with matter. It is, in fact, extremely difficult not to be anthropomorphic, and A. Russel Wallace, in an able essay, *Creation by Law*, points out how the use of anthropomorphic language laid open to serious misconception one whom Wallace himself and the great majority of students of science hold to be the greatest of scientists in so far as he was the greatest describer of impersonal truth, and was most ready to acknowledge himself wrong when personal bias had tinged his descriptions. I refer, of course, to Charles Darwin.

The difficulty is very largely due to the fact that the English language itself is an anthropomorphic language, being composed by a people

in the anthropomorphic or individualistic stage of evolution. Similarly anthropomorphism is bound to infect the science of the present day, for the majority of so-called scientists and their descriptions and opinions are under the dominion of the individualistic instinct, and are bent to their personal adaptation in a precisely similar manner with those of the religionists, with which people the scientists not infrequently war for power, while at other times both parties by ignoring the field of controversy patch up a temporary peace.

The true scientist in his descriptions must be impersonal. He must ignore nothing, however disagreeable or difficult it is. To him the exception must appear of more importance than the rule it threatens. Any selection or exaggeration he must avoid. He must describe somewhat dryly, for fear lest the very adornment given by literary style should isolate the description in the attention of his reader and cause the latter to neglect other descriptions, which modify or oppose.

The boundaries of man's knowledge are the boundaries of his perceptions, upon which his conceptions are founded. It is the province of Science to take all descriptions of man's perceptions and conceptions and to abstract from them

the smallest number of general formulae which will describe them. By means of these formulae man will be the more able to understand all the phenomena of life, and especially of human life, that come within his experience. Understanding these, and not narrowed to the smaller environments of self, class, or even nation, he will be able to modify his action with a regard for mankind as a whole. In a word, he will be able to act gregariously.

Value of Truth.

By truth the rational action of man is better adapted to the changing conditions of life, and as action modified by knowledge and experience is the chief means by which man can so adapt himself, we understand the eager desire for truth.

The descriptions that include all phenomena or life and human life—that is to say, gregarious truths—can alone be shared by men when gregarious. By such truths their actions will become adapted to and understandable to each other. And with gregarious adaptation happiness will become world-wide, and prejudice, intolerance, and misunderstanding vanish from the race of men.

Recapitulation.

(1) Truth is the description of the relation of

the instincts of environment, expressed in terms of knowledge.

(2) Art is a personal expression of a selected relation to environment either actual or imagined, and art-forms are themselves selected modes of expression.

(3) The increased adaptation brought about by rational action constitutes the value of truth.

CHAPTER XII

RECAPITULATION AND CONCLUSION

Chapter I.

A Recapitulation of the Rules of the Grammar of Life.

(1) Man's knowledge of the Universe is ultimately founded on his perceptions of it.

(2) Of things 'in themselves' man can know nothing, his knowledge being dependent on his perceptions of them, and not on the actual nature of the things themselves. His knowledge of the Universe is relative to his perceptions, and is a description based on his perceptions.

(3) Relativity is the key to the understanding of life.

(4) The Universe is eternal and in a constant state of transition, being composed of an eternal series of cycles.

(5) There is no purpose to the Universe, and therefore no Riddle.

(6) Man and his species, as a part of the Universe, also have no ultimate aim or purpose.

(7) Man has an earthly aim, which is com-

prised in his adaptation to environment that the race may reach its zenith.

Chapter II.

(8) All universal phenomena are expressions of the effect of matter on matter producing motion.

(9) Life is a special form of matter in motion.

(10) The motion of living matter displays itself in many forms and is greatly affected by environment.

(11) The manner in which living matter reacts in the presence of environment constitutes the phenomena of life.

Chapter III.

(12) The purpose of all living matter is to adapt itself to environment.

(13) The two instincts which control and describe these adaptations to environment are the self-preservative and the reproductive.

(14) To these, in herding animals, such as bees, ants, sheep, wolves, man, and other animals that live in communities, a third instinct must be added, viz. the gregarious instinct.

(15) The baby, when first born, is the inherited material form through which its instincts will work.

(16) Its actions are at first purely instinctive, but as experience of special environment is received, a self is evolved.

(17) All action is directed by the instincts.

(18) Action, which is due to the instincts, without the modification of the knowledge of the self, is pure instinctive action.

(19) Instinctive action which is directed by the experiences or knowledge of the self is rational action.

(20) Reason is the application of the instincts to the needs of the time under the guidance of thought, which is the comparison of experiences.

(21) Reason is often in error, owing to faulty comparison of experiences. With the evolution of knowledge, reason gains in accuracy.

(22) The motive a man gives for his actions is nearly invariably related to his knowledge and not to the basal instinct, to which the action is really due.

(23) Instincts are not founded on matter, but matter is the agency through which the instincts work.

(24) Human life has an unmeasured capacity of adaptation.

(25) Man's eventual environment will be the whole habitable world.

(26) The most important method by which he

extends his adaptation is the increase in efficiency of the means of communication and combination.

Chapter IV.

(27) Inevitability, like Relativity, is a quality of the phenomena of life.

(28) Adaptation results in happiness.

(29) Mal- or non-adaptation results in misery.

(30) Imagination supplies the consciousness with relations to environment, when reality is lacking.

(31) Men's opinions are their thought-adaptations to environment.

Chapter V.

(32) The three instincts struggle amongst themselves for mastery, and this struggle is always being illustrated in the phenomena of life.

(33) An overpowered instinct asserts itself in an obversed character.

Chapter VI.

(34) The history of man is the history of the spread of the gregarious instinct.

(35) The future history of man will be that of the further increase in power of the gregarious instinct.

(36) The external history of a nation is the history of the struggle of its national sub-instinct with other national sub-instincts.

(37) The internal history of a nation is the history of the struggle of class sub-instincts with each other and the evolution of the true gregarious instinct or altruism.

Chapter VII.

(38) A gregarious animal has a conscience, a non-gregarious animal has no conscience.

(39) The moral quality of an action, actual or imagined, is the effect it has or would have on the other members of the flock.

(40) The thoughts or comments on actions, actual or imagined, which affect or would affect other members of the community are the moral sentiments.

(41) The essential nature of gregariousness is the sacrifice of the individual interests to that of the community.

Chapter VIII.

(42) The conception of 'absolutes' and 'things in themselves' is correlated to the individual instinct.

(43) Relativity is correlated to the gregarious instinct.

(44) Religion, in all its various aspects, is strictly dependent on and derived from the instincts and sub-instincts and their adaptation to the needs of the time.

Chapter IX.

(45) Special means of adaptability are inherited.

(46) Rational applications of these special means of adaptability to the needs of the time are due to knowledge, of which education is really a synonym.

Chapter X.

(47) In woman the reproductive and maternal instincts mainly govern thought and action.

(48) In man the self-preservative and gregarious instincts and sub-instincts mainly govern thought and action.

(49) The relation of man to woman is the relation of the instincts they represent to each other. It has been chiefly that of antagonism, save when united by the common purpose of love or parentage.

(50) Love, like gregariousness, entails the sacrifice of the individual interests.

(51) Such sacrifice woman often shows in its perfection.

(52) Owing to the greater association with

woman, which man obtains with the increase of human trust, the suggestion of her sacrifice to her home stimulates his sacrifice to the welfare of the community and of other life.

Chapter XI.

(53) Truth is the description of the relation of the instincts to environment.

(54) Art is a personal expression of a selected relation to environment either actual or imagined, and art-forms are themselves selected modes of expression.

(55) The increased adaptation brought about by rational action constitutes the value of truth.

Conclusion.

The reader may rightly feel that the omission of a chapter on Conduct in modern life is a grave defect in the present book, but not only do I feel that such a chapter is scarcely relevant to a Grammar, but also it would be impossible for me to compress an outline of conduct into a small space. The subject of conduct is one with which I would gladly attempt to deal on the lines laid down in this book, but, like others who have to earn their own livings, it is difficult for me to find time to treat these matters with the thoroughness they require. I have for some years kept

notes on the matter of conduct, but they are at present crude and inadequate. Heredity and education, which tell us what we can do by suggestion and what we cannot do, are alone wide, but essential, subjects. A review of existent laws, of the various professions, of the methods of business, of those of government, of the relation of the sexes, of population and the relation of all these to anthropological and biological formulae, classifying each law or method according to the instinct or sub-instinct it serves, constitutes an immense field of study, the results of which would be of great value in understanding and decreasing the chaos in opinion, the competitive stress of business, and the bitterness of class distinctions that are prominent at the present day.

Fortunately there are many who are eager to work for the good of the race rather than for mere individual purposes. They uphold the struggle of the gregarious instinct against its opponents, against the greed of selfishness and the prejudices of those who are under the sway of the class sub-instincts. Unfortunately the expressions of their desire have been so diverse that, coupled with the belief that these expressions were of importance rather than the instincts upon which they are based, there has scarcely been any effective

unity of action. With unity of expression, unity of rational action will naturally follow. The power that is produced by a unity of expression has again and again been illustrated in history. The unselfish patriotism of the Roman Republic and the convictions of the conquering Muhammadans are examples. With the recognition of this fact, and the fact that governing many of our impulses and actions is the gregarious instinct, I see no reason why such added power should not be imparted to gregariousness by the suggestion of gregarious knowledge and understanding. Great movements of thought have swept over Europe in the past, and the present agitation of thought may denote the possibility of another and world-wide movement by which a transfer of adaptation will be made from the individual and class to the gregarious. Nor is any asceticism entailed in this transfer. There will be no need to give up pleasure, for pleasure is the result of adaptation, and the pleasure of the adaptation of the gregarious instinct differs in this from the adaptation of individual or class, in that it adds to and does not subtract from the pleasure of others whilst ministering to our own.

As regards the national sub-instinct, nations must be preserved, but legitimately. The cause

of nations must not be confused with those of classes, nor made to override the superior rights of internationalism. In India, South Africa, Ireland, America, Russia, Poland, and elsewhere we have had and still have examples of the unrighteous tyranny of class interests. Let us by all the means in our power get rid of the word subject and its correlated moral qualities of timidity and meekness. Let us have done with nurslings and work for wider federations.

We, who desire to fight for gregariousness as opposed to individual, class, and selfish national interests, must first be sure of our weapons. We know the formulae of life, at least I trust the reader will agree with me. I would advise, therefore, that each who would uphold gregariousness should also in some measure educate himself gregariously. Let him take some hobby or study, I care not what, and learn to abstract general qualities. Any science, such as botany, is one to hand with an admirable guide in Hooker and Bentham's handbook. Let him remember that at first the subject, being unfamiliar, will be irksome, but with zeal will come familiarity and pleasure, and with knowledge a fuller understanding of the common basis of life, namely the need of adaptation. A study of gregarious insects, such as ants or bees, upon which Pierre

Huber, Lubbock, Foret and others have written fascinating books, is peculiarly instructive. The termites are yet more interesting. In anthropology I would recommend him Professor Tylor's *Anthropology*, Dr. Frazer's *The Golden Bough*, and Messrs. Baldwin, Spencer, and Gillan's accounts of the Central Australian natives. If he care not for science and be legally minded, let him take the laws of England and see what serve the aristocratic, the ecclesiastical, the capitalistic and other class sub-instincts. But let him beware of perorations and soaring eloquence which, according to the rule on pp. 113-115, are often the moral excuses and comments on selfish actions. He can, if he will, cut out extracts from his daily paper and class them according to the instincts. If he takes in papers of opposing parties, he will have no difficulty in accumulating abundant illustrations of the expressions of class and national sub-instincts. Let him not read essays, poetry, and art books to the exclusion of science, history, law and politics. Let him study what men do and have done, what is the nature of the world about him, as well as the descriptions of individual hopes and wishes. Above all, let him not dwell in dreamlands of perfect adaptations, and let him beware of ignorers as guides. Let him fearlessly examine all things,

and ignore nothing because it is unpleasant and inadaptable.

By laying down a foundation of gregarious knowledge and experience, it follows of necessity that his rational action will tend to become more and more gregarious. In the circle of his life and experience many aims and desires will present themselves. These he will be able to submit to examination, and, finding them worthy, will be able to pursue them with the added strength of rational understanding. He will also be able to acquire by combination with others that quality which gives strength to herding animals.

For myself, from a study of gregarious animals and especially of gregarious insects, I see no reason to consider that misery, poverty, vice, and the unhappiness of sexual profligacy are essentials to life. By comparing their state and the present state of mankind, and by observing what I believe to be the tendencies of civilisation, I feel more and more convinced that methods by which the sorrows of men and women may be mitigated and their joys increased are already in being and capable of propulsion by clearer understanding of the nature of happiness and the future of mankind. I propose, as I have said, to put forward my views at some future time, if I consider they are likely to be acceptable. But, as a final word,

I wish to disclaim, though a disclaimer may be premature and unnecessary, any personal merit. In a study of the nature of life I have been instructed by many admirable books and the acts of others, and in forwarding the views expressed, I am also fully aware that I am trying to forward conditions that would add to my own happiness.

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