CHAPTER XVI.

Physical Science Corroborates Natural Science.

The purpose of this chapter is to show that physical science unintentionally corroborates those fundamental principles laid down in this work as follows:

(1) The evolution of man is based in spiritual principles and forces.

(2) Sex represents the spiritual principle of polarity, or the principle of centrifugal and centripetal force.

(3) The male entity represents the aggressive or centrifugal force, while the feminine entity represents receptive or centripetal force.

(4) The greatest struggle in Nature is the struggle for completion through vibratory correspondences.

(5) Sex selection illustrates this struggle for completion in the higher kingdoms.

(6) The expression of this principle in sentient, intelligent life appears as an intuitional affinity, or an individual preference or choice.

(7) Love is the expression of this principle operating through and upon individual intelligences.

(8) This struggle for completion and ethical content governs animal marriage as well as human marriage.

(9) Two animals, as well as two humans, may fulfill this law of correspondence.

(10) Such marriage constitutes a free, natural, monogamous, and indissoluble love union. Mathematically speaking, such a marriage is a vibratory harmonic. On the physical side it is passion, on the spiritual love, and in an ethical sense it is content or happiness to individual intelligence.

Most of the quotations selected are from "The Evolution of Marriage." The author of that work, M. Letorneau, is a recognized authority of the Darwinian school. His position as to the basis of evolution is clearly stated. He says: "The great forces called natural are unconscious; their blind action results, however, in a world of life, choice, selection and a progressive evolution."

Notwithstanding this very definite agreement with physical materialism, the author almost immediately introduces a word which contravenes this interpretation of Nature. The work opens with a careful analysis of love and marriage in animal life. In referring to procreation among superior animals, the physicist says: "In their case the act of procreation is a real efflorescence, not only physical but psychical." Again, still discussing the same subject, he adds: "It is important to bear in mind that all this expenditure of physical and psychical forces has for its motive and result the conjugation of two differing cells."

That which is important in this connection, is, not to show that this "psychical" force has another origin and motive than the conjugation of two differing cells, but that this conjugation of two physical cells requires an expenditure of two kinds of force, even in animal life, viz., physical force and "psychical" force.

Now, "psychical" force is distinctly not "physical" force, and yet physical science claims that Nature has provided only blind physical forces.

The anthropologist says elsewhere that, "In pairing season the psychic faculties of the animal are over-excited." So throughout the entire work are the words "psychic" and "psychical" repeatedly used. Reference to "psychical" causes and "psychical" phenomena is indulged as freely as if the author believed that half the facts of Nature are due to "psychical" causes.

This is one of the common contradictions and inconsistencies of our authorities of the modern school of physical science. It is a contradiction and inconsistency which none of them explains.

There is, in fact, but one explanation, and that a very simple

one. No person of average intelligence can study living, sentient, intelligent Nature and escape the conviction that there are two classes of phenomena in existence, viz., physical phenomena and "psychical" phenomena.

The student finds that one part of the phenomena of life appears to have a logical relation to, or basis in, the visible and tangible physical functions of Nature. He finds, on the other hand, that the other part of life's phenomena, though equally self-evident, is wholly intangible to physical sense and wholly elusive under all physical instruments and physical tests.

The physicist refers to the "psychical" phenomena of sex and the "psychical forces" in generation and reproduction, because he finds no other words to define those self-evident conditions. He is driven to the use of the term "psychical" merely because he recognizes forces which are not physical. It will be recalled that the word "psychical" is derived from the Greek "psyche," meaning the soul. The physical scientist probably did not intend by the use of that word to recognize spiritual forces, nor to acknowledge a soul element in Nature.

What he does, however, is to confess that intelligent creatures employ forces which must be recognized as super-physical. By such admission he corroborates the higher science. The physicist uses the word "psychical" to define super-physical forces, while the Natural Scientist employs the word "spiritual" in exactly the same sense.

This admission of "psychical" forces into the operations of intelligent animal life, must be held as corroborative of that proposition which declares that the evolution of man has a basis in spiritual principles, elements and forces.

Physical science also corroborates the higher science upon those propositions which declare that sex is the spiritual principle of affinity in operation, and that male and female represent the positive and aggressive, and the receptive and absorbing energies in Nature. The reader is asked to determine this for himself

from a few disconnected statements concerning sex selection, and the characteristics of male and female nature.

Havelock Ellis says:

(1) "While the men among all primitive peoples are fitted for work involving violent and brief muscular effort, the women are usually better able than the men to undergo prolonged and more passive exertion."

(2) "The militant side of primitive culture belongs to man, the industrial to woman."

(3) "The characteristic implement of woman is not a weapon, but the 'ulo,' or the primitive industrial knife."

(4) "The militant element ruled throughout medieval Europe and that meant the predominance of men."

M. Letorneau, in his discussion of animal marriage, says:

(1) "Almost universally, whether she be large or small, the female is less ardent than the male, and in the amorous tragi-comedy she plays from the beginning to the end a passive rôle. In the animal kingdom as well as mankind amazons are rare."

(2) "The female of mammals are always weaker than the male."

(3) "The female bird shows the natural reserve of her sex."

M. Letorneau sets forth what he terms the natural sex laws of courtship in lower life. On the masculine side he names this phenomenon, "the law of battle." On the feminine side he finds a law of coquetry.

The reader will be able to perceive that this so-called masculine law of battle is something more than a law of courtship. It is, in fact, the masculine law of being. The battle between male animals during courtship is but another phase of the inherent struggle for supremacy or conquest by force, which universally obtains in masculine nature. In the law of coquetry he will as easily discern the purely feminine method of accomplishment, viz., by self-surrender, or the promise of self-surrender.

The author says:

(1) "It is especially among the gallinaceæ that love inspires

the males with warlike fury. In this order of birds nearly all the males are of bellicose temperament. Our barn-door cock is the type of the gallinaceæ—vain, amorous, and courageous. Black cocks are also always ready for a fight, and their females quietly look on at their combats, and afterward reward the conqueror. We may observe analogous facts, only somewhat masked, in savage and even in civilized humanity."

(2) "Among fishes we begin already to observe another sexual law, at least as general as the law of coquetry, which Darwin has called the law of battle. The males dispute with each other for the females, and must triumph over their rivals before obtaining them. Thus, whilst the female sticklebacks are very pacific, their males are of warlike humor, and engage in furious combats in their honor."

(3) "The higher we ascend in the animal kingdom the more frequent and more violent become two desires in the males—the desire of appearing beautiful, and that of driving away rivals."

(4) "The law of battle prevails among aquatic as well as land animals."

(5) "The combats of the male stags are celebrated. * * * Seals and male sperm-whales fight with equal fury, and so also do the males of the Greenland whale."

(6) "With birds, * * * the law of battle plays an important part in sexual selection. * * * The male Canadian geese engage in combats which last more than half an hour; the vanquished sometimes returns to the charge, and the fight always takes place in an enclosed field, in the middle of a circle formed by a band of the clan of which the rivals form a part."

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(1) "But however short may be their sexual career, one fact has been so generally observed in regard to many of them (insects), that it may be considered as the expression of a law—the law of coquetry. With the greater number of species that are slightly intelligent, the female refuses at first to yield to amorous caresses. However brief, for example, may be the life of butterflies, their pairing is not accomplished without preliminaries; the males court the females during entire hours, and for a butterfly hours are years."

"We can easily imagine that the coquetry of the females is more common among vertebrates."

(2) "The courage and jealousy of the male (bird), his efforts to charm the female by his beauty and the sweetness of his song, and finally, the coquetry of the female, who retreats and thus throws oil on the fire."

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Physical science corroborates the higher science as to the existence of a law of individual preference in sex selection. This is the law which physical science terms "inexplicable," but which the higher science explains as an expression of vibratory correspondence between two intelligent entities.

Letorneau says:

(1) "The animal as well as the morally developed man is capable of individual preferences. He does not yield blindly and passively to sexual love."

(2) "Many vertebrate animals are capable of a really exclusive and jealous passion."

(3) "Man alone should have the privilege of introducing free choice into love. It is not so, however."

(4) "According to observers and readers, it is the female who is especially susceptible of sentimental selection. The male, even the male of birds, is more ardent than the female, * * * and thus generally accepts any female. This is the rule, but it is not without exceptions; thus, the male pheasant shows a singular aversion for certain hens."

(5) Darwin finds that, "amongst the long-tailed ducks some females have evidently a particular charm for the males;" also that, "the pigeon of the dovecote shows a strong aversion to the species modified by breeders, which he regards as deteriorated. Female pigeons occasionally show strong dislike to certain males without apparent cause. At other times a female pigeon, sud-

denly forgetting the constancy of her species, abandons her old mate or legitimate spouse to fall violently in love with another male. In the same way peahens sometimes show a lovely attachment to a particular peacock."

(6) Letorneau says that "it is more especially females who introduce individual fancy into sexual love. They are subject to singular and inexplicable aversions. * * * Very peculiar fancies arise in the brains of birds. Thus we see birds of distinct species pairing, and this even in the wild state. These illegitimate unions have been observed between geese and barnacle geese, and between black grouse and pheasants."

Darwin relates a case of this kind of passion suddenly appearing in a wild duck. Mr. Hewit relating it says: "After breeding a couple of seasons with her own mallard, she at once shook him off on my placing a male pintail in the water. It was evidently a case of love at first sight, for she swam around the new comer caressingly, though he appeared evidently alarmed and averse to her overtures of affection. From that hour she forgot her old partner. Winter passed by, and the next spring the pintail seemed to have become a convert to her blandishments, for they nested and produced seven or eight young."

If physical science had made no other discovery in the line of spiritual principles than the law of individual preference, it had in this one phenomenon sufficient grounds for modifying its own theories. Except for this fact of individual preference, there had been no such thing as choice in sex selection. In that case, the blind instincts of a purely physical passion would have prevailed. One mate would have satisfied the biological need as well as another, and promiscuity would have been the natural law of selection.

In this one phenomenon, then, an intelligent individual choice, is revealed that principle which establishes the sex relation as a spiritual relation, and raises sex love, even in animal life, above the biological need for reproduction. The introduction of an individual choice into the sex relation of intelligent creatures, quite

transforms the theory of life laid down by physical science.

Instead of a series of mechanical compulsions brought about by tyrannical instincts for reproduction, life is seen to be a series of *individual* selections brought about by an individual intelligence seeking its own self-content.

Natural Science holds that promiscuity is not a natural sex law. Physical science says:

(1) "Polygamy is common to mammals."

(2) "Mammals while less delicate than birds, are already on a moral level incompatible with promiscuity."

(3) "Polyandry does not appear to have been practiced among animals. Polygamy is the commonest form. Monogamy is common and sometimes accompanied with so much devotion as to serve as an example to human monogamy."

The higher science holds that two animals as well as two humans may fulfill the universal law of vibratory correspondence. In such cases the love relation does not necessarily depend upon the degree of intelligence nor the evolutionary stage of animal life. It depends rather upon the degree of vibratory correspondence, that is, the degree of natural sympathy which obtains between any two individuals.

Letorneau says:

(1) "There is no strict relation between the degree of intellectual development and the form of sexual union."

(2) "We find among animals temporary unions, at the close of which the male ceases absolutely to care for the female; but we also find, especially among birds, numbers of lasting unions, for which the word marriage is not too exalted."

(3) "But if polygamy is frequent of mammals, it is far from being the conjugal régime universally adopted; monogamy is common and is sometimes accompanied by so much devotion that it would serve as an example to human monogamists."

(4) "Nearly all rapacious animals, even the stupid vultures, are monogamous. The conjugal union of the bald-headed eagle appears even to last till the death of one of the partners. This

is indeed monogamic and indissoluble marriage, though without legal restraint. Golden eagles live in couples and remain attached to each other for years without even changing their domicile. But these instances, honorable as they are, have nothing exceptional in them; strong conjugal attachment is a sentiment common to many birds."

(5) "Examples of wandering fancy are for most part rare among birds, the majority of whom are monogamous, and even far superior to most men in the matter of conjugal fidelity."

(6) "Birds especially are models of fidelity, constancy and devoted attachment."

(7) "Among many animal species sexual union induces durable association having for its object the rearing of young. In nobility, delicacy and devotion, these unions do not yield precedence to many human unions."

At this point it would be of scientific interest to know by what rule or process the author arrived at the conclusion that these durable associations have for their "object the rearing of young," rather than the satisfaction and content of the individuals composing those unions.

The author says further that there is the same diversity in the habits of the monkey as in those of the human in conjugal relations. He says:

(8) "Some are polygamous, some are monogamous. The wanderoo of India has only one female and is faithful unto death."

Natural Science finds that bird life represents the greatest physical and spiritual refinement and the highest vibratory condition of the animal kingdom. This being true, the intelligence of bird life would sense, enjoy and express those finer and higher conditions more readily and more harmoniously than any other department of animal intelligence. Partial proof of these statements are the superior love nature of birds, their gift of music, and the fineness and delicacy of their flesh.

Physical science corroborates these deductions when it says: "But it is particularly among birds that the sentiment, or rather

the passion, of love breaks out with most force and even poetry."

"But among animals, as well as men, love has more than one string to his bow. It is especially so with birds, who are the most amorous of vertebrates. They use several æsthetic means of attracting the female, such as beauty of plumage and the art of showing it, and also sweetness of song. Strength seems often to be quite set aside and the eye and ear are alone appealed to by the love stricken males. * * * Birds often assemble in large numbers to compete in beauty before pairing. The tetras cuspido of Florida and the little grouse of Germany and Scandinavia do this. The latter have daily amorous assemblies, or cours d' amour, which are renewed every year in the month of May."

"Certain birds are not content with their natural ornaments, however brilliant these may be, but give the rein to their æsthetic desires in a way that might be termed human. * * * The palm is carried off by a bird of New Guinea, made known to us by M. O. Beccari. This bird of rare beauty, for it is a bird of Paradise, constructs a little conical hut to protect his amours, and in front of this he arranges a lawn, carpeted with moss, the greenness of which he relieves by scattering on it various bright colored objects, such as berries, grains, flowers, pebbles and shells. More than this, when the flowers are faded, he takes great care to replace them by fresh ones, so that the eye may be always agreeably flattered. These curious constructions are solid, lasting for several years, and probably serving for several birds. What we know of sexual unions among the lower human races suffices to show how much these birds excel men in sexual delicacy." * * * "Every one is aware that the melodious voice of many male birds furnishes them with a powerful means of seduction. Every spring our nightingales figure in true lyric tournaments," etc., etc.

In bird life, more particularly, is ample proof of a sex love which entirely transcends the physical affinity or physical passion. Here also we find that conjugal love is the earlier and far more enduring bond than parental love.

For example, Letorneau says:

"With the female Illinois parrot (Psittacus pertinax) widowhood and death are synonymous, a circumstance rare enough in human species, yet of which birds give us more than one example. When, after some years of conjugal life, a wheatear happens to die, his companion hardly survives him a month. The male and female of the panurus are always perched side by side. When they fall asleep, one of them, generally the male, tenderly spreads its wing over the other. The death of one, says Brehm, is fatal to its companion. The couples of golden woodpeckers, of doves, etc., live in a perfect union, and in case of widowhood experience a violent and lasting grief. The male of a climbing woodpecker, having seen his mate die, tapped day and night with his beak to recall the absent one; then at length, discouraged and hopeless, he became silent, but never recovered his gaiety."

"These examples of a fidelity that stands every test, and of the religion of memory, although much more frequent in the unions of birds than in those of human beings, are not, however, the unfailing rule."

What do all these facts suggest? That the struggle for nutrition is the inspiration of existence, or that love is—even in a bird—essentially a biological need? Do they not, rather, directly refute such a theory?

Here in this lower world of intelligence is substantial evidence of the spiritual relation in sex, such evidence as puts to confusion the theories of physical materialism. Here, in the lower kingdom of life, and the lower kingdom of intelligence, Nature establishes a bond which transcends every physical requirement, and endows even two birds with a love which obscures the procreative passion and ignores the claims of reproduction. By such widowhood and death it cannot be denied that bird love rises above the demands of physical nature. Thus, even a bird, in its ethical struggle for self-content, rises superior to the organs of digestion and reproduction. Indeed, by such fidelity and devotion, it defeats the claims of both.

Such a phenomenon is, indeed, "inexplicable," by all the rules of Darwinian philosophy. This is a fact, however, which must suggest that even the intelligence of a bird may be inspired by higher impulses and capacities than those which originate in the physical functions. With the demand for nutrition and the instinct for reproduction playing upon the intelligence of the bird, with nutrition at command, with other lovers at call—it is yet possible for even a bird to die of grief when the mate of its choice is gone.

If animal marriage can so far transcend the "requirements of the sex appetite," how vain to insist that human marriage has no other purpose than the regulation and satisfaction of an "imperious sex appetite."

Since two birds may live in conjugal loyalty a lifetime, how illogical to declare that such love and fidelity in human marriage is a result of sex appetite, or a habit induced by heredity, or a mere affection induced by the mutual care of progeny. Since physical science tells us that a widowed bird may die of grief, how opposed to Nature is the theory that such grief in a human lover is an efflorescence of sex lust, and disappointment in that passion.

The time approaches when physical materialism must explain what it now terms "inexplicable," and "unfathomable," or it must cease to dogmatize concerning the purposes of life and the nature and causes of love. It must reserve its judgments on these points, or offer scientific explanation that shall appeal to reason and intuition, to the commonest facts of life, to common observation and experience, and finally, to the personal impulse and aspiration of mankind.

Until such time, the higher science rests its case upon the judgment of a man eminent in the school of physical science.

It is Alfred Russel Wallace who says: "That theory is most scientific which best explains the whole series of phenomena."

Mr. Drummond makes the strong point of his work through an oversight, or a misinterpretation of an actual fact, viz., he holds