

"Nature Red in Tooth and Claw."

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I WAS walking from Hackington to Canterbury on a hot afternoon in June. An easterly wind was blowing, but the sun was oppressive, notwithstanding the cool air, and, on reaching a sharp turn where a few trees cast their shadows across the road, I was glad to seat myself on a grassy bank. I had not been long seated, when one of those butterflies, called in the uninspired language of British collectors "painted ladies," approached, zigzagging in characteristic fashion. Drawing quite near, with the friendly boldness which is a marked character of the species, it alighted in the sand a few yards from my feet, where it remained four or five seconds, twitching its rosy wings, and then flew over the fence into an adjoining field. After a brief flight it returned to the spot whence it arose. So it continued for some time, flitting to and fro, with no obviously utilitarian purpose attached to its movements. It was neither courting its mate, nor depositing its eggs, but was simply revelling in the hot sunshine, and in the sheltered nook which it had found, where the east wind, so distasteful to butterflies, ceased to affect it.

There were many reasons why I should watch the movements of this insect. It is, as I have said, a bold and friendly little creature, and it is, moreover, truly a "citizen of the world." In England and Algeria, in Eastern Asia and Western California, at the Cape of Good Hope and the Sandwich Islands, it is equally at home. Everywhere it preserves its familiar characteristics, and change of environment does not alter materially either its appearance or its habits. On the occasion, however, to which I allude, my attention was attracted by the gaiety of the insect rather than by its cosmopolitan attributes. As I watched its joyous and playful motions, its keen enjoyment of life, and of the good things around it, I was filled with sympathetic pleasure. Here

was an object which suggested happiness, and which in no way recalled what has been termed the "red-in-tooth-and-claw" aspect of Nature. Ichneumon-flies, insectivorous birds, and all other enemies, were forgotten in the enjoyment of free motion in the glorious sunshine. Considering these things, I was led into a train of reflection on the problem of pain, suffering, and death, existent in all parts of the world, and as that is a vexed question, by which many lovers of Nature are perplexed and even distressed, I shall here set down the conclusion at which I arrived.

Most of my readers know what is meant by the "red-in-tooth-and-claw" aspect of Nature. It is the point of view chosen by a school of Nature-students, who are so deeply impressed by what they deem a waste of life, observed in all parts of the globe, that they regard Nature with something approaching horror, as a scene of intolerable struggle for existence, and of suffering, pain, and death. The principle is, in fact, an intrusion into the field of science of the pessimism which has already found its way into literature and art.

The words used to denote this point of view are taken from "In Memoriam":

"Man, her last work

"Who trusted God was love indeed,
And Love Creation's final law—
Tho' Nature, red in tooth and claw,
With ravine, shriek'd against his creed."

The choice of these words to indicate a philosophical doctrine was not a happy one. If the lines are read in connection with the context in which they are placed, they will be found to express nothing more than intense feeling, inspired by a great sorrow. They were never intended as an expression of a scientific opinion, and they are not to be accepted as such. To compel all Nature-students to look at Nature with the eyes of a mourner, is to emulate the methods of the Greek robber, who made all travellers fit his bed by pulling out those who were too short, and docking those who were too long.

Such considerations, however, affect those only who have adopted the lines for their watchword. Let us consider the underlying principle, which these persons read into them,—namely, that man dare not believe that Creation is governed by the law of love, so long as he sees one animal preying upon another.

It is obvious that this proposition embodies a fallacy. It proposes as a conclusion worthy of our acceptance that the fact that the Creator permits pain, suffering, and death, among His creatures, is conclusive proof that Love is not "Creation's final law." This is too hasty reasoning. No such conclusion can be drawn till it has been proved that pain, suffering, and death are unnecessary, wanton, and cruel. Man himself often has to cause pain which is necessary; why should not the Creator have the like privilege? As it is impossible, with our limited knowledge, to define what is necessary or unnecessary in the economy of the creation, we can base no argument upon the simple statement that Nature is "red in tooth and claw." There is thus an absolute *impasse*, and we might justly discard the principle as logically false; but, waiving this objection for the moment, it seems to me that all the probabilities, in place of being against the accepted creed of Christian nations, are decidedly in its favour. This opinion has been formed from a fair and reasonable construction of acknowledged facts, but is not put forward with any intention of being dogmatic upon a subject, where dogmatism would be absurd.

However little we know of the necessities of the case (and we really know almost nothing), we cannot conceive that, in the circumstances with which we are acquainted, animated Nature could be maintained without a termination of the individual life. In other words, death seems to be a necessity of our present state of existence. Apart from all other considerations, it is obvious that if reproduction continued, and there were no death, the world would soon be a scene of desperate strife for food, drink, and necessaries. There would,

indeed, be a "struggle for existence." All life would be filled with pain and suffering. Of course, there might conceivably have been no reproduction, or life might have been maintained without food, or other conditions might have existed that do not exist. We can say nothing of such conditions. We have to take the facts as we find them. Every living creature brings forth abundantly "after its kind." We must recognize the fact, and allow for its consequences. So far, therefore, as we are in a position to judge, it seems as if a termination of life were a necessity.

Now, if death is a necessity, it does not matter by what agency it comes, whether by failure of the vital powers, by disease, or by violence. It is not the language of a philosopher, to describe one of these as "ravine," which causes Nature to "shriek against our creed," and to accept the others as inevitable. If one is cruel, all are cruel. But this is just the sort of language which is being used. The great point made against the government of Nature is the permission of that violence which induces redness of tooth and claw. We may ask, Is death from the bite of a tooth, or the stroke of a claw, so much more terrible than the ravages of disease, or the slow decay of advancing years? One would assume *a priori* that it is not so. It has at least the advantage of speed. Animals must suffer considerably during a lingering decay of the vital powers. We must further bear in mind that the lower animals exhibit no indication of possessing the faculty of foreboding evil, at least, to the same degree as men do. They have a sense of danger, by means of which they protect themselves from threatened attack, but this sense gives them no uneasiness when danger is not present. It is not death, but the *fear of death*, which causes distress. Animals appear to be absolutely free from fear of impending death. They enjoy life none the less that they are liable, at some moment which they do not anticipate with uneasiness, to be suddenly struck down. The fawn frisks by the watering-place until the tiger makes its fatal spring, while linnets and thrushes sing and fly, cheerfully and

fearlessly, in the immediate vicinity of a sparrow-hawk's nest. Of this fact, and of the total indifference to impending destruction which is displayed by animals of every class, there is abundant evidence in every treatise on natural history.

There are, however, many arguments of a positive character which may be adduced to controvert the depressing conclusions that have been drawn from the "red-in-tooth-and-claw" aspect of Nature. While there is much of which we are entirely ignorant, there is also, happily, a great body of observed facts, as to which there is no dispute. We shall now turn our attention to some of those points.

Most of my readers will probably admit that the proper test of the benignity of the government of Nature is the manner in which it touches the life of the *individual*. In dealing with animated Nature, apart from man, we cannot imagine the individual happiness being deeply affected by the sorrows of the race so long as these remain general. In so far as these sorrows reach the experience of the individual, they are felt; beyond that they are not felt. A man, himself in comfort, will suffer bitter anguish as he perceives the distress of others. Such altruistic feeling is inconceivable on the part of animals. If they have the capacity to entertain it, the fact will influence other lines of thought far more seriously than our present discussion, and therefore we may omit it from our consideration. The present question of happiness or unhappiness is to be tested only as it affects the individual.

The two propositions on the subject can be put quite briefly. The students of the "red-in-tooth-and-claw" school maintain that the peril which overhangs the race dominates the life of the individual, and that life as a whole is miserable. The other aspect of the matter is the reverse of this; the peril which overhangs the race does not appreciably touch the life of the individual, and that life as a whole is happy.

We have just seen that animals treat with the utmost unconcern any danger which is not immediately threatening themselves, however imminent it may be, and however visible

to a human being. If this unconcern is real, and I do not think any naturalist will dispute the fact, then "tooth and claw" will only touch the life of the individual at rare intervals, perhaps not at all. That being so, it is impossible to say that this factor dominates the life of a single living creature, except man, who is excluded from our consideration here. The first part of the proposition put forward by the "red-in-tooth-and-claw" school is clearly incorrect. I think I can show that the second part—that animal life as a whole is miserable—is equally unsound. The world, as Paley said long ago, is "a happy world after all."

In addition to the incident of the painted-lady butterfly, with which I introduced this subject, I have in my notebooks many instances of animals exhibiting the outward signs of enjoyment of life, under circumstances which left no doubt in my mind that the outward appearance coincided with the inward feeling. I shall select three of these, because they are essentially commonplace, and therefore likely to be confirmed by the experience of my readers. Isolated instances occur which are even more impressive, but being outside of experience do not so readily command belief.

I was standing near a field of turnips on a winter afternoon. Part of the field had been fenced with wire-netting, so as to form an enclosure, within which sheep were feeding. A group of the animals had gathered at one end, the movements of which were so remarkable that I paused to observe them. One sheep, which seemed to be the leader, would leap its own height into the air three times, then strike the ground violently with its feet, and race off to the end of the enclosure, followed by the whole of the others. There the motions would be repeated—jump, jump, jump, smack!—and away they would speed back again. They went through this performance over and over again. No schoolboys could have conducted more regularly, or enjoyed more thoroughly, some romping game.

Early in a summer morning I was going to bathe on a hard sandy beach forming the shore of a Northern Firth. Between the beach and the arable land there was a wide stretch of links,

covered with heath, mixed with patches of whins and rough grass. The whin-bushes had that trim look, which indicates the pruning operations of many sharp little teeth. A line of sandhills, from 30 to 40 feet high, thinly clad with bent, separated the links from the beach. Cautiously making my way through a winding cleft which divided two sandhills, I was able by peering between the stems of the bent to overlook a grassy patch, myself unseen. A merry company was there. Scores of rabbits, mostly of the normal shade, but a few jet black, were feeding and playing. Some were nibbling the short grass, others were sitting upright gazing about them; some were chasing one another over the soft, thyme-scented turf, others were darting out of and into the burrows, frisking their white tails as they appeared and disappeared. They were all enjoying life. Of that there was no doubt. Although they were in the midst of many enemies, eager for their life, their pleasure was not one whit abated. They were oblivious of hawks, stoats, weasels, and traps.

The third occasion of which I spoke occurred when I was searching for beetles in the glen of a small stream. It was in a limestone district, and the water of the brook or burn was brilliantly clear. In the deep pools, under rocky banks, overhung with alders and hazel, every pebble at the bottom was visible in its natural colours. Happening to look into one of these basins, I saw about a score of small trout immediately beneath me. They varied in size from 3 to 6 inches. They were gliding with an ease that showed how mere motion in that pellucid element was in itself a pleasure to them. Sometimes they made impetuous rushes, moving all at once, then they would lie motionless, except for the quick beating of their fins and the slight twitching of their tails. Off they would go again, playing around the pool, now in the sunlight in the centre, and then in the shadow at the side, but ever finding existence agreeable and pleasant.

I could multiply such pictures, but it is unnecessary. So far as animals without audible speech can express enjoyment of

life, all living creatures do so. No intelligent observer is ignorant of what they mean. The Nature-students who adopt the "red-in-tooth-and-claw" doctrine are aware of these facts, but they assert that this happiness is blighted by a desperate struggle for existence, which rages in all sections of the animal kingdom, and which leads to suffering, pain, and death. The ichneumon-fly destroys the caterpillar, the dragon-fly devours the ichneumon-fly, the bird snaps up the dragon-fly, the hawk strikes down the bird, and so forth.

There is, of course, a measure of truth in these criticisms. Death is present everywhere, and is often accompanied by suffering. We recognize the truth, but we also recognize our limitations. Our reasonable discussion is bounded by the finite character of our minds. All we can safely say is this—we can conceive that these things may be necessary, we cannot prove that they are not. Meantime, we see with our eyes that the world is, on the whole, filled with living creatures in a state of happy existence, and we hope that a time will come when we shall be able to reconcile those observed facts with the distressing elements which at present seem to be inconsistent with them.

That was a noble creed which was held by the old naturalists, and believing which they made their patient investigations. They believed that the operations of Nature were guided and superintended by a Creator, who always wrought for the well-being and happiness of His creatures, although His ways were often past finding out by our finite intelligence. The Nature-student, who fully appreciates the delight and interest of his study, will not go to "In Memoriam" for his watchword. If he must go to a poet for a confession of faith, let him turn to Coleridge. He will find what he seeks at the close of the "Ancient Mariner":

" He prayeth best, who loveth best
All things both great and small ;
For the dear God Who loveth us,
He made and loveth all."