RECORD: [Butler, S.] 1862. Darwin and the Origin of species. *The Press* (20 December). CUL-DAR226.1.131-2. Transcribed by Christine Chua, edited by John van Wyhe (Darwin Online, http://darwin-online.org.uk/)

REVISION HISTORY: Transcribed by Christine Chua and edited by John van Wyhe 3.2020. RN1.

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[By Samuel Butler, grandson of the Bishop of Lichfield – in Emma Darwin's hand]

1862

DARWIN ON THE ORIGIN OF SPECIES.

A DIALOGUE.

F. So you have finished Darwin? Well, how did you like him.

C. You cannot expect me to like him. He is so hard and logical, and he treats his subject with such an intensity of dry reasoning, without giving himself the loose rein for a single moment from one end of the book to the other, that I must confess I have found it a great effort to read him through.

F. But I fancy, that if you are to be candid, you will admit that the fault lies rather with yourself than with the book. Your knowledge of natural history is so superficial, that you are constantly baffled by terms of which you do not understand the meaning, and in which you consequently lose all interest; I admit, however, that the book is hard and laborious reading; and moreover that the writer appears to have predetermined from the commencement to reject all ornament, and simply to argue from beginning to end, from point to point till he conceived that he had made his case sufficiently clear.

C. I agree with you, and I do not like his book partly on that very account. He seems to have no eye but for the angle point at which he is aiming.

F. But is not that a great virtue in a writer?

C. A great virtue, but a cold and hard one.

F. In my opinion it is a grave and wise one. Moreover I conceive that the judicial calmness which so strongly characterises the whole book, the absence of all passion, the air of extreme and anxious caution which pervades it throughout, are rather the result of training and artificially acquired self-restraint, than symptoms of a cold and unimpasioned [sic] nature. At any rate whether the lawyer like faculty of swearing both sides of a question and attaching the full value to both is acquired or natural in Darwin's case, you will admit that such a habit of mind is essential for any really valuable and scientific investigation.

C. I admit it. Science is all head—she has no heart at all

F. You are right. But a man of science may be a man of other things besides science, and though he may have, and ought to have, no heart during a scientific investigation, yet when he has once come to a conclusion he may be hearty enough I in support of

it, and in his other capacities may be of as warm a temperament as even you can desire.

C. I tell you I do not like the book.

F. May I catechise you a little upon it?

C. To your heart's content.

F. Firstly, then, I will ask, you what is the one great impression that you have derived from reading it? or rather, what do you think to be the main impression that Darwin wanted you to derive?

C. Why I should say some such thing as the following: —
That men are descended from monkeys, and monkeys from something else, and so on back to dogs, and horses, and hedge-sparrows, and pigeons, and cirripedes, (what is a cirripede?) and cheesemites, and then through the plants down to duckweed.

F. You express the prevalent idea concerning the book, which as you express it appears nonsensical enough.

C. How then should you express it yourself?

F. Hand me the book and I will read it to you through from beginning to end, for to express it more briefly than Darwin himself has done is almost impossible.

C. That is nonsense—as you asked mc what impression I derived, from the book, so now I ask you, and I charge you to answer me.

F. Well, I assent to the justice of your demand, but I shall comply with it by requiring your assent to a few principal statements deducible from the work.

C. So be it.

F. You will grant then, firstly, that all plants and animals increase very rapidly, and that unless they were in some manner checked the world would soon be overstocked. Take eats for instance; see with what rapidity they breed on the different runs in this Province where there is little or nothing to check them; or even take the more slowly breeding sheep, and see how soon 500 ewes become 5000; sheep under favourable circumstances. Suppose this sort of thing to go on for a hundred million years or so, and where, would be the standing room for all the different plants and animals that would be now existing, did they not materially check each other's increase, or were they not liable in some way to be checked by other causes. Remember the quail. How plentiful they were until the cats came with the settlers from Europe. Why were they so abundant? Simply because they had plenty to eat, and could get sufficient shelter from the hawks to multiply freely. The cats came, and tussocks stood the poor little creatures in but poor stead. The cats increased and multiplied because they had plenty of food and no natural enemy to check them. Let them wait a year or two till they have materially reduced the larks also, as they have long since reduced the quail, and let them have to depend solely upon occasional dead lambs and sheep, and they will find a certain rather formidable natural enemy called Famine rise slowly but inexorably against them and slaughter them wholesale. The first proposition then to which I demand your assent is— that all plants and animals tend to increase in a high

geometrical ratio; that they all endeavour to get that which is necessary for their own welfare; that, as unfortunately there are conflicting interests in nature, collisions constantly occur between different animals and plants whereby the rate of increase of each species is very materially checked. Do you admit this?

C. Of course: it is obvious.

F. You admit, then, that there is in nature a perpetual warfare of plant, of bird, of beast, of fish, of reptile; that each is striving selfishly for its own advantage, and will get what it wants— if it can.

C. If what?

F. If it can. How comes it then that sometimes it cannot? Simply because all are not of equal strength and the weaker must go to the wall.

C. You seem to gloat over your devilish statement.

F. Gloat or no gloat—is it true or no? I am not one of those

"Who would unnaturally better nature"

"By making out that that which is, is not."

If the law of nature is "struggle" —it is better to look the matter in the face, and adapt yourself to the conditions of your existence. Nature will not bow to you, neither will you mend matters by patting her on the bank and telling her that she is not so black as she is painted. My dear fellow—my dear sentimental friend—do you eat roast beef or roast mutton?

C. Drop that chaff and go back to the matter in hand.

F. To continue then with the cats. Famine comes and tests them, so to speak; the weaker, the less active, the less cunning, and the less enduring cats get killed off, and only the strongest and smartest cats survive; there will be no favoritism shown to animals in a state of nature; they will be weighed in the balance, and the weight of a hair will sometimes decide whether they shall be found wanting or no. This being the case, the cats having been thus naturally culled, and the stronger having been preserved, there will be a gradual tendency to improve manifested among the cats, even as among our own mobs of sheep careful culling tends to improve the flock.

C. This too is obvious.

F. Extend this to all animals and plants, and the same thing will hold good concerning them all. I shall now change the ground and demand assent to another statement. You know that though the offspring of all plants and animals is in the main like the parent, yet that in almost every instance slight deviations occur, and that sometimes there is even considerable divergence from the parent type. It must also be admitted that these slight variations are often, or at least sometimes, capable of being perpetuated by inheritance. Indeed, it is only in consequence of this fact that our sheep and cattle have been capable of so much improvement.

C. I admit this.

F. Then the whole matter lies in a nutshell. Suppose that hundreds and hundreds of millions of years ago there existed

upon this earth a single primordial form of the very lowest life, or suppose that three or four such primordial forms existed. Change of climate, of food, of any of the circumstances which surrounded any member of this first and lowest class of life, would tend to alter it in some slight manner, and the alteration would have a tendency to perpetuate itself by inheritance. Many failures would doubtless occur, but, with the lapse of time, slight deviations would undoubtedly become permanent and inheritable, those alone being perpetuated which were beneficial to individuals in whom they appeared. Repeat the process with each deviation, and we shall again obtain divergencies (in the course of ages) differing more strongly from the ancestral form, and again those that enable their possessor to struggle for existence most efficiently will be preserved. Repeat this process for millions and millions of years, and, as it is impossible to assign any limit to variability, it would seem as though the present diversities of species must certainly have come about sooner or later, and that other divergencies will continue to come about to the end of time. The great agent in this development of life has been competition. This has culled species after species, and secured that those alone should survive which were best fitted for the conditions by which they found themselves surrounded. Endeavour to take a bird's-eye view of the whole matter. See battle after battle, first in one part of the world, then in another, sometimes raging more fiercely and sometimes less; even as in human affairs war has always existed in some part of the world from the earliest known periods, and probably always will exist. While a species is conquering in one part of the world it is being subdued in another, and while its conquerors are indulging in their triumph down comes the fiat for their being culled and drafted out, some to life and some to death, and so forth, ad infinitum.

C. It is very horrid.

F. No more horrid than that you should eat roast mutton or boiled beef.

C. But it is utterly subversive of Christianity; for if this theory is true the fall of man is entirely fabulous; and if the fall, then the redemption, these two being inseparably bound together.

F. My dear friend, there I am not bound to follow you. I believe in Christianity and I believe in Darwin. The two appear irreconcilable. My answer to those who accuse me of inconsistency is, that both being undoubtedly true, the one must be reconcilable with the other, and that the impossibility of reconciling them must be only apparent and temporary, not real. The reconciliation will never be affected by planing a little off the one and a little off the other, and then gluing them together with glue. People will not stand this sort of dealing, and the rejection of the one truth or of the other is sure to follow upon any such attempt being persisted in. The true course is to use the freest candour in the acknowledgment of the difficulty; to estimate precisely its real value, and obtain a correct knowledge of its precise form. Then and then only is there

a chance of any satisfactory result being obtained. For unless the exact nature of the difficulty be known first, who can attempt to remove it? Let me restate the matter once again. All animals and plants in a state of nature are undergoing constant competition for the necessaries of life. Those that can hold their ground hold it: those that cannot hold it are destroyed. But as it also happens that slight changes of habit, of food, of climate, of circumjacent accident, and so forth, produce a slight tendency to vary in the offspring of any plant or animal, it follows that among these slight variations some may be favorable to the individual in whom they appear, and may place him in a better position than his fellows as regards the enemies with whom his interests come into collision. In this case he will have a better chance of surviving than his fellows; he will thus stand also a better chance of continuing the species, and in his offspring his own slight divergence from the parent type will be apt to appear. However slight the divergence, if it be beneficial to the individual, it is likely to preserve the individual, and to re-appear in his offspring, and this process may be repeated ad infinitum. Once grant these two things, and the rest is a mere matter of time and degree. That the immense differences between the camel and the pig should have come about in six thousand years is not believable; but in six hundred million years it is not incredible, more especially when we consider that by the assistance of geology a very perfect chain has been formed between the two. Let this instance suffice. Once grant the principles, once grant that competition is a great power in nature, and that changes of circumstances and habits produce a tendency to variation in the offspring (no matter how slight such variation may be), and unless you can define the possible limit of such variation during an infinite series of generations—unless you can show that there is a limit, and that Darwin's theory oversteps it, you have no right to reject his conclusions. As for the objections to the theory, Darwin has treated them with admirable candour, and our time is too brief to enter into them here. My recommendation to you is that you should read the book again.

C. Thank you; but, for my own part, I confess to caring very little whether my millionth ancestor was a gorilla or no; and as Darwin's book does not please me, I shall hot trouble myself further about the matter.