



Evolution.

Some of its fallacies—The Vermiform Appendix, The Itai-sou d'etre of Rudimentary Organs.

Though the following letter was published in the "Catholic Times" more than six months ago, it contains solidly scientific suggestions which are unaffected by the lapse of time. We call special attention to its necessary reminder that a million "perhapses" cannot make one "therefore;" to its masterly treatment of that unfortunate "appendix," the frequent inflammation of which is such a crux to shallow minds, as if liability to disease were a proof of the uselessness of an organ; and to the skilful handling of the vexed question as to the history of rudimentary organs and muscles. The writer's concluding remarks on our present ignorance and our consequent prudence of an expectant attitude combined with the conviction that true science and true religion cannot contradict each other are in keeping with the wise discernment and wide knowledge of the whole letter.

The Theories of Evolution.

SIR,—In my letter which you were good enough to publish in THE CATHOLIC TIMES of July 2nd I proved on the authority of Professor Max Müller, Mr. Roth, and the experiment of Bishop Salvato at New Nursia, Western Australia, that there was no scientific reliance to be placed on those people who hold with Darwin that there are tribes of men on the earth who have no notion of God and cannot count beyond ten. It is no compliment to his readers, because sheer nonsense, for any writer to maintain that even the most degraded aboriginal of Australia or Africa would consider ten men equal to the whole tribe; or that ten of the tribe would be as numerous as one hundred enemies advancing against them. Bishop Salvato's colony has proved that in one generation the most degraded of savages can be brought to the level of an advanced civilization, instructed about God, taught to count, and trained in trades or complicated employments like telegraphy.

The sudden unfolding of their powers is a complete refutation of the Darwinian folk who theorise about mental evolution wrought out in unthinkable periods of time, through an imaginary development of nerve cells and cerebral cortical substances the nature of which they do not understand. They mistake the organ for the organism. The brain is the instrument—not the player. The brain is the "telephonic exchange," or "telegraphic switch-board," or railway "shunting-yard," where the nerves come in, cross over, and go out, enabling countless complicated messages to enter and depart between the organs of special sense, the muscles, and the various apparatus of the body.

In another letter, appearing in your issue of July 9th, I set forth the many changes on the tune of time which have been rung by geologists during the last hundred years; and as they have been called to order by Lord Kelvin, Professor Saye, and Professor Tait, who make them enormously reduce their time periods, I showed that Catholics cannot accept their theories when those theories are opposed, or apparently opposed, to revelation. Lord Kelvin's estimate of the age of the earth is far nearer the truth than that held by Sir Charles Lyell forty years ago; but the history of all the natural sciences during the last hundred years shows clearly that the theories of to-day will be the ignorances of the end of the twentieth century.

Why, then, should we give up the traditions of the Bible and of the Church in order to swallow an "orthodox evolution" which will be heterodox in less than a hundred years, even if it is not heterodox at the present day? Every intelligent Catholic should be educated in the facts of the principal natural sciences and in enough of those facts to be able to recognise the weak points in the many theories of evolution and

existence put forward by weak-minded thinkers whose philosophy is to imagine that even a million probabilities can make one certainty.

During the long correspondence in your columns on the "theories of evolution," one writer in the issue of April 23rd last asks, "Why, in the name of reason, have we been endowed with organs which, like the 'appendix vermiformis,' are absolutely useless to us, although performing a useful function in the lower animals?" Our possession of these structures can only be explained on the theory of the heredity and descent of our bodies from the lower animals. Then, again, "how, except on this theory of heredity and descent, can we explain why it is that the human fetus during the first couple of months of its existence passes through a series of changes which are represented by permanent stages in the animal kingdom? At an early stage of its existence the structure of that fetus is the structure of a fish and its organs are the organs of a fish."

This, of course, is pure Darwinism and, as no notice has been taken of it in any letter up to the present, perhaps I may be permitted to show the writer that there are other and better explanations of these rudimentary organs than that theory which the Darwinian writers say is the only explanation. Sir William Flower, Curator of the British Museum Natural History Department, speaking at the Newcastle-on-Tyne meeting of the British Association in 1889, said that "too much stress had been laid on these so-called rudimentary organs, and that in his opinion they are the weakest point in the Darwinian argument for descent." As to the "appendix vermiformis" which your correspondent says is useless, Dr. Edward Andrews, in the Journal of the American Medical Association for December 5th, 1896, says, "The appendix is not a functionless organ. It produces every day a quantity of tenacious mucus to lubricate the cecum valve and by thus facilitating the movement of matter prevents impaction in the head of the colon. The current of the tough mucus is outward, hence seeds and other foreign bodies cannot enter the appendix in opposition to the movement as long as the organ is in a healthy state."

Your correspondent then goes on to say that the appendix performs a useful function in the lower animals. This is a wide statement, apt to mislead. Very few animals possess a vermiform appendix, or anything like it. The truth is, it is very rarely found, except in man. It exists only in the highest apes, the wombat, and perhaps in the monotremes. Some authorities in zoology, however, deny that there is really an appendix in either the wombat or the monotremes.

The subject of the so-called rudimentary organs might easily occupy columns of your weekly issue for a twelvemonth without being fully discussed, and then only those of your readers who had an advanced education in the natural sciences could understand what it was all about. But my point will be gained if I show that there is at least another sensible explanation of what they are, as opposed to the Darwinian statement that they have no other explanation than being useless heirlooms from an inconceivable antiquity.

They are not absolutely useless organs, but are the remnants of the mechanism which was needed to build up the being in the first stages of its life, where it has to pass through different grades in order to reach a higher existence. Thus the rudiments in the human heart are well known to the whole medical profession as the remains of a mechanism which was absolutely necessary to guide the blood properly before yet the man began to breathe. The umbilicus is also the remnant of an organ of great value, and which from the nature of the case could never prove descent from the mature animal which possessed it, because its possession in maturity would be an impossibility.

The "human fetus," as your correspondent says, possesses gills and a float bladder, and straight tubed kidneys like a fish, but it is simply because it needs them. All living things need oxygen—a fish gets that oxygen by gills from the element he lives in; the embryo gets its oxygen from the same element by the

looped vessels of its gills until such time as nature provides another means of breathing. The chemical and organic metabolism is different in creatures breathing through gills from those breathing by lungs, and a straight tubed fish kidney is needed to meet that metabolism in a gill breathing animal.

The body is full of groups of rudimentary muscles, and these are simply the remains of the special mechanism by which the body was in great part moulded and worked into shape. Every muscle in the body was employed in its early formation, some were needed only for their first work and dwindled down after it had been fulfilled; these are the so-called rudimentary muscles which the Darwinians say have never been of use to the individual. Darwin made a capital attempt, but he made it far too soon, for it is plain we are only in the beginning of our knowledge of the animal and vegetable worlds. Many long years and many great men will come and pass away before we can be certain that we have really attained a good general idea of the plan and mechanism of organic life. Meantime we can rest assured that true science and true religion never can contradict each other.—Yours, &c.,

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EVOLUTION.

The views of a Catholic Medical Man.

Dr. P. A. Smith, of Glasgow, lectured on Sunday before the members of St. Francis' Young Men's Society, Glasgow, on the much-debated question of Evolution. It is a topic that has claimed close attention from Catholic scientists and theologians, such as Rev. Dr. Zahn and Professor St. George Mivart. Recently in these columns, an able and exhaustive paper on Evolution appeared from the pen of Dr. Colvin. Dr. Smith fearlessly avows his adherence to the Biblical doctrine of a special creation. And this mainly for two reasons: (1) The imperfect, unconvincing and altogether faulty arguments and evidence adduced by Darwin, Huxley, Wallace, and other advocates of the ape theory. (2) The tendency of most theorists to ignore the existence of the human soul. Dr. Smith devoted some time to a comparison of the anatomy of the ape with that of man, and laid especial emphasis on the absence from the evolutionary chain of that "bete noir" of Darwinists,

The Missing Link.

The Catholic Church, the learned doctor declared, is not, as commonly stated, opposed to scientific inquiry and development. The doctrines of the Church are in perfect concord with the ascertained results of scientific research. Nay, more, the Church is the friend and patron of the arts and sciences, and encourages her children in the pursuit of knowledge. What the Church does discontinue is the indiscriminate propagation of flimsy private theories, the growth of unskilled research, faulty reasoning, and agnostic thought. Nowadays, the man-in-the-street has his own pet theory of evolution based on clashing views and wild speculations. There is grave danger in these promiscuous imaginings, subversive, as they are, of the doctrine of Revelation, and therefore incompatible with true Catholicity. The real attitude of the Church on the question has been laid down by Father David, O.S.F., one of the foremost theologians of the day. In the present nebulous and crude state of the evidence in favour of the theory of evolution, it would be highly unwise of any Catholic of light and leading—and exemplar whose lead might be followed—to commit himself to a wholesale acceptance of the teaching of Darwin and Huxley. Let Catholics watch and wait. In due season and in presence of incontrovertible evidence, Holy Church will declare definitely either for or against evolution.

Paris has just sent word to the women of the rest of the world that they are to wear their shoulders sloping. This, the "London Daily News" fashion authority observes, will be disagreeable news to many who have become so habituated to the little eminence on the top of the arms that they cannot fancy themselves looking smart without it.

Osoup, the Great Indian Orator.

Verbatim Report of his speech at the recent Conference in Winnipeg.

Through the kindness of Indian Commissioner Forget the Winnipeg TRIBUNE lately presented an accurate report of the most important speech delivered at the recent Indian Conference. It was spoken in the Sautaux language by Osoup, the great Chief, formerly of the Crooked Lake reserve, now at Pine River. He is over fifty years of age and has been an exemplary practical Catholic for the last fifteen years. The following speech, which was delivered toward the close of the second day's conference and moved the Indians to consolidate the reserves, is well worth rendering as a specimen of Indian oratory and manly sincerity, though we are told that it necessarily loses much of its charm in translation.

Osoup's address to the Indian Commissioner was reported verbatim from Miss McLean's oral interpretation, on the spot. His address to the Indian delegates, being pronounced without interruption, could not be so reported; but Miss McLean, at Commissioner Forget's request, wrote it out from memory and submitted it to Osoup, who still remembered every word he had said and fully approved the present rendering.

Mr. A. E. Forget, introducing Chief Osoup, said he looked upon him as an old friend. He was from the Crooked Lake agency, but was anxious to join the reserve at Pine River. His opinions and thoughts were always worth listening to.

Osoup then came forward and addressing himself to the Indian Commissioner said: "I wish first of all to thank you for the invitation which was extended to me to be present at this conference, which is, as I understand it, a very generous one on the part of the department. I am, as you have said, an old friend of yours, and I hope also of every representative of the government. I have listened to your words this afternoon with even more appreciation than I did yesterday, for though I had a fair idea of what education meant to the Indian children it has been increased very much after our visit to both the St. Boniface and Rupert's Land Industrial schools. There we saw our children perform in entertainments which go very far in showing us how well able the Indian is to compete with the white in learning, not only to be useful, but also entertaining as well. The singing was especially good. But from the tone of some of the arguments which some of the Indians have taken to-day there yet seems something which holds some of them back, which makes them hesitate in accepting this plan which you, as the representative of the department, have laid before us for consideration. To me everything seems easy and I would not hesitate for one moment in accepting your suggestions, but my friends hold back. For that I am sorry. Surely they do not understand what has seemed so clear to me. Now with your permission I will say a few words to them. It is the last chance I shall have before we all return to our reserves."

Turning to the Indians he said: "My friends, in fact I might say now that there are so few of us left, my relations, I have our great chiefs, the commissioner's, permission to say a few words to you before we bid each other good bye, and before we part from him. I am afraid from what some of you have said that when we say our farewells it will be for a long time. It is not likely that we shall meet again upon the invitation of the government when what has seemed so clear to them has not been treated so favorably by some of us this evening.

Now I must begin with what I have to say and I do not want you to think that I am saying anything but what I

honestly believe, after very serious consideration, to be the truth in so far as we are concerned. I am a stranger to most of you here and in justice to myself I must tell you the position I have always taken in any conference at which I have been invited to speak in behalf of our people. It is not the first time I have stood up to express my views on matters of great importance to the Indians. It cannot be said by anyone that I ever swallowed my words after once having spoken them. No; I am never placed in the position of having to retract my opinion once it has been given. And why? Because I think deeply over any matter I undertake to discuss with both the representatives of the government and the Indians, and I am never afraid to say what has to be said.

Now it is surely clear to you all this plan of gathering the Indians on to two large reservations, and you have, I am sure, thoroughly understood the advantages which will follow such an arrangement, for everything has been put clearly to us. And one thing has especially been very plainly explained and shown to us, and that is the very great advantage we enjoy in having our children educated and trained so as to enable them to compete in every way with the white man's child. In the visits we have made to the Industrial schools we have seen what our children can do and how well they are being trained. Surely it is excusable if our hearts are filled with pride at the results of only a few years of training; surely it is reasonable that we should look forward to the time when the Indian nation will be able with the help of the education the children are receiving to do anything which our friends, the white men, can accomplish.

When we were promised schools did we realize what they meant? No; to us they seemed really unnecessary, and only to be the means of separating us from our children. That these partings between parent and child were very hard we well understand, but how many of us understood the great benefits our children received during these absences from home? I am sure none of us did until we saw last night and this morning what our children have learned since they left us. Our children are being educated by the department free of charge and are clothed and fed free of charge too. Is the government doing this because they have money to throw away or is it because they are interested in the future welfare of the Indian? Are the representatives of our great mother, the Queen, giving us all this for nothing? We must all see that the white men gets his children educated so they can not only earn something, but become men and women of whom they as a nation will be proud. I tell you, my friends, that what we are getting for nothing the white men has to pay for. At one time I thought the government could get everything for nothing. Now I know very much better. As a matter of fact they as a government have to pay for all they give. Surely it is plain that the Indian is in every sense of the word the child of the government. But if we are children of the government let us not take advantage of this and act too much like children requiring to be coaxed and humored, having no care for the future.

Our friend, the commissioner, has given us an example of the results accomplished by the gathering-together in one large city—what one time not so very long ago, was only a prairie—of a number of people of many denominations and from many lands. It must be true, as he said, that all these had a home in some land far away, a home which they felt with many a heartache, and after very serious consideration. But it was to their advantage to come out here and leave their old homes. We, in coming to Winnipeg, have but to look around to see what the results have been. Have they forgotten the old home and the friends they left behind? No, I am sure not. But it is very evident to us all that they have not let the sorrow they left and the memories they still retain stand in their way. They have gone ahead and built up a city that is growing larger every year. In our case in leaving our present reservations we are not going into a different country. When we set our nets for instance, will it not be in the very same lake from which we have taken so many fish in the

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