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I.

THE INFLUENCE OF PAGANISM ON POST-
APOSTOLIC CHRISTIANITY.

EVERY reader of early Christian literature, unless wholly prejudiced by his dogmatic views of Christianity, must recognize the inferiority, as exponents of Christian thought, of the literary productions known to have come from the post-apostolic age, to those which form our New Testament. This inferiority is not merely of literary power but of grasp on Christian ideas. When we turn from the New Testament to Clement of Rome or Ignatius, to the unknown author of the so-called Epistle of Barnabas or to Justin Martyr, we pass manifestly from the teaching of masters whose hold on Christian truth is firm and whose view of it is pure and clear to the teaching of disciples whose hold trembles and whose view is partial and dim. In post-apostolic literature the New Testament doctrines are often reproduced in a fragmentary way. They are mixed with other ideas foreign to apostolic Christianity. The latter is unintentionally distorted and misrepresented. The points of view from which the New Testament authors presented their religion had been, it would appear, frequently lost by their successors, so that apostolic phrases were not seldom repeated with changed meanings.

This is quite a different phenomenon from that of the various types of doctrine found in the New Testament itself. It is true that Paul's conception of faith was not identical with that of James nor his presentation of it with that of the Epistle to the Hebrews. We would have had a very incomplete idea of Christ's ministry if the fourth Gospel had not supplemented the synoptic narrative. The New Testament writers had, in short, their individual points of view and doctrinal characteristics. Their mental peculiarities and their

III.

CHARLES DARWIN'S RELIGIOUS LIFE:—A SKETCH IN SPIRITUAL BIOGRAPHY.

THERE was a great deal of discussion in the newspapers, about the time of Mr. Darwin's death, concerning his religious opinions, provoked, in part, by the publication of a letter written by him in 1879 to a Jena student, in reply to inquiries as to his views with reference to a revelation and a future life ; * in part by a report published by Drs. Aveling and Büchner of an interview which they had had with him during the last year of his life. † Of course the appearance of the elaborate *Life and Letters* by his son ‡ has now put an end to all possible doubt as to so simple a matter. Mr. Darwin describes himself as living generally, and more and more as he grew older, in a state of mind which, with much fluctuation of judgment from a cold theism down the scale, never reaching, however, a dogmatic atheism, would be best described as agnosticism. § But the *Life and Letters* does far more for us than merely determine this fact. "In the three huge volumes which are thus put forth to embalm the philosopher's name," as *Blackwood* somewhat flippantly expresses it, "he is observed like one of his own specimens under the microscope, and every peculiarity recorded, for all the world as if a philosopher were as important as a mollusk, though we can scarcely hope that a son of Darwin's would commit himself to such a revolutionary view." || The result of this excessively minute description, and all the more because it is so lacking in proportion and perspective, is that we are put in possession of abundant material

* First published in the *Deutsche Rundschau*, then in the *Separat-Ausgabe* of Professor Haekel's paper: *Die Naturanschauung von Darwin, Goethe, und Lamarck*, p. 60, note 17. Afterward also in English journals; see the *Academy*, Nos. 545, 546, 547, 548.

† *The National Reformer* for October 29th, 1882.

‡ *The Life and Letters of Charles Darwin, including an autobiographical chapter*. Edited by his son, Francis Darwin. In three volumes. London: Murray, 1883. Seventh thousand, revised. All references in the present paper are to this edition.

§ *Life and Letters*, I. 304, written in 1879.

|| *Blackwood's Magazine*, January, 1888, p. 105.

for tracing the evolution of his life and opinions with an accuracy and fulness of detail seldom equalled in the literature of biography. For example, although the book was not written in order to depict Mr. Darwin's "inward life," it is quite possible to arrange out of the facts it gives a fairly complete history of his spiritual changes. And this proves unexpectedly interesting. Such men as Bunyan and Augustine and St. Paul himself have opened to us their spiritual growth from darkness into light, and made us familiar with every phase of the struggle by which a spirit moves upward to the hope of glory. Such a writer as Rousseau lifts for us a corner of the veil that hides from view the depths of an essentially evil nature. But we have lacked any complete record of the experiences of an essentially noble soul about which the shades of doubt are slowly gathering. This it is that Mr. Darwin's *Life* gives us.

No one who reads the *Life and Letters* will think of doubting the unusual sweetness of Mr. Darwin's character. In his school-days he is painted by his fellow-students as "cheerful, good-tempered, and communicative."* At college, we see him, through his companions' eyes, as "the most genial, warm-hearted, generous, and affectionate of friends," with sympathies alive for "all that was good and true," and "a cordial hatred for everything false or vile or cruel or mean or dishonorable"—in a word, as one "pre-eminently good and just and lovable."† A colaborer with him in the high studies of his mature life sums up his impressions of his whole character in equally striking words: "Those who knew Charles Darwin," he says, "most intimately are unanimous in their appreciation of the unsurpassed nobility and beauty of his *whole* character. In him there was no 'other side.' Not only was he the philosopher who has wrought a greater revolution in human thought within a quarter of a century than any man of our time—or, perhaps, of *any* time—but as a man he exemplified in his own life that true *religion*, which is deeper, wider, and loftier than any theology. For this not only inspired him with the devotion to truth, which was the master passion of his great nature, but made him the most admirable husband, neighbor, and master; the genuine lover not only of his fellow-man, but of every creature."‡ Mr. Darwin himself doubted whether the religious sentiment was ever strongly developed in him,§ but this opinion was written in his later years, and the context shows that there is an emphasis upon the word "senti-

* Rev. John Yardley, in the *Modern Review*, July, 1882, p. 504.

† *Life and Letters*, I. 166.

‡ Dr. W. B. Carpenter, in the *Modern Review*, July, 1882, pp. 523, 524.

§ *Life and Letters*, I. 311 (1876).

ment." There was, on the other hand, a truly religious coloring thrown over all his earlier years, and the fruits of religion never left his life. But, nevertheless, there gradually faded out from his thought all purely religious concepts, and there gradually died out of his heart all the higher religious sentiments, together with all the accompanying consolations, hopes, and aspirations. On the quiet stage of this amiable life there is played out before our eyes the tragedy of the death of religion out of a human soul. The spectacle is none the less instructive that it is offered in the case of one before whom we gladly doff our hats in true and admiring reverence.

The first clear glimpse which we get of the future philosopher, as a child, is a very attractive one. He seems to have been sweet-tempered, simple-hearted, conscientious, not without his childish faults, but with a full supply of childish virtues. Here is a pretty picture. Being sent, at about the age of nine years, to Mr. Butler's school, situated about a mile from his home, he often ran home "in the longer intervals between the callings over and before locking up at night. . . . I remember in the early part of my school life," he writes, "that I often had to run very quickly to be in time, and from being a fleet runner, was generally successful; but when in doubt I prayed earnestly to God to help me, and I well remember that I attributed my success to the prayers and not to my quick running, and marvelled how generally I was aided."* Thus, heaven lay about him in his infancy. But he does not seem to have been a diligent student, and his school-life was not altogether profitable; his subsequent stay at Edinburgh was no more so; and before he reached the age of twenty it seemed clear that his heart was not in the profession of medicine to which he had been destined. In these circumstances, his father, who was a nominal member of the Church of England, took a step which seemed from his point of view, no doubt, quite natural; and proposed that his son should become a clergyman.† "He was very properly vehement," the son writes, "against my turning into an idle sporting man"—as if this was a sufficient reason for the contemplated step. The son himself was, however, more conscientious. "I asked for some time to consider," he writes, "as from what little I had heard or thought on the subject, I had scruples about declaring my belief in all the dogmas of the Church of England; though otherwise I liked the thought of being a country clergyman. Accordingly, I read with care 'Pearson on the Creed,' and a few other books on divinity; and as I did not then in the least doubt the strict and literal truth of

* *Life and Letters*, I. 31.

† *Ibid.*, I. 45.

every word in the Bible, * I soon persuaded myself that our Creed must be literally accepted." †

This step led to residence at Cambridge, where, however, again the time was mostly wasted. The influences under which he there fell, moreover, were not altogether calculated to quicken his reverence for the high calling to which he had devoted himself. "The way in which the service was conducted in chapel shows that the dean, at least, was not over zealous. I have heard my father tell" (it is Mr. Francis Darwin who is writing) "how at evening chapel the dean used to read alternate verses of the Psalms, without making even a pretence of waiting for the congregation to take their share. And when the Lesson was a lengthy one, he would rise and go on with the Canticles, after the scholar had read fifteen or twenty verses." ‡ Nor were his associates at Cambridge always all that could be desired: from his passion for sport he "got into a sporting set, including some dissipated, low-minded young men," with whom he spent days and evenings of which he afterward felt ashamed. § Fortunately, he had other companions also of a higher stamp, || and among them pre-eminently Professor Henslow, who united in his own person the widest scientific learning and the deepest piety, and with whom he happily became quite intimate, gaining from him "more than he could express." ¶ Best of all, Henslow was accustomed to let his light shine, and talked freely "on all subjects, including his deep sense of religion." ** Accordingly, as we are not surprised to learn, it was with him that Mr. Darwin wished to read divinity. †† Not that he was even now ready to enter with spirit upon his preparation for his future work. A touching letter to his friend Fox, written in 1829, on the occasion of the death of the latter's sister, shows that his heart at this time knew somewhat of the consolations of Christianity. "I feel most sincerely and deeply for you," he writes, "and all your family; but at the same time, as far as any one can, by his own good principles and religion, be supported under such a misfortune, you, I am assured, will know where to look for such support. And after so pure and holy a comfort as the Bible affords, I am equally assured how useless the sympathy of all friends must appear, although it be as heartfelt and sincere as I hope you believe me capable of feeling." ††† But he still had conscientious scruples about taking Orders.

* An interesting indication that in Mr. Darwin's mature judgment the Bible does teach the doctrines of the Creed.

† *Life and Letters*, I. 45.

‡ *Ibid.*, I. 165.

§ *Ibid.*, I. 48.

|| *Ibid.*, I. 49.

¶ *Ibid.*, I. 188.

** *Ibid.*, I. 188.

†† *Ibid.*, I. 171.

††† *Ibid.*, I. 177.

A fellow-student writes (1829): "We had an earnest conversation about going into Holy Orders; and I remember his asking me with reference to the question put by the Bishop in the ordination service, 'Do you trust that you are inwardly moved by the Holy Spirit,' etc., whether I could answer in the affirmative, and on my saying I could not, he said: 'Neither can I, and therefore I cannot take Orders.'" * And certainly the lines of his intellectual interest were cast elsewhere. Only under the pressure of his approaching examinations was he led to anything like professional study. On such occasions, however, he showed that his mind was open to impression. "In order to pass the B.A. examination," he writes, "it was also necessary to get up Paley's 'Evidences of Christianity' and his 'Moral Philosophy.' This was done in a thorough manner, and I am convinced that I could have written out the whole of the 'Evidences' with perfect correctness, but not, of course, in the clear language of Paley. The logic of this book, and I may add, of his 'Natural Theology,' gave me as much delight as did Euclid. The careful study of these works, without attempting to learn any part by rote, was the only part of the academical course which, as I then felt and as I still believe, was of the least use to me in the education of my mind. I did not at that time trouble myself about Paley's premises; and taking them on trust, I was charmed and convinced by the long line of argumentation." † Despite such occasional pleasure in his work, when, on leaving Cambridge, the offer of a place in the Beagle expedition came, and his father objected to his taking it that his proper clerical studies would be interrupted, Josiah Wedgewood was able to argue: "If I saw Charles now absorbed in professional studies, I should probably think it would not be advisable to interrupt them; but this is not, and I think will not be the case with him. His present pursuit of knowledge is in the same track as he would have to follow in the expedition." ‡ By this representation, his father's consent was obtained, although, with that long-sighted wisdom which his son always regarded as his distinguishing characteristic, he "considered it as again changing his profession." § And so, indeed, it proved. Mr. Darwin's estimate of the sacredness of a clergyman's office improved somewhat above what it was when he was ready to undertake it, if he could sign the Creed, because the life of a country clergyman offered advantages in a sporting way. || He writes in 1835 to his friend Fox, almost sadly: "I dare hardly look forward to the future, for I do not know what

* *Life and Letters*, I. 171.

§ *Ibid.*, I. 197.

† *Ibid.*, I. p. 47.

|| *Ibid.*, I. 45.

‡ *Ibid.*, I. 199.

will become of me. Your situation is above envy ; I do not venture even to frame such happy visions. To a person fit to take the office, the life of a clergyman is a type of all that is respectable and happy." * But though, perhaps because, his feeling toward the clerical office had grown to be so high, he no longer thought of entering it. He writes in his Autobiography, that this intention "was never formally given up, but died a natural death, when on leaving Cambridge I joined the *Beagle* as naturalist." †

The letter to Fox which has just been quoted is a sufficient indication that it was not his Christian faith, but only his intention of taking Orders that was dying out during the course of his five years' cruise. Other like indications are not lacking. ‡ We are, therefore, not surprised to read that, "while on board the *Beagle* I was quite orthodox, and I remember being heartily laughed at by some of the officers (though themselves orthodox) for quoting the Bible as an unanswerable authority on some point of morality." § Nevertheless, his defection from Christianity was during these years silently and, as it were, negatively preparing in the ever-increasing completeness of his absorption in scientific pursuits, by which he was left little time for or interest in other things. And on his return to England, the working up of the immense mass of material which he had collected during his voyage claimed his attention even more exclusively than its collection had done. Thus he was given occasion to occupy himself so wholly with science that there was not only no time left to think of his former intention of entering the ministry—there was little time left to remember that there was a soul within him or a future life beyond the grave. Readers of the sad account which Mr. Darwin appended at the very end of his life || (1881) to his Autobiographical notes, of how at about the age of thirty or thereabouts his higher æsthetic tastes began to show atrophy, so that he lost his love for poetry, art, music, and his mind more and more began to take upon it the character of a kind of machine for grinding general laws out of large collections of facts, will not be able to resist the suspicion that this exclusive direction to one type of thinking was really, as he himself believed, injurious to his intellect as well as enfeebling to his emotional nature, and lay at the root of his subsequent drift away from religion.

It was an ominous conjunction, that simultaneously with the early progress of this "curious and lamentable loss of the higher æsthetic

* *Life and Letters*, I. 262.

† *Ibid.*, I. 45.

‡ Compare his words of appreciation of missionary work, *ibid.*, p. 264. See also I. 246.

§ *Life and Letters*, I. 307, 308.

|| *Ibid.*, I. pp. 100 sq.

tastes," a more positive influence was entering his mind which was destined most seriously to modify his thought on divine things. "In July, 1837," he tells us, "I opened my first note-book for facts in relation to the Origin of Species, about which I had long reflected." * The change that was passing over his views as to the manner in which species originate is illustrated by his biographer by the quotation of a passage from his manuscript *Journal*, written in 1834, in which he freely speaks of "creation," which was omitted from the printed *Journal*, the proofs of which were completed in 1837—a fact which "harmonizes with the change we know to have been proceeding in his views." † We raise no question as to the compatibility of the Darwinian form of the hypothesis of evolution with Christianity; Mr. Darwin himself says that "science" (and in speaking of "science" he has "evolution" in mind) "has nothing to do with Christ, except in so far as the habit of scientific research makes a man cautious in admitting evidence." ‡ But if we confine ourselves to Mr. Darwin's own personal religious history, it is very clear that, whether on account of a peculiarity of constitution or by an illogical train of reasoning or otherwise, as he wrought out his theory of evolution, he gave up his Christian faith—nay, that his doctrine of evolution directly expelled his Christian belief. How it operated in so doing it is not difficult dimly to trace. He was thoroughly persuaded (like Mr. Huxley§) that, in its plain meaning, Genesis teaches creation by immediate, separate, and sudden fiat of God for each several species. And as he more and more convinced himself that species, on the contrary, originated according to natural law, and through a long course of gradual modification, he felt ever more and more that Genesis "must go." But Genesis is an integral part of the Old Testament, and with the truth and authority of the Old Testament the truth and authority of Christianity itself is inseparably bound up. Thus, the doctrine of evolution once heartily adopted by him gradually undermined his faith, until he cast off the whole of Christianity as an unproved delusion. The process was neither rapid nor unopposed. He speaks of his unwillingness to give up his belief and of the slow rate at which unbelief crept over him, although it became at last complete. || Drs. Büchner and Aveling report him as assigning the age of forty years (1849) as the date of the completion of the process. ¶ Of course, other arguments came gradually to the support of the original disturbing cause, to strengthen him in his new position, until his former

* *Life and Letters*, I. 68. † *Ibid.*, II. 1. ‡ *Ibid.*, I. 307. § *Ibid.*, II. 181.
 || *Ibid.*, I. 309. ¶ *National Reformer*, October 29th, 1882.

acceptance of Christianity became almost incredible to him. A deeply interesting account is given of the whole process in the *Autobiography*.* "During these two years," he says—meaning the years when his theory of evolution was taking shape in his mind—"I was led to think much about religion. . . . I had gradually come by this time—*i.e.*, 1836 to 1839—to see that the Old Testament was no more to be trusted than the sacred books of the Hindoos. The question then continually rose before my mind, and would not be banished, Is it credible that if God were now to make a revelation to the Hindoos, he would permit it to be connected with the belief in Vishnu, Siva, etc., as Christianity is connected with the Old Testament? This appeared to me utterly incredible." Here is the root of the whole matter. His doctrine of evolution had antiquated for him the Old Testament record; but Christianity is too intimately connected with the Old Testament to stand as divine if the Old Testament be fabulous. Certainly, if the premises are sound, the conclusion is inevitable. Only both conclusion and premises must shatter themselves against the fact of the supernatural origin of Christianity. Once the conclusion was reached, however, bolstering arguments, pressing directly against Christianity, did not fail to make their appearance: the difficulty of proving miracles, their antecedent incredibility, the credulity of the age in which they profess to have been wrought, the unhistorical character of the Gospels, their discrepancies, man's proneness to religious enthusiasm†—arguments, all of them, drawn from a sphere in which Mr. Darwin was not a master, and all of them, in reality, after-thoughts called in to support the doubts which were already dominating him. How impervious to evidence he at last became is naïvely illustrated by the words with which he closes his account of how he lost his faith. He says he feels sure that he gave up his belief unwillingly: "For I can well remember often and often inventing day-dreams of old letters between distinguished Romans and manuscripts being discovered at Pompeii or elsewhere which confirmed in the most striking manner all that was written in the Gospels. But I found it more and more difficult, with free scope given to my imagination, to invent evidence which would suffice to convince me."‡ When a man has reached a stage in which no conceivable historical evidence could convince him of the actual occurrence of a historical fact, we may

* *Life and Letters*, I. 307-309.

† See them in full, *Life and Letters*, I. 308. It is interesting to observe that they all circle around miracles, evincing that Mr. Darwin found difficulty in persuading himself that these miracles did not take place.

‡ *Life and Letters*, I. 308, 309.

cease to wonder that the almost inconceivable richness of the actual historical evidence of Christianity was insufficient to retain his conviction. He ceases to be a judge of the value of evidence ; and that he has resisted it is no proof that it is resistible ; it is only an evidence of such induration of believing tissue on his part that it is no longer capable of responding to the strongest reagents.

Here, then, approximately at the age of forty, we have reached the end of one great stage of Mr. Darwin's spiritual development. He was no longer a Christian ; he no longer believed in a revelation. We see the effect in the changed tone of his speech. Mr. Brodie Innis reports him as saying that he did not attack Moses, and that he could not remember that he had ever published a word directly* against religion or the clergy.† But in his private letters of this later period he certainly speaks with scant respect of Genesis ‡ and the clergy,§ if not also of religion,|| and he even gradually grew somewhat irreverent in his use of the name of God. We see the effect still more sadly in his loss of the consolations of religion. It is painful to compare his touching, if somewhat formal and shallow, letter of condolence to his friend Fox, written in 1829, which we have already quoted, with the hopeless grief of later letters of similar origin. He lost a daughter whom he tenderly loved in 1851, and his "only consolation was that she passed a short though joyous life."¶ When Fox lost a child in 1853, his only appeal is to the softening influence of the passage of time. "As you must know," he writes him, "from your own most painful experiences, time softens and deadens, in a manner truly wonderful, one's feelings and regrets. At first, it is indeed bitter. I can only hope that your health and that of poor Mrs. Fox may be preserved, and that time may do its work softly, and bring you all together once again as the happy family which, as I can well believe, you so lately formed."** What a contrast with "the pure and holy comfort afforded by the Bible!" Already he was learning the grief of those who "sorrow as the rest who have no hope." Whether his habitual neglect of the Sunday rest and of the ordinances of religion was another effect of the same change it is impossible to say, in our ignorance of his habits previous to the loss of his Christian faith. But throughout the whole period of his life at Down, we are told, "week days and Sundays passed by alike, each with their stated intervals of work and rest," while his visits to the church were confined to a few rare occasions of weddings and funerals.††

* Note the word "directly."

† *Life and Letters*, II. 288.

‡ *Ibid.*, II. 152.

§ *Ibid.*, I. 340.

|| *Ibid.*, II. 143.

¶ *Ibid.*, I. 380.

** *Ibid.*, I. 388 ; compare III. 39, note †, written in 1863.

†† *Ibid.*, I. 127, 128.

But the loss of Christianity did not necessarily mean the loss of religion, and, as a matter of fact, in yielding up revealed, Mr. Darwin retained a strong hold upon natural religion. There were yet God, the soul, the future life. The theory which he had elaborated as a sufficient account of the differences that exist between the several kinds of organic beings, including man, was, however, destined to work havoc in his mind with even the simplest tenets of natural religion. Again we raise no question as to whether this drift was inevitable; it is enough for our present purpose that in Mr. Darwin's case it was actual.* To understand how this was so, it is only necessary for us to remember that he had laid hold upon "natural selection" as the *vera causa* and sufficient account of all organic forms. His conception was that every form may vary indefinitely in all directions, and that every variation which is a gain to it in adaptation to its surroundings is necessarily preserved by that very fact through the simple reaction of the surroundings upon the struggle for existence. Any divine guidance of the direction of the variation seemed to him as much opposed to the one premise of the theory as any divine interference with the working of natural selection seemed to be opposed to the other; and he included all organic phenomena, as well mental and moral as physical, in the scope of this natural process. Thus to him God became an increasingly unnecessary and therefore an increasingly incredible hypothecation.

The seriousness of this drift of thought makes it worth while to illustrate it somewhat in detail. During the whole time occupied in collecting material for and in writing the *Origin of Species* Mr. Darwin was a theist,† or, as he expressed it on one occasion: "Many years ago, when I was collecting facts for the 'Origin,' my

* In the case of many others it has not proved inevitable, as, *e.g.*, in the case of Dr. W. B. Carpenter, whose opinion is worth quoting here, because his general conception of the relation of God to the universe seems to be very similar to what Mr. Darwin's originally was. "To myself," he writes, in an interesting paper on *The Doctrine of Evolution in its Relations to Theism* (*Modern Review*, October, 1882, p. 655), "the conception of a continuity of action which required no departure to meet special contingencies, because the plan was all-perfect from the beginning, is a far higher and nobler one than that of a succession of interruptions. . . . And, in describing the process of evolution in the ordinary language of Science, as due to 'secondary causes,' we no more dispense with a First Cause than we do when we speak of those Physical Forces which, from a Theistic point of view, are so many diverse modes of manifestation of one and the same Power. Nor do we in the least set aside the idea of an original Design when we regard these adaptations which are commonly attributed to special exertions of continuing power and wisdom as the outcome of an all-comprehensive Intelligence which foresaw that the product would be 'good,' before calling into existence the germ from which it would be evolved."

† *Life and Letters*, I. 313.

belief in what is called a personal God was as firm as that of Dr. Pusey himself." * The rate at which this firm belief passed away was slow enough for the process to occupy several years. He tells us that his thought on such subjects was never profound or long-continued. † This was certainly not the fault, however, of his friends, for from the first publication of his development hypothesis, they plied him with problems that forced him to face the great questions of the relation of his views to belief in God and his modes of activity. We get the first glimpse of this in his correspondence with Sir Charles Lyell. That great geologist had suggested that we must "assume a primeval creative power" acting throughout the whole course of development, though not uniformly, in order to account for the supervening, say, of man at the end of the series. To this Mr. Darwin replies with a decided negative. "We must under present knowledge," he wrote, "assume the creation of one or of a few forms in the same manner as philosophers assume the existence of a power of attraction without any explanation. But I entirely reject, as in my judgment quite unnecessary, any subsequent addition 'of new powers and attributes and forces,' or of any 'principle of improvement,' except in so far as every character which is naturally selected or preserved is in some way an advantage or improvement; otherwise it would not have been selected. If I were convinced that I required such additions to the theory of natural selection, I would reject it as rubbish. . . . If I understand you, the turning-point in our difference must be, that you think it impossible that the intellectual powers of a species should be much improved by the continued natural selection of the most intellectual individuals. To show how minds graduate, just reflect how impossible every one has found it to define the difference in mind of man and the lower animals; the latter seem to have the very same attributes in a much lower stage of perfection than the lowest savage. I would give absolutely nothing for the theory of Natural Selection, if it requires miraculous additions at any one stage of descent. I think Embryology, Homology, Classification, etc., show us that all vertebrata have descended from one parent; how that parent appeared we know not. If you admit, in ever so little a degree, the explanation which I have given of Embryology, Homology, and Classification, you will find it difficult to say, Thus far the explanation holds good but no further; here we must call in 'the addition of new creative forces.'" ‡ A few days later he wrote again: "I have reflected a

* *Life and Letters*, III. 236 (1878).

† See *e.g.*, I. 305, 306 (1871).

‡ *Ibid.*, II. 210-12, written October 11th, 1859.

good deal on what you say on the necessity of continued intervention of creative power. I cannot see this necessity; and its admission, I think, would make the theory of Natural Selection valueless. Grant a simple archetypal creature, like the mud-fish or lepidosiren, with the five senses and some vestige of mind, and I believe natural selection will account for the production of every vertebrate animal."*

Let us weigh well the meaning to Mr. Darwin's own thought of these strong assertions of the competency of natural selection to "account" for every distinguishing characteristic of living forms. It meant to him, first, the assimilation of the human mind, in its essence, with the intelligence of the brutes; and this meant the elimination of what we ordinarily mean by "the soul." He only needed to have given "the five senses and some vestige of mind" such as exists, for instance, in the mud-fish, to enable him by natural selection alone, with the exclusion of all "new powers and attributes and forces," to account for the mental power of Newton, the high imaginings of Milton, the devout aspirations of a Bernard. How early he consciously formulated the extreme form of this conclusion it is difficult to say; but we find him in 1871 thanking Mr. Tylor for giving him new standing ground for it: "It is wonderful how you trace animism from the lower races up to the religious belief of the highest races. It will make me for the future look at religion—a belief in the soul, etc.—from a new point of view."† Accordingly, the new view was incorporated in the *Descent of Man*, published that same year.‡ And Dr. Robert Lewins seems quite accurately to sum up the ultimate opinion which he attained on this subject in the following words:

"Before concluding, I may, without violation of any confidence, mention that, both *viva voce* and in writing, Mr. Darwin was much less reticent to myself than in his letter to Jena. For in answer to the direct question I felt myself justified, some years since, in addressing that immortal expert in biology as to the bearing of his researches on the existence of an *anima*, or soul in man, he distinctly stated that, in his opinion, a vital or 'spiritual' principle, apart from inherent somatic energy, had no more *locus standi* in the human than in the other races of the animal kingdom; a conclusion that seems a mere corollary of or, indeed, a position tantamount with his essential doctrine of human and bestial identity of nature and genesis."§

It was but a corollary to loss of belief in a soul, secondly, to lose belief also in immortality. If we are one with the brutes in origin, why not also in destiny? Mr. Darwin thought it "base" in his opponents "to drag in immortality," in objection to his theories;|| but

* *Life and Letters*, II. 174. † *Ibid.*, III. 151. ‡ *The Descent of Man*, I. pp. 62 sq.
§ *Journal of Science*. || *Life and Letters*, II. 228.

in his own mind he was allowing his theories to push immortality out. His final position as to the future of man he gives in an interesting passage in the Autobiographical notes, written in 1876. He speaks there of immortality as a "strong and instinctive belief," but also of the "intolerableness" of the thought that the more perfect race of the future years shall be annihilated by the gradual cooling of the sun, pathetically adding: "To those who fully admit the immortality of the human soul the destruction of our world will not appear so dreadful." * Accordingly, when writing to the Jena student in 1879, after saying that he did not believe that "there ever had been a revelation," he adds: "As for a future life, every man must judge for himself between conflicting, vague probabilities." † Thirdly, his settled conviction of the sufficiency of natural selection to account for all differentiations in organic forms deeply affected Mr. Darwin's idea of God and of his relation to the world. His notion at this time (1859), while theistic, appears to have been somewhat crassly deistic. He seems never to have been able fully to grasp the conception of divine immanence; but from the opening of his first note-book on Species ‡ to the end of his days he gives ever-repeated reason to the reader to fear that the sole conceptions of God in his relation to the universe which were possible to him were either that God should do all things without second causes, or, having ordained second causes, should sit outside and beyond them and leave them to do all things without him. Beginning with this deistic conception, which pushed God out of his works, it is perhaps not strange that he could never be sure that he saw him in his works; and when he could trace effects to a "natural cause" or group a body of phenomena under a "natural law," this seemed to him equivalent to disproving the connection of God with them. § The result

* *Life and Letters*, I. 312.

† *Ibid.*, I. 307.

‡ *Ibid.*, II. 9 (1837).

§ We have seen that Dr. W. B. Carpenter refuses to be held in Mr. Darwin's logic, although with him holding to a somewhat deistic conception of the divine relation to the process of development. "Attach what weight we may to the *physical* causes which have brought about this Evolution," he insists, "I cannot see how it is possible to conceive of any but a Moral Cause for the endowments that made the primordial germ susceptible of their action" (*l. c.* p. 680). "And in the so-called *laws* of Organic Evolution I see nothing but the orderly and continuous working-out of the original Intelligent Design" (p. 681). Dr. Dallinger also begins with a similar conception (comparing God's relation to the universe to the relation to his work of a machinist who constructs a calculating machine to throw numbers of one order for a given time and then introduce suddenly a new series, "by prevised and preordained arrangement"), and yet refuses the conclusion. "Evolution," he argues, "like gravitation, is only a method; and the self-adjustments demonstrated in the 'origin of species' only make it to reason the clearer that variation and survival is a method that takes its origin in mind. It is true that the egg of a moth and the eye of a dog-fish and the forearm of a tiger *must* be what they

was that the theistic proofs gradually grew more and more meaningless to him, until, at last, no one of them carried conviction to his mind.

Sir Charles Lyell was not left alone in his efforts to clarify Mr. Darwin's thinking on such subjects; soon Dr. Asa Gray took his place by his side and became at once the chief force in the endeavor. Nevertheless, Mr. Darwin outlines already in a letter to Lyell in 1860* the arguments by which he stood unto the end. "I must say one word more," he writes, "about our quasi-theological controversy about natural selection. . . . Do you consider that the successive variations in the size of the crop of the pouter pigeon, which man has accumulated to please his caprice, have been due to 'the creative and sustaining powers of Brahma?' In the sense that an omnipotent and omniscient Deity must order and know everything, this must be admitted; yet in honest truth I cannot admit it. It seems preposterous that a maker of a universe should care about the crop of a pigeon solely † to please man's silly fancies. But if you agree with me in thinking such an interposition of the Deity uncalled for, I can see no reason for believing in such interpositions in the case of natural beings, in which strange and admirable peculiarities have been naturally selected for the creatures' own benefit. Imagine a pouter in a state of nature, wading into the water, and then, being buoyed up by its inflated crop, sailing about in search of food. What admiration this would have excited—adaptation to the laws of hydrostatic pressure, etc. For the life of me, I cannot see any difficulty in natural selection producing the most exquisite structure, *if such structure can be arrived at by gradation*, and I know from experience how hard it is to name any structure toward which at least some gradations are not known. P. S.—The conclusion at which I have come, as I have told Asa Gray, is that such a question as is touched on in this note is beyond the human intellect, like 'predestination and free-will' or the 'origin of evil.'" There is much confused thought in this letter; but it concerns us now only to note that Mr. Darwin's difficulty arises on the one side from his inability to conceive of God as immanent in the universe and his consequent total misapprehension of the nature

are to accomplish the end of their being. But that only shows, as we shade our mental eyes and gaze back to the beginning, the magnificence of the design that was *involved* in nature's beginning, so as to be *evolved* by the designed rhythm of nature's methods." See the whole passage in his eloquent Fernley lecture for 1887, on *The Creator and what we may Know of the Method of Creation* (London: T. Woolner), pp. 61 sq.

* *Life and Letters*, II. 303, 304.

† How much of the argument depends on this word!

of divine providence, and on the other from a very crude notion of final cause which posits a single extrinsic end as the sole purpose of the Creator. No one would hold to a doctrine of divine "interpositions" such as appears to him here as the only alternative to divine absence. And no one would hold to a teleology of the raw sort which he here has in mind—a teleology which finds the end for which a thing exists in the misuse or abuse of it by an outside selecting agent. Mr. Darwin himself felt a natural mental inability for dealing with such themes, and accordingly wavered long as to the attitude he ought to assume toward the evidences of God's hand in nature. Thus he wrote in May, 1860, to Dr. Gray: "With respect to the theological view of the question. This is always painful to me. I am bewildered. I had no intention to write atheistically. But I own that I cannot see as plainly as others do, and as I should wish to do, evidence of design and beneficence on all sides of us. There seems to me too much misery in the world. I cannot persuade myself that a beneficent and omnipotent God would have designedly created the *ichneumonidæ* with the express intention of their feeding within the living bodies of caterpillars, or that a cat should play with mice. Not believing this, I see no necessity in the belief that the eye was expressly designed. On the other hand, I cannot anyhow be contented to view this wonderful universe, and especially the nature of man, and to conclude that everything is the result of brute force. I am inclined to look at everything as resulting from designed laws, with the details, whether good or bad, left to the working out of what we may call chance. Not that this notion *at all* satisfies me. I feel most deeply that the whole subject is too profound for the human intellect. A dog might as well speculate on the mind of Newton. Let each man hope and believe what he can. Certainly I agree with you that my views are not at all necessarily atheistical. The lightning kills a man, whether a good one or a bad one, owing to the excessively complex action of natural laws. A child (who may turn out to be an idiot) is born by the action of even more complex laws, and I can see no reason why a man or other animal may not have been aboriginally produced by other laws, and that all these laws may have been expressly designed by an omniscient creator, who foresaw every future event and consequence. But the more I think the more bewildered I become, as, indeed, I have probably shown by this letter."*

The reasoning of this extract, which supposes that the fact that a result is secured by appropriate conditions furnishes ground for regarding it as un-

* *Life and Letters* II. 312

designed, is less suitable to a grave thinker than to a redoubtable champion like Mr. Allan Quartermain, who actually makes use of it. "At last he was dragged forth uninjured, though in a very pious and prayerful frame of mind," he is made to say of a negro whom he had saved by killing an attacking buffalo; "his 'spirit had certainly looked that way,' he said, or he would now have been dead. As I never like to interfere with true piety, I did not venture to suggest that his spirit had deigned to make use of my eight-bore in his interest." * Dr. Gray appears to have rallied his correspondent in his reply, on his notion of an omniscient and omnipotent creator, foreseeing all future events and consequences, and yet not responsible for the results of the laws which he ordains. At all events, Mr. Darwin writes him again in July of the same year: "One word more about 'designed laws' and 'undesigned results.' I see a bird which I want for food, take my gun and kill it—I do this *designedly*. An innocent and good man stands under a tree and is killed by a flash of lightning. Do you believe (and I really should like to hear) that God *designedly* killed this man? Many or most people do believe this; I can't and don't. If you believe so, do you believe that when a swallow snaps up a gnat that God designed that that particular swallow should snap up that particular gnat at that particular instant? I believe that the man and the gnat are in the same predicament. If the death of neither man nor gnat are designed, I see no good reason to believe that their *first* birth or production should be necessarily designed." † We read such words with almost as much bewilderment as Mr. Darwin says he wrote them with. It is almost incredible that he should have so inextricably confused the two senses of the word "design"—so as to confound the question of intentional action with that of the evidences of contrivance, the question of the existence of a general plan in God's mind, in accordance with which all things come to pass, with that of the existence of marks of his hand in creation arising from intelligent adaptation of means to ends. It is equally incredible that he should present the case of a particular swallow snapping up a particular gnat at a particular time as (to use his own word) "a poser," when he could scarcely have already forgotten that all Christians, at least, have long since learned to understand that the care of God extends as easily to the infinitely little as to the infinitely great; that the very hairs of our head are numbered, and not one sparrow falls to the

* Dr. Flint seriously refutes this strange reasoning, which he justly speaks of as "irrational," and only explicable in "sane minds" from the exigencies of foregone conclusions, in his *Theism*, Lecture VI. (pp. 189 sq.).

† *Life and Letters*, I. 314, 315.

ground unnoted by our Heavenly Father. Yet this seems to him so self-evidently unbelievable, that he rests his case against God's direction of the line of development—for this is really what he is arguing against here—on its obvious incredibility.

And he found it impossible to shake himself free from his confusion. In November of the same year he wrote again to Dr. Gray: "I grieve to say that I cannot honestly go as far as you go about Design. I am conscious that I am in an utterly hopeless muddle. I cannot think that the world, as we see it, is the result of chance; and yet I cannot look at each separate thing as the result of Design. To take a crucial example, you lead me to infer that you believe 'that variation has been led along certain beneficent lines.' I cannot believe this; and I think you would have to believe that the tail of the fantail was led to vary in the number and direction of its feathers in order to gratify the caprice of a few men. Yet if the fantail had been a wild bird, and had used its abnormal tail for some special end, as to sail before the wind, unlike other birds, every one would have said, 'What a beautiful and designed adaptation!' Again, I say I am and shall remain in a hopeless muddle." * The reader is apt to ask in wonder if we would not be right in thinking the fantail's tail a "beautiful and designed adaptation," under the circumstances supposed? Mr. Darwin actually falls here into the incredible confusion of adducing a perversion by man of the laws of nature, by which an animal is unfitted for its environment, as an argument against the designed usefulness of these laws in fitting animals to their environment. We might as well argue that Jael's nail was not designedly made because it was capable of being adapted to so fearful a use; that the styles of Cæsar's assassins could not have been manufactured with a useful intention. Nevertheless, in June, 1861, Mr. Darwin writes again to Dr. Gray: "I have been led to think more on this subject of late, and grieve to say that I come to differ more from you. It is not that designed variation makes, as it seems to me, my deity of Natural Selection superfluous, but rather from studying lately domestic variation, and seeing what an enormous field of undesigned variability there is ready for natural selection to appropriate for any purpose useful to each creature." † And about a week later he writes to Miss Julia Wedgewood: "Owing to several correspondents, I have been led lately to think, or rather to try to think, over some of the chief points discussed by you. But the result has been with me a maze—something like thinking on the origin of evil, to which you allude. The mind re-

* *Life and Letters*, II. 353, 354.

† *Ibid.*, II. 373.

fuses to look at this universe, being what it is, without having been designed; yet where one would most expect design—viz., in the structure of a sentient being, the more I think on the subject, the less I can see proof of design. Asa Gray and some others look at each variation (which Asa Gray would compare with the rain-drops which do not fall on the sea, but on to the land to fertilize it *) as having been providentially designed. Yet when I ask him whether he looks at each variation of the rock-pigeon, by which man has made, by accumulation, a pouter or fantail pigeon, as providentially designed for man's amusement, he does not know what to answer; and if he, or any one, admits [that] these variations are accidental, as far as purpose is concerned (of course not accidental as to their cause or origin), then I can see no reason why he should rank the accumulated variations by which the beautifully adapted woodpecker has been formed as providentially designed. For it would be easy to imagine the large crop of the pouter or tail of the fantail as of some use to birds in a state of nature having peculiar habits of life. These are the considerations which perplex me about design; but whether you will care to hear them I know not."† The most careless reader of this letter cannot fail renewedly to feel that while what was on trial before Mr. Darwin's thought was not the argument "from design" so much as general providence, yet he falls here again into the confusion of confining his view of God's possible purpose in directing any course of events to the most proximate result, as if it were the indications of design in a given organism which he was investigating. If, however, it is the existence of a general and all-comprehending plan in God's mind, for the working out of which he directs and governs all things, that we are inquiring into, the ever-recurring argument from the pouter and fantail pigeons is irrelevant, proceeding as it does on the unexpressed premise that God's direction of their variations can be vindicated only if these variations can be shown to be beneficial to the pigeons themselves and that in a state of nature. It is apparently an unthought thought with Mr. Darwin that the abundance of variations capable of misdirection on man's part for his pleasure or profit, while of absolutely no use to the bird in a state of nature, and liable to abuse for the

* *Darwiniana*, p. 157: "The whole animate life of a country depends absolutely upon the vegetation, the vegetation upon the rain. The moisture is furnished by the ocean, is raised by the sun's heat from the ocean's surface, and is wafted inland by the winds. But what multitudes of rain-drops fall back into the ocean—are as much without a final cause as the incipient varieties which come to nothing! Does it, therefore, follow that the rains which are bestowed upon the soil with such rule and average regularity are not designed to support vegetable and animal life?"

† *Life and Letters*, I. 313, 314.

bird and for man in the artificial state of domestication, may yet be a link in a great chain which in all its links is preordained for good ends—whether morally, mentally, or even physically, whether in this world or in the next. This narrowness of view, which confined his outlook to the immediate proximate result, played so into the hands of his confusion of thought about the word “design” as from the outset fatally to handicap his progress to a reasoned conclusion.

The history of his yielding up Christianity, because, as he said, “It is not supported by evidence”^{*}—that is, because its appropriate evidence, being historical, is of a kind which lay outside of his knowledge or powers of estimation, was therefore paralleled by his gradual yielding up of his reasoned belief in God, because all the evidences of his activities are not capable of being looked at in the process of a dissection under the simple microscope. We have seen him at last reaching a position in which no evidence which he could even imagine would suffice to prove the historical truth of Christianity to him. He was fast drifting into a similar position about design. He writes to Dr. Gray, apparently in September, 1861: “Your question, what would convince me of Design, is a poser. If I saw an angel come down to teach us good, and I was convinced from others seeing him that I was not mad, I should believe in design. If I could be convinced thoroughly that life and mind was in an unknown way a function of other imponderable force, I should be convinced. If man was made of brass or iron and no way connected with any other organism which had ever lived, I should perhaps be convinced. But this is childish writing.”[†] And so indeed it is, and in a sense in which Mr. Darwin scarcely intended. But such words teach us very clearly where the real difficulty lay in his own mind. Life and mind with him were functions of matter; and he could not see that any other concause in bringing new births into the world, could be witnessed to by the nature of the results, than the natural forces employed in the natural process of reproduction. He believed firmly that indiscriminate variation, reacted upon through natural laws by the struggle for existence, was the sufficient account of every discrimination in organic nature—was the *vera causa* of all forms which life took; and believing this, he could see no need of God's additional activity to produce the very same effects, and could allow no evidence of its working. “I have lately,” he continues in the letter to Dr. Gray just quoted, “been corresponding with Lyell, who, I think, adopts your idea of the stream of vari-

^{*} *National Reformer*, October 29th, 1882.

[†] *Life and Letters*, II. 377.

ation being led or designed. I have asked him (and he says he will hereafter reflect and answer me) whether he believes that the shape of my nose was designed. If he does, I have nothing more to say. If not, seeing what fanciers have done by selecting individual differences in the nasal bones of pigeons, I must think that it is illogical to suppose that the variations which natural selection preserves for the good of any being have been designed. But I know that I am in the same sort of muddle (as I have said before) as all the world seems to be in with respect to free will, yet with everything supposed to have been foreseen or preordained." * And again, a few months later, still laboring under the same confusion, he writes to the same correspondent: "If anything is designed, certainly man must be; one's 'inner consciousness' (though a false guide) tells me so; yet I cannot admit that men's rudimentary mammæ . . . were designed. If I was to say I believed this, I should believe it in the same incredible manner as the orthodox believe the Trinity in Unity. You say that you are in a haze; I am in thick mud; yet I cannot keep out of the question." † One wonders whether Mr. Darwin, in examining a door-knocker carved in the shape of a face, would say that he believed the handle was "designed," but could not admit that the carven face was "designed." Nevertheless, an incised outline on a bit of old bone, though without obvious use, or a careless chip on the edge of a flint, though without possible use, would at once be judged by him to be "designed"—*i.e.*, to be evidence, if not of obvious contrivance yet certainly of intentional activity. Why he could not make a similar distinction in natural products remains a standing matter of surprise.

The years ran on, however, and his eyes were still holden; he never advanced beyond even the illustrations he had grasped at from the first to support his position. In 1867 his *Variation of Animals and Plants under Domestication* appeared, and on February 8th of that year he wrote to Sir Joseph Hooker: "I finish my book . . . by a single paragraph answering, or rather throwing doubt, in so far as so little space permits, on Asa Gray's doctrine that each variation has been specially ordered or led along a beneficial line. It is foolish to touch such subjects, but there have been so many allusions to what I think about the part which God has played in the formation of organic beings, that I thought it shabby to evade the question." ‡ In writing his Autobiography in 1876, he looks back upon this "argument" with pride, as one which "has never, as far as I can see, been answered." § It has a claim, therefore, to be consid-

* *Life and Letters*, II. 378. † *Ibid.*, II. 382. ‡ *Ibid.*, III. 62. § *Ibid.*, I. 309.

ered something like a classic in the present discussion, and although it does not advance one step either in force or form beyond the earlier letters to Dr. Gray and Lyell, we feel constrained to transcribe it here in full: "An Omniscient Creator," it runs, "must have foreseen every consequence which results from the laws imposed by him. But can it be reasonably maintained that the Creator intentionally ordered, if we may use the words in the ordinary sense, that certain fragments of rock should assume certain shapes in order that the builder might erect his edifice? If the various laws which have determined the shape of each fragment were not predetermined for the builder's sake, can it be maintained with any greater probability that he specially ordained for the sake of the breeder each of the innumerable variations in our domestic plants and animals, many of these variations being of no service to man, and not beneficial—far more often injurious—to the creatures themselves? Did he ordain that the crop and tail-feathers of the pigeon should vary in order that the fancier might make his grotesque pouter and fantail breeds? Did he cause the frame and mental quality of the dog, etc., to vary in order that a breed might be formed of indomitable ferocity, with jaws fitted to pin down the bull for man's brutal sport? But if we give up the principle in any one case, if we do not admit that the variations of the primordial dog were intentionally guided in order that the greyhound, for instance—that perfect image of symmetry and vigor—might be formed, no shadow of reason can be assigned for the belief that variations, alike in nature and in the results of the same general laws, which have been the groundwork, through natural selection, of the formation of the most perfectly adapted animals in the world, man included, were intentionally and specially guided. However much we may wish it, we can hardly follow Professor Asa Gray in his belief 'that variation has been led along certain beneficial lines,' like a stream 'along definite and useful lines of irrigation.' If we assume that each particular variation was from the beginning of all time preordained, then that plasticity of organization which leads to many injurious deviations of structure, as well as the redundant power of reproduction which inevitably leads to a struggle for existence, and, as a consequence, to the natural selection, or survival of the fittest, must appear to be superfluous laws of nature. On the other hand, an omnipotent and omniscient Creator ordains everything and foresees everything. Thus we are brought face to face with a difficulty as insoluble as is that of free-will and predestination." * We read with an amazement which is akin to

* *Variation of Animals and Plants*, etc. Ed. I., Vol. II., p. 431.

amusement the string of queries with which Mr. Darwin here plies his readers, as if no answer were possible to conception but the one which would drive "the omnipotent and omniscient Creator" into impotency and ignorance, if not into non-existence. An argument which has never been answered! Why should it be answered? Is it not competent to any man to string like questions together *ad infinitum* with an air of victory? "Did the omnipotent and omniscient Creator intentionally order that beetles should vary to so extreme an extent in form and coloration solely in order that Mr. Darwin might in his enthusiastic youth arrange them artistically in his cabinet? Did he cause the blackthorn to grow of such strong and close fibre in order that Pat might cut his shillalah from it and break his neighbor's head? Did Mr. Darwin himself write and print these words in order that his fellows might wonder why and how he was in such a muddle?" But there is really no end to it, unless we are ready to confess that an object may be put to a use which was not "the end of its being;" that there may be intentions possible beyond the obvious proximate one; and that there is a distinction between an intentional action and a contrivance. The fallacy of Mr. Darwin's reasoning here ought not to have been hidden from him, as he tells us repeatedly that he early learned the danger of reasoning by exclusion; and yet that is exactly the process employed here.

Dr. Gray did not delay long to point out some of the confusion under which his friend was laboring.* And Mr. Wallace shortly afterward showed that there was no more difficulty in tracing the divine hand in natural production, through the agency of natural selection, than there is in tracing the hand of man in the formation of the races of domesticated animals, through artificial selection. In neither case does there confront the outward eye other than a series of forms produced by natural law; and in the one case as little as the other is the selecting concause of the outside agent excluded by the unbroken traceableness of the process of descent.† But Mr. Darwin was immovable. One of the odd circumstances of the case was that he still felt able to express pleasure in being spoken

* With reference to the first simile of the extract Dr. Gray pointedly urged: "But in Mr. Darwin's parallel, to meet the case of nature according to his own view of it, not only the fragments of rock (answering to variation) should fall, but the edifice (answering to natural selection) should rise, irrespective of will or choice." Mr. Darwin (III. 84) calls this "a good slap," but thinks it does not essentially meet the point. Mr. F. Darwin (*l. c.*) answers it lamely by observing that according to his father's parallel natural selection should be the *architect*, not the *edifice*. Do architects get along without "will or choice?"

† *Life and Letters*, III. 116.

of as one whose great service to natural science lay "in bringing it back to Teleology." * Yet this did not mean that he himself believed in teleology; and in his *Autobiography* written in 1876 he sets aside the whole teleological argument as invalid. †

Nor was the setting aside of teleology merely the discrediting of one theistic proof in order to clear the way for others. The strong acid of Mr. Darwin's theory of the origin of man ate into the very heart of the other proofs as surely, though not by the same channel, as it had eaten into the fabric of the argument from design. We have already seen him speaking of the demand of the mind for a sufficient cause for the universe and its contents as possessing great weight with him; and he realized the argumentative value of the human conviction, arising from the feelings of dependence and responsibility, that there is One above us on whom we depend and to whom we are responsible. But both these arguments were, in his judgment, directly affected by his view of the origin of man's mental and moral nature, as a development, by means of the interworking of natural laws alone, from the germ of intelligence found in brutes. We have seen how uncompromisingly he denied to Lyell the need or propriety of postulating any additional powers or any directing energy for the production of man's mental and moral nature. In the same spirit he writes complainingly to Mr. Wallace in 1869: "I can see no necessity for calling in an additional and proximate cause in regard to man." ‡ This being so, he felt that he could scarcely trust man's intuitions or convictions. And thus he was able at the end of his life (1881) to acknowledge his "inward conviction . . . that the Universe is not the result of chance," and at once to add: "But, then, with me the horrid doubt always arises whether the convictions of man's mind, which has been developed from the mind of lower animals, are of any value or at all trustworthy. Would any one trust in the convictions of a monkey's mind, if there are any convictions in such a mind?" § It is illustrative of Mr. Darwin's strange confusion of thought on metaphysical subjects that he does not appear to perceive that this doubt, if valid at all, ought to affect not only the religious convictions of men, but all their convictions; and that it, therefore, undermines the very theory of man's origin, because of which it arises within him. There is not a whit more reason to believe that the processes of physical research and the logical laws by means of which inferences are drawn and

* *Life and Letters*, III. 189: "What you say about Teleology pleases me especially, and I do not think that any one else has ever noticed the part." This was written June 5th, 1874. See III. 255 and II. 201.

† *Life and Letters*, I. 309, 310.

‡ *Ibid.*, III. 116.

§ *Ibid.*, I. 316.

inductions attained are trustworthy, than that these higher convictions, based on the same mental laws, are trustworthy ; and the origin of man's mind from a brutish source if fatal to trust in one mental process is fatal to trust in all the others, throwing us, as the result of such a plea, into sheer intellectual suicide.

In discussing these human convictions Mr. Darwin draws a sharp distinction between those which appeared to him to rest on feeling and that which springs from the instinctive causal judgment and demands a sufficient cause for the universe, and which, as he judged it to be "connected with reason and not with the feelings," "impressed him as having much more weight." To the argument from our Godward emotions he allows but little value, although he looks back with regret upon the time when the grandeur of a Brazilian forest stirred his heart with feelings not only of wonder and admiration but also of devotion, and filled and elevated his mind.* He sadly confesses that the grandest scenes would no longer awaken such convictions and feelings within him, and acknowledges that he is become like a man who is color-blind and whose failure to see is of no value as evidence against the universal belief of men. But he makes this remark only immediately to endeavor to rob it of its force. He urges that all men of all races do not have this inward conviction "of the existence of one God ;" † and then attempts to confound the conviction which accompanies the emotions which he has described, or more properly which quickens them, and to the reality and abidingness of which they are undying witnesses, with the emotions themselves, "as if all the moving experiences of the soul in the presence of the sublimer aspects of nature were resolvable into moods of feeling." ‡ He does more ; he attempts to resolve all such moods of feeling essentially into the one "sense of sublimity ;" and then assumes that this sense must be itself resolvable into still simpler constituents, by which it may be proved to be a composite of bestial elements, and to witness to nothing beyond our brutish origin. § "The state of mind," he writes, "which grand

* This paragraph is a report of what Mr. Darwin says, writing in his Autobiography in 1876. *Life and Letters*, I. 311, 312.

† Mr. Darwin writes more guardedly here than in his *Descent of Man*, I., p. 63, where he declares, chiefly on Sir John Lubbock's authority, that there are "numerous races" who have no idea of "one or more gods, and who have no word in their language to express such an idea." Professor Flint, in his *Antitheistic Theories*, Lecture VII., with its appropriate appendixes, has sifted this question of fact, with the result of showing the virtual universality of religion.

‡ See this criticism properly pressed by Dr. Noah Porter, in *The New Englander*, for March, 1888, p. 207.

§ The elements which in his view unite to form a religious emotion are enumerated

scenes formerly excited in me, and which was intimately connected with a belief in God, did not essentially differ from that which is often called the sense of sublimity; and however difficult it may be to explain the genesis of this sense, it can hardly be advanced as an argument for the existence of God, any more than the powerful though vague and similar feelings excited by music." * Here is reasoning! Is it then a fair conclusion that because the "sense of sublimity" no more than other similar feelings is itself a proof of divine existence, therefore the firm conviction of the existence of God, which is "intimately connected with" a feeling similar to sublimity, is also without evidential value? It is as if one should reason that because the sense of resentment which is intimately connected with the slap that I feel tingling upon my cheek does not essentially differ from that which is often called the sense of indignation, which does not any more than other like feelings always imply the existence of human objects, therefore the tingling slap is no evidence that a man to give it really exists! How strong a hold this odd illusion of reasoning had upon Mr. Darwin's mind is illustrated by an almost contemporary letter to Mr. E. Gurney discussing the origin of capacity for enjoyment of music, which he closes with the following words: "Your simile of architecture seems to me particularly good; for in this case the appreciation almost must be individual, though possibly the sense of sublimity excited by a grand cathedral may have some connection with the vague feeling of terror and superstition in our savage ancestors when they entered a great cavern or gloomy forest. I wish," he adds, semi-pathetically, "some one could analyze the feeling of sublimity." † He seems to think that to analyze this feeling would be tantamount to letting our conviction of God's existence escape in a vapor.

He ascribed much more weight to the conviction of the existence of God, which arises from our causal judgment, and it was chiefly

for us in the *Descent of Man*, I. 65: "The feeling of religious devotion is a highly complex one, consisting of love, complete submission to an exalted and mysterious superior, a strong sense of dependence, fear, reverence, gratitude, hope for the future, and perhaps other elements." How, in these circumstances, he can speak of his state of mind, involving "feelings of wonder, admiration, and devotion" (*Life and Letters*, I. 311), as one which "did not essentially differ from that which is often called the sense of sublimity," is somewhat mysterious. But we must remember that even this complex of emotions was, in Mr. Darwin's view, distantly approached by certain mental states of dogs and monkeys. Nevertheless, the whole drift of the passage in the *Descent of Man* is to credit the results of man's reasoning faculties as he progressed more and more in the power to use them; while the drift of the present passage is to discredit them.

* *Life and Letters*, I, 312.

† *Ibid.*, III. 186, written July 8th, 1876.

under pressure of this instinct of the human mind, by which we are forced to assign a competent cause for all becoming, that he was continually being compelled "to look to a First Cause having an intelligent mind in some degree analogous to that of man," and so "to deserve to be called a Theist." But as often "the horrid doubt always arose whether the convictions of man's mind," any more than those of a monkey's mind from something similar to which it has been developed, "are of any value, or at all trustworthy." * The growth of such doubts in his mind is not traceable in full detail; but some record of it is left in the letters that have been preserved for us. For example, in 1860 he wrote to Dr. Gray: "I cannot anyhow be contented to view this wonderful universe, and especially the nature of man, and to conclude that everything is the result of brute force." † Again, "I cannot think that the world as we see it is the result of chance." ‡ Again, in 1861, he writes to Miss Wedgewood: "The mind refuses to look at this universe, being what it is, without having been designed." § At this time he deserved to be called a theist. In 1873 he writes, in reply to a query by a Dutch student: "I may say that the impossibility of conceiving that this grand and wondrous universe, with our conscious selves, arose through chance seems to me the chief argument for the existence of a God;" but immediately adds: "But whether this is an argument of real value, I have never been able to decide." || And in 1876, after speaking of "the extreme difficulty, or rather impossibility, of conceiving this immense and wonderful universe, including man, with his capacity of looking far backward and far into futurity, as the result of blind chance or necessity," he immediately adds: "But there arises the doubt, Can the mind of man, which has, as I fully believe, been developed from a mind as low as that possessed by the lowest animals, be trusted when it draws such grand conclusions?" ¶ Nearly the same words, as we have seen, were repeated in 1881.** And he appears to have had this branch of the subject in his mind rather than teleology, when, in 1882, he shook his head vaguely when the Duke of Argyll urged that it was impossible to look upon the contrivances of nature without seeing that they were the effect and expression of mind; and looking hard at him, said: "Well, that often comes over me with overwhelming force; but at other times it seems to go away." ††

What, then, became of his instinctive causal judgment amid these crowding doubts? It was scarcely eradicated. He could write to

* *Life and Letters*, I. 316, written in 1881. † *Ibid.*, II. 312. ‡ *Ibid.*, II. 353.
 § *Ibid.*, I. 313. || *Ibid.*, I. 307. ¶ *Ibid.*, I. 313. ** *Ibid.*, I. 316. †† *Ibid.*, I. 316.

Mr. Graham as late as 1881: "You have expressed my inward conviction . . . that the Universe is not the result of chance."* But "inward conviction" with Mr. Darwin did not mean "reasoned opinion" which is to be held and defended, but "natural and instinctive feeling" which is to be corrected. And he certainly allowed his causal judgment gradually to fall more and more into abeyance. In his letter to the Dutch student, in 1873, he knew how to add to his avowal that he felt the impossibility of conceiving of this grand universe as causeless, the further avowal: "I am aware that if we admit a first cause, the mind still craves to know whence it came and how it arose," † and thus to do what he could to throw doubt on the theistic inference. And he also knew how to speak as if the agnostic inference were reasonable and philosophical, everywhere maintaining his right to assume living forms to begin with, as a philosopher assumes gravitation, ‡ by which, as he is careful to explain, he does not mean that these forms (or this form) have been "created" in the usual sense of that word, but "only that we know nothing as yet [of] how life originates;" § and writing as late as 1878: "As to the eternity of matter, I have never troubled myself about such insoluble questions." ¶ Nevertheless, it is perfectly certain that neither Mr. Darwin nor any one else can reject both creation and non-creation, both a first cause and the eternity of matter. As Professor Flint truly points out, "we may believe in a self-existent God or in a self-existent world; we cannot believe in an infinite regress of causes." ¶¶ When Mr. Darwin threw doubt on the philosophical consistency of the assumption of a first cause, he was bound to investigate the hypothesis of the eternity of matter; and until this latter task was completed he was bound to keep silence on a subject on which he had so little right to speak. Where his predilection would carry him is plain from the pleasure with which he read of Dr. Bastian's *Archebiosis* in 1872, wishing that he could "live to see it proved to be true."** We are regretfully forced to recognize in his whole course of argument a desire to eliminate the proofs of God's activity in the world; "he did not like to retain God in his knowledge."

* *Life and Letters*, I. 316.

† *Ibid.*, I. 306, 307.

‡ *E. g.*, II. 210.

§ *Ibid.*, II. 251.

¶ *Ibid.*, III. 236.

¶¶ *Theism*, p. 120. See also note 22, p. 390: "Creation is the *only* theory of the *origin* of the universe. Evolution assumes either the creation or the self-existence of the universe. The evolutionist must choose between creation and non-creation. They are opposites. There is no intermediate term. The attempt to introduce one—the Unknowable—can lead to no result; for unless the Unknowable is capable of creation, it can account for the origin of nothing." The whole note should be read.

** *Life and Letters*, III. 169.

Further evidence of this trend may be observed in the tone of the addition to the Autobiographical notes which he made, with especial reference to his religious beliefs, in 1876, and in which he, somewhat strangely, included a full antitheistic argument, developed in so orderly a manner that it may stand for us as a complete exhibit of his attitude toward the problem of the divine existence. In this remarkable document * he first discusses the argument from design, concluding that the "old argument from design in nature given by Paley, which formerly seemed to me so conclusive," fails "now that the law of natural selection has been discovered." He adds that "there seems to be no more design in the variability of organic beings and in the action of natural selection than in the course which the wind blows," and refers the reader to the "argument given at the end" of *Variation of Animals and Plants under Domestication*, as one which has never been answered. Having set this more detailed teleology aside, he next examines the broader form of the argument from design, which rests on the general beneficent arrangement of the world, and concludes that the great fact of suffering is opposed to the theistic inference, while the prevailing happiness, in conjunction "with the presence of much suffering, agrees well with the view that all organic beings have been developed through variation and natural selection." Next he discusses the "most usual argument of the present day for the existence of an intelligent God," that "drawn from the deep inward conviction and feelings which are experienced by most persons." He speaks sadly of his own former firm conviction of the existence of God, and describes how feelings of devotion welled up within him in the presence of grand scenery; but he sets the argument summarily aside as invalid. Finally, he adduces the demands of the causal judgment, in a passage which has already been quoted, but discards it, too, with an expression of doubt as to the trustworthiness of such grand conclusions when drawn by a brute-bred mind like man's. His conclusion is formulated helplessness: "The mystery of the beginning of all things is insoluble by us; and I for one must be content to remain an Agnostic." It was out of such a reasoned position that he wrote in 1879: "In my most extreme fluctuations I have never been an Atheist in the sense of denying the existence of God. I think that generally (and more and more as I grow older), but not always, that an Agnostic would be the more correct description of my state of mind." † Nor can we help carrying over the light thus gained to aid us in explaining the words written

* *Life and Letters*, I. 309-13.

† *Ibid.*, I. 304.

to Jena the same year : Mr. Darwin " considers that the theory of Evolution is quite compatible with the belief in a God, but that you must remember that different persons have different definitions of what they mean by God." * It would be an interesting question what conception Mr. Darwin, who began with a deistic conception, had come to when he reached the agnostic stage and spoke familiarly of " what is called a personal God." †

By such stages as these did this great man drift from his early trust into an inextinguishable doubt whether such a mind as man's can be trusted in its grand conclusions ; and by such reasoning as this did he support his suicidal results. No more painful spectacle can be found in all biographical literature ; no more startling discovery of the process by which even great and good men can come gradually to a state of mind in which, despite their more noble instincts, they can but

" Judge all nature from her feet of clay,
Without the will to lift their eyes to see
Her Godlike head, crowned with spiritual fire,
And touching other worlds."

The process that we have been observing, as has ‡ been truly said, is not that of an *ejection* of reverence and faith from the system (as, say, in the case of Mr. Froude), or of an *encysting* of them (as, say, with Mr. J. S. Mill), but simply of an *atrophy* of them, as they dissolve painlessly away. In Mr. Darwin's case this atrophy was accompanied by a similar deadening of his higher emotional nature, by which he lost his power of enjoying poetry, music, and to a large extent scenery, and stood like some great tree of the forest with broad-reaching boughs, beneath which men may rest and refresh themselves, but with decay already marking it as its own, as evidenced by the deadness of its upper branches. He was a man dead at the top.

It is more difficult to trace the course of his personal religious life during this long-continued atrophying of his religious conceptions. He was not permitted to enter upon this development without a word of faithful admonition. When the *Origin of Species* was published in 1859, his old friend and preceptor, Professor A. Sedgwick, appears to have foreseen the possible driftage of his thought, and wrote him the following touching words : " I have been lecturing three days a week (formerly I gave six a week) without much fatigue, but I find by the loss of activity and memory, and of all productive powers, that my bodily frame is sinking slowly toward the earth.

* *Life and Letters*, I. 307.

† *Ibid.*, III. 236 (1878).

‡ F. W. H. Myers, in the *Fortnightly Review*, January, 1888.

But I have visions of the future. They are as much a part of myself as my stomach and my heart, and these visions are to have their antitype in solid fruition of what is best and greatest. But on one condition only—that I humbly accept God's revelation of himself, both in his works and in his word, and do my best to act in conformity with that knowledge which he only can give me, and he only can sustain me in doing. If you and I do all this, we shall meet in heaven." * The appeal had come too late to aid his old pupil to conserve his Christian faith ; it was already long since he had believed that God had ever spoken in word and he was fast drifting to a position from which he could with difficulty believe that he had spoken in his works. It is not a pleasant letter that he wrote to Mrs. Boole in 1866, in reply to some very respectfully framed inquiries as to the relation of his theory to the possibility of belief in inspiration and a personal and good God who exercises moral influence on man, to which he is free to yield. The way in which he avoids replying to these questions almost seems to be irritable,† and is possibly an index to his feelings toward the matters involved. Nevertheless, his sympathy with suffering and his willingness to lend his help toward the elevation of his fellow-men remained ; he even aided the work of Christian missions by contributions in money,‡ although he no longer shared the hopes by which those were nerved who carried the civilizing message to their degraded fellow-beings. Why, indeed, he should have trusted the noble impulses of his conscience, and been willing to act upon them, when he judged that the brutish origin of man's whole mental nature vitiated all its grand conclusions, it might puzzle a better metaphysician than he laid claim to be satisfactorily to explain ; but his higher life seems to have taken this direction, and it is characteristic of him to close the letter to the Dutch student, written in 1873, with such words as these : " The safest conclusion seems to me that the whole subject is beyond the scope of man's intellect ; but man can do his duty." § But when there is no one to show us any truth, who is there to show us duty ? If our conscience is but the chance growth of the brute mind, hemmed in by its environment and squeezed into a new form by the pressure of a fierce and unmoral struggle for existence, what moral imperative has it such as deserves the high name of " duty " ? ¶

* *Life and Letters*, II. 250.

† *Ibid.*, III. 127, 128.

‡ *Ibid.*, III. 63, 64.

§ *Ibid.*, I. 306, 307.

¶ What Mr. Darwin actually taught as to the moral sense may be conveniently read in the third chapter of the *Descent of Man*. " This sense," he says, " as Macintosh remarks, ' has a rightful supremacy over every other principle of human action ; ' it is summed up in the short but imperious word *ought*, so full of high significance" (I., p.

Certainly the argument is as valid here as there. But by the power of so divine an inconsistency, Mr. Darwin was enabled as citizen, friend, husband, and father to do his duty. He had no sharp sense of sin;* but so far as duty lay before him he retained a tender conscience. And thus, as he approached the end of his long and laborious life, he felt able to say: "I feel no remorse from having committed any great sin, but have often and often regretted that I have not done more direct good to my fellow-creatures;" † and again, as the end came on, we learn that "he seemed to recognize the approach of death, and said, 'I am not the least afraid to die.'" ‡ And thus he went out into the dark without God in all his thoughts; with no hope for immortality; and with no keenness of regret for all the high and noble aspirations and all the elevating imaginings which he had lost out of life.

That we may appreciate how sad a sight we have before us, let us look back from the end to the beginning. We stand at the death-bed of a man whom, in common with all the world, we most deeply honor. He has made himself a name which will live through many generations; and withal has made himself beloved by all who came into close contact with him. True, tender-hearted, and sympathetic, he has in the retirement of invalidism lived a life which has moved the world. But is his death just the death we should expect from

67). But what gives this "imperious word *ought*" so rightful a supremacy? Mr. Darwin teaches that "the moral sense is fundamentally identical with the social instincts" (p. 94), and that "the imperious word *ought* seems merely to employ the consciousness of the existence of a permanent instinct, either innate or partly acquired," so that "we hardly use the word *ought* in a metaphorical sense when we say hounds ought to hunt, pointers to point, and retrievers to retrieve the game" (p. 88). He has, indeed, "endeavored to show that the social instincts—the primal principle of man's moral constitution—with the aid of active intellectual powers and the effects of habit, naturally lead to the golden rule, 'As ye would that men should do to you, do ye to them likewise;' and this lies at the foundation of morality" (pp. 101, 102). But this is not because the golden rule is any more truly "moral" than any other rule. "Any animal whatever endowed with well-marked social instincts would inevitably acquire a moral sense or conscience as soon as its intellectual powers had become as well developed, or nearly as well developed, as in man" (p. 68, 69); but not necessarily "exactly the same moral sense as ours" (p. 70). For instance, bees so developing a moral sense would develop one which required it as a duty to murder their brothers and fertile daughters. Thus the moral law has no more sanction than arises from its being the best mode of conserving the common good, as it is known in present conditions; and its very opposite might be as moral and as imperious under changed conditions. Mr. Darwin's own tender conscience was thus, in his own eyes, nothing more than the dissatisfaction that arose from an unsatisfied inherited instinct (p. 69)!

* How inevitable this was may be seen from the temperate discussion of the relation of naturalistic evolution to the sense of sin, in Tulloch's "*The Christian Doctrine of Sin*," Lecture I.

† *Life and Letters*, III. 359 (1879).

‡ *Ibid.*, III. 358.

one who had once given himself to be an ambassador of the Lord? When we turn from what he has done to what he has become, can we say that, in the very quintessence of living, he has fulfilled the promise of that long-ago ingenuous youth who suffered something like remorse when he beat a puppy, and as he ran to school "prayed earnestly to God to help him?" Let us look upon him in the light of a contrast. There was another Charles, living in the world with him, but a few years his senior, whose childhood, too, was blessed with a vivid sense of the nearness of heaven. He, too, has left us some equally simple-hearted and touching autobiographical notes; and from them we learn that his, too, was a praying childhood. "As far back as I can remember," he writes, "I had the habit of thanking God for everything that I received and asking him for everything I wanted. If I lost a book or any of my playthings, I prayed that I might find it. I prayed walking along the streets, in school and out of school, whether playing or studying. I did not do this in obedience to any prescribed rule. It seemed natural. I thought of God as an everywhere-present Being, full of kindness and love, who would not be offended if children talked to him. I knew he cared for sparrows."* Thus Charles Hodge and Charles Darwin began their lives on a somewhat similar plane. And both write in their old age of their childhood's prayers with something like a smile. But how different the quality of these smiles! Charles Darwin's smile is almost a sneer: "When in doubt," he writes, "I prayed earnestly to God to help me, and I well remember that I attributed my success to the prayers and not to my quick running, and marvelled how generally I was aided."† Charles Hodge's smile is the pleasant smile of one who looks back on small beginnings from a well-won height. "There was little more in my prayers and praises," he writes, "than in the worship rendered by the fowls of the air. This mild form of natural religion did not amount to much."‡ His praying childhood was Charles Darwin's highest religious attainment; his praying childhood was to Charles Hodge but the inconsiderable seed out of which were marvellously to unfold all the graces of a truly devout life. Starting from a common centre, these two great men, with much of natural endowment in common, trode opposite paths; and when the shades of death gathered around them, one could but face the depths of darkness in his greatness of soul without fear, and yield like a man to the inevitable lot of all; the other, bathed in a light not of the

* *The Life of Charles Hodge*, by his son, A. A. Hodge, p. 13.

† *Life and Letters*, I. 31.

‡ *Life*, p. 13.

earth, rose in spirit upon his dead self to higher things, repeating to his loved ones about him the comforting words of a sublime hope : " Why should you grieve ? To be absent from the body is to be with the Lord, to be with the Lord is to see the Lord, to see the Lord is to be like him." * The one conceived that he had reached the end of life, and looked back upon the little space that had been allotted to him without remorse, indeed, but not without a sense of its incompleteness ; the other contemplated all that he had been enabled to do through the many years of rich fruitage which had fallen to him, as but childhood's preparation for the true life which in death was but dawning upon him. †

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* *Life*, p. 582.

† Since this paper was put into type a new letter of Mr. Darwin's on his religious views has come to light, which adds, indeed, nothing to what we already knew, but which is so characteristic as to deserve insertion here. It is dated March 11th, 1878, and runs as follows : " Dear Sir : I should have been very glad to have aided you in any degree if it had been in my power. But to answer your question would require an essay, and for this I have not strength, being much out of health. Nor, indeed, could I have answered it distinctly and satisfactorily with any amount of strength. The strongest argument for the existence of God, as it seems to me, is the instinct or intuition which we all (as I suppose) feel that there must have been an intelligent beginner of the Universe ; but then comes the doubt and difficulty whether such intuitions are trustworthy. I have touched on one point of difficulty in the two last pages of my 'Variation of Animals and Plants under Domestication,' but I am forced to leave the problem insoluble. No man who does his duty has anything to fear, and may hope for whatever he earnestly desires.—Dear Sir, yours faithfully, CH. DARWIN." (See *The British Weekly* for August 3d, 1888.)