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Darwin's young admirers

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In 1873, Darwin replied to the second letter from a young Dutch admirer, Nicolaas Doedes, in which he had eagerly asked about Darwin's religious views. Darwin stated that he could not believe that 'this grand and wondrous universe' had only arisen by chance, but also showed his doubts about the existence of God. In 1881, Darwin repeated a similar agnostic view. After the death of Darwin in 1882, Doedes incurred the wrath of Francis Darwin by publishing the confession of his father in a Dutch freethinking journal, thus revealing the sensitivity of the information Darwin shared with Doedes.

In 1873, two students from Utrecht, The Netherlands, wrote a letter to Charles Darwin (1809–1882). Jan Constantijn Costerus (1849–1938) and Nicolaas Dirk Doedes (1850–1906), students of history and natural history respectively, were enthusiastic admirers of Darwin's books. Encouraged by an amicable reply from England, Doedes wrote a second letter because he was curious to know Darwin's opinion about the consequences of the theory of natural selection for the Christian faith. Darwin, of course, never commented on the religious consequences of his theory of evolution in public.

Doedes, who was experiencing his own religious dilemma in the early 1870s, was keen to ask Darwin what position he, personally, took in the debate. It was unusual for Darwin to respond to such personal questions from unknown correspondents, particularly in view of the vast quantity of correspondence he received. Indeed, one might have expected Darwin, who suffered with continuous health problems, to have wanted to keep his time free to concentrate on more pressing matters. Nonetheless, he made a rare exception for these serious-minded scions of a new generation, and wrote back.

Costerus and Doedes were not the only enthusiastic students who admired Darwin; there were more students in The Netherlands 'who love and estimate you with their whole heart,' they told him [1]. These students were interested not only in the scientific achievements of Darwin's theory, but also, notably, in the new light it had thrown on finding the path to religious freedom. The name 'Darwin' had become synonymous with a 'watchword in the battle for science' and 'in several regards a personification of Natural Filosofy [sic]' in the raging dispute that many believed was taking place between faith and science, wrote Costerus and Doedes [2].

The students were all too aware that this battle could not be simplistically defined as being between 'faith' on one

side and 'science' on the other, with one winner. It was clear from Darwin's books that he had not lost his faith in a Christian God; in *The Origin of Species*, when referring to the origins of life, Darwin spoke in terms of a Creator [2]. It was widely known that Darwin had his heart in his mouth when it was published, because he feared that it would give rise to atheist interpretations of his theory of evolution. In *The Descent of Man*, published in 1871, in which Darwin also examined the role of the human being in evolution, he had also given God a (modest) place in the scheme [3]. Nonetheless, his theory had fallen prey to the materialists, who saw their atheistic convictions scientifically underlined by Darwin's naturalistic (or mechanistic) conception on man and nature in which, with the loss of God's role, Christian ethics had no part. Darwin never personally took part in (public) discussions about the possible immaterial implications of his theory.

Once the students had expressed their deep admiration for Darwin and apologised for their poor English, they asked if it would be possible for him to arrange for the publication of cheaper editions of both *The Origin of Species* and *Expressions* [4]. The high prices hampered the spread of the books just when, in the students' opinion, everyone ought to be learning from them. 'Surely it could not be but most profitable for the good sake of truth,' was the argument they put forward. Discovering truth and maintaining a critical approach were, after all, the highest intellectual ideals for many 19th-century thinkers; and truth was what these students found in Darwin's ideas.

A reply from Down

Costerus and Doedes soon received a friendly reply from Down, the small country estate in Kent where Darwin lived. He had even enclosed two small photographs of himself 'as a souvenir of our correspondence.' Darwin had been pleased to hear that there was interest in his ideas, particularly on the part of the younger generation. As regarded affordable editions of his books, Darwin observed that *The Origin of Species*, now in its sixth edition in England, had decreased in price slightly, adding that he also found the prices for his books too high [5].

Having received the reply from Down, the students went to sit for a photographer in Utrecht, holding Darwin's letter between them (Figure 1). Doedes sent the photograph, together with a new letter, to England. Deferential as he was, this time he ventured to ask a more pressing question [6].

Doedes was curious about the relationship between Darwin the natural scientist and Darwin the believer. How did he manage to stand by his belief in the light of his scientific knowledge? What was the relationship

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Figure 1. 'Pray, don't mean, that we are so little happy with your missive, as one of us seems here', as J.C. Costerus (left) and N.D. Doedes wrote describing the photograph enclosed in their letter to Darwin of 27 March 1873 [6]. By permission of the Syndics of Cambridge University Library (DAR.162.20–1).

between God and nature? What did Darwin think about human immortality, seeing that he did not deny the existence of God? Doedes drew the conclusion that, taking both Darwin's scientific and religious arguments into account, he must be a deist – believing in a Creator who created a world in which change and evolution were caused by laws of nature alone, without assuming that the Creator played any further role. Doedes could not imagine Darwin having any other form of religious belief. Doedes was most interested to learn about Darwin's 'chief ground' for his belief in God. Could it be that he was convinced that there must have been an initial cause (a Creator) who had enabled the formation of the universe [6]?

Doedes asked these questions because he was undergoing his own crisis of faith. As he mentioned in his letter to Darwin, he had abandoned his belief in God. Doedes, who had been brought up in the Dutch Reformed Church, was the second son of J.I. Doedes, Professor of theology at Utrecht University, and was therefore attracted by modern theology. Since grammar school, Doedes had been more interested in belles-lettres and poetry than the Christian revelation. As a student, he read everything he could lay his hands on, literary and scientific alike: the writings of Goethe, Schiller, Bilderdijk, Uilken, Thackeray, Taine and Darwin. The gradual change in Doedes' ideas about Christian belief had certainly not been inspired by Darwin alone, as his friend Costerus explained after his death. Moreover, Doedes was not someone who was known for his strong convictions; it was more the case that he 'brooded over his shortcomings and doubted his own capabilities' [7]. In 1873, following a 'difficult internal struggle,' Doedes had swapped his theological studies for history, with the intention of becoming a history teacher. To show he was serious, Doedes had retracted his membership of the Dutch Reformed Church, 'because of the craving for a sense of truth and desire for sincerity.' Costerus wrote that his friend's decision to change the direction of his study had

a lot to do with the emergence of his doubt about the existence of a personal God. Doedes believed that he did not possess the unshakeable conviction that, in his opinion, a clergyman should have [8]. In his letter to Darwin, Doedes made it clear that he was seriously interested in the question of science and belief, and that he was not asking such questions out of 'bad curiosity.'

'Beyond the scope of man's intellect'

Darwin was in London at the beginning of April 1873 because of his poor state of health. Nonetheless, he replied to Doedes' letter within a few days even though he often used the excuse of poor health as a means of avoiding replying to bothersome enquirers.

Darwin replied that it would be nigh on impossible for him to answer Doedes' ambitious question in the scope of a detailed reply, let alone a brief one. He did, however, wish to make an attempt to communicate his vision, albeit in a nutshell. Once he had dispensed with the formalities, thanking Doedes warmly for his letter, Darwin formulated his thoughts as follows:

'[But] 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 God; but whether this is an argument for the existence of real value, I have never been able to decide. I am aware that if we admit a first cause, the mind still craves to know whence it came and how it arose. Nor can I overlook the difficulty from the immense amount of suffering through the world. I am, also, induced to defer to a certain extent to the judgment of the many able men who have fully believed in God, but here again I see how poor an argument this is. The safest conclusion seems to be that the whole subject is beyond the scope of man's intellect; but man can do his duty [sic]' [9].

As a scientist, Darwin seems to have felt that responding to metaphysical questions was outside his remit – only theologians (or natural scientists) who had studied theology or metaphysics would be capable of doing so. This distanced stand is similar to that which he generally adopted in the debate on the religious (and social) consequences of his theory of evolution, and is typical of his serious, self-effacing manner, which accounted for much of his popularity in The Netherlands. Darwin was a serious scientist who respected his own limits. Nevertheless, in the opinion of some groups, this did not render him immune from reproach; the orthodox parties, in particular, were uncomfortable with the materialism that was inherent in his theory of evolution.

Darwin had another reason for not wanting to adopt a clear position on religious and social questions. As is evident from his letter, he did not want to harm the Christian tradition, because that could potentially have had an inflammatory effect on society. Last but not least, Darwin was afraid of offending the sensibilities of his devout family, particularly his wife Emma Wedgwood. These reasons were, for Darwin, sufficiently grave for him to wish to cultivate an air of ambiguity around the question of his religious feelings. Even when it came to his closest friend, the English botanist Joseph Dalton Hooker (1817–1911), he very rarely referred to his religious beliefs, at least in his correspondence.

In his letter to Doedes, Darwin wrote as a religious man experiencing doubts, someone who was troubled by fundamental questions which neither the Christian revelation nor science could satisfactorily answer. How could the existence of nature in all her forms, consciousness and suffering in the world be explained? The idea that this was all purely a result of the intrinsic laws of nature and, as such, could be called 'coincidental,' was as unthinkable for Darwin as accepting that the existence of such things could, conversely, be a result of the force of circumstances alone. In the face of this deadlock, Darwin seemed to have chosen religion, but the doubt remained – after all, some matters fell outside the intellectual scope of humans. The fact that theologians, and others, were occupied with these kinds of metaphysical thoughts did not, however, lack purpose; Darwin saw preoccupation with this kind of metaphysical question as being one of the tasks, indeed duties, of man. Darwin was, however, a scientist not a theologian, and for him this was reason enough not to meddle in religious and social matters.

A spot of lunch

What Darwin, who was referred to as the Devil's chaplain in the popular press, actually thought about the relationship between religion and science was unknown to the (literate) general public, because he never referred to it in his writings or speeches. Darwin had studied theology at Cambridge for a brief period; but he was fascinated by the geology lectures given by Adam Sedgwick, among others, and, as a result, shifted the focus of his study to natural science. In the years that followed, Darwin, in his own words, remained a committed Christian. In addition to his letter to Doedes, another important source of information regarding what subsequently happened to his religious ideas is a recorded conversation held in 1881 [10].

The British trade unionist (and later son-in-law of Karl Marx) Edward B. Aveling and the materialist Ludwig Büchner attended the Congress of the International Federation of Freethinkers in London in September 1881. After the congress, Aveling sent a telegram to Darwin asking whether he and Büchner could visit Down. The fact that the dyed-in-the-wool atheist, Büchner, who had chaired the congress, wanted to visit Darwin, is notable. In the eyes of German Darwinism, which emphasized a materialistic interpretation, Darwin himself was the leading spirit, although, in reality, he could hardly be considered a 'partner in crime.' By 1881, he had nonetheless acquired the status of an absolute hero in the eyes of German materialists, the godless and, in lesser numbers, some scientists. Büchner assumed, therefore, that he was visiting a worthy ally. In actual fact, the Darwin family had been thrown into uproar by the telegram. Darwin's appalled wife, Emma, said that they could come, as long as Büchner 'talks English and will refrain from airing his very strong religious opinions' [11]. Darwin felt that he could not turn away the famous Büchner. Young Aveling's ill reputation went before him but, as he had never caused any personal offence, Darwin did not see why the gentlemen could not join him for a spot of lunch.

The big day was Thursday 28 September. Also present at the lunch were several of Darwin's children and their

friends, Emma, and a friend of the Darwins', the Anglican minister John Brodie Innes. After the meal, the men retired to Darwin's study for a smoke and to continue the discussion. Darwin argued that he had never wanted to busy himself with religion during working hours because he wanted to concentrate purely on scientific research. He realized that his theory might well have religious consequences, but considered religion to be a strictly personal matter. As he told Aveling and Büchner, his belief and thoughts about evolution could be reconciled. Nonetheless, he did have some doubts about the Godhead. In Darwin's own words, 'I never gave up Christianity until I was forty years of age [12],' a statement which has since become famous.

His mistrust in Christianity had much earlier roots. The deaths of his beloved daughter Anne Elizabeth, or Annie (1841–1845), and his father (in 1848) had left him with a feeling that human suffering was incomprehensible, and had confirmed his doubts. He stated that he had never voiced this opinion as he did not wish to prejudice other people's religious feelings. Darwin said that he felt most comfortable using the word agnostic, even if the opinions he had expressed in the conversation seemed to differ very little from Aveling and Büchner's atheism. Darwin recognized that belief was not supported by proof, but was not comfortable with the gentlemen calling themselves atheist because he had difficulties with the aggressive connotations of the word, although in actual fact it was no different to 'agnostic' in terms of meaning. He did not understand the benefit of forcing ideas onto people. Those who had received a decent education would be able to form their own opinion, but he wondered whether the man on the Clapham omnibus was ready for freethinking [12]. Aveling and Büchner attempted to coax more radical opinions out of their hero, but they did not succeed, and must have left with an impression of Darwin very different to that with which they arrived.

Doedes' curiosity

Doedes replied to Darwin's letter within two days of receiving it [13], because his curiosity had only been further flamed. He wrote to Darwin that he was not convinced of the necessity of the existence of the creation of the universe. Was it not possible that the matter had always been there? Surely there was no empirical proof that it had been created? He had learnt that the current organic world was a result of natural causes working in an etiological manner from Darwin himself. Doedes was also very critical about the fact that, in both *The Origin of Species* and *The Descent of Man*, Darwin referred to a Creator whereas, in his personal letter, he had asserted that this certainty actually lay 'beyond the scope of man's intellect.' Doedes thought that this was, in fact, a key point, because 'Darwin' was used a lot to affirm the Christian faith, which was still widespread despite the dominance of natural science. In Doedes' opinion, other people saw the fact that Darwin stood by the Godhead in his books as a weak point in his theory. In his letter, Doedes was, therefore, drawing attention to Darwin's inconsistencies and as good as demanded clarification of this confusing matter.

Whether because of his ill health, the fact that he was occupied with other matters, the demands of his correspondence or because of the awkwardness caused by Doedes' impertinent questions, this time Darwin did not reply. He did, however, pass the matter on to his brother-in-law, H. Wedgwood, who took over the correspondence. Wedgwood suggested that Doedes first read through a hefty tome he himself had written before resuming the discussion by post. However, Doedes found the recommended book much too long-winded, and for this reason the exchange of letters came to an unsatisfactory end. 'The main goal – understanding Darwin's opinion – had, nonetheless, been reached,' Costerus wrote, when referring to the short-lived but memorable correspondence between Doedes and Darwin [14].

Francis Darwin's fury

Following Darwin's death in April 1882, it became clear just how sensitive the information he had shared with Doedes in his letter of 2 April 1873 was. Francis Darwin (1848–1925), one of Darwin's sons, appointed himself the impassioned archivist of his father's written legacy; he saw this as necessary because of the eminent position his father had occupied. For the purposes of writing his father's biography, he also endeavoured to track down and bring together all of Darwin's correspondence, placing adverts in the British and foreign press. In June 1882, one such advert was published in the Dutch freethinking journal, *De Nederlandsche Spectator* [15]. Francis Darwin also personally wrote to former correspondents of his father.

Doedes received a request to return any Darwin letters he might have in his possession shortly after Darwin's death in April 1882. But Doedes, who had been a history teacher at the state secondary school (Rijks Hogere Burgerschool) in Leeuwarden, the capital of the province of Friesland, since November 1880, did not immediately comply with the request [16]. The advert in *De Nederlandsche Spectator* did, nonetheless, surprise him, because he had published the letter containing Darwin's religious outpourings in the same journal just one week before in the 10th June issue [17]. Doedes' intention in writing the article was to bring some clarity to the discussion about the religious implications of Darwinism in The Netherlands. In it, he told how he and Costerus had written a letter to Darwin in 1873, adding that this 'perhaps rather boyish' missive had been amicably received by Darwin. He also told the reader that he had gone on to write a second letter that was 'distinctly more daring,' reproducing the entire middle section of the letter (as quoted above). He explained that his aim in reproducing part of the letter was to add something to the debate on Darwin's religiosity in Darwin's own words; he did not want to draw his own conclusions and risk falling into the trap of unreliable conjecture. In his article, Doedes stated that, in retrospect, it would have been better not to have pursued the correspondence further, but that he had not seen it like that at the time. The subsequent correspondence with Wedgwood had been much less interesting, although he did not say that in so many words in *De Nederlandsche Spectator*. Doedes was thoroughly aware of the unusual content of the letter and

its sensitive nature, which was probably why he had waited until after Darwin's death to publish it.

Doedes sent a copy of his article from *De Nederlandsche Spectator* to Francis Darwin, instead of the original letters, as requested. He innocently added that he hoped that Francis was able to read Dutch, otherwise he would be happy to send an English translation [18].

This resulted in a furious reply from Francis Darwin stating that Doedes had 'neither the moral nor the legal right' to publish his father's letter. Doedes replied that he had been totally unaware that this was the case and apologised most emphatically. He wrote that it had never been his intention to harm any feelings; his only aim had been to use his article to throw light on an issue that occupied so many Dutch people [19]. However, Doedes was now uncomfortably aware of the British lion breathing hotly down his neck, and immediately sent Francis Darwin copies of the letters he and Costerus had received in Utrecht in 1873 from the great man. He said he preferred to keep the originals himself, because they were of great personal value and he did not wish to take the risk of sending them by post. He expressly asked Francis Darwin not to publish the letters that he and Costerus had written to Darwin in 1873, and that were now presumably kept somewhere in Darwin's records of correspondence, should he be planning to do so. The reason Doedes gave for this request was that he was embarrassed about his poor command of English [20].

Doedes must have felt that his embarrassment was almost total. He had to offer his excuses to the English gentleman on an additional point. Francis Darwin had apparently accused him of priggery because he gave himself the title of 'Professor' whereas he was 'only' a secondary school teacher. Doedes defended himself, replying that he thought he was following an English custom and was only trying to avoid confusion.

In any case, a copy of the 1873 letter containing Charles Darwin's religious outpouring was now back in British hands; Francis Darwin used the salient content when writing his father's biography. The content of the letter was unusual and unique enough for it to appear subsequently in the *National Reformer*, 1 October 1882, and in other foreign (mainly German) publications [21].

Conclusion

Darwin fostered a reasoned ambivalence regarding the question of belief in a Christian God. In his writings on evolution, the Creator was present in a positive manner; God played a role, albeit remote. However, in his 1873 letter to Doedes, Darwin spoke of his passive rather than active belief in God – it sprang purely from the fact that he could not conceive of the entire universe and consciousness of man being created by chance alone. The fact remained, in Darwin's opinion, that the existence of the Creator could not be empirically proven; this idea was to resurface during his discussion with Büchner and Aveling in 1881. He did not dare to draw any conclusions because of the boundaries he set himself as a professional, modern scientist. If he had wanted to answer questions of belief, he would, in his eyes, have had to have studied the subject to be able to draw a qualified, socially acceptable and discussable opinion. The

time in which scientists had practised their art for the glory of God had, of course, passed. The tasks had now been apportioned, meaning that metaphysics and physics could no longer manoeuvre on each other's terrain (in the superior opinion of the scientists that is).

In the end, Darwin did not want to let the genie out of the bottle, although, in the opinion of many, this had already happened when he published his theory of evolution. His theory of natural selection had created a vacuum that was instantly filled with Darwinian interpretations of society and religion. Darwin was, and remained, true to his European Christian tradition; moreover, he did not wish to damage the religious feelings in his own immediate environment. The lack of clarity surrounding Darwin's religious position and the religious consequences of the theory of natural selection have occupied people the world over ever since *The Origin of Species* was published. Darwin himself erred on the side of caution, choosing to protect the (vulnerable) social and religious status quo by keeping his position neutral.

Acknowledgements

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Free journals for developing countries

The WHO and six medical journal publishers have launched the Health InterNetwork Access to Research Initiative, which enables nearly 70 of the world's poorest countries to gain free access to biomedical literature through the internet.

The science publishers, Blackwell, Elsevier, Harcourt Worldwide STM group, Wolters Kluwer International Health and Science, Springer-Verlag and John Wiley, were approached by the WHO and the *British Medical Journal* in 2001. Initially, more than 1500 journals were made available for free or at significantly reduced prices to universities, medical schools, and research and public institutions in developing countries. In 2002, 22 additional publishers joined, and more than 2000 journals are now available. Currently more than 70 publishers are participating in the program.

Gro Harlem Brundtland, the former director-general of the WHO, said that this initiative was "perhaps the biggest step ever taken towards reducing the health information gap between rich and poor countries".

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