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## Scientific culture in The Netherlands: Darwinism and popular culture, 1870–1885<sup>1</sup>

LAST YEAR I WAS VISITING for two weeks the University Library in Cambridge (England) where the complete correspondence of Charles Robert Darwin (1809–1882) is situated in original and transcript versions. In his entire life, Darwin sent over 7 500 letters and received more than 6500. The way he dealt with his correspondence shows similarities with today's e-mail, as was published in the magazine *Nature* last year October. E-mails are sent quicker and faster of course, but the waiting time for both letters and e-mails show the same mathematical formula.<sup>2</sup> Because my PhD-research is about the moral consequences of Darwinism in The Netherlands in the 19<sup>th</sup> century, and in particular the consequences for Christian ethics and the development of ideas about man and society under the reign of Darwinism, one can understand that I didn't have to read every letter, but was mainly focused on the Dutch correspondence. As I was reading through these letters of about twenty Dutchmen who wrote to and corresponded with Darwin, of whom there were mainly academics, one particular part of the correspondence struck my mind. Dated March 1873 was a letter of two students from Utrecht, a university city lain in the centre of The Netherlands. Jan Constantijn Costerus (1849–1938) and Nicolaas Dirk Doedes (1850–1906), respectively students of history and natural history, aged 24 and 23 years old, were enthusiastic admirers of Darwin's books; they knew the *Origin of species* which was published in 1859 and the *Descent of Man* of 1871, which were both translated in Dutch as soon as in one year.<sup>3</sup>

Costerus and Doedes were not the only enthusiastic students in The Netherlands who admired Darwin; there were a lot more Dutch people 'who love and estimate you with their whole heart', they told him. These students were interested not only in the scientific achievements of Darwin's theory of natural selection, but, 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' they said and Darwin meant 'in several regards a personification of Natural Filosofy' (sic), in the raging dispute which many believed was taking place between faith and science.<sup>4</sup> Encouraged by an amicable reply from England<sup>5</sup>, the student Doedes alone wrote a second letter because he was curious to know what so many people including the public wanted to know about Darwin: namely his opinion about the consequences of the theory of natural selection for the Christian faith.

Doedes, who was on the horns of his own religious dilemma in the early 1870s, was keen to ask Darwin what position he, personally, took in the debate about religion and science.<sup>6</sup> It was very unusual for Darwin to respond to such personal questions from unknown correspondents, particularly in view of the vast quantity of correspondence he received. In the mentioned article in the magazine *Nature* it

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<sup>1</sup> This lecture is based on my publication: "Darwin's young admirers", *Endeavour* 30 (3) 2006, pp. 103–107.

<sup>2</sup> Dirk van Delft, "Patroon Einstein- en Darwinpost is dat van e-mails" ["Pattern of Einstein and Darwin correspondence similar to e-mail patterns"], in: *NRC Handelsblad* 29 and 30 October 2005, p. 47. Van Delft refers to: J.G. Oliveira and A.-L. Barabási, "Darwin and Einstein Correspondence Patterns", *Nature* (437) 27 October 2005, p. 1251.

<sup>3</sup> Letter, J.C. Costerus and N.D. Doedes to Ch.R. Darwin (12 March 1873) CUL (Cambridge University Library) DAR 162: 200.

<sup>4</sup> Letter, J.C. Costerus and N.D. Doedes to Ch.R. Darwin (12 March 1873) CUL DAR 162: 200.

<sup>5</sup> Letter, Ch.R. Darwin to J.C. Costerus and N.D. Doedes (18 March 1873), CUL DAR 139.12:11.

<sup>6</sup> Letter, N.D. Doedes to Ch.R. Darwin (27 March 1873) CUL DAR 162:201.

was defended that Darwin only answered 32 percent of his incoming letters. 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.

In his letter Darwin released a proper agnostic view of the universe. He wrote to Doedes that it was impossible for him to conceive that ‘this grand and wondrous universe, as he wrote, with our conscious selves’ arose through chance only, what was in this respect the chief argument for the existence of God. But he stated immediately that he wasn’t sure of the value of this, rather negative, argument. When admitting a first cause of the universe, Darwin stated that knowing that, was not enough for men, since the mind would then want to know whence the first cause came and how it arose. Darwin commented further that he couldn’t understand the suffering in the world by means of the existence of a God, and was besides that shy to ignore ‘the many able man’ in history as he called it who had fully believed in God. For a conclusion he stated that the subject was beyond the scope of man’s intellect, but that man could do his duty, what meant that man could study the problem and do his best to overcome the problem.<sup>7</sup> Darwin wrote his letter in this year 1873 as a religious man experiencing doubts, someone who was troubled by fundamental questions which neither the Christian Revelation nor science could satisfactorily answer. In fact, Darwin thought of himself as a man of science in the first place, and men of physics simply didn’t intervene in metaphysical questions anymore. Everyone had to deal individually with the question of belief and modern science.

This distanced stand of Darwin 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, what disciples of Darwin like Herbert Spencer (1820–1903) in England and the German Ernst Haeckel (1834–1919) did not do (and who were therefore less popular in The Low Countries). Nevertheless, in the opinion of some groups, this did not render him immune from reproach; the orthodox parties and Catholics in particular, were uncomfortable with the materialism that was inherent in his theory of natural selection.

In the 1860s, the decennium after the *Origin of species* was published in 1859, Darwinism was synonymous with the theory of natural selection, the mechanism with which Darwin explained the natural evolution of plants and animals, and was mainly a topic in academic discussion, but at the end of the 1860s, Darwinism was enriched with another definition as well as it fell prey to sociological interpretations, years even before Darwin published his *Descent of Man* in 1871 about the natural evolution of man. By the 1870s Darwinism in The Netherlands, as in other European countries and North-America, had become fully involved in societal, religious and moral discussions. For a great deal this can be put on the account of the public, who was in the possession of the infrastructure to gain a voice in the debate about the theory. In this perspective the public was, as you could say, actively constituting the meaning of Darwinism. The numbers of magazines, papers and learned societies increased after the middle of the 19th century and in 1857 a new type of secondary school was launched by the liberals who possessed the political power at that time. Besides of the old gymnasium in which the old humanistic courses were dominant, the new so called ‘Hogere Burgerschool’ (the state secondary school) laid interest in more science for their students.<sup>8</sup> The public gained more and more access to science in an age where not only the aesthetics and ethics of nature were important, but the practical influences of science in everyday life were experienced and, last but not least, the ethical consequences of science became important because of the presumed materialism in science. In the 1870s various publications appeared in which Darwinism was attacked: by the confessional parties Darwinism was associated with materialism — by all means the curse of the 19th century — and the decadence of the Christian faith and ethics, whilst Darwinism was on the other hand propagated by liberals, freethinkers, and later in the 1880s by socialists for the moral progression and social and individual happiness of man it presupposed with which evolution in general and Darwin in particular were associated. Evolution as progress as you could say. On the whole, the

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<sup>7</sup> Letter, Ch.R. Darwin to N.D. Doedes (2 April 1873) CUL DAR 139.12:7.

<sup>8</sup> See for instance: Klaas van Berkel (1998), *Citaten uit het boek der natuur: opstellen over Nederlandse wetenschapsgeschiedenis* [Citations in the Book of Nature: lectures on Dutch history of science], Bert Bakker.

popular culture of Darwinism in The Netherlands was embedded in the liberal political culture, which, that must be said, encouraged publications both pro and contra Darwinism as a favourable instrument for the education of critical minds in the age of Progress.

Scientists could communicate better; quicker, on a more intensive scale than ever before. A good example for this is the correspondence Darwin undertook like a spider in his web with all kinds of scientists and young admirers in England and abroad. The history of Darwinism in The Netherlands, which can be described as a topic in the history of science, gets more meaning and perspective when written as a history of scientific culture in which society and ethics play a deserved role. Darwinism reaches far beyond the scientific reception only, since the public picked up and interpreted Darwinism as a far stretching issue, concerning not only nature and science but also man and his society. In the debates that took place in the 1860s and 1870s, the definition of Darwinism was constantly getting its shape, like all forms of culture are constantly being redefined when they are described; changing and changing all over again, not in the least on the account of the public. The Darwin correspondence is not the only example of how scientific ideas penetrated the public realm. The nineteenth century was an era of new media who became a forum of public opinion: the newspaper and the periodical. Magazines of popular science were founded in the Netherlands from the 1850s and onwards. The most important were the *Album der Natuur* [*Album of Nature*] in which popular science was being offered to the general educated public with articles on geology, palaeontology, anthropology, wildlife and curiosities about the nature next door. An explicit educational goal was being propagated in this magazine: man should become a morally better person when he knew and was aware of the magnificent work of God. Moreover, the knowledge of nature could give man besides of its esthetical and ethical values also a practical learning and attitude in the age of industrialization. Another magazine of popular science was launched in 1872 as a result of the benefits of the *Album of Nature* by Dirk Huizinga (1840–1903), professor of physiology in Groningen and H. Hartogh Heijs van Zouteveen (1841–1891), the translator of Darwin's *Descent of Man* in 1871 and 1872 and *The Expression of emotions* in 1873. *Isis* was a magazine that focused with its profound articles on the educated layman. *Isis* existed for ten years until 1881 and became a mouthpiece for Darwinism in the Netherlands. One in ten articles was related to Darwin and his books on evolution, or to Darwinism in general.<sup>9</sup> Due to too less subscribers the magazine was published for the last time in 1881.

The correspondence between Doedes and Darwin came in 1873 to an end because Darwin did not respond to a third letter of Doedes<sup>10</sup>, due to an unknown cause. In June 1882, shortly after Darwin's death in April that year, Doedes published the integral version of the letter with Darwin's religious outpourings in the Dutch freethinking journal *De Nederlandsche Spectator* (*The Dutch Spectator*).<sup>11</sup> He had waited to publish this letter until Darwin's death just because of the sensitive information it contained. How sensitive this information was, was also shown by the fury this publication caused to Darwin's son Francis Darwin (1848–1925), who had appointed himself the impassioned archivist of his father's written legacy. For the purposes of writing his father's biography, he endeavoured to track down and bring together all of his correspondence, placing adverts in the British and foreign press and in this way became familiar with the article of Doedes. In a correspondence between Francis Darwin and Doedes, who had become a history teacher at a state secondary school in the meantime, Francis said that Doedes hadn't had the 'moral nor the legal right' to publish it.<sup>12</sup> He was furious that the public came to know his father's religious feelings, by means of a publication in a freethinking journal so it could fall prey to all sorts of interpretations. Doedes seriously regretted his fault, but the letter was already published and later some German periodicals copied it. The letter was given free to the public to interpret its meaning and moreover to play a small part in shaping the meaning of Darwinism.

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<sup>9</sup> Edith Alkema, "Het tijdschrift *Isis* (1872–1881) en de verspreiding van het darwinisme onder het grote publiek" ["The magazine *Isis* (1872–1881) and the spread of Darwinism under the public"], *Gewina* 9 (1986), pp. 68–91.

<sup>10</sup> Letter, N.D. Doedes to Ch.R. Darwin (4 April 1873) CUL DAR 162:202.

<sup>11</sup> *De Nederlandsche Spectator* (*The Dutch Spectator*) 17 June 1882, p. 199, Thieme.

<sup>12</sup> Letter, N.D. Doedes to Francis Darwin (25 June 1882) CUL DAR 198.