

DARWINISM IN DENMARK: REFLECTIONS ON THE HISTORY OF EVOLUTION AND RELIGION FROM THE CULTURAL STRUGGLES IN THE 1870S TO MODERN CREATIONISM

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Abstract: In this article, I will address the history of Darwinism in Denmark with a focus on how the theory of evolution has been part of cultural, religious, and educational battles from its introduction by freethinkers such as Georg Brandes and Vilhelm Rasmussen to modern day creationism. I will pay close attention to two aspects, namely 1) the role of science popularisation and the scientific marketplace and 2) the specific Protestant context in which Darwinism was introduced. Moreover, I will compare the history of Darwinism in Denmark to countries with other cultural and religious contexts, primarily Spain, Britain, and America, in order to make some broad conclusions on how Darwinism has been and still is appropriated around the Globe. Finally, I will sketch avenues for further research on the history of Darwinism and science and religion. The article will be based on my research on appropriations of Darwinism in Denmark, including my work as contributor to and co-editor of Creationism in Europe (Johns Hopkins University 2014) and as contributor to The Reception of Charles Darwin in Europe (Continuum /Bloomsbury Publishing, 2008-2014).¹

Keywords: *Darwinism; Creationism; Denmark; Science and Religion; N.F.S. Grundtvig; Georg Brandes.*

1. This article is an edited version of a lecture delivered at the Societat Catalana d'Història de la Ciència i la Tècnica on 25 May 2023.

The aim of the article is to deliver an overview of the history of Darwinism in Denmark with a focus on the broader religious and cultural implications of evolutionary theory. In the first section of the article, I will analyse the role of Darwinism in the debates over science and religion in Denmark from the 1870s to 1914. I will include a comparative perspective by relating the Danish case to the Spanish, British and American cases. Then, in the second section, I will discuss modern creationism in Denmark and compare it to the situation in other countries including Spain. Finally, I will outline avenues for further transnational research on Darwinism and creationism.

Appropriations of Darwinism in Denmark

In the 1870s, Darwin became a household name among the Danes. His main works were translated into Danish at this time and thus parallels the Spanish case, while translations into Catalan had to wait a while.

	Britain	Denmark	Spain	Catalonia
<i>Journal of Researches</i>	1839	1870	1899	1879
<i>Origin of Species</i>	1859	1872	1872	1982
<i>Descent of Man</i>	1871	1875	1876	1984

Illustration 1. Translations of Charles Darwin's works (Glick & Engels 2008).

Like in the British, Spanish and Catalan cases, Darwin's theory of evolution was met with opposition among Christian thinkers. However, in the Danish and British cases Protestants quite early developed strategies to come to terms with Darwinism, while the antagonism between Catholics and Darwinists seems to have been more heated and clearcut in Spain and Catalonia. This is exemplified by the so-called 'University crisis' in 1875 when Darwinian scientists were excluded from the University of Madrid and went on to establish a free university, by the open conflict between a Darwinian professor and the Bishop of Barcelona in 1895, and by the extravagant Valencian celebration of the centenary of Darwin's birth in 1909 which was described as 'an homage to the Devil' by the Conservative Catholic press (Glick, 1969; Pelayo 2008; Catalá Gorgues, 2014). Thus, the debates in Denmark were more peaceful than in Valencia, but as we shall see, Darwin was still a controversial figure.

No doubt, the hotbed of evolutionary theory in Denmark was the capital of Copenhagen, which was the only urban centre in the country. In the early 1860s, Charles Darwin's theory of evolution was debated among naturalists at the University of Copenhagen, in the Natural History Society and disseminated through articles in the popular press. This echoes a general global picture with cities and universities serving as the vehicles for the transmission of Darwinism. However, I will argue that in the Danish case we must include other

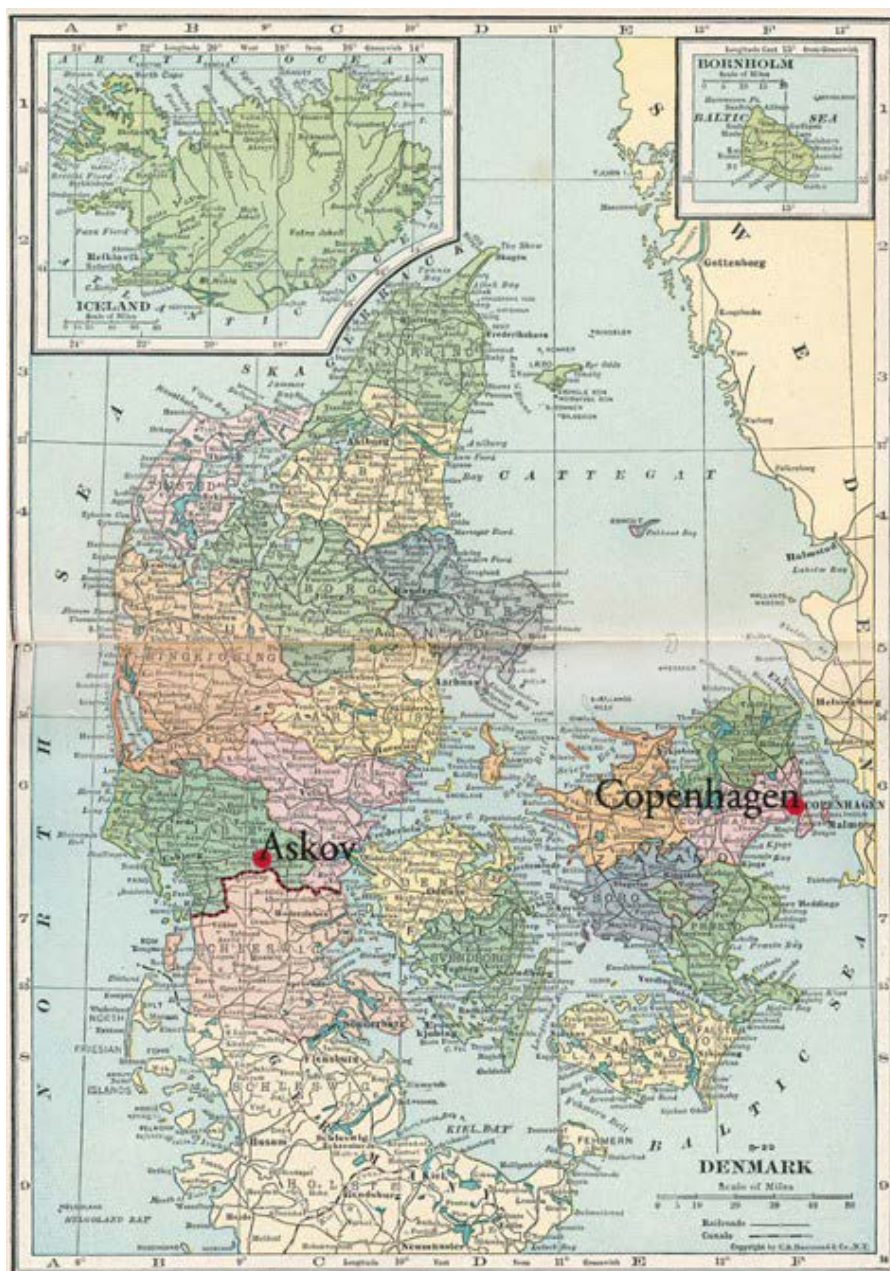


Illustration 2. Map of Denmark 1864-1920. Around 1900, Denmark was divided between academics with radical and positivist attitudes in the capital of Copenhagen and liberal Grundtvigians based in the provinces.

The folk high school in Askov functioned as an institution of higher learning for Grundtvigians who had established a network of alternative schools in rural areas.

geographical places than cities to grasp the complexity and broader cultural context of the Darwinian debates. I suggest that it would be useful, at least in the Danish case, to distinguish between what I have termed “urban” and “rural” Darwinism.

Studies by Ronald Numbers, John Brooke, Geoffrey Cantor and many others have shown how it would be problematic to talk about ‘the reception of Darwinism’ in a specific country (Brooke & Cantor, 1998; Numbers & Stenhouse, ed., 1999, Adelman, 2005; Cantor & Swetlitz, 2006). Rather, within each country, there were often several ethnic groups and languages, and several interpretations, appropriations, and uses of Darwinism. This has motivated historians to look at the reactions to evolution at the sub-national level. During the last decades, studies have thus analysed the role of Darwinism among ethnic minorities and at specific localities such as universities, museums, cities, and regions. In a now classic study of Calvinist attitudes towards Darwinism at Presbyterian universities in Belfast, Edinburgh and Princeton, the geographer and historian of science David Livingstone has demonstrated how local contexts, more than theological doctrines, determined the various responses to organic evolution (Livingstone, 1992, 1999, 2001, 2003a). Livingstone points out that the attention paid to local circumstances is part of a more general ‘spatial turn’ within history and sociology, including science studies. Livingstone thus advocates the primacy of “the local, the specific, the situated” in the construction and reception of scientific knowledge (Livingstone, 1999: 7-8; see also Livingstone 2003b). In many respects Livingstone’s ‘geographies of science’ resemble contextual approaches which have dominated the historiography of science at least since the 1980s and parallels a growing focus on microhistory and book history among historians of science. In line with this historiographical focus on locality, in this article the spatial categories “urban” and “rural” will function as the central analytical categories. Unlike urban science, which has been a focus of study in several years (Dierig, Lachmund & Mendelsohn, 2003), rural science has not received much attention until recently (Hjermitslev, 2015).

I will now outline the broader political and cultural landscape of Denmark relevant to the discussion of Darwinism in Denmark. In 1849, Denmark became a constitutional monarchy, but conflicts concerning the democratic constitution caused a civil war with the German-speaking inhabitants in the southern part of the country, Schleswig, and Holstein, which represented around one-third of the territory and population. While the ethnic Danes were victorious in this war, the Second Schleswigian War in 1864 resulted in a defeat to the German enclaves supported by Austria and Prussia. After 1864, Denmark was reduced to a small monocultural nation state with colonies in the West Indies and in the North Atlantic Sea. In 1890, the population of the remaining part of Denmark reached 2.2 million, of whom the majority were farmers. Agriculture was the dominant industry, although Denmark witnessed a rapid urbanisation from the 1890s and onwards. In the aftermath of the Great War, in 1920 the ethnically Danish northern part of Schleswig was reunited with Denmark.



Illustration 3. N.F.S. Grundtvig (1783-1872) was the most influential educational and theological writer in nineteenth-century Denmark. His liberal ideas of enlightenment inspired his followers to establish an exam-free alternative to the traditional school system, and his version of Lutheranism gave birth to a liberal faction of the state-sanctioned Evangelical-Lutheran Church. Photo by Christian Adolph Barfod Lønborg, 27 August 1872. Royal Danish Library.

Despite a majority of seats in the two chambers of parliament, the Liberal Party (*Venstre*) remained in opposition until 1901, when the Conservative Party (*Højre*) and the king finally accepted cabinet responsibility, and the first liberal government was appointed. Within the Liberal Party there were strong tensions between, on the one hand, a group of 'nationals' from the provinces, who were rooted in a rural Christian culture and followers of the influential Protestant clergyman and philosopher N.F.S. Grundtvig and, on the other hand, a group of anticlerical 'radicals', inspired by the literary critic Georg Brandes, who had a stronghold among the educated classes in the capital of Copenhagen, and assembled at the radical club, the Society of Students. The Socialist Party (*Socialdemokratiet*) remained outside the circles of political power, until it took over government in 1924.

During the so-called cultural struggle from the 1870s, when freethinkers associated with Brandes conflicted with conservatives and liberal Grundtvigians over political, educational, cultural and clerical issues, a gap between rural culture and urban culture became visible. While a young generation of academics with positivist and radical sympathies were gaining ground at the University of Copenhagen, farmers and clergymen with Grundtvigian sympathies established an alternative rural culture in the provinces.

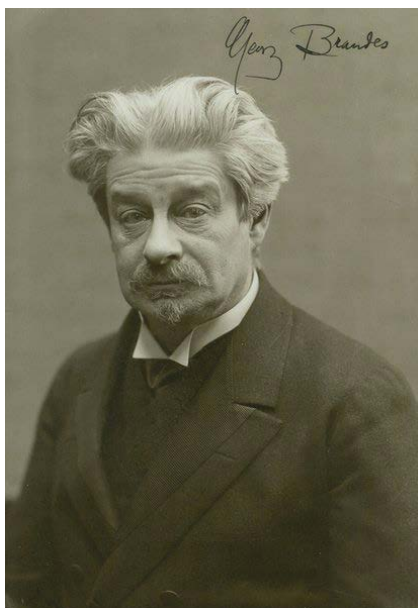


Illustration 4. The literary critic Georg Brandes (1842-1927) was a renowned European intellectual and inspired a young generation of Danish scientists and artists in their cultural struggle for free thought and secularism. Royal Danish Library.

The rural movement was politically liberal, and it founded more than a hundred folk high schools in the provinces from 1844 to 1920. The schools combined liberal education with practical teaching of agriculture. The most prominent of these schools was placed in Askov near the German border to Schleswig (Hjermitslev, 2015).

Far away from rural Askov, in urban Copenhagen the scientific world was dominated by three institutions of higher learning: The University of Copenhagen (1479), the Polytechnical College (1829) and the Royal Veterinary and Agricultural College (1859). The university was a traditional four-faculty institution with theology, medicine, law, and philosophy, but as early as 1848 it became possible for students to earn a master's degree in natural history. Reflecting the growing importance of natural science, in 1850 a new Faculty of Science was created. However, until around 1880 the Faculty of Theology produced the largest numbers of candidates. By then Medicine gained the position, while the professional natural history community remained small and restricted to institutions, museums, and laboratories in Copenhagen (Kragh et al., 2008).

In contrast to the heated confrontations at Spanish universities, evolutionary theory was gradually and rather peacefully accepted among professional naturalists, and from the 1880s it became an integrated part of the teachings at the institutions of higher learning in Copenhagen.



Illustration 5. Askov Folk High School in Southern Jutland was established in 1865 and soon became the centre of the Grundtvigian movement, which advocated liberal views within politics, education and religion. Lex.dk.

However, by that time Darwinism had long been embraced as the basis of a new secular worldview among the close-knit group of urban radicals in Copenhagen, who popularised the evolutionary theories in public lectures, pamphlets, periodicals, and book series (Hjermitsev, 2010; 2016).

Urban Darwinism

Among this urban group, no one did more to popularise Darwinism than the botanist and poet Jens Peter Jacobsen. He translated the *Origin of Species* and *Descent of Man* and wrote several articles on Darwinism in the first half of the 1870s. His translation of the *Origin of Species* was based on the fifth edition from 1869, and it was sent out as nine booklets in 1,500 copies from November 1871 to November 1872. The *Descent of Man* was published in 13 parts from October 1874 to November 1875. This time circulation was scaled down to 1,250 copies. While translating Darwin, Jacobsen was engaged in both scientific and literary work. He wrote articles on Darwinism for the radical journal *Nyt Dansk Maanedsskrift* [New Danish Monthly] which sparked off polemics with the anti-Darwinian bishop D.G. Monrad, and worked on a dissertation on freshwater algae, which resulted in the prestigious University of Copenhagen Gold Medal in 1873. Meanwhile he was writing the novel *Marie Grubbe – A Lady of the Seventeenth Century*. From 1872 Jacobsen had been on friendly terms with the young journalist and freethinker Edvard Brandes, who was over-

whelmed by what he regarded as Jacobsen's exceptional poetical talent. The influential Edvard Brandes made sure that Jacobsen's literary works were well received in the press, and he played an important role in convincing Jacobsen that he should devote his life to poetry and prose instead of botanical work. Jacobsen became part of the circle of freethinkers which developed around Edvard's brother, the literary critic Georg Brandes, who embraced Jacobsen's work on Darwinism and applied it in his liberal struggle against the Church and the conservative order. The polemical and anticlerical potential of Darwin's work was thus exploited by Brandes and supported by Jacobsen in his translations and popular articles on Darwinism. The translation work was by no means an easy task for Jacobsen. In June 1871 the editor of the leading publishing house Gyldendal Frederik Hegel accepted Jacobsen's offer of translating the *Origin of Species*, but the translation was only completed 15 months later. Even worse with *Descent of Man* on which Jacobsen spent three years. There were, however, good reasons for this. From 1873, Jacobsen was severely debilitated by tuberculosis, which forced him to leave Copenhagen and live with his family in his native town of Thisted in Western Jutland, and moreover he spent much time and energy on his work on *Marie Grubbe* while translating *Descent of Man*. Hegel had to press Jacobsen for instalments, which were nonetheless delayed several times. In June 1873 Jacobsen revealed to Edvard Brandes that he was "almost getting sick of translating Darwin", and after submitting the last chapters of *Descent of Man* in the autumn of 1875, Jacobsen abandoned science writing and translating for good (Clasen et al., 2014, 107).

In his translations Jacobsen drew on the writings of Ernst Haeckel and his monistic interpretation of Darwinism. Notably, the original nine instalments containing the translation of the *Origin of Species* was entitled *Naturlivets Grundlove. Et Forsøg på at hævde Enheden i den organiske Verden* [The Basic Laws of Nature: An Attempt to Assert the Unity of the Organic World], while it was only the complete edition that had a literal translation. The title of the instalments emphasised the wider monistic aspects of the theory of evolution, and thereby connected it to Haeckel's *Natürliche Schöpfungsgeschichte* [Natural History of Creation] which was consulted by Jacobsen during his translation work and translated into Danish in 1877. After 1875 Jacobsen lived as a full-time novelist, disturbed only by periods of bad health due to tuberculosis which finally ended his life in 1886. As part of his secular campaign, Georg Brandes claimed in the German high-brow journal *Deutsche Rundschau* in May 1883 that Jacobsen's articles in 1871 were the first popular introduction to Darwin in Denmark and even in Scandinavia. Since then, historians have refuted this claim and showed that Darwin and his theory were debated in the popular press of the 1860s. However, from the 1870s, among the people, Darwinism was indeed strongly associated with Copenhagen radicalism and the atheist agenda of Jacobsen and Brandes (Kjærgaard, Gregersen & Hjermitslev, 2008; Clasen et al., 2014).

The theologian and 1917 Nobel Prize Winner for Literature Karl Gjellerup was another early urban Darwinist connected to the radical Society of Students in Copenhagen. He

came from a family of clergymen, but when he graduated with a theological degree, he had lost faith, presumably due to his experiences with biblical criticism. His novels often focused on the relationship between Christians and heretics, and he clearly sided with the latter ones. He was a devoted disciple of the radical literary critic Georg Brandes, and his strong support of Darwinism and naturalism was evident in his dissertation *Arvelighed og Moral* [Hereditry and Morality] for which he was awarded the prestigious university Gold Medal. Shortly after Charles Darwin's death in 1882, Gjellerup published a high-flown hagiographical ode to the memory of the British naturalist entitled *Aander og Tider: Et Requiem over Charles Darwin* [Spirits and Times: A Requiem of Charles Darwin], in which he depicted God as a lost and lonely man, who passively witnessed that his creation, nature and man, did not care about him anymore. According to Gjellerup, Darwin had initiated a new secular worldview that would do away with old Christian dogmas (Clasen et al., 2014). This secularist narrative was an echo of Brandes' proclamation in 1871 that, "we, who live in the age of Charles Darwin, no longer accept the possibility of an original state of perfection and a fall. There is no doubt that the teaching of Darwin means the downfall of orthodox ethics, exactly as the teaching of Copernicus meant the downfall of orthodox dogma. The system of Copernicus deprived the heaven of the Church of its »local habitation«; the Darwinian system will despoil the Church of its Paradisaic Eden." (Brandes, 1906: 177)

During a spiritual revival among urban intellectuals in the late 1880s and 1890s, when the Brandes circle collapsed, and Brandes shifted his attention from Darwinism, naturalism and positivism to the aristocratic teachings of the German philosopher Friedrich Nietzsche, the first generation of urban Darwinists, such as Jacobsen and Gjellerup, were replaced by a new generation of Copenhagen Darwinists, who were natural history graduates from the university and eager to promote the evolutionary gospel.

The natural history teacher and science writer Jens Orten Bøving-Petersen was among the most influential and prolific popularisers of natural science in Denmark in the decades around 1900. Two of his popular works on natural history were published under the imprint of the successful book series *Frem* and printed in up to 100,000 copies. Since his student days in the 1880s, Bøving-Petersen had been an enthusiastic advocate of Darwinism. He was a devoted disciple of the embryologist Rudolph S. Bergh, who introduced Ernst Haeckel's comparative methods and phylogenetic work at the University of Copenhagen. Bøving-Petersen wrote several articles and books that informed about evolution. In 1897, his polemical and anticlerical work *Skabelse eller Udvikling?* [Creation or Evolution?] was published by the Society of Students. Bøving-Petersen sharply contrasted the biological theory of evolution with the biblical history of creation, the theory of separate creations and notions of a divine plan in nature. He piled up empirical evidence, taken from morphological investigations, the geographical distribution of plants, the fossil record, studies of embryos and taxonomy, which he considered in favour of evolution and made a crea-



Illustration 6. The journal and book series *Frem* reached 100,000 subscribers in the beginning of the twentieth century. The successful publication took centre stage in the scientific marketplace and did much to disseminate evolutionary theory to all classes of society. Frontpage of *Frem*, 28 February 1909.

tionist view seem untenable and even preposterous. The ridicule of Christian views on creation and Bøving-Petersen's conception of a necessary conflict between evolution and Christianity made the Jesuit amateur naturalist Amand Breitung write a rejoinder entitled *Abeteoriens Bankerot og vor populære Darwinisme* [The Bankruptcy of the Ape-Theory and Our Popular Darwinism] (1899), in which he attacked popular Darwinism as advocated by radical and socialist writers, and the Society of Students. Like his mentor, the evangelical professor of plant ecology, Eugen Warming, Breitung defended a restricted form of theistic evolutionism, but excluded humans from the evolutionary process. Thus, a Catholic amateur naturalist and an Evangelical professor of botany joined forces in combating the theory of common descent which was seen as the most controversial aspect of the theory of evolution. This, in turn, reflects the situation in Spain, where human evolution, the so-called ape-theory, was also the most debated aspect of evolutionary theory (Andersen & Hjermitsev, 2009; Hjermitsev, 2011; Pelayo, 2008; Catalá Gorgues, 2014).

On the centenary of Darwin's birth 12 February 1909, Breitung and Warming's atheist antagonist Bøving-Petersen wrote the commemorative article for the radical-liberal news-

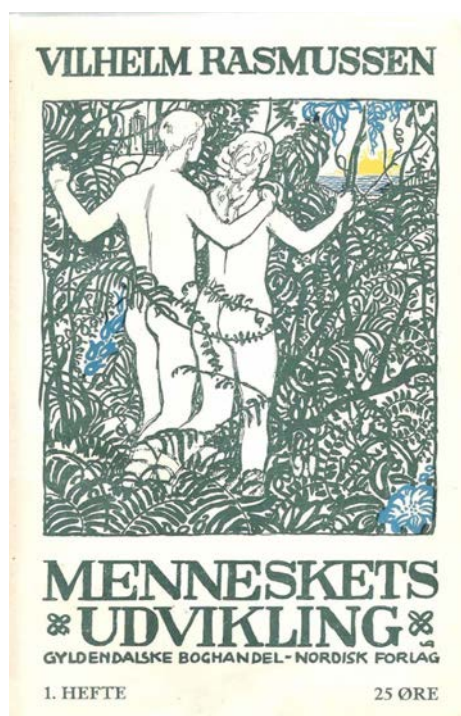


Illustration 7. Front page of Vilhelm Rasmussen's *Menneskets Udvikling* [Evolution of Man] from 1911. Rasmussen advocated evolutionary theory as an alternative to the biblical history of creation. Note the resemblance of the man and woman to the biblical figures of Adam and Eve.

paper *Politiken*. Here Darwin was celebrated as a secular saint who had liberated mankind from obscurantism (Hjermitsev, 2010; 2014).

The natural history teacher Vilhelm Rasmussen, who later became an internationally acclaimed educational and psychological writer (Corell Doménech, 2022), was in line with Bøving-Petersen in his appraisal of Darwin. During his university studies in the 1890s Rasmussen became an outspoken atheist, socialist and a supporter of Darwinism. He popularised his controversial views in lectures and in books, which resulted in removals, complaints, and many controversies. In the first decades of the twentieth century, Rasmussen wrote the popular works on evolution *Verdensudviklingen* [The Evolution of the World] and *Menneskets Udvikling* [Evolution of Man] and several biology textbooks from an evolutionary and materialist point of view. He also engaged in debates in educational journals about the teaching of natural history, which was introduced as a compulsory subject at secondary and high school levels in school reforms around 1900. He offended many Christians by ridiculing the biblical history of creation. Bøving-Petersen and Rasmussen, who remained faithful to the secular and materialist agenda of the first generation of urban Darwinists,

were the most controversial pro-Darwinian writers in the early twentieth century, and they were often attacked by both evangelical and liberal Christians (Andersen & Hjermitsev, 2009; Hjermitsev, 2011).

Especially Vilhelm Rasmussen was seen as a threat to established religion and Christian faith, since his works were widely advertised and read around 1900 and thus had a prominent place in what Aileen Fyfe and Bernard Lightman have coined the 'scientific marketplace' (Fyfe & Lightman, 2007). Adverts with a dinosaur for his work on the evolution of the world had a prominent place in the newspapers. As a marked strategy the book was published in instalments for subscription like the Darwin translations 25 years earlier. It is remarkable that pro-evolutionary books by Rasmussen and others were advertised and reviewed in the socialist and radical press, while works by Breitung and other anti-Darwinists were advertised and reviewed in the conservative press. Moreover, the advertising campaigns were part of a publishing war between the leading publishing houses Gyldendal and Nordisk Forlag. Thus, financial and ideological interests went hand in hand in the scientific marketplace (Andersen & Hjermitsev, 2009; Hjermitsev, 2010; 2014).

Rural Darwinism

However, the Darwinian campaigns did not convince all Danes. Many Christians in the rural areas of Denmark remained hostile towards evolutionary theory in the decades around 1900. This is no surprise, since Darwin's theory had been associated with radicalism and atheism since the 1870s, as I have documented above. For example, the renowned natural science teacher in Askov, Poul la Cour, wrote critical responses to Darwinism in Grundtvigian periodicals in this period, and the Grundtvigian reverend H.P. Gjernvøe published a book in 1901 attacking human evolution as promoted by Vilhelm Rasmussen and Bøving-Petersen. No surprise, Gjernvøe's attack on Darwinism was advertised and positively reviewed in the conservative press (Hjermitsev, 2011).

However, from the 1880s a group of liberal followers of Grundtvig, the so-called neo-Grundtvigians, included controversial issues such as biblical criticism, modern literature and evolutionary theory in their writings and teachings at the folk high schools, and thus attempted to reconcile the results of modern science with their Christian worldview. Among these early rural Darwinists, we find one of the few female high school teachers, Eline Begtrup, who taught zoology at Askov Folk High School from 1886-95 and later became headmaster of her own folk high school and a prolific freelance lecturer and science writer. Begtrup was instrumental in introducing natural history and in particular evolutionary theory at the Protestant Grundtvigian folk high schools. She lectured on Darwinism from the 1890s and published widely on Charles Darwin and the history of evolution in Grundtvigian periodicals, including the leading mouthpiece for the liberal fraction of the movement, *Højskolebladet* [The High School Magazine]. By arguing that Darwinism and Christianity were not mutually exclusive, she played an important role in legitimising the

teaching of evolution at the folk high schools. Importantly, in 1914 she contributed to a special issue on the theory of evolution published by The High School Magazine. This special issue, which included informative and positive articles on Darwin's theory, was a strong signal to the rural readers that evolution could be reconciled with Christian faith (Hjermit-slev, 2011).

In Aagaard near Askov, another Christian defender of Darwinism, Valdemar Brücker served as a pastor and folk high school headmaster. As a prolific writer in the liberal Grundtvigian periodicals *Højskolebladet* [The High School Magazine] and *Tidens Strøm* [Contemporary Current], Valdemar Brücker was the most prominent advocate of the neo-Grundtvigians, who introduced modern science and literature and biblical criticism in Grundtvigian circles. Initially educated as an engineer, Brücker understood the scientific value of evolutionary theory and frequently touched upon the topic. In line with the Danish philosophers Søren Kierkegaard and Rasmus Nielsen, Brücker made a radical distinction between faith and knowledge, which left room for both evolution and Christianity. Brücker combined this separation model of science and religion with a liberal interpretation of N.F.S. Grundtvig's theology. In 1884 he phrased it as follows: "And in any case, it is a great relief to see that faith is autonomous, independent of science, that theological attempts to support faith by scientific arguments is nonsense, and that faith is perfectly self-contained, explains itself, and is based on its own principles. And it is in accordance with Grundtvig's ideas. When he pointed to the sacraments, he pointed to what *can* be believed; When R. Nielsen makes one abandon all Titanic attempts to believe the entire Bible, word for word, one is helped by Grundtvig to realize what you *can* and *should* believe" (Hjermit-slev, 2011: 297-298). Brücker emphasised Grundtvig's anti-scriptural church view which included the notion that the living word of Christ was primary to the letters of the Bible and that the cornerstone of Christianity was not Scripture as in traditional Lutheranism, but the sacraments and the Apostolic Creed. By advocating this aspect of Grundtvig's teachings and downplaying Grundtvig's literal interpretation of Genesis and orthodox geocentrism apparent in his philosophy of history, Brücker made it possible for himself and other neo-Grundtvigians to embrace ideas which seemed at odds with the Bible, such as biblical criticism and Darwinism (Hjermit-slev, 2011).

Brücker's most elaborate assessment of Darwinism was published in his major work *Et Livssyn* [A View of Life] from 1916. Like Brandes, he discussed Copernicus and Darwin's challenge to a Christian worldview, but he drew very different conclusions. According to Brücker, heliocentrism and evolution did not destroy the fundament of Christianity. Rather, these challenges had clarified matters and made it evident that Christianity could and should not base its truth on the Bible, which Brücker regarded as a historical, and not a divine, document which contained some truth, but also a good deal of nonsense, especially when it came to claims about nature and the creation of plants, animals, and human beings. Naturally, Brücker did not share this liberal view on Scripture with conservatives, evangel-

icals, and orthodox Grundtvigians within the broad Evangelical-Lutheran Church, but his views were welcomed by many liberal Grundtvigians, who wished to remain faithful to both Grundtvig and Darwin. In this way, a specific Danish compromise between Darwinism and Christianity emphasising the separation and independence of science and religion became popular. This contrasts with the British and American cases where versions of teleological evolutionism were the normal way for liberal Protestant to come to terms with Darwinism (Hjermitslev, 2011). The same was the case among liberal Catholics in Spain and Catalonia (Pelayo 2008; Camós 2008; Catalá Gorgues 2014).

Literature, Darwinism and Lamarckism

The novelist and journalist Johannes V. Jensen, who won the Nobel Prize for literature in 1944, was a prolific advocate of evolution during the first half of the twentieth century. However, unlike fellow atheists such as Gjellerup, Brandes and Jacobsen, Bøving-Petersen and Rasmussen, he did not use Darwin as a weapon against the rural Grundtvigian movement. In fact, his version of Darwinism was an idiosyncratic mixture of Grundtvig and Darwin.

Johannes V. Jensen published more than twenty poems, essays and novels discussing Charles Darwin and evolution. In *Den Moderne Verden* [The Modern World] from 1907, Jensen praised Darwin and compared him with N.F.S. Grundtvig. Jensen regarded both as seers, rural heroes and advocates of progress. He furthermore claimed that “the theory of evolution was the simple and sober-minded farmer’s view of life in bloom” (Clasen et al., 2014, 123). After World War I, Jensen strongly condemned what he called ‘bad Darwinism’ which was defined as the vulgarization of Darwin’s theory of evolution by the German thinkers Ernst Haeckel, who advocated a version of social Darwinism, and Friedrich Nietzsche, who claimed that might was right in his version of an aristocratic ethics. Jensen was convinced that this misuse of Darwin had led to German militarism and the Great War. Jensen was also critical of the urban freethinkers of the 1870s, especially the literary critic and Nietzsche populariser Georg Brandes, who, according to Jensen, made Darwinism fashionable but did not understand the essence of the theory, and the writers Henrik Ibsen and Herman Bang who focused too much on heredity and degeneration instead of the liberating and progressive aspects of evolution. According to Jensen, modern man owed his soul to Darwin, but ironically Jensen was more a Lamarckian than a Darwinian. In the 1920s he wrote several essays where he argued for the direct adaptation of animals to their environment and use-inheritance. He was a great admirer of the Lamarckian zoologist Herluf Winge and sceptical of laboratory studies and genetics, which during the 1920s and 1930s made Lamarckism seem more and more outdated to many scientists. In his great evolutionary epic *Den lange rejse* [The Long Voyage] published from 1908 to 1922 Jensen outlined a specific Nordic history of mankind from the transition from brute to man, through the stone, bronze, and iron ages to Christoffer Columbus whom Jensen envisioned

as a Nordic type. According to Jensen, the struggle against nature, especially the cold climate, had made the Nordic race particularly strong. The novel was based on an idiosyncratic reading of evolutionary archaeology and anthropology. Jensen embraced the imperialist and racist aspects of sociocultural evolutionism. According to Jensen, the Anglo-Saxon races in Britain and America and the Jutlandic races in Western Denmark were culturally and biologically related and represented the climax of human evolution and civilization. Therefore, Columbus must have had Danish blood in his veins (Clasen et al., 2014: 122-126).

Johannes V. Jensen's ambiguous position as an acclaimed Darwinist defending Lamarckism and as a freethinker defending the Lutheran pastor Grundtvig reflects the complex scientific situation of the theory of evolution around 1900. While the general theory of evolution was accepted by practically all naturalists, it was widely debated how to explain the evolutionary process. Thus, strict Darwinists supporting Darwin's theory of natural selection competed with Lamarckian botanists and zoologists embracing Lamarckian ideas of use-inheritance and teleological evolution. Moreover, geneticists were critical towards natural selection as well as Lamarckian explanations of the evolutionary process. Instead, they preferred mutation theory. This ambiguous position of selection theory, that is Darwinism in the strict sense of the word, is the reason why historian of science Peter J. Bowler talks about 'the eclipse of Darwinism' and 'the Non-Darwinian Revolution', while contemporary religious critics of evolution more bluntly referred to the crisis as 'the Death of Darwinism' (Bowler 1983; 1988).

In Denmark, the most vigorous debate over the mechanisms that directed the evolutionary process was between the aforementioned father of plant ecology Eugen Warming and the geneticist Wilhelm Johannsen, who was famous for coining the word 'gene' and distinguishing between phenotype and genotype. It is remarkable that their scientific disagreements as defenders of genetics and Lamarckism respectively also influenced the debate over science and religion in Denmark. Thus, Wilhelm Johannsen's critique of the scientific status of Darwinism was used by liberal Grundtvigians to play down the wider religious and philosophical consequences of the theory that were highlighted by atheists such as Georg Brandes og Vilhelm Rasmussen, while Eugen Warming's authority was applied by conservative Evangelicals to embrace a Lamarckian, teleological view of evolution that excluded man from the evolutionary process. Thus, Johannsen was contributor to the special issue of *The High School Magazine* that marked the acceptance of evolution among Grundtvigians in 1914, while Warming wrote an apologetic pamphlet that was published by an evangelical organisation in 1910. The pamphlet was published in no less than 50,000 copies and later reprinted in magazines and newspapers and thus reached a wide audience. In the pamphlet, Warming discussed the ambiguous status of the Darwinian theory of natural selection which he claimed was on its deathbed and defended the view that evolution was directed by a divine plan. However, Warming made clear that the general theory of

evolution was a valid scientific hypothesis, but he suggested that evolution might have happened through parallel lines, and that man was not related to apes (Hjermitslev, 2009; 2010).

In fact, Warming's position from 1910 when he accepted evolution, but defended parallel lines of descent and excluded man from the evolutionary process, was echoed by modern-day Danish creationists a hundred years later. I will return to this later.

Commemorating Darwin in 1909

Summing up the first section of the article on the early appropriations of Darwinism in Denmark, it is useful to have a look at the 1909 commemoration of Darwin. The commemorative articles in the press thus reveal the positions in the debate over Darwinism and science and religion in Denmark.

I have identified three positions which I have termed radical science, evangelical science, and safe science. Radicals writing in socialist and radical-liberal media used Darwinism as a weapon against established religion. This position is familiar to other European countries including Spain where Republicans were eager to embrace Darwinism in their battle against the Catholic Church. The opposite position, which I have termed evangelical science, defended religion against evolution by criticising moral, scientific and philosophical aspects of Darwinism and defending a relatively literal reading of Scripture. Among these critics of Darwinism, we find creationists, denying that any evolution had occurred, but also Christians like Warming that accepted a limited form of evolution and excluded man from the evolutionary process. This position was disseminated in the conservative press and is also known outside Denmark. However, the third position, which I have coined safe science, a term borrowed from historian of science Jonathan Topham (1992), refers to a specific Danish position that accepts evolution as well as religion, not by harmonising them, but by claiming that science and religion, that is knowledge and faith, are two fundamentally different principles which are completely independent from each other. Thus, the theory of evolution was only a scientific theory that did not have any serious philosophical, moral, or religious implications as it was claimed by radicals. This position of safe science was defended by the liberal press and by liberal Lutherans in rural Denmark, the neo-Grundtvigians, who thus found a middle ground between orthodoxy and atheism. As we shall see later, this position is very strong among Christians in Denmark today (Hjermitslev, 2010; 2011; 2014).

Defining Creationism

Now, we will move from the early 20th century to the 21st century. In this second section of the article, I will discuss modern creationism in Denmark. It will be based on the chapter on creationism in Scandinavia that Peter C. Kjærgaard and I wrote for the volume *Creationism in Europe* in 2014, but I will also include later developments (Hjermitslev & Kjærgaard,

2014). Thus, in the remaining part of the article the focus will be on recent debates over evolution and religion.

To clarify matters it is worth defining the term ‘creationism’. By using the term creationism, I refer to religious belief systems that oppose established evolutionary science. As such, creationism includes intelligent design, as well as young- and old-earth, scientific and biblical, and indigenous and imported creationism. This understanding of creationism echoes the definition used by the pioneer of the study of creationism Ronald Numbers (2006).

Even though religious critiques of Darwinism were widespread in all countries from the publication of Charles Darwin’s *Origin of Species* in 1859 and onwards, it was only during the Protestant fundamentalist awakening in the United States of America in the 1920s that an organized opposition towards evolution was established. Creationism soon became an organized movement that successfully combated the teaching of evolutionary science in schools. For decades organized creationism remained an American phenomenon. However, from the 1970s American creationism was imported to Western European countries, including Spain and Denmark, through translations, films, and lectures, and from the early 1980s creationist organizations and journals were established in several Western European countries. The first European Creationist Congress was held in Belgium in 1984, and in the 1990s American creationism found a fertile ground in the former communist countries in Eastern Europe. Since then, creationism has flourished in Europe (Numbers, 2006; Blancke et al., 2013; Blancke, Hjermitslev & Kjærgaard, 2014).

However, some European organizations and individuals opposing evolutionary science will not accept to be categorized as ‘creationist’ since it is a stigmatizing label in highly secularized countries such as Denmark and Spain. However, their ideas, arguments and agendas owe much to American creationism, and with our inclusive definition of creationism I find it appropriate to use the term.

Creationism in Denmark

After this clarification of the meaning of creationism, I will turn to creationism in Denmark. First, I will outline the contemporary religious landscape of Denmark. Then I will analyse Danish anti-Darwinian campaigners, including Lutherans, Seventh-day Adventists, Pentecostals, Jehovah’s Witnesses, Hara Krishna Hindus, and Sunni Muslims. Finally, I will conclude by summing up why creationism remains a relatively marginalized phenomenon in Denmark compared to most of the rest of the world.

Several polls have revealed that Denmark is among the countries in which most people accept the theory of evolution. Side by side with other northern European countries and Japan, Denmark is placed at the top when it comes to the acceptance of human evolution. These countries are followed by southern and eastern European countries like Spain, where polls revealed that 73 percent accepted human evolution in 2005, and 53 percent identi-

QA20.8 Finally, for each of the following statements, please indicate whether you believe them to be true or false. If you don't know, you can just indicate so.

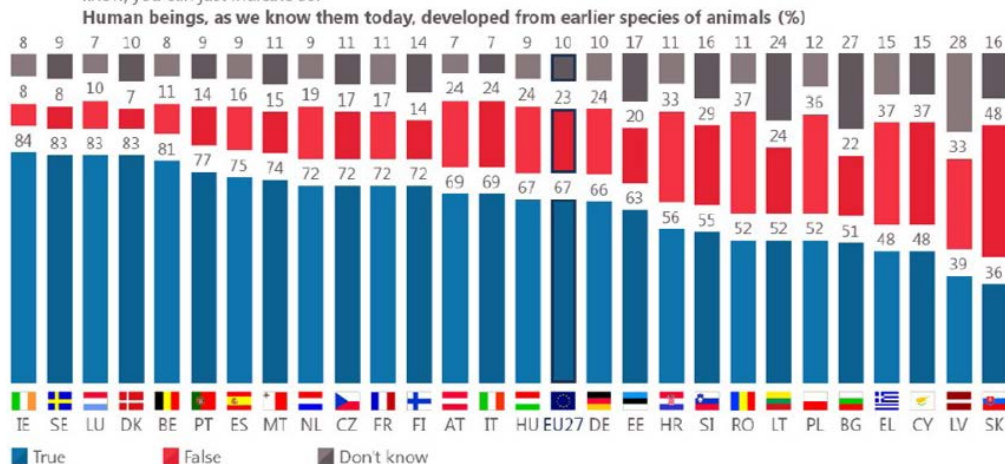


Illustration 8. Special Eurobarometer 516, (EU, 2021).

fied as evolutionists and only 11 percent as creationists in 2011. Moreover, a recent survey by Eurobarometer from 2021 documented that 67 percent of the population in the EU accept human evolution, while the percentage in Spain was increased to 75 percent and in Denmark stabilised at 83 percent. The acceptance is much lower in Turkey, Russia, America, Africa, and the Middle East (Blancke, Hjermitslev & Kjærgaard, 2014; EU 2021).

In Denmark, between 80 and 90 percent of the population accept human evolution, and only very few clergymen and politicians have suggested to include creationism and intelligent design as scientific alternatives to evolutionary theory in biology classes. This is no surprise since sociologists and historians of religion generally consider Denmark and the other Scandinavian countries some of the most secularized countries in the world. In 2008, the American sociologist Phil Zuckerman went as far as entitling his book about the religious views of the Danes *Society without God* (Zuckerman, 2008). No doubt, Zuckerman is right when he argues that religion is much less visible in Denmark than in America. However, another American sociologist Andrew Buckser, who has studied secularization and religious life in Denmark, uses the Danish case to warn us against focusing too narrowly on supernatural belief and theological doctrines when studying religious practises (Buckser, 1996). Thus, with his focus on people's views on certain theological doctrines such as the virgin birth and the existence of hell, Zuckerman seems to understate the influence of religion in Denmark, which is much more evident in what people are doing than in what they are saying.

Thus, in 2010 no less than 80.9 percent of the Danish population were members of the Danish Evangelical-Lutheran Church, and even though the number have decreased rapid-

ly, partly due to immigration – the percentage is now 70,7 percent – the majority of the Danes see themselves as Christians, they have their children baptized and attend service at least at Christmas. For most Danes, Christianity is a natural part of their culture and tradition, but in general they are not much concerned with religious doctrines, the reading of Scripture or the existence of God in their daily lives. In fact, while 70,7 percent of the Danish population are members of the national church, according to the European Values Study of 2017 only 51 percent believed in God. In comparison, the percentage believing in God in Spain in 2017 was 68 percent and in Poland no less than 93 percent (EVS, 2017).

Zuckerman has made an important point when arguing that American-style activist, aggressive and fundamentalist Protestantism is marginalised in Denmark. Evangelicals belong to the far-right wing of the Evangelical-Lutheran Church and often escape to small private churches outside the dominating and state-sponsored established church, which has liberal views concerning issues such as female pastors, abortion, homosexuality and indeed evolution. Outside the Protestant mainstream, we find small communities of Jehovah's Witnesses, Pentecostals, and Seventh-day Adventists, in which fundamentalist and creationist views are being advocated. In 2006, also Islamic advocates of creationism inspired and hired by the Turkish godfather of creationism, Adnan Oktar, also known as Harun Yahya, entered the stage. While the Christian creationists have their difficulties making their views heard, there are reasons to believe that Harun Yahya's well-organised internet campaign against Darwinism have found fertile ground among the 300,000 Muslims living in Denmark, since we have not yet seen any religious authorities among Muslims openly embracing evolution (Hjermitslev & Kjærgaard, 2014).

Like in Spain organised creationism in Denmark is restricted to Protestant, Evangelical circles at the conservative end of the theological spectrum. The most important anti-evolutionary group in Denmark is connected to the Danish-Norwegian quarterly *Origo* which was launched in 1983 as what was called “a scientific journal” and “an apologetic resource” for Protestants with Evangelical leanings, including Lutherans, Pentecostals, and Adventists (Hjermitslev & Kjærgaard, 2014: 92).

In 2010, the journal had around 950 subscribers. Since 2001 *Origo* has hosted the webpage *skabelse.dk*, which offers lectures on science and evolution, a creationist textbook aimed at Evangelical schools that should function as a supplement to the state-sanctioned biology textbooks, and translations of books by intelligent design advocates such as Jonathan Wells and Michael Behe (Hjermitslev & Kjærgaard, 2014). Moreover, In the Darwin year of 2009, *Origo* published a children's book, a Darwin biography, and a critique of Darwinism. However, these publications were far from being bestsellers. Their circulation numbers were well under 1,000 copies, while in comparison pro-evolutionary books on science and religion published in 2009 by the national Evangelical-Lutheran Church and aimed at primary and secondary schools were distributed in more than 10,000 copies (Hjermitslev & Kjærgaard, 2014).

Unlike the American and Turkish creationists, the journal *Origo* does not have a strong financial backing. The editors, contributors and lecturers are unpaid volunteers, and the webpage does not include flashy audio-visual effects like the American and Turkish creationist pages. However, while they are low in economic capital, the Danish creationists score relatively high when it comes to cultural capital. The editorial board includes scientists with Master or Ph.D. degrees in biology, biochemistry, bioethics, physics, engineering, and philosophy of science. Most contributors to the journal are old-earth creationists and intelligent design supporters and have more liberal views on Scripture than mainstream American creationists generally do. In their arguments against Darwinian evolution, the Danish anti-Darwinists are careful to distance themselves from the heated rhetoric of the American and Turkish creationists who prefer to accuse Charles Darwin and his theory of evolution of being the cause of modern evils such as terrorism, fascism, and communism. At a public conference in 2009, the professor of philosophy of science and founding editor of *Origo* Peter Øhrstrøm even felt that it was necessary to warn against the demonizing of Darwin put forth by American and Turkish creationists. Øhrstrøm and his colleagues claim that their critique is strictly scientific and philosophical and aimed at the methodology of scientific naturalism which they regard as the atheist and materialist ideological foundation of modern evolutionary biology. In order to advocate their anti-materialist agenda, the *Origo* editors introduced the theory of intelligent design on Danish soil in 2000, when they devoted an issue of their journal to the theory, which they consider a valid scientific alternative to Darwinian selection theory. In 2007, Øhrstrøm succeeded in getting a book on intelligent design published by a Danish university press (Hjermitslev & Kjærgaard, 2014).

From the Darwin year in 2009 and the next decade the activities of the Danish and Norwegian creationist society diminished. They had difficulties getting media attention outside their own small Evangelical circles. The lack of financial support to the creationist society resulted in the decision to only publish their journal twice a year online, but in 2019 the Norwegian branch of *Origo* succeeded in getting a sponsor, the ship owner and billionaire Einar Johan Rasmussen who established the foundation *BioCosmos*. This economic support gave the Danish and Norwegian anti-evolutionists the possibility of increasing their online activities by the establishment of a new flashy webpage advocating creationism and intelligent design. Thus, the donation of 2 million euros to the Scandinavian creationists offered new opportunities to the battle against Darwinian evolution in schools and elsewhere. However, the activities of *BioCosmos* seems to be more or less restricted to Norway (BioCosmos 2025).

Among the *Origo* contributors the views on evolution vary. While Øhrstrøm and another prominent affiliate Kristian Østergaard draw on arguments from intelligent design theorists such as Michael Behe, William Dembski and Jonathan Wells, other contributors prefer mainstream American young-earth creationism. Unlike other countries such as the Netherlands, America and Turkey, these differences have not caused a fragmentation of the Dan-

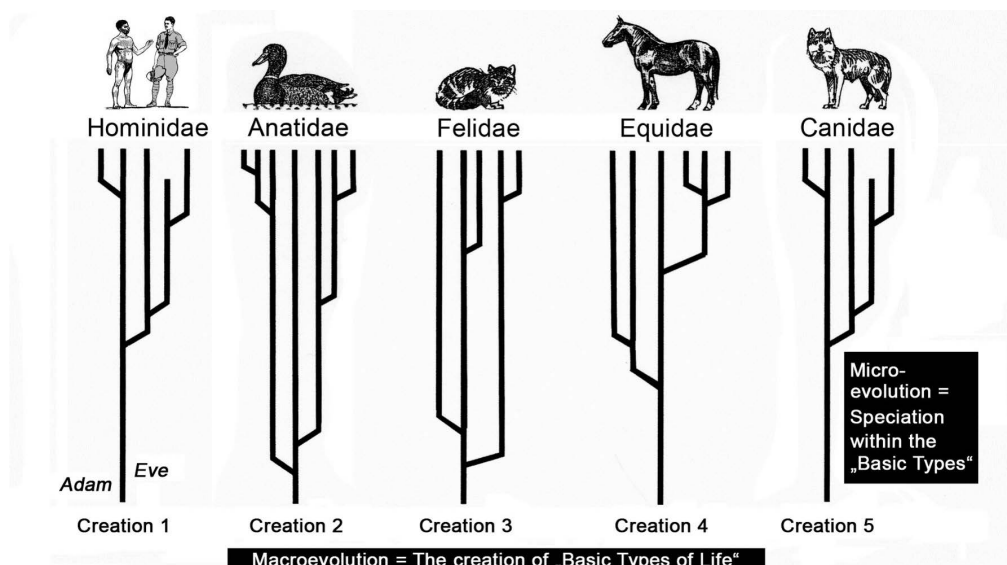


Illustration 9. Reinhard Junker and Siegfried Scherer advocated the theory of basic types of creation in their influential work *Evolution: Ein Kritisches Lehrbuch* from 1998.

ish creationist society, which allows different views on evolution and creation, as long as the contributors share a Christian world view and criticize the paradigmatic status of modern evolutionary biology. However, the most popular position among the Danish creationists seems to be Reinhard Junker and Siegfried Scherer's theory of basic types. This theory argues that microevolution has taken place through parallel line of descent from original basic types, such as dogs, horses, and, most importantly, humans. Thus, according to this theory, humans are not related to the apes, which is the most controversial aspect of the theory of evolution. Moreover, the theory of basic types can be integrated in a literal reading of scripture, since the basic types of life can be interpreted as the original animals and humans that survived the Genesis Flood on Noah's Ark. Thus, in this way creationists can accept microevolution and at the same time believe in the literal truth of the Bible (Junker & Scherer 2006 [1998]; Kutschera 2014; Hjermitsev & Kjærgaard, 2014).

In fact, this position in many ways resembles the positions of the most prominent Danish critics of Darwinian evolution a hundred years earlier, the Evangelical professor of plant ecology Eugen Warming and the Jesuit secondary school teacher Amand Breitung, who were eager to exclude humans from the evolutionary process and argued for parallel lines of descent. However, while this view was properly mainstream among the Danes in the beginning of the 20th century, it is now rather marginalised, even among believers.

The hotbed of creationism in Denmark is the Evangelical high school in the town of Ringkøbing in rural Western Jutland. Since the foundation of *Origo* in 1983, this small pri-

vate high school have hosted several creationist conferences. In 1985, for example, the renowned English young-earth creationist Arthur E. Wilder-Smith delivered eight lectures in four days before an audience of up to 100 people. Among the teachers in Ringkøbing we find the former leader of the small Christian People's Party, Marianne Karlsmoser, who in 2002 advocated the teaching of creationism in Danish schools, and the webmaster of *Origo's* webpage and author of the above-mentioned creationist textbook, the Evangelical-Lutheran biologist Kristian Østergaard, who practices the 'teach both sides' argument in his advanced biology classes. Another *Origo* affiliate, the Seventh-day Adventist and young-earth creationist Holger Daugaard, taught biology at the Danish Adventist high school in the town of Vejle in Eastern Jutland until his retirement in 2019. Daugaard also offered an Adventist correspondence course on creation and evolution in the 2000s (Hjermitslev & Kjærgaard, 2014).

Among some reborn Christian lay preachers with an Evangelical and charismatic bend creationism have also gained fertile ground. For example, it generated some local attention, when in 2009 the pastor of a small independent Evangelical church in the village of Løkken in Northern Jutland put up a handwritten poster at the front of his church stating that "Darwin's theories have not been scientifically proved. Darwin's theories are religion to those who reject GOD" (Hjermitslev & Kjærgaard, 2014: 96).

As my family in Løkken told me, most local people found his creationist campaign ridiculous, and the pastor found himself quite busy writing new posters every time local boys removed the old ones. This incident, no doubt, tells us something about the difference in religious attitudes among Danish and American mainline Protestants. Creationism, biblical fundamentalism, and activist Protestantism simply seems strange and ridiculous to most members of the Danish Evangelical-Lutheran Church. The sectarian Jehovah's Witnesses, which is among the largest Christian denominations outside the Evangelical-Lutheran Church, have also promoted their version of old-earth creationism in pamphlets and books generously offered free of charge to people interested. However, their publications are translated from English, and they have not generated any public notice (Hjermitslev & Kjærgaard, 2014).

Among non-Christian believers, no one has promoted anti-Darwinism as eagerly as the Hare Krishna monk Leif Asmark Jensen, who has founded the Danish Society for Intelligent Design and promoted the unorthodox ideas of the fellow Vedic Michael Cremo, who argues that modern man can trace back his history trillions of years and that all professional archaeologists hide the evidence in favour of this fact. In 2004 Asmark wrote a short introduction to intelligent design and in 2006 he published his translation of Michael Cremo and Richard Thompson's bestseller *Forbidden Archeology*. It attracted some media attention and critique from university staff when in 2009 Asmark and Cremo lectured twice before small audiences at unofficial meetings at Aarhus University. Furthermore, when my research group at Aarhus University, Interdisciplinary Evolutionary

Studies, launched the web-based outreach project *evolution.dk* on 1 February 2009, it did not take long before Asmark had created the webpage *ingenevolution.dk* [noevolution.dk]. However, Asmark's anti-Darwinist society does not seem to be much more than an idiosyncratic one-man project (Hjermitslev & Kjærgaard, 2014).

Islamic Creationism

Unlike the Christian and Hindu anti-Darwinian campaigns in Denmark, the promotion of old-earth creationism by the Sunni Muslim Adnan Oktar is well-funded and has been much debated in the newspapers. In line with many other European countries, from December 2006 to September 2007 the first and second part of the English version of Harun Yahya's massive *Atlas of Creation* were sent to politicians, scientists, high school teachers and Evangelical-Lutheran pastors. My former colleague and director of Interdisciplinary Evolutionary Studies at Aarhus University, Professor Peter C. Kjærgaard received his copy in 2006 when we launched the research and outreach project *Darwin in Denmark*, and I have received my two copies of the work from a professor of botany and a pastor in Southern Jutland, who has never made any public statements about Darwin or evolution. My estimate is that between 500 and 1,000 Danes have received a copy of *Atlas of Creation*. It has been a costly affair since each copy weights more than five kilos. Moreover, one of Harun Yahya's more than 150 books has been translated into Danish and his flashy webpages are being promoted by a Muslim society in Aarhus (Hjermitslev & Kjærgaard, 2014).

Another strategy used by Harun Yahya's disciples to promote creationism is manipulating web polls on evolution to make it look as though creationist views are gaining ground after the publication of *Atlas of Creation*. This has been done in Germany, France and in Denmark. In 2007 and 2009 polls on the webpage of the Danish tabloid *Ekstra Bladet* were manipulated by Turkish votes. The results were that the polls showed that 88 and 59 percent of the Danes denied human evolution. In 2007 a change happened overnight, from 78 percent accepting that man descended from apes to 59 percent rejecting it (Hjermitslev & Kjærgaard, 2014).

When analysing the votes in 2009, a journalist at the newspaper found out that more than half of the 4,000 votes came from Turkey. The journalist invited the readers to send their questions about evolution to Adnan Oktar and his employee Seda Aral. Their detailed answers were published on the webpage a month later. Here Oktar claimed among many other things that "the forerunner of human beings millions of years ago was also human beings" and that "Living things have never changed. THERE EXISTS NOT A SINGLE TRANSITIONAL FORM [of] FOSSIL to confirm the claims of Darwinists" (Hjermitslev & Kjærgaard, 2014: 97).

Harun Yahya's fame and impact climaxed around 2007, when the Parliamentary Assembly of the Council of Europe found it necessary to warn against the "dangers of creationism in education" (Blancke, Hjermitslev & Kjærgaard, 2014: 1). Since then, Oktar has

been jailed in Turkey, and the problematic methods of his organisation has been revealed. The third and fourth volumes of Harun Yahya's *Atlas of Creation* were published in 2007 and 2012, but since then the Muslim creationist have not received much attention in Denmark. However, it is unclear how much impact his webpages have on the Muslim population in Denmark. In studies of Muslim attitudes towards evolution in other European countries it is shown how well-educated Muslims are critical towards Harun Yahya's shallow propaganda (Hameed, 2015; Moran, 2019).

Reconciling Evolution and Protestantism in Denmark

Now, I will turn to discussing how we can explain the strong support of evolution and the marginal role of creationism among mainstream Danish Protestants which is confirmed in the 2021 Eurobarometer survey. As the sociologist Bronislaw Szerszynski points out, the traditional explanations of why creationism is less popular in Europe than in America are that European societies are more secular, that the dominating churches, including the Lutheran churches in Northern Europe, have accepted the theory of evolution, and finally that the majority of European churches do not advocate Evangelical Christianity (Szerszynski, 2010). Furthermore, Szerszynski adds that unlike the lively religious marketplace in America with denominations competing and advertising their views in the media, the broad national churches in Northern Europe play a very different, but none the less important role as primarily cultural institutions with strong symbolic meanings and as markers of key moments in people's lives. The broad scope of the national churches means that the religious focus is much more directed against consensus and homogeneity than against highlighting differences on controversial issues such as evolutionary theory. No doubt, these structural factors can help explaining the differences between Protestants in America and Europe on issues such as evolution.

However, I would like to add some further reasons for the marginal role of creationism specific to Denmark. They relate to the theological tradition of the country that I discussed in the beginning of the article. Firstly, Evangelicals in Denmark have focused much more on the New Testament than on the History of Creation as recorded in Genesis I, which is the fundamental document of Christian creationism. Secondly, mainstream Lutheranism in Denmark is strongly influenced by the teachings of the aforementioned nineteenth-century theologian N.F.S. Grundtvig, who downplayed the importance of what he referred to as the dead letters of the Bible and emphasized that the cornerstones of Christianity were the two sacraments, baptism and communion, and the Apostolic Creed, which he claimed was the living word of Christ delivered to his disciples. Grundtvig's critique of traditional Lutheran scriptural theology made it rather easy for his many adherents in twentieth-century Denmark to accept theories, such as Darwinian evolution, which seems to challenge a literal reading of Scripture. As a contrast it is worth noticing that in America conservative Wisconsin and Missouri Lutherans remained geocentrics well into the twentieth century

(Numbers, 2006). Third, in order to be ordained to the Evangelical-Lutheran Church pastors must have received a theological degree from the one of the faculties of theology at the national universities in Aarhus and Copenhagen. In the twentieth century, Academic theology has been strongly influenced by, on the one hand, German biblical criticism and, on the other, liberal, existential, and dialectical theology. These modernist theological positions have rejected the infallibility of Scripture as well as the tradition of natural theology and the ambition of finding explanations of natural phenomena in the Bible. Moreover, following the nineteenth-century Danish theologian Søren Kierkegaard and his follower, the nineteenth-century professor of philosophy Rasmus Nielsen, who combined the teachings of Grundtvig and Kierkegaard, most Danish theologians and laypeople have found it unproblematic to make a radical distinction between knowledge and faith. This separation model of science and religion has provided Danish Protestants with the intellectual resources needed to embrace the theory of evolution (Hjermitslev, 2011).

To sum up, the dissemination of creationism in Denmark is marginal compared to other countries with a Protestant majority. Moreover, Danish creationists generally avoid the kind of aggressive campaigns against Darwin and evolution we have witnessed in America and elsewhere. The influence of creationism on the Danish school system is limited to a few private Christian and Muslim schools. It is worth noticing that most creationist campaigners are based in rural areas in Jutland and that they are exclusively male. I have argued that the main reasons for the marginal role of creationism in Denmark are the general secularization of the country in the twentieth century, the moderating role of the broad and liberal national church and not least, the specific theological traditions which have dominated Denmark in the last two centuries.

Concluding remarks on avenues for further research

Now, we have come to the third and final section of the article. I will outline avenues for further international research into the relationship between evolution and religion. Firstly, we need more transnational historical studies of the circulation of evolutionary and creationist ideas through translations, journals, networks, and conferences. For practical reasons, most studies of Darwinism and creationism have focused on the national or regional level. However, at the date of the publication of Charles Darwin's *Origin of Species* the process of globalisation had already begun. Scientific ideas rapidly travelled across borders. We need to know much more about how this happened and about how the ideas were modified and appropriated in this process.

Secondly, we need anthropological studies of creationist groups by means of qualitative methods such as field work, participatory observations, and interviews. This will help us answer crucial questions such as why and how people hold and advocate creationist views and support creationist organisations. Moreover, in order to offer a symmetrical analysis of the cultural wars of science and religion, we also need to investigate how and why people

advocate Darwinian worldviews and organise activities that promote science and evolution and criticize creationism.

Thirdly, we need quantitative surveys of teachers and pupils at religious schools in order to estimate the impact of creationist campaigns and understand how teachers and pupils integrate their views on evolution, creation, science, and religion.

Fourthly and finally, we need better and more sophisticated international quantitative surveys on people's views on evolution and religion. It is important that new surveys avoid clash narratives of evolution and religion and the framing of evolutionary science as atheistic, and that they are sensitive to important distinctions between evolution in general and human evolution and between theistic evolution and intelligent design.

Thus, scholars of science and religion, historians as well as sociologists, have much future work to do. Hopefully, EU, state and private funding will make it possible to establish international collaborations that can investigate the interesting relationship between evolution and religion in Europe in the future.

References

- ADELMAN, J. (2005), «Evolution on display: promoting Irish natural history and Darwinism at the Dublin Science and Art Museum», *British Journal for the History of Science*, 38, 411-436.
- ANDERSEN, C. & HJERMITSLEV, H.H. (2009), «Directing Public Interest: Danish Newspaper Science 1900-1903», *Centaurus*, 51, (2), 143-167.
- BIOCOSMOS (2025), BisCosmos: <https://biocosmos.no/> (accessed 3 April, 2025)
- BLANCKE, S., HJERMITSLEV, H.H., KJÆRGAARD, P.C. & BRAECKMAN (2013), «Creationism in Europe: Facts, Gaps, and Prospects», *Journal of the American Academy of Religion*, 81, (4), 996-1028.
- BLANCKE, S., HJERMITSLEV, H.H. & KJÆRGAARD, P.C. (2014), «Introduction: Creationism in Europe or European Creationism?». In: BLANCKE, S., HJERMITSLEV, H.H. & KJÆRGAARD, P.C. (eds.), *Creationism in Europe*, Baltimore: Johns Hopkins University Press, 1-14.
- BLANCKE, S., HJERMITSLEV, H.H. & KJÆRGAARD, P.C. eds. (2014), *Creationism in Europe*, Baltimore: Johns Hopkins University Press.
- BOWLER, P.J. (1983), *The Eclipse of Darwinism*, Baltimore: Johns Hopkins University Press.
- BOWLER, P.J. (1988), *The Non-Darwinian Revolution*, Baltimore: Johns Hopkins University Press.
- BRANDES, G. (1906), *Main Currents in Nineteenth Century Literature. Vol 1: The Emigrant Literature*, New York: The Macmillan Company, London: William Heinemann.
- BROOKE, J.H. & CANTOR, G. (1998), *Reconstructing Nature*, Edinburgh: T&T Clark.
- BUCKSER, A. (1996), «Religion, Science, and Secularization Theory on a Danish Island», *Journal for the Scientific Study of Religion*, 35, (4), 432-441.
- CAMÓS, A. (2008), «Darwin in Catalunya: From Catholic Intransigence to the Marketing of Darwin's Image». In: GLICK, T.F. & ENGELS, E.-M. (eds.), *The Reception of Charles Darwin in Europe*, vol. 2, London: Continuum, 400-412.
- CANTOR, G. & SWETLITZ, M. (2006), *Jewish Tradition and the Challenge of Darwinism*, Chicago: University of Chicago Press.
- CATALÁ GORGUES, J. I. (2014), «Spain and Portugal». In: BLANCKE, S., HJERMITSLEV, H.H., & KJÆRGAARD, P.C. (Eds.), *The History of Creationism in Europe*, Baltimore: Johns Hopkins University Press, 31-49.
- CLASEN M., GRUMSEN, S.S., HJERMITSLEV, H.H. & KJÆRGAARD, P.C. (2014), «Translation and Transition: The Danish Literary Response to Darwin». In: GLICK, T.F. & SCHAFER, E. (eds.), *The Literary and Cultural Reception of Charles Darwin in Europe*, vol. 3, London: Bloomsbury Publishing, 103-127.
- CORELL DOMÉNECH, M. (2022), «The influence of *Nature study in the school* (1933), by the Danish author Vilhelm Rasmussen, on Margarita Comas Camps and the project for the renewal of natural science teaching in the Second Spanish Republic», *Paedagogica Historica*, 60, (2), 311-331. <https://doi.org/10.1080/00309230.2022.2060046>.
- DIERIG, S., LACHMUND, J., & MENDELSON, J. A. (2003), Introduction: Toward an Urban History of Science. *Osiris*, 18, 1-19.
- EVS (2017), European Values Study 2017: <https://europeanvaluesstudy.eu/methodology-data-documentation/survey-2017/full-release-evs2017/> (accessed 3 April, 2025).
- EU (2021), European Citizens' attitudes and knowledge about science and technology, Special Eurobarometer 516.
- FYFE, A. & LIGHTMAN, B. eds. (2007), *Science in the Marketplace: Nineteenth-Century Sites and Experiences*, Chicago: University of Chicago Press.
- GLICK, T.F. (1969), «The Valencian Homage to Darwin in the Centennial Date of his Birth (1909) », *Actas III Congreso Nacional de Historia de la Medicina*, II, 577-601.
- GLICK, T.F. & ENGELS, E.-M. (eds.) (2008), *The Reception of Charles Darwin in Europe*, vol. 1-2, London: Continuum.
- GLICK, T.F. & SCHAFER, E. (eds.) (2014), *The Literary and Cultural Reception of Charles Darwin in Europe*, vol. 3-4, London: Bloomsbury Publishing.
- HAMEED, S. (2015), «Making sense of Islamic creationism in Europe», *Public Understanding of Science*, 24, (4), 422-439.

- HJERMITSLEV, H.H. (2009), *Debating Darwinism in Denmark, 1859-1920*, Ph.D. thesis, Department of Science Studies, Aarhus University.
- HJERMITSLEV, H.H. (2010), «Danes Commemorating Darwin: Apes and evolution at the 1909 anniversary», *Annals of Science*, 67, (4), 485-525.
- HJERMITSLEV, H.H. (2011), «Protestant Responses to Darwinism in Denmark, 1859-1914», *Journal of the History of Ideas*, 72, (2), 279-303.
- HJERMITSLEV, H.H. (2014), «The Danish Commemoration of Darwin in 1909». In: GLICK, T.F. & SCHAFER, E. (eds.). *The Literary and Cultural Reception of Charles Darwin in Europe*, vol. 3, London: Bloomsbury Publishing, 128-159.
- HJERMITSLEV, H.H. (2015), «Windmills, Butter and Bacon: The Circulation of Scientific Knowledge among Grundtvigians in the Decades around 1900». In: HALL, J.A., KORSGAARD, O. & PEDERSEN, O.K. (eds.). *Building the Nation: Grundtvig and Danish National Identity*, Montreal: McGill-Queens University Press, 362-380.
- HJERMITSLEV, H.H. (2016), «Education and Evolution: Appropriations of Herbert Spencer in Scandinavia, 1870-1920». In: LIGHTMAN, B. (ed.). *Global Spencerism: The Appropriation of Herbert Spencer*, Leiden: Brill Academic Publishers, 241-265.
- HJERMITSLEV, H.H. & KJÆRGAARD, P.C. (2014), «Scandinavia». In: BLANCHE, S., HJERMITSLEV, H.H. & KJÆRGAARD, P.C. (eds.). *Creationism in Europe*, Baltimore: Johns Hopkins University Press, 85-104.
- JUNKER, R. & SCHERER, S. (2006) [1998], *Evolution: Ein Kritisches Lehrbuch*, 6th edition, Giessen: Weyel Lehrmittel Verlag.
- KJÆRGAARD, P.C., GREGERSEN, N.H. & HJERMITSLEV, H.H. (2008), «Darwinizing the Danes, 1859-1909». In: GLICK, T.F. & ENGELS, E.-M. (eds.) (2008), *The Reception of Charles Darwin in Europe*, vol 1, London: Continuum, 146-155.
- KRAGH, H., KJÆRGAARD, P.C., NIELSEN, H. & NIELSEN, K.H. (2008), *Science in Denmark. A Thousand-Year History*, Aarhus: Aarhus University Press.
- KUTSCHERA, U. (2014), «Germany». In: BLANCHE, S., HJERMITSLEV, H.H. & KJÆRGAARD, P.C. (eds.). *Creationism in Europe*, Baltimore: Johns Hopkins University Press, 105-124.
- LIVINGSTONE, D.N. (1992), «Darwinism and Calvinism: The Belfast-Princeton Connection», *Isis*, 83, 408-28.
- LIVINGSTONE, D. N. (1997), «Science and Religion: Towards a New Cartography», *Christian Scholars Review*, 26, 270-92.
- LIVINGSTONE, D.N. (1999), «Science, religion, and religion: the reception of Darwinism in Princeton, Belfast and Edinburgh». In: NUMBERS, R.L. & STENHOUSE, J. (eds.) *Disseminating Darwinism*, Cambridge: Cambridge University Press, 7-38.
- LIVINGSTONE, D.N. (2003a), «Re-placing Darwinism and Christianity». In: LINDBERG, D.C. & NUMBERS, R.L. (eds.). *When Science and Christianity Meet*, Chicago: University of Chicago Press, 183-202.
- LIVINGSTONE, D.N. (2003b), *Putting Science in its Place: Geographies of Scientific Knowledge*, Chicago: University of Chicago Press.
- MORAN, G. (2019), «Harun Yahua's Influence in Muslim Minority Contexts: Implications for Research in Britain, Europe, and Beyond», *Zygon*, 54 (4), 837-856.
- NUMBERS, R.L. (2006 [1992]), *The Creationists: From Scientific Creationism to Intelligent Design*, 2nd ed., Cambridge MA: Harvard University Press.
- NUMBERS, R.L. & STENHOUSE, J. (eds.) (1999), *Disseminating Darwinism*, Cambridge: Cambridge University Press.
- PELAYO, F. (2008), «Darwinism and Paleontology: Reception and Diffusion of the theory of Evolution in Spain». In: GLICK, T.F. & ENGELS, E.-M. (eds.), *The Reception of Charles Darwin in Europe*, vol. 2, London: Continuum, 386-399.
- SZERSZYNSKI, B. (2010), «Understanding creationism and evolution in America and Europe». In: DIXON, T., CANTOR, G. & PUMFREY, S. (eds.). *Science and Religion: New Historical Perspectives*, Cambridge: Cambridge University Press, 153-174.
- TOPHAM, J.R. (1992), «Science and Popular Education in the 1830s: The Role of the Bridgewater Treatises», *British Journal for the History of Science*, 25, 397-430.
- ZUCKERMAN, P. (2008), *Society Without God*, New York: New York University Press.