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MIGUEL DE ASÚA

Darwin among the Pagans: Secularisation and the Reception of the Theory of Evolution in Buenos Aires

The study of the long-term reception of the theory of evolution in Argentina can be of assistance in the broader understanding of interactions between the dynamics of secularisation in a given society and the relationship between science and religion. Two stages can be discerned in this process. In the first, in 1884, Darwin and evolutionary theory were a rhetorical resource at the service of a political and ideological secularisation project identified with progress and modernity. At the height of positivism, around 1918, many meanings associated with evolutionism coalesced around the figure of the Argentinian palaeontologist Florentino Ameghino, whose anthropological theories about the origin of Tertiary human beings were debated as part of broader questions involving the relationship between science, religion and secularisation. As a whole, the story warns against any attempt at interpreting the reception of Darwin's ideas in Iberian America (and elsewhere for that matter) as a triumphal march of reason against religious obscurantism. It also shows how issues of belief and unbelief determined the way evolutionism was received in a country in which church-state relationships were shaped after the French model of laïcité.

Keywords: science and religion; science and secularisation; reception of Darwinism; Ameghino

Introduction

In his entry in the *Journal of Researches* dated 23 November 1833, Darwin noted that 'mockery of all religion' was one of the vices that stained 'the higher and more educated classes' in Buenos Aires.[1] Eighty years later, the Scottish traveller John Foster Fraser passed an even harsher judgement on the religious climate of the southern metropolis: 'I have called Buenos Aires a pagan city. So it is.'[2] In the last three decades of the nineteenth century, Argentina's capital city underwent a process of secularisation which resulted in a decrease in the social areas controlled by the majority Roman Catholic Church. This trend was coterminous with the arrival and assimilation of evolutionary theory. Research

1 Darwin, C. *Journal of Researches*, London: Henry Colburn (1840), p.183.

2 Fraser, J.F. *The Amazing Argentine: A Land of Enterprise*, New York: Funk & Wagnalls (1914), p.29.

on the reception of Darwinism in Argentina is not lacking.[3] Two collections of sources in translation attest to the interest of Anglophone scholars in the fortunes of evolutionary theory in the southern cone of the Americas.[4] Notwithstanding these important contributions, the key issue of the role played by religious and non-religious convictions in this process has remained largely unexplored. The aim of this paper is to fill that gap.

The viewpoint I favour is not the only possible interpretive key of the reception of evolutionism in Argentina, neither is it a perspective to be obviated: issues of belief and unbelief bore decisively on the way in which evolutionism was received in that country and are far from being a sideshow. In particular, evolutionism was part of the rhetorical apparatus which sought to justify the implementation of secularist policies. I shall explore the implications of this claim, looking at a sample of the liberal and Catholic reactions to the advent of the theory of evolution in the context of the secularising impulses that transformed Argentina's urban society in the last two decades of the nineteenth century. In the later sections of this article I shall discuss how a native version of evolutionism was shaped into a central element of an anticlerical positivist ideology which sought to invest itself with religious symbolism. At one point, its followers defended the authenticity of faked archaeological objects, a fraud which was exposed, among others, by an anti-Darwinist Jesuit anthropologist. While revealing the extent to which ideological secularism made use of the theory of evolution in countries which went through the style of secularisation which Charles Taylor has called 'paleo-Durkheimian' (more on this later), this case confirms the complexity of the relationships between science and religion, to which John H. Brooke has long since called attention.[5] Here, 'secularity' is taken in Taylor's now famous sense of 'a move from a society where belief in God is unchallenged…to one in which it is understood to be one option among others'; but it will become clear that in the case in point this shift was accompanied by a political movement which implied a drastic reduction of the social sphere of church influence.[6]

3 Montserrat, M. 'The evolutionist mentality in Argentina: an ideology of progress', in Glick, T., Puig-Samper, M.A. & Ruiz, R. (eds.) *The Reception of Darwinism in the Iberian World*, Dordrecht: Springer (2001), pp. 1-27; Novoa, A., Levine, A. *From Man to Ape: Darwinism in Argentina, 1870-1920*, Chicago: Chicago University Press (2010). For a comparative perspective, see Velázquez F.H. 'Darwinism in the second half of the nineteenth century in Latin America', in Silva, I. (ed.), *Latin American Perspectives on Science and Religion*, London: Pickering &Chatto (2014), pp. 85-96.

4 Novoa, A., Levine, A. (eds.) ¡Darwinistas! The Construction of Evolutionary Thought *in Nineteenth Century Argentina*, Leiden: Brill (2012); Gómez, L. (ed.) *Darwinism in Argentina: Major Texts (1845-1909)*, Lewisburg: Bucknell University Press (2012).

5 Taylor, C. *A Secular Age*, Cambridge, Mass.: Harvard University Press (2007), pp. 454-456, 486-487; Brooke, J.H. *Science and Religion: Some Historical Perspectives*, Cambridge: Cambridge University Press (1991), pp. 16-51.

6 Taylor *op. cit.,* (5), pp. 2-3.

David N. Livingstone has shown how different restricted geographical locales particularly affected the way Darwin's doctrine was interpreted in places sharing a confessional outlook.[7] It is on this account that I will restrict this inquiry to the city of Buenos Aires – there are reasons to believe that in the city of Córdoba, around 700km away from the capital, things took a different course. While the geographical limits of this study are narrowly defined, the time period is broad, spanning four decades from the 1880s to the early 1920s.

Darwin's Civic Funeral

Darwinism arrived in Argentina in the 1870s and 1880s in the midst of a confrontation between liberals and Catholics as a result of a secularising drive led by an influential sector of the political and intellectual elite backed by the conservative government which ruled the country from 1880 to 1916.[8] Theories of evolution, the notion of progress, French and English positivism, and an aggressive scientism were the ingredients of the ideological matrix that underwrote the configuration of a secular state, the modernisation of society, and the consolidation of a national identity undergirded by steady economic growth and massive immigration.[9] Evolutionist ideas were received in Argentina almost hand in hand with John W. Draper's *Conflict between Religion and Science* (1874).[10] Evolution and the 'conflict thesis' aided each other as rhetorical instruments in the arguments advanced by the liberal party. In this intellectual atmosphere, the notion of evolution was welcomed as the ultimate triumph of secular reason while Catholics rejected it on the grounds of what they perceived as the uniqueness and dignity of the human beings as free moral agents.

In May 1882 – one month after Darwin's death – a medical association organised a 'civic funeral' in his honour, which took place in a then recently inaugurated theatre in Buenos Aires. The main address was given by Domingo F. Sarmiento, former president of the country and a prominent public figure. The second orator was Eduardo L. Holmberg, a young celebrated naturalist and author of a farcical roman à clef featuring evolutionist heroes fighting their way against the bigoted representatives of official science.[11] The political backdrop

7 Livingstone, D.N. *Dealing with Darwin. Place, Politics, and Rhetoric in Religious Engagements with Evolution*, Baltimore: Johns Hopkins University Press (2014).

8 Ivereigh, A. *Catholicism and Politics in Argentina, 1810-1960*, Basingstoke: Macmillan Press (1995), pp. 49-63; Burdick, M.A. *For God and the Fatherland: Religion and Politics in Argentina*, New York: The State University of New York Press (1995), pp. 21-25.

9 Gallo, E. 'Society and politics, 1880-1916', in Bethell, L. (ed.) *Argentina since Independence*, Cambridge: Cambridge University Press (1993), pp. 79-111; Foster, D.W. *The Argentine Generation of 1880: Ideology and Cultural Texts*, Columbia: University of Missouri Press (1990).

10 Asúa, M. de 'Draper, the "Conflict Thesis", and secularising politics in late nineteenth-century Argentina' (in press).

11 Holmberg, E. *Dos partidos en lucha: Fantasía científica*, Buenos Aires: Imprenta de El Argen-

to the meeting was wide public discussion about the secularisation of education in the wake of a bill proposing the suppression of religious teaching in state funded primary schools.[12] In opposition to the view that takes the meeting at face value as a celebration of Darwin, I shall argue that the acquaintance of the speakers with the author of the *Origin* was scant, and that the secularisation of society was the real issue at hand.

To begin with, far from being a follower of Darwin, Sarmiento was an avowed disciple of Spencer. That evening, he professed that he believed in evolution in 'general terms, as a method for the spirit', because he needed 'to rest upon a principle that is both harmonious and beautiful, in order to dispel doubt, which is the torment of the soul'.[13] There was not a single reference to the *Origin* in the lecture (although he did mention the *Voyage of a Naturalist* and included a long fragment from one of Huxley's *Six Conferences for Workers*).[14] In Sarmiento's speech, two anti-evolutionist authors, Louis Agassiz and Hermann Burmeister, received as much praised as Darwin himself. Sarmiento had met the former in Boston, during his stay there as Argentina's minister plenipotentiary. He had appointed Burmeister director of the Public Museum of Buenos Aires and also as the organiser of the country's Academy of Sciences in Córdoba. Sarmiento's ambiguities are also manifest when it comes to geology: he interprets the paleontological exhibition at the local museum as 'a genuine cemetery of past creations'.[15] Side by side with his catastrophism (also evident in his major work *Conflicts and Harmonies of Races*, published in that year) he affirmed without blushing that geologists (including Burmeister) 'had become convinced that the phenomena that produce the present structure of the earth are neither the result of present convulsions, nor some terrestrial energy that determines repeated catastrophes'.[16] The fact that Sarmiento could get away with these contradictions and still be celebrated as a harbinger of Darwinian ideas can be accounted for only partly in terms of his impressive oratorical skills. We also have to take into account the willingness of his audience to see him (and Darwin) as symbols of a secularising ideology of science and progress. Admittedly, Sarmiento had an idea – no matter how vague – of the mechanism of natural selection.[17] But his main concern was 'to relate to Darwin's theory in order to explain the social influence exerted over our times by such shifts in thought',

tino (1875).

12 Szuchman, M.D. 'Childhood education and politics in nineteenth-century Argentina: the case of Buenos Aires', *The Hispanic American Historical Review* (1990) 70(1), 109-138.

13 Sarmiento, D.F. 'Darwin: lecture given in the Teatro Nacional, following the death of Charles Darwin', in Gómez *op. cit.*, (4), pp. 113-138, p.125.

14 *ibid*., p.117.

15 *ibid*., p.119.

16 *ibid*., p.136.

17 *ibid*., p.133.

to spread the power of liberation inherent in the doctrine of evolution 'here, in our country, in the pampas and Patagonia'.[18] The second part of the lecture was a chronology of Western 'civilisation' (one of his structural ideals) along the lines of Condorcet's *Esquisse* and with an emphasis on the secularisation of knowledge and education. In all, Sarmiento's lecture on Darwin was a cleverly conceived and thinly disguised appeal to join the ranks of the supporters of progress in a climate of opinion where the secularising educational reform was one of the most pressing social issues.

Much of Holmberg's speech was devoted to a discussion of the relationships between science and religion and to a defence of the 'conflict thesis'. Darwinism was referred to in the third section of the lecture, almost as an afterthought. Most of the examples which the speaker used to illustrate Darwin's theory of evolution addressed the social, political and economic anxieties of his audience. The notion of variation by domestication was illustrated with the example of the infanticides of the Spartans and the alleged 'degeneration' of Buenos Aires' male population as a consequence of the stronger individuals having been killed in the prolonged intestine wars.[19] His first example of natural selection was the charm of the Buenos Aires belles. Massive immigration meant a greater variety of human types. Since the dowry system was quickly falling into disuse, males had the opportunity to choose their partners according to their beauty, which resulted in females of 'the beautiful, intelligent, and graceful template'.[20] Another illustration he gave of the principle of natural selection was of an exotic species of thistle which at that time was invading the estancias and which he deemed a dangerous menace to the country's economy.[21] Holmberg's third example was the extermination of the 'Indians', the native population of the pampas, carried out by 'the civilised ones, the Christian ones, the ones armed with Remingtons'. The frontier war gave him opportunity to address the question of morality: it did not matter if 'the Indian's cause' was just; he 'defends his land, which we have stolen from him; he wounds us, he kills us, he robs us'. The conflict was subjected to Malthus's law, 'as we too fight for our lives, with good ideas, with good weapons … we do nothing more than put into practice our upper hand'.[22] Holmberg set Malthus in explicit contraposition to divine Providence. Parents tend to take more care of sickly children than of those that are strong and robust; as a result, the former live longer, although miserable, lives and frequently reach old age, while it is not infrequent for the latter to die young. This caring for the weak is 'the inversion of the natural order'.[23]

18 *ibid*., pp.125, 122.

19 Holmberg, E.L. 'Charles Robert Darwin', in Gómez *op. cit*., (4), pp. 79-93, p.84.

20 *ibid*., p.85.

21 *ibid*., pp. 86-88.

22 *ibid*., p.90. Holmberg had been the editor of the section devoted to spiders in the volumes of the scientific proceedings of the expedition.

23 *ibid*., p.89.

Immigration, racial conflict, sexual behaviour, economic production, all these red-hot issues were sweepingly reviewed by Holmberg in terms of Darwin's principle of natural selection and the notion of 'struggle for life', which was also invoked as the foundation of a conception of morality innocent of Hume's naturalistic fallacy: in Holmberg's moral order 'what is' takes precedence over 'what ought to be'.

At no point did Holmberg provide a proper explanation of natural selection – his two quotations from the *Origin* in the notes come from the first ten pages of the New York 1871 edition. He avowed that he had only had three weeks to prepare the lecture and, though he considered himself a 'Darwinist', confessed that his particular field was not evolution, but the collection, description and classification of the flora and fauna of Argentina. As an introduction to evolutionary thought he recommended Haeckel's *History of Creation*, which he deemed suited 'to our [Argentine] literary tastes'.[24](As we shall see below, he was right.) Holmberg was certainly a capable field naturalist with a talent for systematics. A closer reading of the lecture with its sprawling footnotes shows that more than celebrating Darwin's scientific achievements, he was bent on spreading his ideological credo while feeding his reputation as a literary wit.

The only Catholic answer to the Darwinian *soirée* was a lecture delivered two months after the event, on 15 July 1882, by the 22-year-old medical student Pedro S. Alcácer. All in all, his argument was built upon the premise that evolutionism is not a scientific doctrine, for it goes against observational and experimental science. For instance, he deemed the hypothesis of a proto-organism situated at the base of the tree of life gratuitous, because this creature had not been found.[25] He also raised the by then well-known objections against 'transformism', such as the non-viability of transitional forms and the gaps in the fossil record. In the end, Alcácer granted the existence of 'an order and a progressive development in life' called forth both by religious faith and by paleontological science – he even asserted that 'modern transformism is right'.[26]These apparently contradictory claims were based on a distinction between morphological changes in species (which he called 'variations' and deemed acceptable) and physiological changes (which he called 'transmutations' and rejected).[27] This differentiation did not seem to dovetail with his previous denial of the possibility of apes evolving into humans on the grounds

24 Holmberg, E.L. *Carlos Roberto Darwin*, Buenos Aires: El Nacional (1882), pp. 69-70; (this citation corresponds to the endnotes in Holmberg's lecture, which do not appear in the English translation).

25 Alcácer, P.S. *La vida y el transformismo moderno*, Buenos Aires: Imprenta de la Penitenciaría (1882).

26 *ibid*., p.64, 67.

27 *ibid*., p.69.

that 'the feet of the former are prehensile while those of the latter are fit for perambulation' (clearly, a morphological change).[28] For the most part, Alcácer's arguments were taken from the contemporary French medical and biological literature (Claude Bernard, Jean-Pierre Flourens, Jean-Louis Quatrefages) and from French Catholic apologists such as Constantin James and the Jesuit physicist François-Marie Moigno.

In his talk, the young medical student censured Sarmiento's speech for presenting Agassiz as 'an ardent defender of Darwin'.[29] Hitting the nail of the head, he also quoted a strongly anti-Darwinian passage from Burmeister, this time playing on Sarmiento's praise of his anti-evolutionist friend.[30] A month and a half after Alcácer's lecture, Sarmiento responded to these barbs. Darwin, he said, 'could have made mistakes, but it is not proper that a student should stand up to correct him…following the indications of Father Moigno…who talked about faith, not about science'.[31] Very much like Sarmiento, Holmberg rebuked Alcácer for relying on religious authors instead of citing Haeckel; he added that in the young Catholic's lecture 'only a few French authors are mentioned, no Germans at all, and among the English only Erasmus Darwin'.[32] Holmberg's criticism lost much of its sting once it became evident that the French and German authors he mentioned in his lecture were taken from those discussed in Haeckel's *History of Creation*. Moreover, his allegation that Alcácer's quotation of Burmeister's *Description physique* was contrived was unfounded. The way in which Holmberg dispatched his obscure Catholic colleague with a few condescending taunts is in tune with his own lackadaisical treatment of Darwinism.

Inocencio Torino, a recently graduated physician contemporary of Alcácer, also reviewed Alcácer's lecture.[33] He called attention to Alcácer's fuzzy distinction between morphological and functional changes in species and reprehended his colleague's dismissive treatment of Darwin's figure and personality. These and other points were well argued; it was the penultimate sentence which revealed the cause of the reviewer's uneasiness: 'Science is not religion.'[34] To be sure, Alcácer's speech was laden with metaphysical ballast and was strongly

28 *ibid*., p.49.

29 *ibid*., p.46.

30 *ibid.,* p.45. Certainly, Burmeister denied the possibility of species transmutation because it did not satisfy the requirements of a strictly empiricist view of science; see Burmeister, H. *Description physique de la République Argentine, Tome troisième: Animaux vertébrés: Partie 1 Mammifères vivants et éteints*, Buenos Aires: Coni; Paris: Savy (1879), pp. 13-14.

31 Sarmiento, D.F. 'La inteligencia en la vida argentina', in *Obras completas*, Buenos Aires: Mariano Moreno (1900), vol. 45, pp. 176-187 (pp. 183-185).

32 He devotes a long note in the published version of his own lecture on Darwin to upbraiding the Catholic medical student; see Holmberg *op. cit.*, (24), pp. 104-107.

33 Torino, I. 'La vida y el transformismo moderno', *Anales del Círculo Médico Argentino* (1882) 6, 34-36.

34 Torino *op. cit.*, (33), 36.

derivative, both flaws his critics were quick to point out. But they stood on no surer ground; even Holmberg, that young bright thing with a number of accomplishments to his credit, trod on thin ice when he talked about evolution. In the year preceding Darwin's death, Torino had delivered a lecture in which he sketched out a theory relating Pasteur's enzymatic and microbiological discoveries to the notion of the evolution (appearance and vanishing) of diseases.[35]Its precarious conceptualisation reveals how the young physicians who stood for evolution and secular science were nearly as flimsy in their arguments as their anti-evolutionist counterparts.

Secular politics

The biennium 1883-1884 marked the peak of the confrontation between liberals and Catholics in Buenos Aires. A few examples from the public discourse of that period will show how notions associated with Darwin and evolution were used in the political debate over secularisation. In the first months of 1883, two controversies involving secularism had Sarmiento as the protagonist and in both of them evolutionist rhetoric played a part. The refusal of a group of Irish nuns running a school in the province of Buenos Aires to submit examination programmes to the local Board of Education prompted Sarmiento to write a series of articles against religious education, against the Catholics and against the Irish, 'the most backward people coming from Europe'.[36] The scathing answer by the Catholic leader Pedro Goyena prophesied (in Lamarckian fashion) that Sarmiento would eventually become 'blind and deaf', if he had 'not eyes for light and ears for truth (Darwin)'.[37] Goyena's tirade was compared by the French-Argentine contemporary literary critic Paul Groussac to the 'scalping of an Iroquois warrior': [38] an apt quip, although it should be mentioned that when it came to the conceptual dissection of the theories of evolution, Goyena's knife was rather blunt.

Sarmiento's confrontation with Manuel D. Pizarro is further evidence of the careless use by Catholics of evolutionist vocabulary, employed mostly for purposes of abuse. Pizarro was a Catholic lawyer, journalist and former minister of Culture, Justice and Public Instruction who quit office in 1882, at the height of the secularist controversy. Darwin, evolution and apes crop up frequently in his 1883 articles in the Catholic newspaper *La Unión*, collected as *The Simian School and the National Constitution*.[39] Pizarro identified the separation

35 Torino, I. 'Las teorías evolutivas y la ciencia médica', *Nueva Revista de Buenos Aires* (1881) 2, 241-257.

36 Sarmiento, D.F. 'Lágrimas de cocodrilo', in *op. cit.,* (31), vol. 48, pp. 183-187, p.184.

37 Goyena, P. 'Contra mentira, verdad', *La Unión*, 2 March 1883.

38 Groussac, P. *Los que pasaban*, Buenos Aires: Taurus (2001), p.107.

39 Pizarro, M.D. *La escuela simiana y la Constitución Nacional: Relaciones de la Iglesia y del Estado*, Buenos Aires: Imprenta de La Unión (1883).

between church and state defended by Sarmiento with 'the positivist or materialist school' and with those who 'together with Darwin, reject the *divine genesis* of man and wish to make of him an improved beast descending from the monkey and only slightly superior to it in the zoological scale' (emphasis in the original).[40] He compared a secularised commonwealth to 'a society of apes, who neither need nor are able to conceive any government but the whip and the bread of whoever would have them dancing in the streets'.[41] In his speech in the Catholic Congress, convened in 1884 with the aim of prompting Catholics to participate in public life, Pizarro again pitted Christian society against 'Darwin's evolutionary ethics [and] Bentham's utilitarian ethics'.[42]Transposing the evolutionist theme into a Christian key, he commended Catholic participation in politics as the 'true *struggle for life'*, a contest of love, charity and fraternity in which the privileged orders of society would help their inferiors, instead of letting them perish. This, he said, is 'the law of evolution and *mystical selection*', which points to life eternal (emphasis in the original). [43]In his own contribution to the Congress, Alcácer accused the Argentine liberals of tracing the origin of the human race to 'a ridiculous quadrumanous creature'.[44] José Manuel de Estrada, the most articulate Catholic politician at that time, decried Spencer and Darwin as prophets of liberalism, while moaning the century's 'universal secularisation of everything'. [45] In his toast at the banquet which concluded the event, he further linked evolutionary theory with the government's secularist policy, proclaiming that a 'naturalist and mad' philosophy degrades human beings into bestiality, out of which result 'crowds of fools, cunning as foxes, lewd as monkeys, garrulous as parrots, and if they hold public office, cruel and rapacious as beasts of prey!'[46] The audience, who easily decoded the denigrating allusions to individual liberal politicians, burst into enthusiastic applause.

Discussion of the theory of evolution in Buenos Aires during the nineteenth century had a strong political valence: it was carried out in the midst of a confrontation between liberals and Catholics over issues of secularisation which were crucial to the configuration of the nation. Evolutionism was discussed in public discourse by political personalities, lawyers and doctors in polemical contexts related to the remodelling of the relationships between state and church.

40 Pizarro, 'El gobierno puramente civil', in *op. cit*., (39), pp. 27-43, p.39.

41 Pizarro, 'Teología trascendental', in *op. cit*., (39), pp. 45-72, pp.62-63.

42 Pizarro, M.D. 'La religión y la política', in *Miscelánea*, Córdoba: La Minerva (1897), vol. 1, pp. 237-261, p.238.

43 *ibid*., p.255.

44 *Diario de sesiones de la Primera Asamblea de los Católicos Argentinos*, Buenos Aires: Igon Hermanos (1885), p.272.

45 *ibid*., pp.450, 458.

46 *ibid*., pp. 476-477.

Shifting meanings

In 1884, the year of the great debate about religious education in Argentina, the 31-year-old palaeontologist Florentino Ameghino published in Buenos Aires his theoretical work *Filogenia*, which sought to base the reconstruction of phylogenetic trees on simple mathematical formulae. During his lifetime and even more after his death, Ameghino would embody the kind of evolutionism which was an essential part of the secularist agenda put forward by the liberals and the new rising socialist movement. His image as the personification of evolutionary science was utilised by the positivistic establishment as a battering ram to storm what they saw as the crumbling fortress of metaphysical and religious deceptions. Paradoxically, it was the representatives of this broad swathe of progressive opinion who were unable or unwilling to recognise the scientific fraud favouring their views, and it was an anti-evolutionist Jesuit who acted as the whistle-blower.

George G. Simpson, one of the founders of the modern synthesis, affirmed that the paleontological achievement of Florentino and his brother Carlos 'was one of the most remarkable in scientific history'.[47] Simpson might have been paying a courteous tribute to the country in which he carried out his own research, but there is more than a kernel of truth in his statement. Ameghino's paleontological contributions were ground-breaking. The same cannot be said of his anthropological theories: he never abandoned his juvenile conviction about the Tertiary origin of humanity in the Pampas, even in the face of the opposition of the international scientific community. Ameghino was raised in the rural town of Luján, located 60km west of Buenos Aires, in an area rich in fossils (it was there that the skeleton of a *megatherium* had been excavated by a Dominican friar in 1776). Since colonial times, the town has been a centre of popular Catholic devotion to Our Lady of Luján, whose seventeenth-century terracotta image is venerated in the neo-gothic basilica of the same name, with construction work beginning in 1890. The image arrived in Argentina from Brazil in 1630 and, according to pious legend, the oxen which drew the cart carrying it through the fields at one point stopped near Luján and stubbornly refused to continue, which was interpreted as a divine sign that a sanctuary should be erected upon that location. Ameghino's newspaper article published in that crucial year of 1884, mocking the sacred image, illustrates his scornful anti-clericalism.[48] Luján came to represent a disputed symbolic space which the spokespersons of religion and scientific secularism strove to appropriate for themselves.[49] That is the context in which shall see how in the 1920s

47 Simpson, G.G. *The Beginnings of the Age of Mammals in South America, Part 1*, New York: American Museum of Natural History (1948), p.19.

48 Reproduced in Ameghino, F. *Obras completas*, La Plata: Taller de Impresiones Oficiales (1913-1936), vol. 23, pp. 505-509.

49 This has also been observed and discussed in Di Stefano, R., Mauro, M. 'Our Lady of Luján:

the socialists would try to turn the town into a place of secular worship, with Ameghino as the object of a civic cult of patriotic science.[50]

Ameghino's philosophical leanings took public form in a discourse published late in his life, in 1906. From the title onwards ('My Creed') his 'synthetic exposition of the universe' can be seen as a mimesis of religious cosmological discourse.[51] The core of Ameghino's world-view is the existence of four infinites, one of them material (matter) and three immaterial (time, space, and movement). Two kinds of movement, concentration and expansion, rule the whole evolution of the cosmos. The mass of matter is limited, which explains the struggle for life, for a number of creatures must perish for others to live. Future humans will enjoy a longer life span and have superior intellects. This grand evolutionary vision of nature is an exercise of the imagination on the theme of a materialistic universe; the whole thing is written in the style of a speculative, aprioristic philosophy of nature, leaving aside sizeable chapters of nineteenth-century chemistry and physics.

Ameghino's technical acquaintance with Darwin seems to have been slight, which is not surprising since his rite of passage into the academic world took place in France between 1878 and 1880. In an 1882 lecture in honour of the author of the *Origin*, he talked mostly about his own palaeontological findings within the framework of his phylogenetic research programme. [52] It has been claimed that he was a Lamarckian.[53] In *Filogenia*, he used dental and digital formulae to infer the morphology of a hypothetical ancestor from those of its descendants in order to build phylogenetic trees in the style of Haeckel – although the author declared that he 'did not use' the works of the famous Ger-

mass mobilization and identity in Argentina', in Di Stefano, R., Solans, F.J.R. (eds.) *Marian Devotions, Political Mobilizations, and Nationalism in Europe and America*, Switzerland: Palgrave Macmillan (2016), pp. 279-313.

50 This episode and the patriotic 'cult' of Ameghino has been extensively discussed in Podgorny, I. 'De la santidad laica del científico Florentino Ameghino y el espectáculo de la ciencia en la Argentina moderna', *Entrepasados* (1997) 13, 37-61; Podgorny, I., Farro, M. 'Frente a la tumba del sabio', *Ciencia Hoy* (1998) 8(47), 28-37; Larson, C.R. '"Argentine man": Human evolution and cultural citizenship in Argentina, 1911-1940', in Bryce, B., Sheinin, D.M.K. (eds.) *Citizens in Argentina*, Pittsburgh: The University of Pittsburgh Press, pp. 43-61. This literature concentrates on the nationalistic exploitation of Ameghino.

51 Ameghino, F. 'Mi Credo', *Anales de la Sociedad Científica Argentina* (1906) 52(2), 64-95. This brief exposition is related to a longer essay, written in French: Ameghino, F. 'Origine et persistance de la vie (la matière, la vie, la mort et l'immortalité)', in *op. cit.*, (48), vol. 19, pp. 183-581, pp. 552-554.

52 *Ameghino,* F. 'Un recuerdo a la memoria de Darwin: El transformismo como ciencia exacta', *Boletín del Instituto Geográfico Argentino* (1882) 3, 213-225.

53 Cabrera, A. *El pensamiento vivo de Ameghino*, Buenos Aires: Losada (1944), p.31; Orione, J. 'Florentino Ameghino y la influencia de Lamarck en la paleontología argentina del siglo XIX', *Quipu* (1987) 4 (3), 447-471.

man evolutionist.[54] (In this respect, he might have also been influenced by the Catholic palaeontologist Jean-Albert Gaudry, one of the scant scientific authorities he respected.) One of Ameghino's phylogenetic series corresponded to the origin of human beings. He was convinced beyond the shadow of a doubt that the proliferating intermediary forms he postulated existed as a matter of fact. Links in the series leading to the emergence of *Homo sapiens* such as the hominids *Tetraprothomo*, *Triprothomo*, *Diprothomo*, *Prothomo* and *Homo Pampaeus* were predictions awaiting confirmation. [55] Such a confidence was not entirely unfounded if we take into account that in 1891, moved by a blind faith in Haeckel's predictions, the Dutch physician Eugène Dubois found the remains of *Pithecanthropus erectus* in Java.[56]

On account of his first and early discoveries of fossils, Ameghino became convinced that hominids contemporary to the large extinct mammals of the Pliocene had lived in the pampas.[57] He developed this thesis at length in the two volumes of his first important work on the paleo-anthropology of the La Plata region.[58] During the first decade of the twentieth century, he claimed that human beings had originated in the territory of Argentina and later migrated to the rest of the world, the hominids of the Old World being considered lateral branches. These claims were strengthened in 1907 and 1909 by certain anthropological fossil findings in the city of Buenos Aires and along the southern Atlantic coast of the province of the same name, in terrain that Ameghino thought corresponded to the Upper Miocene or Lower Pliocene (Tertiary).[59] He believed these findings were remains of the hominid species he had first postulated in 1884, although only a handful of scientists in the international community accepted this view.

With the Smithsonian expedition of Aleš Hrdlička and Bailey Willis to Buenos Aires in 1910 and their negative judgement, at least for the Anglophone scientific community the issue was over.[60] Things were not so clear-cut before that. Writing in the first decade of the twentieth century about the findings of a 'primeval Adam', the British Arthur Stuart Pennington, an amateur naturalist who had lived more than two decades in Argentina, affirmed that although

54 Ameghino, F. *Filogenia. Principios de clasificación transformista basados sobre leyes naturales y proporciones matemáticas*, Buenos Aires: La Cultura Argentina (1915), p.13.

55 *ibid*., pp. 495-497.

56 Shipman, P. *The Man who Found the Missing Link: Eugène Dubois and his Lifelong Quest to Prove Darwin Right*, Cambridge, Mass.: Harvard University Press (2002), pp. 57-61.

57 Baffi, E.I., Torres, M.F. 'Ameghino, Florentino (1854-1911)', in Spencer, F. (ed.) *History of Physical Anthropology*, New York: Garland Publishing (1997), vol. 1, pp. 54-56.

58 Baffi, E.I., Torres, M.F. *op. cit.,* (57).

59 Politis, G., Bonomo, M. 'Nuevos datos sobre el hombre fósil', in Asociación Paleontológica Argentina *Vida y obra de Florentino Ameghino*, Publicación especial 12, 101-119.

60 Hrdlička, A. et al. *Early Man in South America*, Washington: Government Printing Office (1912).

their value was a question to be decided, 'his [Ameghino's] deductions are exceedingly interesting and worthy of careful perusal'.[61]

The process of investing the figure of Ameghino with religious meaning immediately followed his death in the city of La Plata, where he spent his last years. One and a half months after his demise in August 1911, a 'civic funeral' was set up in the local university, a recently founded seat of higher learning and a bulwark of secular positivism. The staging of this event, attended by the famous French socialist politician Jean Jaurès – by chance in the country at that time – was evocative of the pageantry of Republican Rome, with allegorical images of the virtues and science, and large Greek columns decorated with wreathes.[62] Against this backdrop, the positivist intellectual José Ingenieros gave a speech, reproduced in the newspapers as 'The Modern Sanctity'.[63] Ingenieros reinterpreted several Christian notions in a secular key while retaining their symbolic aura. Modern sanctity was 'knowledge'. The new 'saints', of which Ameghino was a prime example, enjoyed a 'serene mysticism' free of superstitions; they believed in 'doctrines' which were not exposed as dogmas, had 'faith' but were not fanatics, and although they could not 'make miracles', they knew how to search for the truth. The irony of this rhetorical exercise comes to light when we consider that two decades earlier, the speaker had contributed a ribald piece on the peregrinations to the sanctuary of Luján to a radical paper he had founded.[64]

The uncomfortable truth

The year 1916 marked the end of thirty-four years of conservative rule in Argentina and the ascent to power of the Radical Civic Union (despite its name, a middle-class reformist party). It was also the year in which Father Blanco came to the fore as one of the most notable critics of Ameghino. He lectured on the anthropological theories of the Argentine savant in the Jesuit Colegio del Salvador (an elite secondary school in Buenos Aires) and he also published two papers criticising Ameghino's philosophical ramblings.[65]

Father José María Blanco was born in Galicia (Spain) and arrived in Buenos Aires as a child.[66] He joined the Society of Jesus in Argentina and studied

61 Pennington, A.S. *The Argentine Republic*, London: Stanley Paul, (1910), p.241.

62 *Funeral cívico de homenaje a la memoria del sabio naturalista Dr. D. Florentino Ameghino en La Plata*, La Plata: Taller de Impresiones Oficiales (1911).

63 Ingenieros, J. 'La santidad moderna', *La Nación* 19 September 1911; see also Holbo, P. 'José Ingenieros, Argentine intellectual historian: *La evolución de las ideas argentinas*', *The Americas* (1964) 21(1), 20-35.

64 Ingenieros, J. 'Los reptiles burgueses', *La Montaña* (1897) 1(2), 5.

65 Blanco, J.M. *La evolución antropológica y Ameghino*, Buenos Aires: Alfa y Omega (1916); *El Credo de Ameghino*, Buenos Aires: R. Herrando (1916).

66 Anon. 'El padre José María Blanco († 9 de agosto de 1957)', *Estudios* (1957) 47(487), 53-58.

philosophy in Tortosa (Catalonia). He taught sciences and spent a period of training in the recently established biological laboratory of Javier Pujiula, a Jesuit embryologist who had studied in Austria and Berlin and was a declared enemy of evolution, in particular in relation to human origins and the origin of life.[67] In 1910, Pujiula gave a series of lectures in Valencia in which he criticised Ameghino's hypothesis of Tertiary humans in the pampas, which had gained followers in Spain.[68] Blanco returned to Río de la Plata and after a brief stint in Montevideo took a position as professor of natural sciences in the Archdiocesan Seminary of Buenos Aires. In 1924, he began teaching in the Colegio del Salvador where he organised a small anthropological museum with the materials he collected in the course of his expeditions and his lecture tours all over the country. Due to his journalistic and educational activities in Jesuit secondary schools, Blanco became a relatively well-known figure in his time. His anti-evolutionistic views never changed: in 1950, the year in which Pious XII published the encyclical *Humani generis* which opened a small door to evolutionary theory among Catholics, he considered that the finding of Peking Man, in which his more famous confrere Teilhard de Chardin was much involved, was 'sheer mystification'.[69]

Blanco's activities triggered a series of answers in *La Vanguardia*, the socialist daily. The cause of outrage was not that Ameghino's scientific competence had been called into question – many had done that before. What the critics could not tolerate was that a member of a 'corporation' famous for its obscurantism, was using scientific arguments: 'it would have been tolerable', protested one of the authors, 'if he had used the usual arguments of religion'.[70] Another complained of 'the meddling of a priest with the natural sciences', which meant that the church had 'entered surreptitiously into the fortress of science' and presented itself as a 'dicephalus monster: at one time assailant and defender of scientific truth'.[71] The message was clear: science is a strictly secular business.

At the same time that Blanco was being accused of intruding on the turf of science, in the Chamber of Deputies of the Province of Buenos Aires the simmering dispute over the scientific and religious meaning of the town of Luján eventually boiled over. While discussing the annual budget of the province, the socialist deputy Adolfo Dickmann proposed to assign 5,000 *pesos* to buy

67 Peretó, J., Català, J.I. 'A reconciliation with Darwin: Erich Wasmann and Jaime Pujiula's divergent views on evolutionism: biologists and Jesuits', *Mètode Science Studies Journal* (2017) 7, 87-93.

68 Català Gorgues, J.I. 'La polémica sobre el hombre terciario y su expresión en la Valencia de comienzos del siglo XX', *Asclepio* (2012) 64(1), 63-96.

69 Anon. *op. cit.*, (66), 57.

70 Dagnino, E. 'El "Credo" de Ameghino juzgado por un fraile', *La Vanguardia* 27 October 1916.

71 Calatroni, R. 'Malabarismo católico: La Iglesia y la obra de Ameghino', *La Vanguardia* 17 November 1916.

Ameghino's birthplace in that city.[72] Contrasting the unedifying spectacle of 'the magnificent basilica' rising to the sky with 'the healthy poverty of Ameghino's house', he proposed that the latter should be the centre toward which Argentine children 'should peregrinate to obtain inspiration' from the 'spirit of humility' of its former dweller. The manoeuvre to take over the religious symbolism attached to the centre of popular piety and substitute secular scientific meanings for the original sacred ones foundered upon the uncomfortable fact that Ameghino's precise birthplace was a matter of speculation. At that point, the conservative Catholic deputy Nicanor de Nevares reminded the chamber that no parochial local register of the savant's baptism had been found in Argentina, but one had popped up in the small Genoese town of Moneglia, from whence the family had emigrated (the name entered there was not Florentino, but 'Fiorino').

In the end, a commission was formed to look into the case. The question of Ameghino's birthplace turned into a local cause célèbre which lasted for decades. In the succeeding months, the issue became inextricably enmeshed with the discussion of Ameghino's anthropological theories and the unceasing archaeological and anthropological findings that seemed to support his ideas and were duly reported by the newspapers with patriotic pride. During 1916, the Catholic newspaper *El Pueblo* and the socialist *La Vanguardia* crossed swords with each other on this account. The articles in both periodicals were a sounding board of the ever louder sound and fury of the political and ideological clash between the two groups. The Catholic newspaper did not mention Blanco; instead, it resurrected, with notable prolixity, Burmeister's anti-evolutionistic critiques against Ameghino. The goal was twofold: to deprive the latter of any scientific credibility and to invalidate evolutionism.[73] The anonymous journalist denounced his socialist antagonists, stating that, in trying to present Ameghino 'as the highest exponent of Argentine science', they were waging war against 'the traditional notions of God as creator of the orb'.[74]

At the same time, Blanco and his students from the Seminary of Buenos Aires went on writing articles critical of Haeckel's evolutionism. That made sense, since cheap editions of Haeckel were regularly brought out by the socialist printing houses as part of a sustained effort to educate the working class. The seminarians used as one of their sources the works of Erich Wasmann, the Jesuit entomologist with a moderate theistic version of evolution who had famously contended with Haeckel's monism.[75] In 1917, Blanco published an

72 Cámara de Diputados de la Provincia de Buenos Aires, *Diario de sesiones 1916*, La Plata: Taller de Impresiones Oficiales (1917), pp. 1049-1059 (session of 25 August 1916).

73 The main series of articles was collected and edited as *La nacionalidad y la obra de Ameghino*, 2nd edn., Buenos Aires: Imprenta de El Pueblo (1917).

74 *ibid*., p.5.

75 Richards, R.J. *The Tragic Sense of Life*, Chicago: The University of Chicago Press (2008), pp. 350-371; Lustig, A.J. 'Erich Wasmann, Ernst Haeckel, and the limits of science', *Theory in Biosci-*

article which opened with an account of Wasmann's famous 1907 Berlin lectures, which the Argentine Jesuit interpreted as a vindication of the inductive methodology he favoured.[76] It is not unlikely that Blanco could have intended to model his own dispute with the followers of Ameghino on the more exalted exemplar of Wasmann versus Haeckel. In any case, what was at stake in the local interchanges was the assignation of spheres of authority for science and religion. In one of a series of articles published in a respected newspaper in 1916, Lucas Kraglievich, a paleontologist at the Museum of Natural History in Buenos Aires, had affirmed that Blanco was an amateur aspiring to handle 'without any serious knowledge of the matter the delicate problems of naturalist philosophy, the understanding of which presupposes…the profound and methodical analysis of the materials deposited in cabinets and museums'.[77] Blanco inverted the terms of the discussion: it was the naturalist Ameghino who had erred grossly when he had believed himself worthy of the title of philosopher. In September 1917, a popular daily published a brief manuscript by Ameghino entitled 'Notion of God and notion of space', which affirmed that the 'primitive…infantile' notion of a God, born out of fear, will eventually be dissolved into the 'much more grandiose' idea of infinite matter moving infinitely into infinite space.[78] Blanco's response contended that it was not so easy to solve the fundamental problems of philosophy. For that purpose, he said, 'it is not enough to be a paleontologist; something more is needed…which Ameghino lacked' (small caps in the original).[79]

The Piltdown Skull, as it is known, was found by Charles Dawson in East Sussex in 1912.[80] In that same year, an analogous and less illustrious hoax took place in far-away Argentina. The story of the fraudulent archaeological and anthropological findings in the ravines of a coastal town in Buenos Aires by Lorenzo Parodi has been told several times.[81] Here I shall highlight only those aspects relating to Blanco's role in those events. In the summer of 1912-1913, little more than a year after Ameghino's death, several stone objects – among them a bola and a flint knife – were found in the locality of Miramar. This was taken as evidence of human habitation of the region from two million years

ence (2002) 121(3), 252-259.

76 Blanco, J.M. 'Las ideas preconcebidas y la ciencia', *Estudios* (1917) 13, 423-435.

77 Originally published in *La Nación* in 1916; reproduced in Torcelli, A.J., Marelli, C. (eds.) *Lucas Kraglievich: Obras de Geología y Paleontología*, La Plata: Taller de Impresiones Oficiales (1940), vol. 1, pp. 65-76 (p.65).

78 Ameghino, F. 'Noción de Dios y noción de espacio', *La Razón* 16 September 1917.

79 Nebel, G. [Blanco, J.M.] '¡Ameghino filósofo!', *Estudios* (1917) 13, 277-279.

80 Spencer, F. *Piltdown: A Scientific Forgery*, Oxford: Oxford University Press (1990).

81 Daino, L. 'Exégesis histórica de los hallazgos arqueológicos de la costa bonaerense', *Prehistoria Bonaerense* (1979), 95-145; Tonni, E.P., Pasquali, R.C. & Bond, M., 'Ciencia y fraude: el hombre de Miramar', *Ciencia Hoy* (2001) 11(62), 58-62; Bonomo, M. 'El hombre fósil de Miramar', *Intersecciones en Antropología* (2002) 3, 69-87.

in the past, which amounted to a new confirmation of Ameghino's hypothesis regarding the Argentine origin of the human lineage. Parodi, an almost illiterate Genoese immigrant with a great talent for paleontological surveying, had been commissioned to explore the site by Carlos Ameghino, at that time the chief of the palaeontology section of the Museum of Buenos Aires. These findings raised two issues. Firstly, had the objects been buried at the time of formation of the sediments (primary site) or had they been interred afterwards as a result of dispersal (secondary site)? Then, there was the thorny question of geological dating.[82] In 1914, a commission of Argentine scientific notables surveyed the area and concluded that the sites were primary. The findings continued. In December 1914, Carlos Ameghino and Parodi found a toxodont femur pierced by an arrow.[83] The next year, an amateur archaeologist Major Antonio A. Romero published a booklet with a harsh critique of the findings, followed four years later (1919) by a paper in which he claimed that the site was not primary.[84] In 1920, a young student Milcíades Vignati, who would later become a noted anthropologist, fired off a contentious pamphlet against Romero, which the military man took as a personal affront. He sent his seconds to Vignati, asking him to make a public retraction or face a duel. Vignati opted for the safer alternative.[85] In 1921, Father Blanco enthusiastically joined the fray with a short paper.[86] He referred to the publication in one of the Buenos Aires newspapers of the discovery of several bolas in Miramar by a scientific commission on 22 November 1920 and, quoting freely from Romero's articles, denounced the findings as a sham, orchestrated by Parodi with the connivance of Carlos Ameghino, bent on supporting his brother's notion of 'Tertiary Man'.

In 1919 and 1921, the Swedish Eric Boman, at that time director of the archaeological section of the Museum of Buenos Aires, published two papers offering a sceptical perspective on the Miramar findings.[87] The Catholic daily *El Pueblo* reproduced Boman's articles under the title 'Ameghinism – anti-scientific charlatanism and Machiavellian industry. The word of the men of science'.[88] In his unceasing campaign, Blanco reproduced Boman's article and

82 Tonni et al. *op. cit.*, (81), 59.

83 Daino *op. cit.*, (81), 26-29.

84 *ibid*., 29-31, 38-42.

85 Samperio, M.J. 'Cuestión de paleoantropología argentina', *Estudios* (1920) 18, 350-366 (p.351); Vignati, M.A., *Los restos de industria humana de Mirimar: A propósito de los despropósitos del comandante Romero*, Buenos Aires: Oceana (1919).

86 Blanco, J.M. 'Las bolas de Parodi ¿serán bolas?', *Estudios* (1921) 20, 31-35.

87 Boman, E. 'Encore l'homme tertiaire dans l'Amérique du Sud', *Journal de la Société des Américanistes*, N.S. (1919) 11, 657-664; Boman, E., 'Los vestigios de industria humana encontrados en Miramar (República Argentina) y atribuidos a la época terciaria', *Revista Chilena de Historia y Geografía* (1921) 39(43), 330-352.

88 *El Pueblo* [Buenos Aires] 8, 9 -10, and 11 January 1922.

also the fragments criticising Ameghino's anthropological theories in Marcellin Boule's *Les hommes fossils* (Paris: Masson, 1921).[89] The discussion among the Argentine specialists went on for years to come.[90] Whereas some of the protagonists changed sides in the course of the conflict, Ameghino's most faithful disciples defended the validity of the Miramar findings to the end. As late as 1941, Vignati still claimed that scepticism regarding the Miramar findings was the result of 'ignorance and bad faith'.[91] Only recently have Argentine members of the palaeo-anthropological community gallantly recognised that Father Blanco's criticisms were muffled on account of the anti-religious bias impregnating Argentinian science at that time.[92]

Blanco went on writing on human evolution. In the second semester of 1923 he published two articles on the antiquity of human beings on Earth in which he affirmed, on the one hand, that the Bible could not be utilised as a chronological guide to establish the origin of humans, and on the other, that scientific results about that issue were unreliable, although it was clear that our ancestors could not be dated beyond the Quaternary.[93] In further articles he stated that 'biology does not favour in any way the hypothesis of evolution as applied to man'.[94] In his copious writings, he never addressed specifically the question of evolution per se, restricting himself to human evolution and the criticism of Ameghino's ideas and hypothesis about the Tertiary origin of human beings in the pampas.[95]

Finally, it should be remarked that not all Catholics were of the same opinion as Father Blanco. In August 1915, in an improvised conference in honour of Ameghino, the Catholic naturalist Ángel Gallardo – the successor of the former as director of the Museum of Buenos Aires – extolled the value of the finding of the toxodont femur with the impacted arrow, which allegedly demonstrated 'the prodigious antiquity of South American humans'.[96] In a 1916 note

89 Blanco, J. M. 'Hablan los hombres de ciencia del país sobre las asendereadas teorías de Ameghino', *Estudios* (1922) 22, 428-445; 'Ameghino juzgado por Boule: *Les hommes fossiles*', *Estudios* (1921) 20, 419-426.

90 Bonomo *op. cit.*, (81), 74-81.

91 Vignati, M.A. 'Descripción de los molares humanos fósiles de Miramar', *Revista del Museo de La Plata. Nueva Serie. Sección Antropología* (1941) 1(8), 271-358 (p.292).

92 Tonni, E.P., Zampatti, L.H. 'El 'hombre fósil' de Miramar: Comentarios sobre la correspondencia de Carlos Ameghino a Lorenzo Parodi', *Revista de la Asociación Geológica Argentina* (2011), 68(3), 436-444.

93 Blanco, J. M. 'La antigüedad del hombre', *Estudios* (1923) 25, 91-103, 161-174.

94 Blanco, J. M. '¿Es posible la evolución del hombre?, *Estudios* (1924) 27, 431-446; (1925) 28, 42-53, 81-90, 344-357; (1925) 29, 40-51 (p.51).

95 For a detailed analysis of all the articles by Blanco, see Asúa, M. de 'Los artículos del P. José María Blanco S.I. en la revista *Estudios* sobre la evolución y las teorías antropológicas de Ameghino', *Stromata* (2009) 65(3-4), 313-335.

96 Only a report of the conference by a journalist has survived, see *La Nación* 7 August 1915.

defending that Ameghino had been born in Argentina, one of the newspapers remarked that Gallardo 'was of the same opinion'.[97] In the 1916 edition of his handbook *Zoology*, used as a text in secondary-school courses, Gallardo succinctly expounded Darwin's 'theory' and commented that these ideas 'are today almost generally admitted'. He remarked that they have given place to much discussion on account of 'their extra-scientific consequences' and added that as to the mechanism of evolution there is much discussion – this is followed by sketchy accounts on neo-Lamarckism, neoDarwinism and Pearson's biometric school.[98]

Conclusion

Two periods in time, 1883-1884 and 1916, are landmarks in the history of what could be termed the 'religious reception' of evolutionism in Buenos Aires. Around 1883-1884 (shortly after Darwin's death in 1882) evolutionistic ideas were used in public discourse to legitimate a vision of progress and modernisation in tune with the programme of secularisation put forward by the liberals and backed by the government. Evolution was synonymous with Darwin and progressive thinkers were proud to call themselves 'Darwinists'. The early reception of Darwin took place within the framework of a nascent, ebullient secularist ideology which implied the surrender of social functions that up to that time had been in the hands of the church to a religiously neutral state. Much of the spirit of the Enlightenment still floated over the arguments of the secularists, whose understanding of the relationship between science and religion drew upon Draper's 'conflict thesis'. The responses of the Catholic leaders – almost all of them lawyers – were scientifically uninformed; they saw Darwinism as an enemy of a society based on Christian principles and identified evolution with liberalism, positivism and secular thought – in other words, with the modernity Rome had condemned in the 1864 Syllabus of errors.

The situation significantly changed in 1916, the year of the great debate regarding Ameghino's nationality, intertwined with the controversy over his anthropological theories on 'Tertiary Man' and the authenticity of the Miramar findings. While in 1883-1884 the protagonists either side of the divide were members of the patrician elite, the main characters in this story were now recent immigrants, in tune with the shift towards a more open and inclusive society. Evolutionism was identified with Ameghino, the local hero of humble origins, patriotic mien and world achievements, and in the second place, with Haeckel. The avant-garde of the anti-clerical sectors were the socialists, whose combative secularism had sharp ideological edges. Their ultimate goal was the suppression of religion, but the old positivist dream of a 'secular religion'

97 'La nacionalidad de Florentino Ameghino', *La Raz*ón 8 September 1916.

98 Gallardo, A. *Zoología*, Buenos Aires: Estrada (1916), p.82.

lingered on in the attempts to invest secular science with religious trappings. By the second decade of the twentieth century, there were Catholic specialists of different degrees of expertise and representing a spectrum of opinion: from the Jesuit Blanco, an anti-evolutionistic serious amateur, to Gallardo, a professional naturalist who accepted biological evolution in theistic terms.

The long-term perspective of this inquiry will hopefully show how the Latin American style of secularisation shaped the reception of Darwin's theory in Buenos Aires. Secularisation in romance-speaking Europe and Iberian America resulted in a strong anti-clerical reaction, a factional struggle which, as Taylor succinctly put it, 'threw up a humanism which aspired in its own way to be a kind of national "church", that of the Republic and its principles'.[99] Argentina went through a less traumatic process of secularisation than other Latin American countries such as Mexico and Brazil.[100] Science – more properly, scientism – was a principal element of an attitudinal and ideological complex that sought not only the separation of church from state, but also the imposition of social secular values. Bernard Lightman has shown how evolutionism gave unbelievers the opportunity that Newtonianism could hardly grant, that is a scientific justification 'for their materialism and their atheism'.[101] Just as Holmberg had prophesied in 1882, the kind of evolutionism that eventually took root in Río de la Plata was not Darwin's, but Haeckel's, which lent itself more readily to being a vehicle for anti-metaphysical doctrines.

Symbols play a prominent role in this story. The surname 'Ameghino' was made into an icon which stood for evolutionism, patriotic science and secularism, and as such was venerated and execrated in equal measure by the representatives of the opposing factions. The toponymic 'Luján' has attached to it sacred and secular meanings in an unstable and conflictive balance. A journalistic and political battle was fought over its significance: would it be the symbol of the Catholic character of the country or would it be the cipher of a secular society built upon the twin columns of positivism and socialism? Thomas Lessl has utilised Northrop Frye's theory of 'displacement' to discuss evolutionism as discourse that considers 'some contemporary or at least secular subject matter but orders it in accordance with a narrative form that descends from myth'.[102] He devotes a substantial chapter of his book to the discussion of French positivism. Comte's 'Religion of Humanity' never acclimatised itself in Argentina; it was the 'scientific Comte' who was received, together with Spencer, and gener-

99 Taylor *op. cit.*, (5), p.487.

100 Bastian, J.P. (ed.) *La modernité religieuse en perspective compare: Europe latine-Amérique latine*, Paris: Karthala (2002).

101 Lightman, B. 'Does the history of science and religion change depending on the narrator? Some atheist and agnostic perspectives', *Science and Christian Belief* (2012) 24, 149-168, 151.

102 Lessl, T.M. *Rhetorical Darwinism. Religion, evolution and the Scientific Identity*, Waco: Baylor University Press (2012), p.38.

ous doses of both of them were added to the concoction of an indigenous version of positivism *cum* evolutionism.[103] Nonetheless, from the 1910s onwards there were ever-renewed attempts at replacing sacred content with the secular in religiously significant places, persons and discourse. This strategy sought to accomplish the appropriation of religious symbolism, while at the same time strictly delimiting the boundaries between science and religion and proscribing any incursion of the latter upon the territory of the former.

Finally, there is the question of historical evidence, of the legitimacy of a truth claim. In two instances – the documents demonstrating Ameghino's birth in Genoa and the dating of the supposedly Tertiary lithic objects in Miramar – a majority of the local palaeontological and archaeological circles closed ranks behind what was eventually shown to be the wrong position. Were we to appeal to Max Weber's notion of a 'religious economic ethic' (the 'practical impulses for action which are founded in the psychological and pragmatic contexts of religions'), the ethics of the 'secular religion' of the devotees of Ameghino would deserve short shrift.[104] The paradox is that it was a representative of church religion with anti-evolutionistic views who was on the side of scientific probity. Things were even more complex than this: the most prestigious Argentine Catholic scientist in the years following the First World War (Gallardo) made public declarations backing Ameghino's theories.

How does this story bear on the broader issue of the relationship between science, religion and secularisation? Peter Harrison has recently edited a substantial collection of essays aimed at discussing various kinds of secularisation narratives with particular attention paid to their implicit normative content.[105] In his own contribution, he argues a middle way between the thesis that science caused secularisation and its opposite, namely. that secularisation was independent from science.[106] His account of the process by which science 'implicated' secularisation involves three shifts in the transition period from medieval to early modern times: (a) from an analogical to a univocal conception of divine causation; (b) towards an acceptance of the practice of theology by natural philosophers; (c) towards a notion of religion understood as a set of beliefs to which natural philosophy could lend epistemological support. This elaborate account deals with the rise of early modern science and has an air about it of a return to comprehensive, even master, narratives, which

103 Hentschke, J.R. 'Argentina's Escuela Normal de Paraná and its disciples: mergers of liberalism, Krausism, and Comtean positivism in Sarmiento's temple for civilizing the nation, 1870 to 1916', *Journal of Iberian and Latin American Studies* (2011) 17(1), 1- 31; Novoa, A. 'The rise and fall of Spencer's evolutionary ideas in Argentina, 1870- 1910', in Lightman, B. (ed.) *Global Spencerism*, Leiden: Brill (2016), pp. 173-191.

104 Weber, M. 'The Social Psychology of the World Religions', in Gerth, H.H., Mills, C.W. (eds.), *From Max Weber: Essays in Sociology*, 267-301 (p.267).

105 Harrison, P. *Narratives of Secularisation*, London: Routledge (2017).

106 Harrison, P. 'Science and secularization', in *ibid*., pp. 47-70.

Harrison thinks worth pursuing (with qualifications).[107] The case discussed in this paper suggests that as regards science and secularisation, a 'diversity of interaction' view of things might still deserve a hearing. It argues for a diversity of secularisation stories (and *a fortiori* stories of the interactions between science and secularisation) in the post-Enlightenment period, resulting from the various national experiences of Enlightenment.[108] Secularisation in 'paleo-Durkheimian', 'baroque' Catholic societies in which 'the social sacred is defined and served by the Church' was (and is) spelled out as *laïcité*, *laicità*, or *laicismo*, a notion which has no English equivalent, for secularisation in 'Anglophone' denominational societies ('neo-Durkheimian', in Taylor's parlance) was a different thing.[109] There is a vast literature on comparative historical studies of secularisation in Western European societies.[110] Argentina, with its Spanish background, large waves of Italian immigration and strong French cultural influence, is a distant mirror of the European geographies in which this notion has taken form. Elsewhere, I have argued that there is a distinctive version of the 'conflict thesis', which thrived in these cultural areas.[111] I also hope to have shown how in the course of the reception of the conflict thesis in late nineteenth-century Argentina these two versions of the 'conflict myth' can be distinguished from one another.[112]Along the same lines, the present paper suggests that diversity and cultural particularism should be taken into account when propounding an interpretation of the interactions (or lack of them) between science and secularisation.

Miguel de Asúa is a research member of Consejo Nacional de Investigaciones Científicas y Técnicas (Arg.) and professor of history of science at Universidad de San Martín.

107 Harrison, P. 'Old Categories, New Territories, and Future Directions: A Response to Bernard Lightman' (https://sciencereligionspectrum.org/long-reads/harrison-lightman-territories-science-religion/#more-938), esp. last paragraph.

108 Porter, R., Teich, M. (eds.) *The Enlightenment in National Contexts*, Cambridge: Cambridge University Press (1981); Himmelfarb, G. *The Roads to Modernity: The British, French, and American Enlightenments*, New York: Knopf (2004); Lehner, U., Printy, M. *Brill's Companion to Catholic Enlightenment in Europe*, Leiden: Brill (2010).

109 Taylor, *op. cit.*, (5), pp. 454-455.

110 See e.g. McLeod, H. *Secularisation in Western Europe, 1848-1914*, Basingstoke: Macmillan (2000); Rémond, R. *Religion and Society in Western Europe*, Oxford: Blackwell (1999); Clark, C., Kaiser, W. *Culture Wars: Secular-Catholic Conflict in Nineteenth-Century Europe*, Cambridge: Cambridge University Press (2003).

111 Asúa, M. de 'The "Conflict Thesis" and positivist history of science: a view from the periphery', *Zygon* (2018) 53(4), 1131-1148

112 Asúa *op. cit.*, (10).