



Perspectives on the Popularisation of Natural  
Sciences in a Diachronic Overview

Edited by

Eleonora Chiavetta and Silvana Sciarrino

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**P U B L I S H I N G**

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Edited by Eleonora Chiavetta and Silvana Sciarrino

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## CHAPTER FIVE

# THE POPULARISATION OF DARWIN(ISM) IN THE TWENTIETH AND TWENTY-FIRST CENTURY BRITISH PRESS: DARWIN AT DOWN HOUSE

KIM GREGO

Q [Interviewer]:

*Was there a serious risk of your theory being rejected by the scientists?*

A [Charles Darwin]:

It was touch and go for the first few years. There were a lot of quite negative reviews and some important scientists came out against it. Fortunately Huxley managed to get his very positive review into *The Times*, and that helped. Over the next few years, the positive comments gradually began to outweigh the negative ones (Bowler 2011: 78).

### **1. Introduction and Aims. Of Banknotes and Caricatures**

While *The Guardian* informs us that Charles Darwin's portrait is to be replaced with that of Jane Austen on £10 notes (Rankin 2013), his reputation for scientific primacy does not currently seem endangered, although non-evolutionists still exist and resist. <sup>1</sup>The fact that Darwin is currently featured on the £10 note represents well his iconic strength at the popular level, his portrait being one of the best known in British culture, together with Winston Churchill's (next in line to be replaced on the five-pound note) (Peachey 2013) and Alfred Hitchcock's, who "would [also] look great on a tenner" (Davidson 2012).

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<sup>1</sup> "There has certainly been a rise in what we call fundamentalist religious belief, and this has quelled widespread reaction against both evolutionism and the selection theory" (Bowler 2011).

Darwin was indeed one of the first men of science whose likeness was made widely public. Many caricatures of him, while often aimed at ridiculing his ideas, contributed instead to popularising his very distinctive appearance.<sup>2</sup> The advent of photography completed the task by passing on his image to future generations (Smith 2006; Browne 2009).

Banknotes and caricatures both testify to the degree of popular fame that Darwin has enjoyed in the 154 years since the publication of his *Origin of Species* (1859)<sup>3</sup>. First popularised in the 19<sup>th</sup> century – a period which saw an unprecedented spread of mass printing and especially of newspapers – the press remains the main popularising vehicle of Darwin’s science and person to this day.

## **2. Background and “State of the Art”: Darwin (ism) Made Popular**

The scientific revolution and popular shock that Darwin’s theory caused when outlined in his 1859 *Origin* granted his ideas some immediate immense popularity and notoriety, which continues well into the 21<sup>st</sup> century. It is only to be expected, then, that the literature on their popularisation should be extensive and varied—the relatively few years that separate Darwin’s time from the present only adding to the interest for the topic and the quantity of the material written about it. This material, which at first glance might look homogeneous, can actually be divided into works on the popularisation of a) evolutionism, b) Darwinism as a specific instance of evolutionism and c) Darwin’s figure—meaning Darwin as a person, as a public figure, and the relationship between these two aspects<sup>4</sup>. In turn, the scientific approaches adopted in researching these three aspects also vary considerably, and so do the temporal and spatial coordinates, length, level of specialisation and intended audience for the works. Although not all or even most of them can be mentioned here, a few select studies are worth reporting.

Historically, the first and one of the greatest popularisers of Darwin (ism) was his colleague and friend the biologist Thomas H. Huxley. The description and review of Huxley’s contribution is of course better suited

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<sup>2</sup> Various studies have investigated the iconic aspect of Darwin’s fame. Among them, one recent work dedicated entirely to caricatures of the scientist, is Browne (2001).

<sup>3</sup> Hereinafter, *Origin*.

<sup>4</sup> Following the classification introduced, hereinafter the term “Darwin (ism)” will be adopted, to indicate b) and c) when co-occurring.

to studies focusing on the nineteenth century. Suffice it to mention here the first review on *The Times* of *Origin* (1859) (Huxley 1859: 8-9), his own treaty *Evidence as to man's place in nature* (Huxley 1863), and *Darwiniana* (1893), a collection of articles and lectures that

either treat of the ancient doctrine of Evolution, rehabilitated and placed upon a sound scientific foundation, since and in consequence of, the publication of the *Origin of Species*; or they attempt to meet the more weighty of the unsparing criticisms with which that great work was visited for several years after its appearance; or they record the impression left by the personality of Mr. Darwin on one who had the privilege and the happiness of enjoying his friendship for some thirty years; or they endeavour to sum up his work and indicate its enduring influence on the course of scientific thought (Huxley 1893: v).

Over a century later, Numbers and Stenhouse (1999) offer a multilayered cultural perspective inclusive of place, race, religion and gender as factors influencing the reception of Darwinism in particular. The case studies analysed in this volume quote a variety of written sources, including newspapers, which “span the period from the publication of the *Origin* to the 1930s, when Darwin’s theory of natural selection finally captured the allegiance of the scientific community” (1999: 1), and “illustrate the importance of local social and religious arrangements in affecting responses to Darwinism” (Ibid.). Perhaps the most original aspect of this work is the attention paid to the so-called “new worlds” like the US, Canada, Australia and New Zealand. These countries responded very differently to evolutionism, even in the case of geographically near countries like the US and Canada or Australia and New Zealand:

Institutional maturity also seems to have made some differences. In Canada and Australia, for example, where non evolutionists frequently continued to occupy scientific chairs established before 1859, evolution entered the universities relatively slowly. In New Zealand, in contrast, which did not establish a university until 1869, evolutionists often occupied scientific chairs from their establishment. That made it easier in principle for evolution to gain a foothold. However, on occasion concern about the vulnerability of youthful institutions led their leaders to shy away from involvement in possibly damaging Darwinian debates (Numbers and Stenhouse 1999: 1-2).

Although the focus of Kelly (1981) is very restricted in both area covered (Germany) and time (1860-1914), its philosophical/socio-political perspective is also of interest, as it discusses the debated notion of “social Darwinism”. This would be “the theory that societies, classes, and races

are subject to and a product of Darwinian laws of natural selection”<sup>5</sup>. Specifically, Kelly deals with “popular Darwinism” as a German version of the phenomenon, linked to Marxism and referring in particular to the German working class. The reference material includes various printed genres, but it only extends to the beginning of World War I, because

Although some Darwinists were still popular in the 1920s, especially among workers, [...] Deeply rooted as it was in the peculiarities of pre-1914 culture, [...] After World War I nobody felt threatened enough by Darwinism to bother to fight it. Left without a benighted enemy, popular Darwinism lost much of its *raison d'être*. [...] Increasingly, popular Darwinism became a historical curiosity (1981: 145).

As will be remarked in detail in paragraph 3, this chronological remark also seems very relevant for an analysis of the popularisation of Darwinism that lies outside the socio-political scope, like the present one.

Yet, a different perspective is proposed by Harbottle (2004), the one-off work of a lay preacher turned atheist, discussing—from a philosophical and religious viewpoint—individual issues related to Darwinism such as “reason”, “design”, “Bible infallibility”, etc. The primary source materials analysed are Darwin’s *Origin* (1859) and Thomas Huxley’s *Man’s Place in Nature* (1863). Other sources considered span the whole of western culture and civilisation, and reflect what is both this work’s strength and weakness: its’ all-embracing and moral (though not moralist) approach, reminiscent of the classical humanist rather than the contemporary hyper-specialized academic. The portrait of Darwin it presents is, for instance, itself a masterful instance of popular writing:

Darwin, the gentle grandfatherly figure, is a popular image: charming, disarming, loveable, childlike – a modest, retiring invalid quietly ploughing his lone scientific furrow with no thought of worldly fame. There was, however, a different Darwin behind this benign façade—a calculating man of ruthless ambition who exploited almost all with whom he came in contact. While a student, for example, he imperiously expected lesser mortals to carry birds he had shot and made no allowance for his companion Herbert’s lameness by expecting him to tramp painful miles catching insects for him (Harbottle 2004: ix).

Harbottle (2004) is a clear example of how one common issue among scholars writing on Darwin and popularisation is the temptation to

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<sup>5</sup> Oxford English Dictionary 2013 online ed., s. v. “Social”.

contribute to the popularising process itself by expressing personal views and drawing biased portraits of the scientist.

Getting closer to the specific interest of this study, i.e. Darwin (ism) in the press, but still focusing only on the 19<sup>th</sup> century, Horenstein (2009) is a paper worth mentioning because it reviews the “reaction to Charles Darwin’s *Origin of Species* and his later works in the ‘popular press’ of the United States [...] between 1859, the year of the publication of the *Origin of the Species* and Darwin’s death in 1882” (2009: 107). Much in line with this paper’s own purposes, it is limited, though, to a compilation of a conspicuous and detailed list of quotations from newspapers, magazines and various publications, not followed—regrettably—by any real critical commentary.

Coming to the historical perspective, this sees two main scholars writing on the popularisation of science in general and of Darwinism in particular: Peter J. Bowler and Bernard V. Lightman. Peter Bowler, Emeritus of History of Science at Queen’s University, Belfast, is the author of many publications on the topic, including one of Darwin’s recent biographies (1996). Most deal with the fortunes suffered by Darwinism in history. In his 1983 review of the pro-and anti-Darwinist debate in the English-speaking world, based on reference material belonging to various genres (and in its update of 2005), Bowler only gets to the 1920s, because “by 1920 some geneticists were beginning to admit a limited role for selection by conceding that useful new characters were far more likely to spread than harmful ones” (1983: 213). Indeed, by the late 1940s, Darwinism as a scientific theory was no longer in danger: “At another conference held in Princeton in 1947 there was an almost embarrassing lack of discussion, so great was the success of the new Darwinian theory” (Ibid.). Bowler’s greatest contribution to the popularisation of Darwin via the press, though, is his 2009 work, itself showing at least a partial popularising intent. As in all the above mentioned pieces of research, this book analyses the situation up to the early twentieth century, i.e. approximately the 1920s, but it draws an informed and accurate picture of the historical context of the (popular) press in that period. “By 1900”, he writes, “there was almost universal literacy. This had allowed the emergence of mass-circulation newspapers and magazines such as the *Daily Mail* and *Tit-Bits*, scorned by the intellectuals as being written for shop boys with limited education and attention spans” (Bowler 2009: 81). However, the “Great War caused a massive interruption in the publishing trade. There were shortages of raw materials, and marketing was interrupted” (Bowler 2009: 133). As regards newspapers in particular:

The press became increasingly dominated by “barons” such as Alfred Harmsworth, Lord Northcliffe, whose *Daily Mail* pioneered the techniques of sensationalism and the cult of the personality. As an imperialist, Harmsworth had some interest in applied science, but little of this found its way into the pages of his newspapers. Again, it was technology, especially the technology of speed, which could be used to capture the popular imagination (Bowler 2009: 186).

And, to report on specific newspapers,

Although the *Times* had a science correspondent from the turn of the century, J. G. Crowther’s work for the Manchester Guardian in the 1930s pioneered the profession in its modern form. Few working scientists could acquire the skill needed to produce copy of the restricted length (only a few hundred words) demanded by the daily press. E. Ray Lankester’s “Science from an Easy Chair” articles for the *Telegraph* became justly famous and managed to smuggle in the occasional more serious comment. J. Arthur Thomson and W. P. Pycraft were the only other professional scientists to write regularly for the daily or weekly press in the interwar years, both specializing in natural history (Bowler 2009: 187).

Much as in today’s world, “Publishers and authors thus had to strike the right balance between education and entertainment” (Bowler 2009: 81). In Chapter ten, Bowler continues the historical review of the popularising British press in the late eighteenth and early nineteenth century, with the interesting section “Science in the Newspapers” (2009: 196-202), and goes over the various writers for papers and magazines specializing in science at that time in the following section “The Science Correspondents” (2009: 202-209). Bowler, however, is founded on reference works, but does not make use of any specific corpus of newspaper material. Other works by Bowler tend towards popularisation, like the very recent and speculative *Darwin deleted: imagining a world without Darwin* (2013), or the successful Q&A format of *Darwin: off the record* (2011), in which the author relates an imaginary interview with Darwin, who thus “speaks” in the first person—a classic yet still effective rhetorical device.

Bernard V. Lightman, Professor of Cultural History of Science at York University, Canada, has also written extensively on science popularisation (Lightman 2007) and on Darwin (Lightman 2009 and 2010), but focusing on the Victorian period and favouring a culturalist historical perspective (for example, concentrating on gender and the visual, as in Lightman and Shteir 2006). Lightman (2010), as regards place and time, reports on “how evolutionary theory was popularised in Britain and the USA from 1860 to 1900” (Lightman 2010: 6). The approach, “In contrast with Peter Bowler,

who uses categories based on the mechanism of evolution in his discussion of the positions of elite scientists in his book *The non-Darwinian revolution*" (Ibid.) is based on categories "related to the religious and metaphysical concerns of the popularisers" (Ibid.). Concerning the materials studied, it deals "only with those popularisers who accepted evolution as valid and who took it upon themselves to write books explaining the scientific basis of the theory and its larger intellectual implications" (Ibid.). No newspapers are considered.

Last but indeed the most relevant for this project's purposes is Ellegård's book on the reception of Darwinism by the general public (1958), since its author has "in the main relied on an investigation of the British newspaper and periodical press of the time" (1958: 7), and scrutinised "well over a hundred titles of periodicals" (1958: 8). Dated as it is, Ellegård's one-off work remains the leading study on the popularisation of Darwin (ism) *through* the British newspaper press. Its limits are several, and not only represented by its 55 years of age. To start with, the time span considered is 1859-1872 which, in the author's opinion, "is short enough to allow a fairly complete coverage of the discussion" (Ibid.). In fact, it can be argued that the period is short in absolute terms, and that there seems to be no rationale behind the selection of the "first dozen years after the publication of the *Origin of Species*" (1958: 7) except the author's own subjective choice. Where others (e.g. see Horenstein 2009 above) have chosen Darwin's death in 1882 as the end limit, in this case, for instance, the publication of the *Descent of Man* could have represented a reasonable selection criterion. However, this appeared in 1871, thus making 1872 an arguable date in which to end the review, since it includes part of the reactions to *The Descent of Man* but certainly not a chronologically thorough account of them. Secondly, the book reflects the opinion-based essayist approach of its time, apparent in the structure of the content, which includes chapters generically titled "The Argument of design", "Miracles", "The Bible", etc. The four main influences on the reception of Darwin (ism) identified in the book are also quite differing and all-embracing: politics, religion, philosophy of science and science itself, necessarily resulting in a generalist rather than a specific exposition. On the other hand, Ellegård (1958) presents with an innovative and invaluable feature that places it decades ahead in research at its publication: the argumentation is based on solid evidence in the form of a corpus of newspapers and periodicals from the time span considered. In

David L. Hull's<sup>6</sup> own words from his foreword to the 1990 edition, "Increasingly, historians are coming to recognize the need to base their conclusions on more solid foundations. Ellegård anticipated this trend by more than two decades" (Ellegård 1958/1990: 1). The corpus comprises material extracted by reviewing 115 periodicals and newspapers, of which 107 proved relevant. On the whole, "It has been calculated that 546 million copies of newspapers were sold in England and Wales in 1864; my newspaper sample covers c. 189 million, or about one third of this, and includes almost all the important London papers" (Ellegård 1958: 338). Although the corpus is not included in the book (and could not at the time have been provided on a separate digital support, either on-or off line), the two Appendixes—"Statistical analysis of the press reaction. Discussion of methods" and "The periodicals: classification, coverage of Darwinism, index of references"—are, with their numerous data systematised into tables and statistical graphs, a precious resource for anyone interested in a corpus-based analysis from any scientific perspective. Indeed, given the presence of the corpus, even within the arguable choice of period discussed above, Ellegård's classification of the popularising phenomenon into three sub-periods—1859-1863, 1864-1869 and 1870-1872—proves convincing. The first sub-period, starting with the publication of *Origin* in 1859 and finishing with that of "T. H. Huxley's *Man's place in nature* and above all Sir Charles Lyell's *Antiquity of man*" (1958: 28) in 1863, is very productive and represents most of the material in the corpus. The second sub-period

was on the whole quieter on the Darwinian front, except in 1868, during which Darwin published *Variation of animals and plants under domestication*, in which was presented part of the evidence on which the discussion in the *Origin* had been built, and the theory of Pangenesis was launched (Ibid.).

The third sub-period is only two years and, thus, objectively short and disproportionate to the others, as argued earlier on. It obviously includes Darwin's own *Descent of man* (1871) and

other substantial contributions to the Darwinian discussion during these years, notably A. R. Wallace's *Contributions to the theory of natural*

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<sup>6</sup> Incidentally, Hull, Professor of Philosophy at Northwestern University until his death in 2010, is also the author of another relevant work on the subject from the 1970s: *Darwin and His Critics: The Reception of Darwin's Theory of Evolution by the Scientific Community* (1973). This, like other interesting studies falling within the perspective of philosophy, could not be described in this limited exposition.

*selection*, and St. George Mivart's *Genesis of species*. Both these books were important in switching the centre of interest from the Evolution theory as such, which both writers advocated, to the Natural Selection theory, in which both found difficulties. Mivart, especially, may be said to have struck the note of public opinion during this period (Ibid.).

On the whole, Ellegård (1958) remains a milestone in both history of science and in corpus-based humanities studies in general. For the specific purposes of this paper, it is doubly relevant, as a) its collection of periodicals—newspapers in particular—represents a key starting point for the setting and the analysis proposed here; and b) its author's multi-disciplinary approach, although it often proves too generic and thus vague, is also extremely contemporary, and the stated nature of the work as a “contribution to what may be called the social history of idea” (Ibid.) very well links, through the adjective “social”, to the Critical Discourse Analysis perspective followed here.

### 3. Aims: Darwin or Darwinism?

The present paper looks at how Darwin and his thought were popularised in the 20<sup>th</sup>-century British press, focusing on the specific case of *The Times*.

The research questions pursued in this investigation were:

- How was Darwin (ism) popularised in the reference corpus?
- Was the focus of the popularisation Darwin or Darwin's ideas?
- What conceptual and linguistic strategies of popularisation were employed?

The answers to the above questions have been pursued through a quality-based lexico-semantic analysis of a sample corpus of *Times* articles as described in section 4, with the results presented in section 6.

### 4. Material: The “Darwin in British Newspapers” Corpus

Charles Darwin himself “believed that the ultimate success of his theory of evolution by natural selection depended on its acceptance by the Victorian popular audience, not just scientists” (Lightman 2010: 6). The famous British naturalist, clearly, very well perceived the importance of winning over popular audiences, and even encouraged his followers to do so. His correspondence with T. H. Huxley, to name one, is famous for

Darwin's invitations to him to "spread a taste for the Natural Sciences"<sup>7</sup>. Heeding Darwin's own exhortation, then, the decision to devote a specific research project to science popularisation via the British newspapers appears like "natural selection".

The "Darwin in British Newspapers" (Dar. Bri. N.) Corpus is the provisional name given to the prospective result of an ongoing project, aimed at screening a selection of British newspapers (dailies) for instances of popularisation of Darwin (ism). Ideally, the corpus is supposed to span from the 1840s to the present day, receiving periodical updates as required and possible. The project was started by Giovanni Iamartino, Professor of English at the University of Milan, Italy, in 2012, and so far includes 44 British periodicals electronically scanned, which produced approximately 350 articles of varying relevance for the topic.

Two preliminary lines of investigation are currently being pursued within the project: one looking at the late nineteenth century and early twentieth century, and one focusing on the mid-to late twentieth and early twenty-first century. This draft categorisation can be visualised as follows:

- a. 1840s-1920s: Darwin's affirmation, publication of *Origin*, decades following death, WWI;
- b. 1920s-2010s: soon after WWI to the present day.

This is only one of many possible chronological divisions, aimed at obtaining two initial sub-groups of material. The decision to see the 1920s as a turning point is based, among other considerations, on the findings reported in Kelly (1981) and Bowler (1983) about Darwinism having reached, by that time, an established scientific status. Although "The need for scientific popularisation had probably never been greater than in the 1920s" (Kelly 1981: 145), starting from after WWI, Darwin's ideas—at least in academic / professional circles—turned into the mainstream view on evolution, and their difficulty in being accepted diminished. The contingencies of the war, with the surprising and often lethal applications of science to warfare in the form of technology, might also have contributed to raising the (negative) consideration of science among the population at large and bringing them closer to views of the world previously deemed "impossible". The material being collected for the Dar. Bri. N, of course, can and ought to be divided and analysed according to more and diverse criteria, depending on the specific research meant to be carried out on it.

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<sup>7</sup> Letter from C. R. Darwin to T. H. Huxley, December 7, 1862.

#### 4.1. The *Times* Corpus

This paper, in particular, uses the Dar. Bri. N material drawn from a single newspaper, *The Times*, from period b. (1920s-2010s). Founded in London in 1785 and having taken up its current name in 1788, *The Times* had a circulation of 394, 982 as of June 2013<sup>8</sup>, which places it well in line with other quality newspapers nationally and worldwide, and at number 48 in the world in 2011<sup>9</sup>. Given the history and the relevance of the newspaper considered, the quantity of the articles about Darwin (ism) since the 1840s is conspicuous. Ellegård (1958) well describes *The Times*' reaction to the natural selection theory throughout the years, which may be summarised as follows.

Starting from 1859,

The newspapers of Mid-Victorian Britain usually contained only brief literature sections. In the better-class papers fairly substantial reviews of the more important books used to be published. The *Times*, for instance, had on an average 100-150 reviews per year, of which many were very brief, while others extended to 5-6 columns. The popular papers, on the other hand, when they carried a literature section at all, mainly offered brief notices only, or short extracts or episodes from the works noticed. The selection of works reviewed was decidedly trashy [...]. Under the circumstances reviews of Darwin's book could only be expected in the more expensive newspapers. In fact, the *Times*, the *Morning Post* and the *Daily News* were alone among the morning dailies to review the *Origin* (Ellegård 1858: 25).

Of the dailies that did publish a review of the *Origin*,

only the *Daily News* took a decided stand against Darwin [...]. The *Times* was favourable indeed: by an incredible stroke of luck, its review came to be entrusted to Huxley, who thus found a golden opportunity to present Darwin's work to its best advantage to a large and influential public. The *Times* was at that time not only by far the most important English newspaper, it had also the largest circulation of all. The other newspaper reviews were fair, and on the whole quite favourable (Ellegård 1858: 29).

In time, the attitude of *The Times* changes for the worse, taking a conservative turn: "Gradually the normal spirit of the paper asserted itself

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<sup>8</sup> "ABCs: National daily newspaper circulation June 2013," guardian. co. uk (July 12, 2013).

<sup>9</sup> The International Federation of Audit Bureaux of Circulations (IFABC), "Circulation data for national newspaper" (January 17, 2013).

in later pronouncements on Darwinian questions, and when the *Descent of Man* appeared, the *Times* review was violently hostile” (Ellegård 1858: 36).

By 1871, the *Times*’ attitude toward natural selection was that, on the whole, if the organic part of humans might have been resulted from evolution, their soul remained a totally distinct affair (Ellegård 1858: 315). The readership of *The Times* in the 20<sup>th</sup> century has been amply discussed, for example by Bell (1991). Remarks on the contemporary (i.e. 21<sup>st</sup> century) diastatic positioning of *The Times*, its current formats and circulation appear, for instance, in Vicentini, Grego and Russo (2013).

## 4.2. The Down House Sample Corpus

For the present analysis, the need was felt to further reduce the *Times* corpus to a smaller, sample corpus that could nonetheless be representative of a specific aspect of the popularisation of Darwin (ism) and be used to try out the methodology and research approach.

One interesting and recurring subject to pursue in the *Times* corpus is represented by Down House, the Darwin’s family home in Kent that saw the writing of *Origin* as well as of his following treatises, and a number of experiments that the botanist conducted in the estate until his death, in his home, in 1882. Of the mansion, Darwin wrote to his sister the year he moved in:<sup>10</sup>

My dear Catty  
 You must have been surprised at not having heard sooner about the House.  
 [... ]  
 I will give you in detail [... ] my opinion on it. [... ]  
 House ugly, looks neither old nor new.  
 [... ] not too near or too far from other houses  
 [... ] [Village] Inhabitants very respectable.

Table 5.1. shows a concise chronology of Darwin’s life before and at Down House, and the house’s history following his death.

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<sup>10</sup> Letter from C. R. Darwin to sister Catherine, July 24, 1842.

Year	Down House Chronology
1809	Charles Darwin born
1831-1836	Darwin's voyage on the Beagle
1842	Moved in from London on 24 September 1842 with wife and two children, had seven more in Downe
1859	On the Origin of Species published, written at Down
1882	Charles Darwin dies
1896	Wife Emma dies
1900-1906	Let to tenant
1907-1927	Girls' boarding school
1927	Bought by British Association for the Advancement of Science
1939-1944	Closed during WW2
1953	Donated to Royal College of Surgeons
1954	Became Grade I listed building
1962-1983	Sir Hedley Atkins lived at Down House as curator with wife
1996	Bought by English Heritage
1998	Down House reopens as a museum
2009	Darwin's centenary

**Table 5.1. Down House chronology**

Because of the key role that Down House had in Darwin's experiments<sup>11</sup>, in his developing and putting into writing his evolutionary theories, and in his personal life as a husband and father to a large family, a corpus about the property was believed to have the potential to return data on both Darwin's figure and Darwin's science.

An *ad hoc* sample corpus for this research paper was thus built, according to the following selection criteria:

- articles should come from *The Times*, print or digital edition;
- articles should be from the period 1920-2013<sup>12</sup>;
- articles should include the words DARWIN AND DOWN AND HOUSE.

<sup>11</sup> Of which those on worms are possibly the best known by the general public, cf. Charles Darwin, *The Formation of Vegetable Mould through the Action of Worms*, with Observations on their Habits, London: John Murray, 1881.

<sup>12</sup> End date: June 30, 2013.

Articles were retrieved using the text search engines of *The Times Digital Archive (1785-2006)*<sup>13</sup> and of *The Times* digital archives available at the British Library, London (1788 to date). The initial selection of texts was later scanned in person and qualitatively for content and relevance.

The selection returned a corpus of 41 articles as in Table 5. 2. below.

No.	Date	Title
1	1927. 09. 02	Darwin's house. Proposed purchase for the nation.
2	1927. 09. 02	Charles Darwin's home.
3	1927. 09. 05	The Estate Market. Land at Downe.
4	1929. 0. 25	Charles Darwin's home. A national memorial.
5	1929. 02. 25	British Association and Darwin's house
6	1930. 03. 18	Rating of Down House. British Association summoned
7	1933. 03. 13	Down House
8	1933. 03. 31	Darwin's home
9	1934. 03. 31	Charles Darwin's home
10	1935. 04. 01	Down House
11	1935. 11. 26	Down House
12	1937. 09. 08	Downe – A dangerous honour
13	1942. 11. 03	MSS. of Charles Darwin. Gifts to Cambridge and Down House
14	1962. 03. 23	Darwin orchid site bought by Trust
15	1962. 03. 26	Picture Gallery, Downe Bank, Kent
16	1963. 02. 01	Repair grant for home of Charles Darwin
17	1968. 04. 06	Historic homes
18	1973. 06. 08	Charles Darwin Lived Here. BBC2
19	1985. 11. 16	Home truths on Darwin, the family man
20	1995. 03. 20	Darwin's haul
21	1998. 01. 28	£2m restoration of Darwin's home
22	1998. 03. 05	Darwin House
23	1998. 03. 28	Survival of the original naturalist
24	1998. 10. 13	Rare Darwin photograph on sale
25	2000. 04. 19	Darwin stones natural choice for museum
26	2008. 11. 12	The original of the species—Arts
27	2008. 12. 26	Darwin and Discovery—Arguments of 2009: the theories of a great scientist
28	2009. 01. 03	Britain's Galápagos offers insight into evolutionary ideas
29	2009. 01. 22	'It always seemed clear that we were related to monkeys'—On the 200th anniversary of Charles Darwin's birth, Sir David Attenborough tells Damian Whitworth why the great scientist 'had the answer to most things'

<sup>13</sup>*The Times Digital Archive (1785-2006)*. London: Natkins.

No.	Date	Title
30	2009. 02. 07	Darwin's life in measured verse—poetry
31	2009. 02. 10	Discover why even the call of nature didn't stop Darwin
32	2009. 02. 12	I'd love to tell Darwin he was right all along—Was the evolution theorist just a beetle-collector who got lucky? No, says Armand Leroi. He was an icon whose discoveries echo through every branch of 21st-century science
33	2009. 02. 12	In search of Darwin
34	2009. 02. 13	Going out... Staying in
35	2009. 03. 23*	Life is short but this delightful poem lives on—After 150 years, <i>The Rubaiyat</i> of Omar Khayyam still has an uncannily modern moral—enjoy yourself while you can
36	2009. 11. 24	Hunt for Darwin notes
37	2010. 05. 23	2 for 1 entry at English Heritage
38	2010. 10. 23	Great half-term days out
39	2011. 07. 20	Going out... Staying in
40	2012. 02. 15	Going out... Staying in
41	2012. 06. 30	30 great historic days out—Free family ticket to English Heritage sites worth up to £42

**Table 5.2. Corpus of articles.**

## **5. Methodology: From Social History to Critical Discourse Analysis**

The analysis presented below is a quality-based, lexico-semantic investigation, which bases its approach on Critical Discourse Analysis (CDA) for its descriptive, ethical and ideological stance, with a special focus on promotional discourse (as in Fairclough 1992, 1995a, 1995b, 2003 and 2006; van Dijk 1988 and 2008; Kress and Hodge 1979; Chouliaraki and Fairclough 1999; Wodak 2013).

For their relevance in prescriptive, specialized settings, views from Critical Genre Analysis (CGA) were also adopted, as in Bhatia (2004 and 2008). In particular, as regards the popularisation of science, reference was made to recent works by Gotti (2013), Grego (2013) and Vicentini, Grego and Russo (2013).

Although WordSmithTools 5.0 has initially been used to draw frequency lists and concordances of terms, this sample corpus's reduced size does not actually justify the use of concordancers, which would however come in useful, for the enhanced speed and power of analysis they provide when working with larger corpora.

The definition and model of popularisation adopted refer to Grego (2013: 151-154) for the study of English for Specific Purposes genres, within a wider view of the discourse of popularisation as defined by lack of discussion, non-specialist target audiences and informative purpose (Gotti 2013: 9-10).

In brief, the attempt has been made to investigate the role of the 20<sup>th</sup> and 21<sup>st</sup> century press as a fundamental medium in science popularisation, following a CDA perspective attentive to ideology, society, genres as communicative vehicles in professional settings.

## 6. Analysis: A Man and His House

### 6.1. Lexico-Semantic Areas

The lexico-semantic reading of the texts in the Down House sample corpus resulted in the identification of three main semantic areas:

1. the *person* of Darwin—man, scientist, symbol;
2. the *science* of Darwin—scientific dissemination (?);
3. the *economy* of Darwin ('s house)—monetary aspects linked to Down House.

The categorisation is perhaps clearer as seen in Table 5.3., where P stands for point 1., S for point 2. and E for point 3.

No.	Date	Title	Lexico-semantic area
1	1927. 09. 02	Darwin's house. Proposed purchase for the nation.	E
2	1927. 09. 02	Charles Darwin's home.	E
3	1927. 09. 05	The Estate Market. Land at Downe.	E
4	1929. 02. 25	Charles Darwin's home. A national memorial.	P
5	1929. 02. 25	British Association and Darwin's house	E
6	1930. 03. 18	Rating of Down House. British Association summoned	E
7	1933. 03. 13	Down House	P
8	1933. 03. 31	Darwin's home	P, S, E
9	1934. 03. 31	Charles Darwin's home	P, S, E
10	1935. 04. 01	Down House	P, S, E
11	1935. 11. 26	Down House	P

No.	Date	Title	Lexico-semantic area
12	1937. 09. 08	Downe – A dangerous honour	E
13	1942. 11. 03	MSS. of Charles Darwin. Gifts to Cambridge and Down House	S
14	1962. 03. 23	Darwin orchid site bought by Trust	S
15	1962. 03. 26	Picture Gallery, Downe Bank, Kent	S
16	1963. 02. 01	Repair grant for home of Charles Darwin	E
17	1968. 04. 06	Historic homes	E
18	1973. 06. 08	Charles Darwin Lived Here. BBC2	P
19	1985. 11. 16	Home truths on Darwin, the family man	P
20	1995. 03. 20	Darwin's haul	E
21	1998. 01. 28	£2m restoration of Darwin's home	E
22	1998. 03. 05	Darwin House	E
23	1998. 03. 28	Survival of the original naturalist	P
24	1998. 10. 13	Rare Darwin photograph on sale	E
25	2000. 04. 19	Darwin stones natural choice for museum	S, E
26	2008. 11. 12	The original of the species—Arts	S, P
27	2008. 12. 26	Darwin and Discovery—Arguments of 2009: the theories of a great scientist	S
28	2009. 01. 03	Britain's Galápagos offers insight into evolutionary ideas	S
29	2009. 01. 22	'It always seemed clear that we were related to monkeys'—On the 200th anniversary of Charles Darwin's birth, Sir David Attenborough tells Damian Whitworth why the great scientist 'had the answer to most things'	S
30	2009. 02. 07	Darwin's life in measured verse—poetry	P
31	2009. 02. 10	Discover why even the call of nature didn't stop Darwin	P, S
32	2009. 02. 12	I'd love to tell Darwin he was right all along—Was the evolution theorist just a beetle-collector who got lucky? No, says Armand Leroi. He was an icon whose discoveries echo through every branch of 21st-century science	P, S
33	2009. 02. 12	In search of Darwin	P
34	2009. 02. 13	Going out... Staying in	P
35	2009. 03. 23	Life is short but this delightful poem lives on—After 150 years, <i>The Rubaiyat</i> of Omar Khayyam still has an uncannily modern moral—enjoy yourself while you can	(P)

No.	Date	Title	Lexico-semantic area
36	2009. 11. 24	Hunt for Darwin notes	S, P
37	2010. 05. 23	2 for 1 entry at English Heritage	E
38	2010. 10. 23	Great half-term days out	E
39	2011. 07. 20	Going out... Staying in	E, P
40	2012. 02. 15	Going out... Staying in	S
41	2012. 06. 30	30 great historic days out—Free family ticket to English Heritage sites worth up to £42	E, P, S

**Table 5.3. Lexico-semantic areas**

As can be inferred from Table 5.3, not all the articles can be labelled univocally as belonging to just one category. Six of them (25, 26, 31, 32, 36 and 39) are best described as belonging to two categories, and four (8, 9, 10 and 41) as falling into all three of them. On the whole, 19 articles can be said to include lexicon pertaining to Person, 16 to Science and 19 to Economy. Considering the relevance of Darwin in late-modern and contemporary science, the quite even balance between the categories might appear surprising. A historical reading of the corpus can perhaps shed light on the reasons why. The first documents on Down House are from the late 1920s, and they all deal with the economic aspect of the estate. This is only to be expected, when looking at the chronology of the house (Table 5. 1.): up until 1927, Down House was in use as a boarding school, so its fate only came to prominence in that year. That is when, some 45 years from the death of the scientist, Britain started to interrogate itself about the value—scientific, historical, economical—of the property. The trend continues during all the 1930s, the question resolved by the purchase of the house by the British Association for the Advancement of Science, but constantly needing funds in a period of economic hardship with little private or public money to spend. In this decade, three consecutive articles appear which contain lexicon from all three categories (8, 9 and 10): these must be read as appeals for sponsorships for the mansion, in which the person of Darwin and his scientific heritage are called upon to pursue the cause. In the 1940s, Britain, like the rest of the world, was preoccupied with more pressing international matters. There is only one article from 1942 in the corpus (11): a few lines reporting a donation of some of Darwin’s personal belongings to Down House, which remained closed throughout WWII. In the 1950s, the estate was donated to the Royal College of Surgeons, and became a Grade I listed building, but still suffered heavy financial hardship. No significant articles appeared

about it in that decade in *The Times*. The 1960s were the years of the economic boom and swinging London. In 1962, Down House was bought by the Kent Naturalists' Trust, and for some 21 years it was inhabited again, by Sir Hedley Atkins, former President of the Royal College of Surgeons, who lived there as a curator with his wife—and with this the chronology enters the 1980s. In the intervening decades, the few articles altogether published about Darwin's property belonged to various categories. In the 1990s the economic factor rises again, continuing into the early 2000s. Then nothing is heard again until 2006, the glorious year in which Down House was finally bought by English Heritage: from that moment up until and including 2009, the articles about the estate are almost all concerned with the scientific aspect—the property being eventually free from debt (or not openly venting that preoccupation) and journalists free to concentrate on popularising science alongside the name of Darwin's home. The year 2009 also marked Darwin's bicentenary; the many articles published in that twelve months—almost all dedicated to Science or Person or both—testify to the significance of the moment and the status acquired by the building, the historical figure and the scientific theories of its former owner. A curious instance is article 35, which indeed does mention both Darwin and Down House—so it was legitimately selected for the corpus—but it does not in fact deal with them as its main topic. The focus of article 35 is *The Rubaiyat* of Omar Khayyam, which happened to have been first translated by Edward FitzGerald in the same year in which *Origin* appeared. For that reason—and certainly for the great prominence that Darwin was enjoying in 2009—the English botanist was picked as a figure to mention in the review, again proving the strength of Darwin as a popularising vehicle, as if everything or everybody associated with him could somehow enjoy part of his popular success. After 2009, as was to be expected, the interest in the home decreased considerably. The few articles published in the past few years are all classifiable as Economy, although the stance has changed, and where in past years Economy meant calling for money, today the economic lexicon refers to the exploitation of the historical building as a property of the English Heritage Trust, and the short notices in *The Times* appeared in the years 2009-2013 sound more like marketing campaigns, in which trips to Downe, whether for scientific lectures or family visits, are advertised to the public.

## 6. 2. Lexical Analysis

Looking in detail at the lexicon of the corpus, some of the most interesting occurrences found are listed below.

### 1. The person of Darwin

Text	Relevant lexicon
4 (1929)	the great naturalist great man superlatively a great man both good and great gentle modest loving loved thoughtful charitable genius both good and great perhaps the most gifted family [the Darwins] ever born in England
18 (1968)	gentle, harmonious and loving family man
19 (1973)	the family man great scientist fond father
23 (1998)	world-famous occupant surprisingly conservative revolutionary [Down House] “personality” house
26 (2008)	pigeon fancier
30 (2009)	illustrious ancestor
32 (2009)	Mr Darwin, an idea, a symbol, a battle cry
33 (2009)	a revolutionary scientist
35 (2009)	gentleman-scholar

**Table 5.4. The person of Darwin**

The person of Darwin seems to be (re)constructed through social, historical and ideological filters.

Epithets referred to Darwin include:

- nouns: man, father, scientist, naturalist, genius;
- adjectives: gentle, modest, loving, loved, thoughtful, charitable, revolutionary;
- superlatives, etc.: great, superlatively, world-famous, surprisingly conservative, illustrious.

Evaluation is present at various levels:

- subjectivity over objectivity—individual opinions tend to be conveyed through adjectivation and choice of nouns (*great naturalist, revolutionary scientist*);
- popularisation over science—the number of strictly scientific articles is limited in the long (93 years) period considered; science only seems to appear at times of financial need, to underline the importance of the house, and after the financial need is gone, during the bicentenary celebrations; these, however, also inspire the use of popularising genres, like the imaginary dialogue (*Mr Darwin*), and the celebratory poetry by a related poet (*illustrious ancestor*);
- mythification or/over mystification—the building of the myth is brought forth by various factors, the main one being time: as the temporal distance from Darwin’s age increases (and his theories are confirmed), so does the scientist’s aura; with the arrival of the bicentenary, his position in history, science *and* the popular imaginary had become so well established that mythification even at times turns into mystification, for example in hagiographic epithets such as *gentle, harmonious and loving family man or gentleman-scholar, perhaps the most gifted family [the Darwins] ever born in England, Darwin was both good and great*, which distantly echo those used to describe, for instance, communist rulers of the past<sup>14</sup>.

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<sup>14</sup>Cf. the official English biography of Korean dictator Kim Jong Il: “Comrade Kim Jong Il [...] is [...] the great leader of the Workers’ Party of Korea and the Korean People” (*Kim Jong Il, Brief History*: iii); “Possessed the power of keen observation, [...] clear analysis and extraordinary perspicacity with regard to things and phenomena. [...] he was always generous, unceremonious and warm-hearted among people” (Ibid. : 2).

## 2. The science of Darwin

<b>Relevant lexicon, Text</b>	
a well-equipped biological research station, 1	compiled, 13
Beagle diaries, 19	controversies, 41
collection of pamphlets, 13	creationist, 29
evolutionary rules, 29	discoveries, 27
evolutionary theory 19	DNA, 27, 29, 32
human nature, 4	doctrines, 4
human thought, 4	dogmatism, 27
identification and classification of species, 24	evidence, 27
interpretation of living things, 4	evolution 21, 25, 27, 28, 29, 31, 32, 38
light of reason, 4	exhibits 19, 31
modern scientists, 19	experiment*, 28, 31, 32, 38, 39
natural environment, 18	fully erect man, 26
natural selection, 25, 26, 29, 31, 32	genetics, 29, 31, 32
natural world, 29	greenhouses 1
orchid site, 14	handwriting, 13
orchid studies, 14	laboratory, 2, 5, 6, 28, 31
original manuscript, 19	manuscripts, 13, 23
personal papers, 13	mechanism, 27, 29, 32
prime impulse, 4	microscope, 4
research botanist, 25	naturalist, 4, 5, 23
scientific work, 19	notebooks, 13
species theory, 13	observations 15
specimen jars, 23	observations, 28, 29, 31, 36
studies on earthworms, 1	orchids, 1, 15
theory of natural selection, 25, 32	plant*, 14, 28, 29, 31
twelve million zoological specimens, 25	proto-hominid, 26
wild orchids, 15	random mutations, 28
Worm Stone, 19, 26	research 23, 29, 31
[Worm Stone] a device for measuring the rate at which the action of worms causes objects to sink into ground 19	revolution, 20, 27
annotations, 13	seasonality, 28
axiom, 19	superstition, 27
breeding, 28	survival, 23, 28
carnivorous, 31	theor*, 21, 25, 26, 27, 28, 29, 31, 32, 41
compiled, 13	treatise, 21

**Table 5.5. The science of Darwin**

Specialized lexicon (biology, botany, geology, etc.) presents with a lot of occurrences in the Down House corpus. However, many of the terms are equally specialized and non-specialized (*greenhouse, laboratory*), depending on the context of use. Only a qualitative, hand-made analysis can verify the specificity of the setting and assign specialized labels to the terms, which instead are returned indifferently by machine-made analyses.

Within the specialized terminology in the corpus, a prevalence of evaluative terms and expressions may be highlighted (*cradle of ideas, light of reason, a well-equipped biological research station*)—the result of the popular medium analysed and genres and audiences linked to it. Nonetheless, some may be deemed the result of subjective opinions by the writers, especially in times of financial need or during the 2009 celebrations, both of which somehow call for heartfelt expositions. Many of these expressions are mediated from and / or shared with philosophy and psychology (*light of reason, prime impulse*). This is only to be expected, given the ideological charge that Darwinian theories have had right from inception, and which continue into the present day.

In more recent texts, more specific, specialized and “correct” (in professional terms) terminology starts to appear (*specimen jars, theory of natural selection, research, specimen*), exploiting the increased scientific education of broadsheet readers. Not only this: concepts not existing in Darwin’s time or even just a few decades ago are now present (cfr. *DNA, genetics*, etc). A better educated readership is definitely to be taken for granted, although the question remains of whether today’s readers are actually more knowledgeable in science or they confuse their familiarity with technology—the manifestation of science best known by the general public—with scientific erudition. Another interesting question is whether the average *Times* reader is also as versed, for example, in economics or in law, which definitely need some knowledge, at least to follow the financial vicissitudes of Down House in the first half of the twentieth century.

### 3. The economy of Darwin ('s house)

Relevant lexicon, Text	
Assessment Committee, 6	heritage, 31, 37
claim exemption, 6	issue, 6
claiming the rates, 6	items, 7, 20
full rateable value, 6	jurisdiction, 6
interactive audio tour, 38	maintenance, 1
non-payment of rates, 5, 6	million, 25, 26, 29, 31, 32
paid tribute, 12	museum, 26, 27, 32, 33, 36, 38
plead exemption, 6	offers, 3, 20
points of law, 5	owners, 12
Quarter Sessions, 6	paid, 6, 37
rating authority, 6	possession, 12
to pay rates, 76	price, 1, 37
to split the assessment, 6	properties, 3, 6, 7, 16
visitors a year, 23	prosecutors, 6
acquire, 16	purchase*, 2, 3, 5, 37
adjourned, 5	raised, 1
admission, 33, 37, 41	rates, 6, 12
assessed, 6	rating, 6
auction, 3	realise, 24
bought, 14, 20	recreation, 41
case, 5	refurbishing, 21
cheaper, 6	reopening, 27
clients, 6	renovations, 33
collection, 26, 36	restoration, 20, 21, 22, 23
cost 1, 16	revamp, 29
courts 6	safari, 41
curate*, 31, 33	sale, 24
defendants, 6	sixpence, 19
display, 26, 34	sixpenny, 7
endowment fund, 1	spend, 37
exhibition, 26, 27, 29, 33, 41	summons, 6
fetch, 1, 24	tour*, 28, 31, 38, 39, 40
free, 8, 9, 10, 11	valuation, 6
fund, 1, 21	value, 1, 27, 37
gift, 7, 13	visit, 28, 33, 37, 38, 40
grant, 16, 21	voucher, 37
guide, 41	worth, 20, 27, 32

**Table 5.6. The economy of Darwin's house**

The surprisingly (or is it?) specialized, accurate and consistent economic and legal terminology employed in describing the tormented history of the property is, as indicated above, a characterising feature of the corpus. This, of course, makes one wonder about the kind of readership the newspaper has enjoyed in the 1927-2012 period considered, and how it has evolved in almost ninety years. One satisfactory answer could be that *The Times*, defined “elite” (Bell 1991: 104), “highest-grade” and “upmarket” in the late 20<sup>th</sup> century (Bell 1991: 109), at the beginning of the 20<sup>th</sup> century— from which most of the Economy articles are and when Down House underwent its most difficult period—circulated among an even more restricted number of as educated readers. Only the upper class and bourgeoisie were indeed privileged enough to have the competences, the interest and the monies required to understand, desire and purchase quality newspapers. It is also interesting to notice how the economic and legal lexicons have undergone no significant diachronic variation, except in the specific currency terms (*sixpenny*). This is in line with the conservative nature of the professional communities of economists and lawyers, which tend to set exclusive thresholds against non-specialists, one of which is indeed their specific language.

The changes occurred to Down House throughout the decades can be summarised as follows:

- from an object with real estate market value to a symbol, thus
- from assessable to invaluable, and
- from a residence to a museum.

It is therefore now a product and, as such, a process of marketing and promotion is shown in the corpus to have been initiated and become fully operative in time: *pounds* have given way to *visitors-a-year* as a unit of measure. The discourse of the texts in the corpus becomes increasingly promotional (Bhatia 2004), and increasingly hybrid, incorporating rhetorical and marketing devices (*a wonderful way to spend a summer's day, 2 for 1 entry at English Heritage, interactive audio tours, safaris, vouchers*). The “great complexity of the popularizing system” Gotti (2013: 28) and of the new, globalised world is reflected in the evolution of newspaper article genres and language, and requires new, up-to-date tools of investigation to interpret them.

## 7. Conclusions: Darwin: Man, Myth, Money

Down House may seem like a “frivolous” factor to look at in a linguistic survey of scientific popularisation, and the Down House corpus is only a small sample collection from the wider Dar. Bri. N corpus under construction.

Yet, its analysis has returned at least a few results of historical, socio-economic and cultural—if not scientific (but the dissemination level, at least, *is* there)—interest, which are thought to represent a significant basis for an exploratory investigation into the popularisation of Darwin (ism). Preliminary conclusions that can be drawn from the analysis are as follows.

The horizon of expectation in selecting the keywords for this mini-corpus was that the string “DOWN HOUSE” could retrieve texts dealing with both Darwin’s figure and Darwin’s science. In fact, the balance was heavily tipped in favour of the former. Indeed, the object of the popularisation process generally appears as hybrid and ambiguous, focussing on the persona of Darwin—not the person, and the ideologies surrounding his science—not the ideas behind them. In other words, it emerges that “popularisation” is to be understood as “making popular”—with popular in its acceptation of “Liked or admired by many people, or by a particular person or group”<sup>15</sup>—rather than in its more neutral sense of “dissemination”.

In particular, considering the three main semantic areas identified—1) the person of Darwin, 2) the science of Darwin and 3) the economy of Darwin—1) and 3) have returned texts mostly dealing with “making Darwin popular”, often in the sense of “making him *successful* with the general public”; on the other hand, 2) has produced texts closer to the idea of popularisation proper, i.e. the dissemination of science among non-experts. However, the latter cannot be said to reflect the corpus’s main aim in terms of either quantity or quality, since any scientific knowledge on Darwinism is either taken for granted, or simply “reminded” to the reader through vague references and quotations of key words not defined or explained.

As regards the popularising strategies adopted in the texts, these, too, quantitatively reflect the main purpose highlighted of making Darwin, rather than his science, popular. This is clear in the two main strategies identified:

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<sup>15</sup>*Oxford English Dictionary*, s. v. POPULAR.

- mythification at the conceptual level—by way of transfer:
  - the man gets objectified and even sanctified (*For he is no longer a man. He is an idea, a symbol, a battle cry*, t. 32);
  - the object (the house) gets personified (*it wasn't just a home*, t. 28; *This is English Heritage's first 'personality' house, Charles Darwin's restored home hopes for 40, 000 visitor [sic] a year*, t. 23; *the place was always remembered with such vivid affection by so many*, t. 19);
- mythification at the linguistic level—through promotion:
  - promotional discourse and genres are widely employed, which include rhetorical strategies and uses like direct questions and imperatives (*2 for 1 entry at English Heritage, Why not take a trip to the home of Charles Darwin, Down House [... ] ?* t. 37; *learn about science and evolution in an interactive audio tour narrated by Sir David Attenborough*, t. 38);
  - at the lexical level, the semantics of mythification is prominent, with specific words from semantic areas between myth, money and (mild) scientific dissemination (*Down House has been a place of pilgrimage, He had wanted to create a dynastic seat, This was his nest*, t. 23; *To us, everything at Down was perfect. That was an axiom*, t. 19—bold added).

It ought to be remembered that the above is a purely lexical analysis, focusing on semantic aspects, and with a specific interest for the social implications and power relations conveyed by the corpus, as in CDA. Many more types of analysis could be applied to the texts, and many more features could be used to cross-check them. To mention but a couple, it would be interesting to classify and study the texts according to the sub-genres and sections of *The Times* they belong to, in order to fine tune the purposes of each. Creating frequency lists and keywords could also highlight aspects not previously considered, and so could looking at the visual aspects (photographs, drawings, layout, etc.) of the articles. In brief, where this is only a sample investigation, to obtain a thorough analysis of this or of any other corpus of texts dealing with science popularisation, an integrated, multidisciplinary approach would be necessary, welcome and desirable, to “favour the adoption of close interdisciplinary contact and integration, and rely on the methods and findings of the research traditions of different fields” (Gotti 2013: 29). Nonetheless, it is worth underlining how even this limited lexico-semantic analysis came up with indications as to the social trends and power relations underlying the discourse of Darwin and Down House, confirming the crucial role of lexicon—not

“just words”—in dissemination and popularisation, and of CDA as a tool of investigation.

### 7. 1. Present and Future Challenges

As hinted at in its description, the Dar. Bri. N is an ample, ongoing project. It is a rich and constantly expanding corpus that still needs to be thoroughly analysed, featuring a wide range of genres, sub-genres and hybrid genres that offers multifarious opportunities for research on various aspects of Darwin (ism) and from all scholarly perspectives, including multidisciplinary ones.

In particular, in terms of quantity, the long timespan the Dar. Bri. N covers, obviously increasing by the day, means it can be broken down chronologically into smaller corpora as needed and according to various criteria: date, publication, audience, etc. Furthermore, the size of the corpus is increasing not just due to time passing, but because there is a growing number of publications and many of them are also going online, to a medium that allows for much more space and thus information. This poses a methodological challenge, in that medium and genre hybridisation represent, at least for linguistic studies, an added layer to unravel, but it is true that more powerful tools for corpus analysis are being developed accordingly—though machines still currently need significant human backup<sup>16</sup>.

In terms of quality, the Dar. Bri. N project can be of interest to many because the initial search key is DARWIN alone<sup>17</sup>, thus the articles included cover diverse subjects, from science to tourism to the arts: individual research paths may thus be followed, and sample investigations (like the present one) may be carried out, both as standalone and as sub-parts of larger investigations. The topicality of updating and expanding this collection is guaranteed by the continuing public interest in Darwin’s life and accomplishments (as occurred in 2009 for his bicentenary and 150<sup>th</sup> year since the publication of *Origin*) and, in general, by the still unchallenged supremacy of “technology as science” perceived by the population at large, which is reflected in a steady interest for the pioneers of modern science.

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<sup>16</sup> The small Down House corpus itself features 25 texts in PDF and 16 more in digital format, with clear problems for any machine analysis.

<sup>17</sup> Of course, meaning Charles Darwin *in primis*, and not (only) his descendants—and certainly not the Australian city, which frequently “contaminates” results.

The work on the Dar. Bri. N progresses, among challenges posed by the evolution and hybridisation of cultures, languages, media and genres—in a process not dissimilar from the evolution and hybridisation that all the species underwent in their development and that Darwin, strenuously at first but successfully in the long term, managed to make acceptable to his fellow scientists and popular among the general public.