

Considering affinity: an ethereal conversation (part one of three)

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At the 1843 meeting of the British Association for the Advancement of Science, ornithologist Hugh Strickland displayed a wall chart on which he had written, inside 490 little ovals, the genus names of about half of all the kinds of birds then known. A year later he added all the remaining families of birds. The resulting document, over 2 m long, showed subfamilies as coloured shapes resembling islands in an archipelago, and as in a marine chart, Strickland provided a scale of degrees, the length of the lines connecting genera expressing the strength of their relationship. After his death in 1853, a black-and-white copy of the top segment of the chart was printed in his *Memoirs*. In 1868 over 6000 specimens from his bird collection arrived at the Museum of Zoology of Cambridge University, but the chart did not follow until 1892. There it remained uncatalogued, rolled up, and largely forgotten until 1992, when historian of science Gordon McOuat inquired whether the object mentioned in Strickland's *Memoirs* still existed. Discovered after a search, the chart was found to have suffered damage and become too brittle to unroll. Its restoration some years later was due to the determined efforts of Adrian Friday, then Curator of Vertebrates. In 2012 archivist Ann

Charlton urged me visit Cambridge to see it; Jamie Gundry and I photographed it where it hung, in a storeroom. Today the chart is on public view, for the first time since Strickland exhibited it 170 years ago.

Strickland was one of the zoologists Darwin had in mind when he wrote in his *Origin of Species*, 'Naturalists try to arrange the species, genera, and families in each class, on what is called the Natural System. But what is meant by this system?...many naturalists believe that it reveals the plan of the Creator....'¹ Strickland never read these words, for he died six years before the *Origin's* publication. It is natural to wonder how Strickland would have reacted had he lived to read Darwin's book, but there is not sufficient evidence on which we could base a good answer. On the other hand, we have plenty of evidence to tell us what Darwin would have thought of Strickland's ambitious attempt to portray taxonomic affinity, had he had leisure to consider it carefully.

Let us try to overhear their conversation.²

Scene: A lovely garden, in perfect weather. On a curved marble bench is seated Hugh Edwin Strickland. Enter Charles Robert Darwin ([Figure 1](#)).

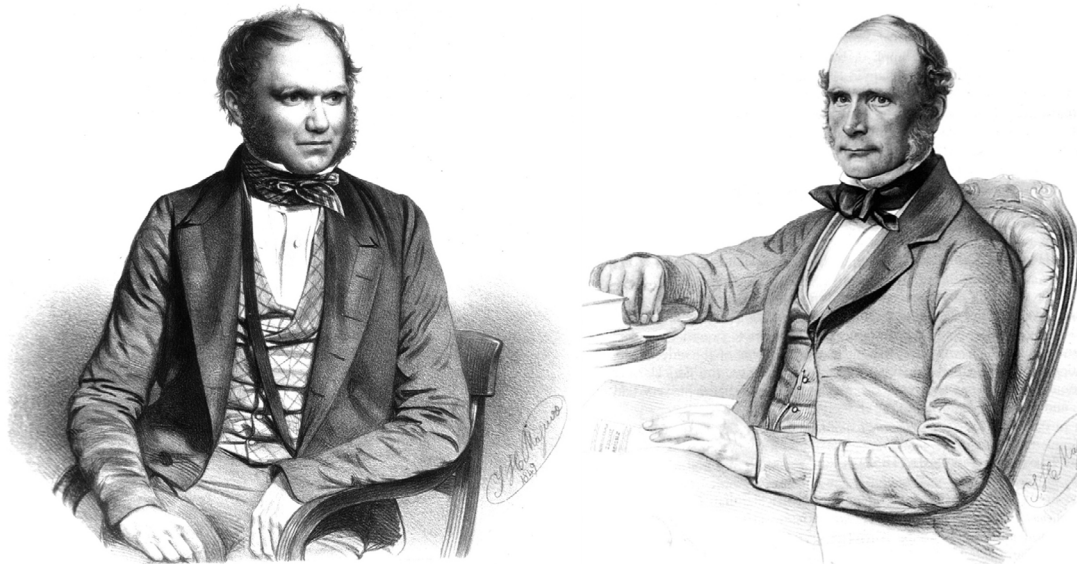


Figure 1. Charles Robert Darwin and Hugh Edwin Strickland in 1849, lithographs by Thomas Herbert Maguire, issued separately in the series *Portraits of the Honorary Members of the Ipswich Museum*.

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¹ Charles Darwin, *On the Origin of Species* (London 1859), p. 413.

² Although the dialogue is imaginary, all of the facts and ideas mentioned are based on historical evidence. Relevant quotations from the writings of Strickland and Darwin, as well as references to other primary and secondary sources, are given in [Appendix A](#), Supplementary data, and on my website, www.marypwinsor.com.

Available online 2 September 2014

STRICKLAND: Oh, bless my soul, if it isn't my friend Darwin! How long has it been, thirty or forty years? You look so much older, but I couldn't fail to recognize that vast forehead and serious eyes. Such a pleasure to see you, do sit down.

DARWIN: The pleasure is all mine, my dear Strickland. Yes, it's well over thirty years, for when you were so tragically killed by a train in 1853, it had already been a long time since you and I had crossed paths.³ My, my, how strangely vivid is this dream I'm having. I can smell every flower in this garden. And how very well I feel, no pain at all, what a relief.

STRICKLAND: I'm happy to inform you, dear fellow, this is no dream. Your spirit is here in this lovely place because it finally did escape your body, well and proper. Let me be the first to welcome you, and may I say, congratulations, for you'll never again have to suffer the least discomfort.

DARWIN: What an extraordinary thing. If I am dreaming, I pray I never wake up, it is so perfectly delightful here. Gracious, look, there's a sparrow bathing in the fountain with no fear of the hawk preening itself close by. It reminds me of the Galapagos, where all the animals were so remarkably tame. And here comes a white terrier, so very like a favourite bitch of mine. Oh my, it's the very one, with that red mark on her back, see how she greets me.

STRICKLAND: My good fellow, I am so happy you have come at last. We can converse to our heart's content about the countless questions in natural history we both loved, with no fear of being interrupted.

DARWIN: I find myself perfectly at ease, so by all means, let us talk. I admired your energy and tact when we worked together back in 1842, drafting a set of rules to govern how animals should be named. That valuable undertaking of yours succeeded in reducing chaos in scientific nomenclature. After that year we saw each other rarely, to my regret.

STRICKLAND: You will surely think me a terrible egotist, but I confess that all these years I've been wondering, what did you think of that enormous chart into which I put so much labour, the one displaying the affinities of birds?⁴ Such fun it was, when

I unrolled it at the British Association meetings at Cork in 1843 and York in 1844, to see our friends' astonished faces. But as far as I can recall, you never told me your opinion of it, or at least, not your full and frank opinion. I have a copy of it right to hand, for I've amused myself here, by writing it out from memory, off and on, a few families at a time (Figure 2).

DARWIN: I well recall that impressive chart, but as you know, I am no ornithologist.⁵ When I stumbled upon a new sort of bird during the *Beagle* voyage, like the small ostrich of Argentina or the mockingbirds and finches on the Galapagos Islands, I never knew if I had a new species, or sometimes even in which genus it belonged. I totally depended on the expertise of Mr. Gould at the Zoological Society when I came home. I have no worthwhile opinion on the classification of songbirds.

STRICKLAND: Come, come, I won't let you duck my question with a show of modesty, surely you know what I mean. The particular genera I was arranging are neither here nor there, my point was, as I stated at the time, I was proposing a new method, one that could be applied to any taxonomic group; fish or mammals would do as well as birds. I was urging upon our fellow naturalists a purely inductive approach.

DARWIN: Yes, I remember that, but I understood that the whole point of the exercise was to demolish quinarianism.

STRICKLAND: That misbegotten fad of foolish minds, how I hated it! To imagine that living things naturally fall into parallel groups, exactly five members each, arranged in circles, good gracious (Figure 3). I am still amazed at the zeal with which so many naturalists embraced that fantasy.

DARWIN: The popularity of quinarianism was indeed remarkable. Later generations were utterly at a loss to understand how their forebears could have found it so attractive.

STRICKLAND: A student of birds could not avoid that nonsense, for two of the busiest English ornithologists, Nicholas Vigors and William Swainson, pushed it in their publications.

DARWIN: You know it was an entomologist, William Sharp Macleay, who invented it. Perhaps you didn't know that he was a good friend of mine? When I returned from my circumnavigation in 1836,

³ William Jardine, *Memoirs of Hugh Edwin Strickland* (London: John Van Voorst, 1858; Cambridge University Press, 2011); Leendert C. Rookmaaker, *Calendar of the Scientific Correspondence of Hugh Edwin Strickland in the University Museum of Zoology, Cambridge* (Cambridge: University Museum of Zoology, 2010; Janet Browne, *Charles Darwin*, 2 vols. (New York: Knopf, 1995, 2002).

⁴ Biologists who classify living things still use the word 'affinity' much as early naturalists did, to mean the relationship connecting groups in a natural classification, but of course the meaning of 'natural' went through a seismic shift when evolution replaced divine creation.

⁵ Darwin was probably not in the audience when Strickland displayed his chart, but he certainly knew about it, for he wrote on the cover of his copy of Lindley's *A Natural System of Botany* 'Does not Lindley use Diagrams like the maps of Strickland?' Mario A. DiGregorio, *Charles Darwin's Marginalia* vol. 1. (New York: Garland Publishing, 1990), p. 501.

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