nature

NEWS FEATURE | 06 November 2019

150 years of *Nature*: a data graphic charts our evolution

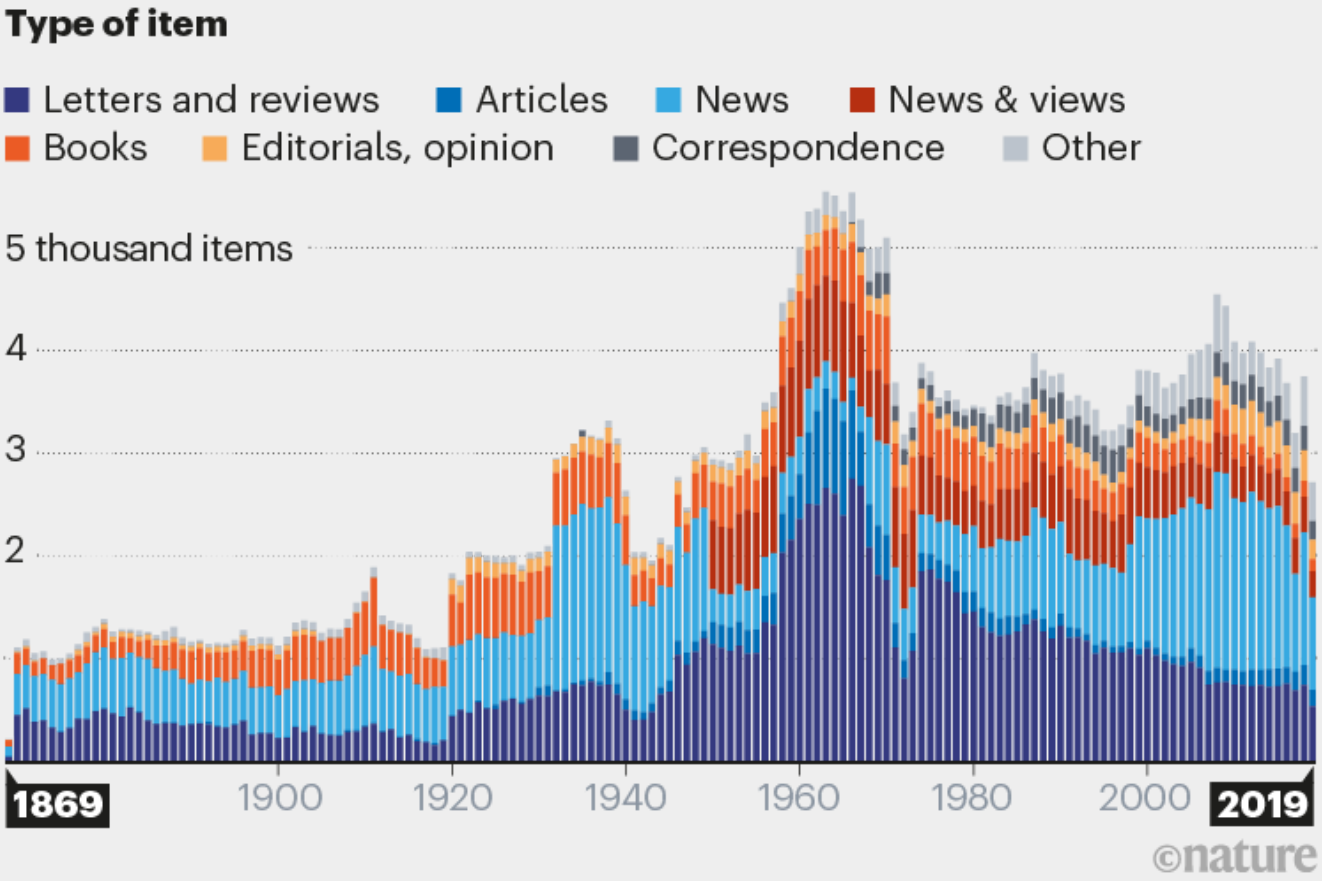
An analysis of the archive shows how the contributors and content have varied over the decades.

Richard Monastersky & Richard Van Noorden

Nature has evolved considerably since its first issue in 1869. To chart the changes, we analysed our archive. The number of scientific publications — which we defined mainly as letters and articles — rose quickly in the late 1950s and then dropped as editorial practices changed. Research contributions early on ranged more evenly across academic disciplines, but biomedical sciences have gained prominence over the past century. Over the years, author lists have grown, as have the proportion of female authors and the number of countries publishing in *Nature*.

CONTENT

For the first half-century, *Nature* mainly published news items, book reviews and relatively short letters. Over time, letters evolved into more formal scientific publications and the journal diversified its content types. Today's Correspondence articles often resemble the letters that filled *Nature* early on.



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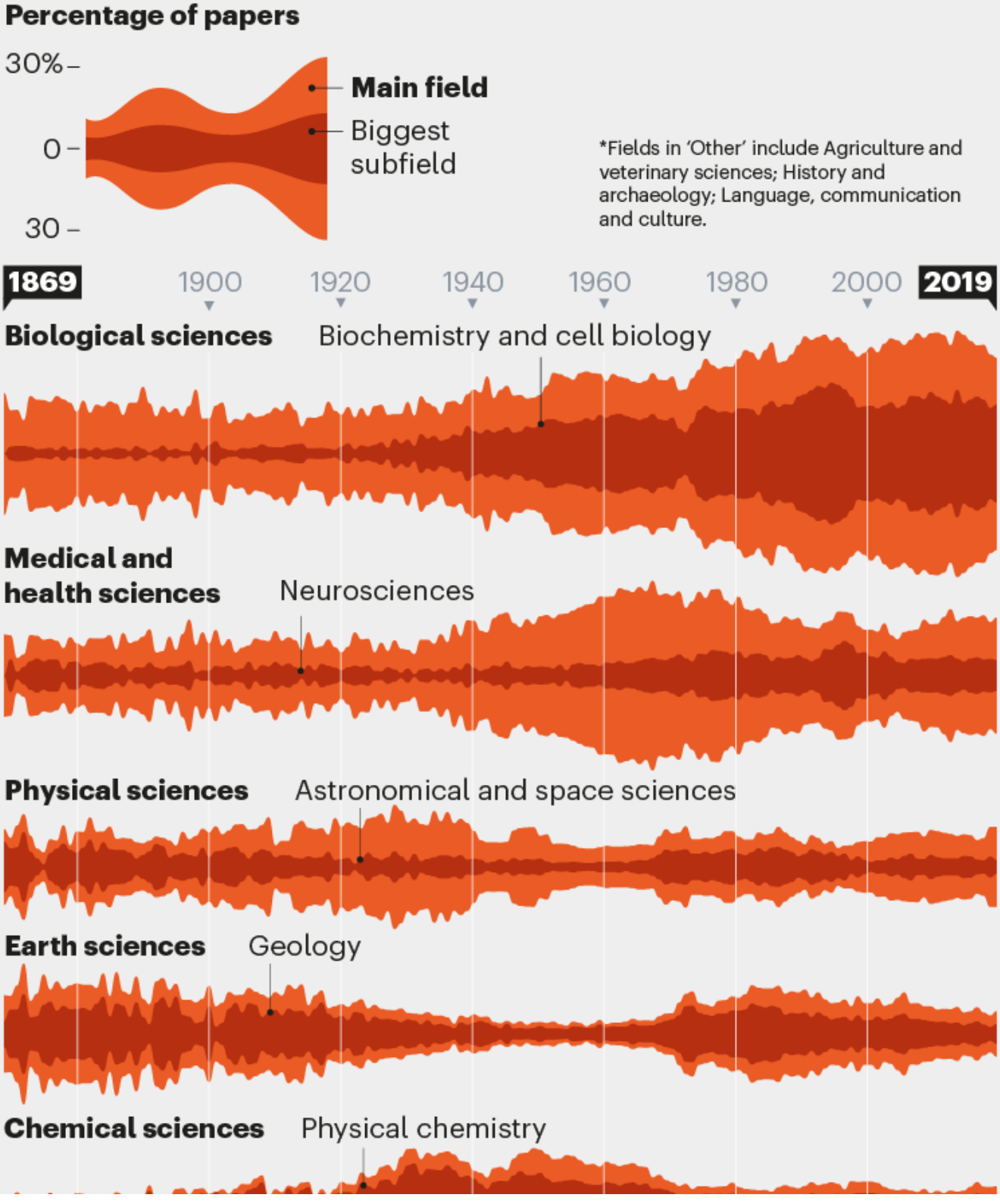
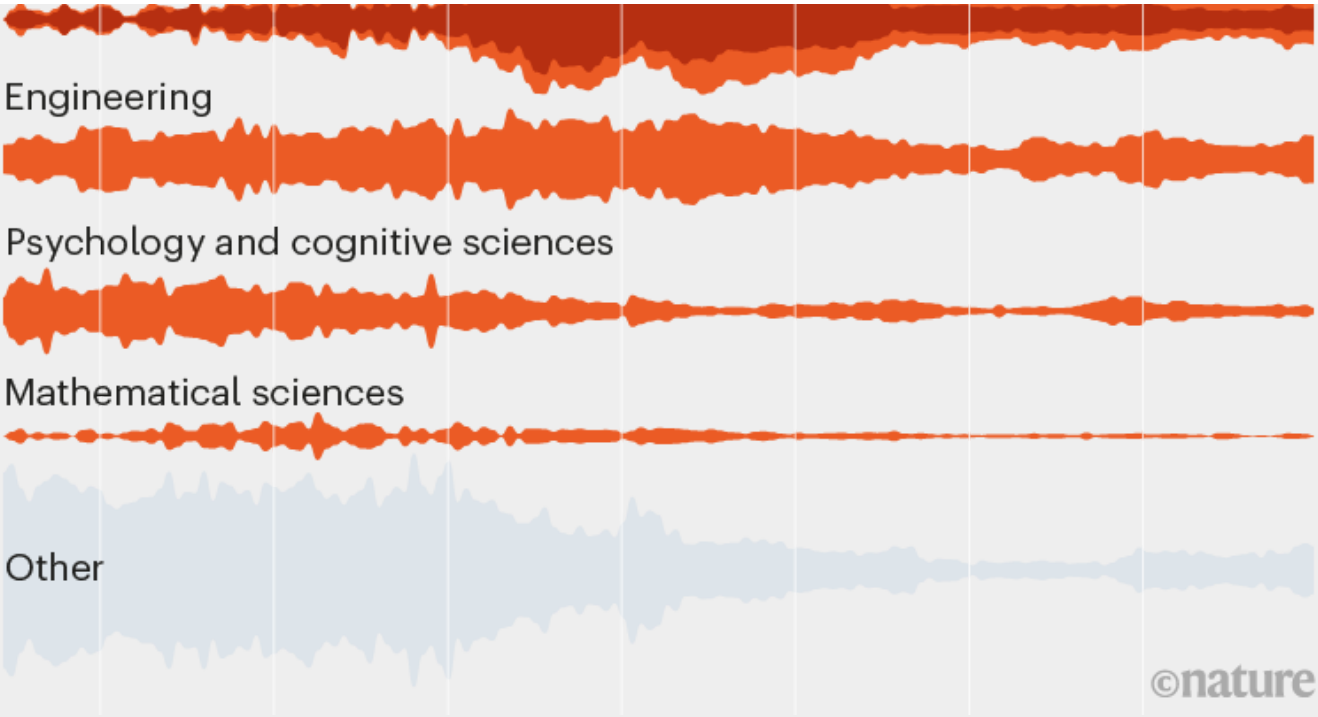
SCIENTIFIC FOCUS

From a generalist beginning, *Nature* focused on core scientific disciplines such as biomedical, physical, chemical and Earth sciences for much of the twentieth century. Here, an algorithm analysed titles and abstracts of scientific publications and assigned them to one or more of 22 research fields and 157 subfields. The width of each line reflects the proportion assigned to each field and the biggest subfield.





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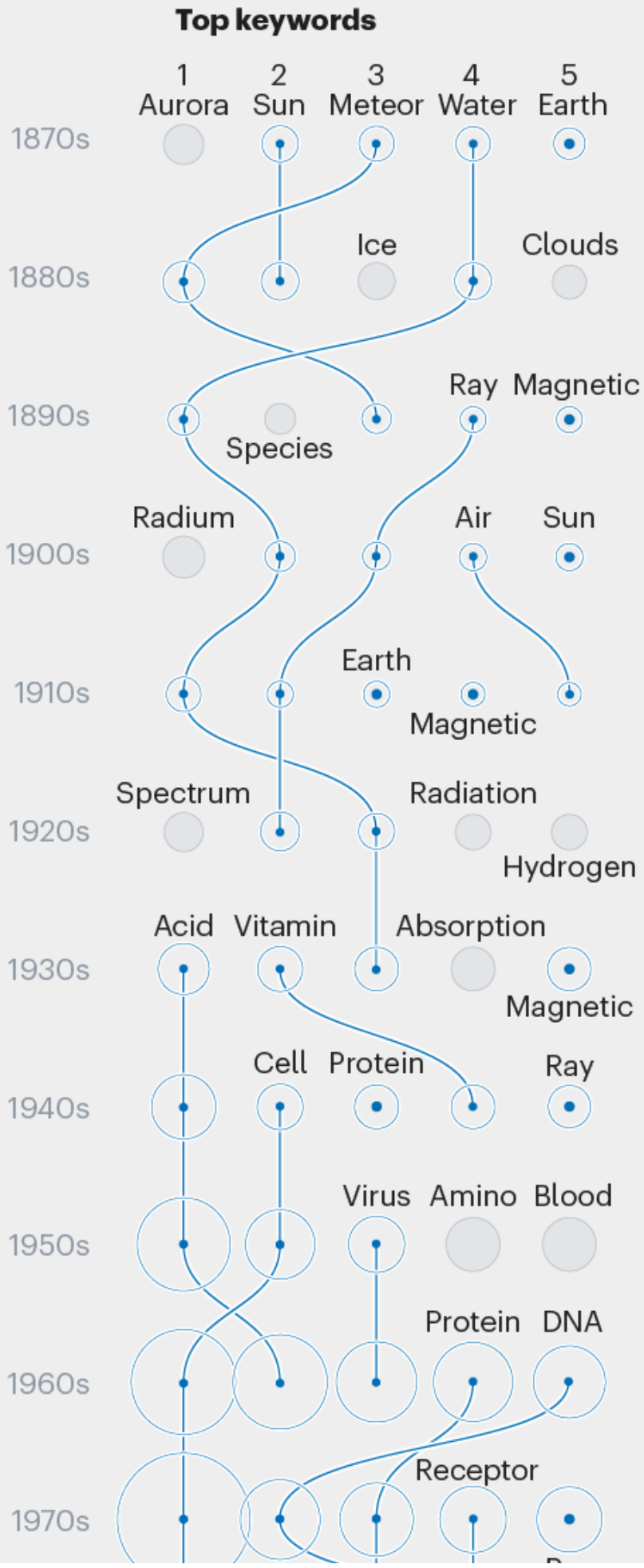
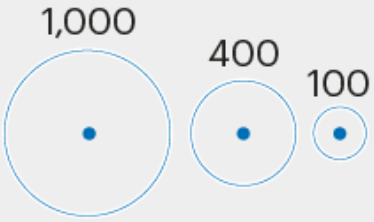
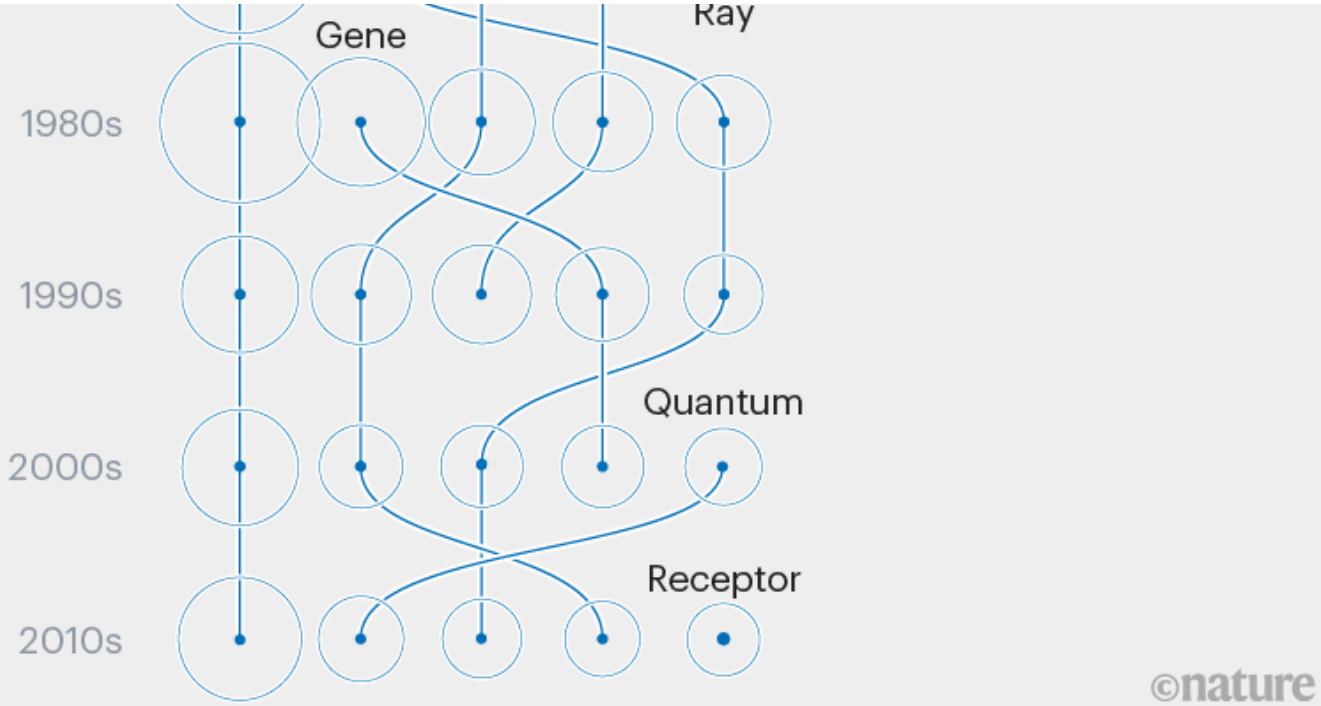


KEY WORDS

This shows the five most frequent scientific keywords in individual titles and abstracts, in each decade. Scientific contributions early on detailed observations of large natural phenomena (Sun, water, Earth), and have grown more specialized (gene, quantum, receptor).

Number of papers in which terms were keywords





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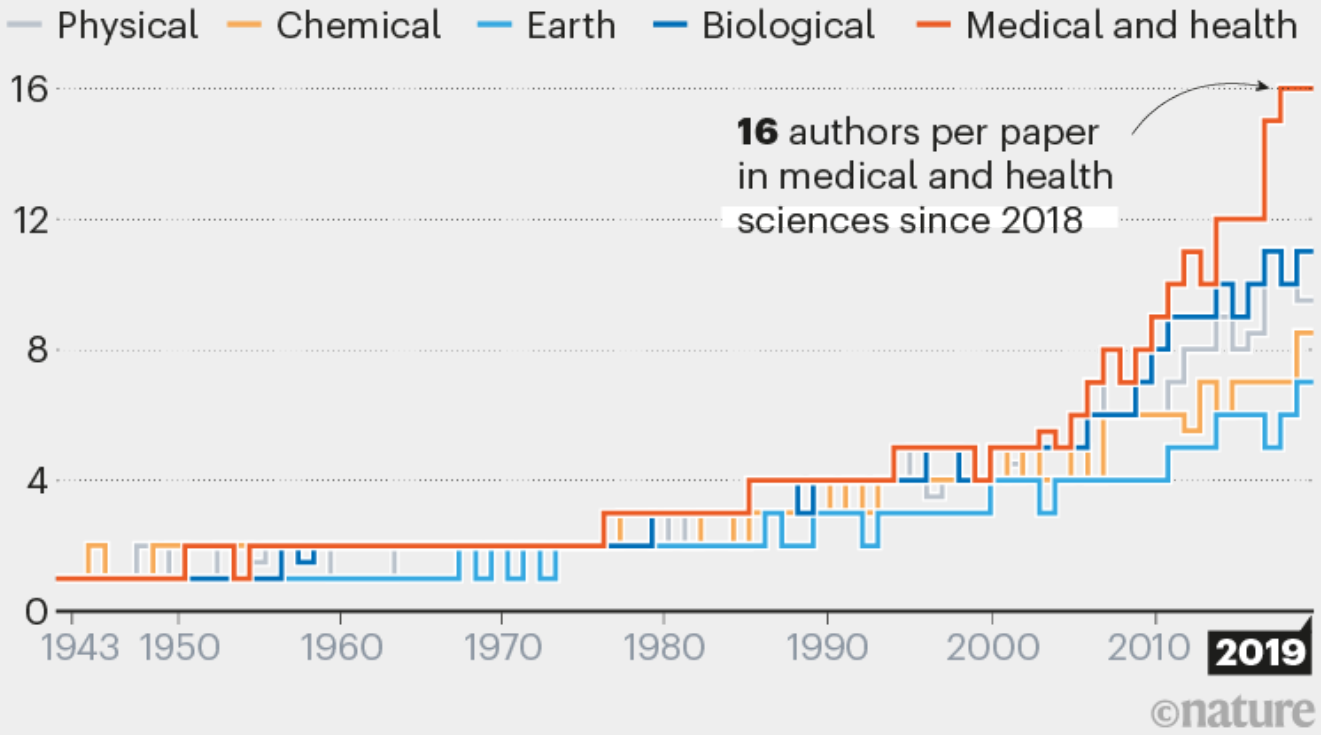
AUTHOR LIST

The median number of authors listed on papers has increased rapidly in the past two decades, especially in biomedicine, reflecting the growth of collaborative research.

Median number of authors by field



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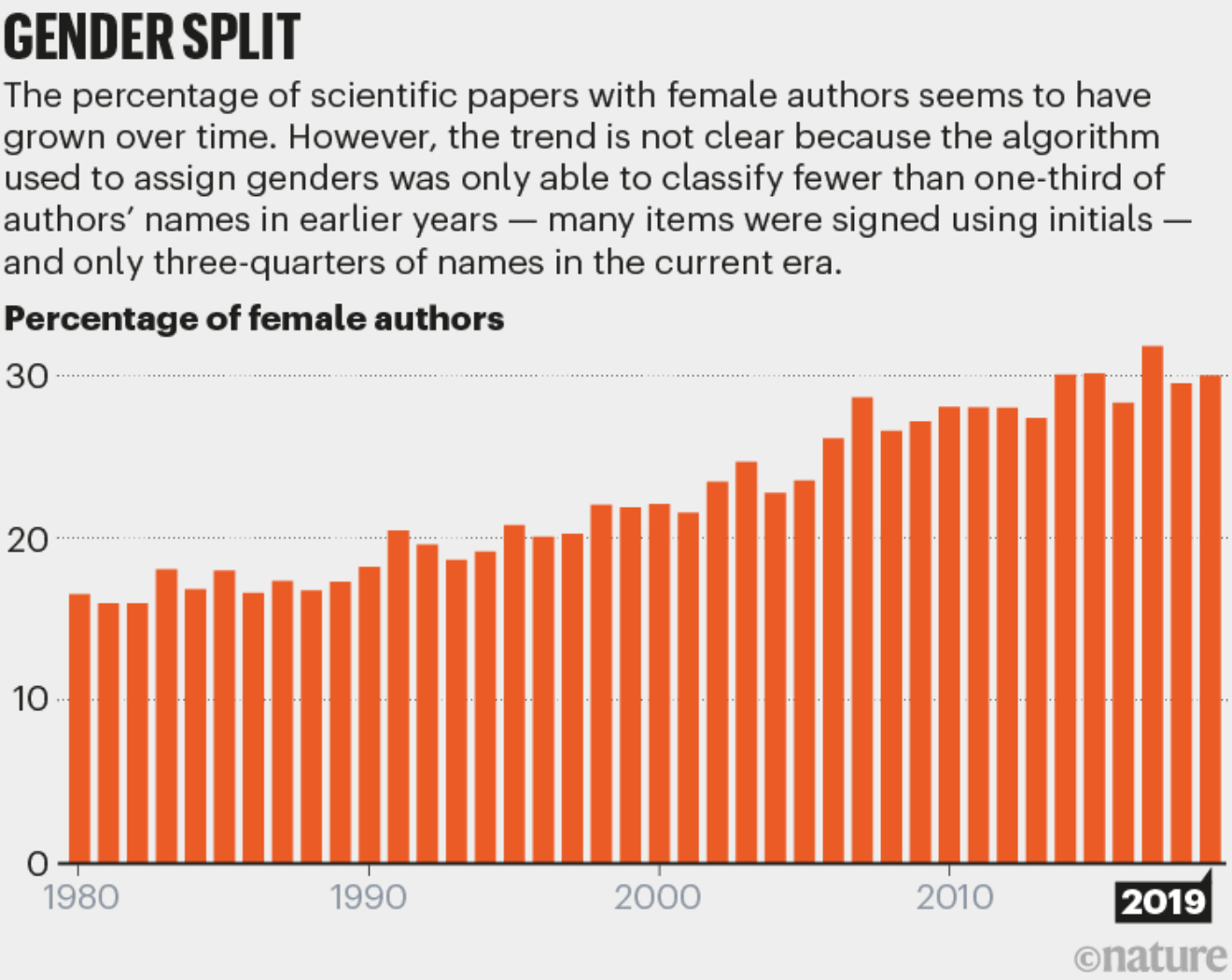

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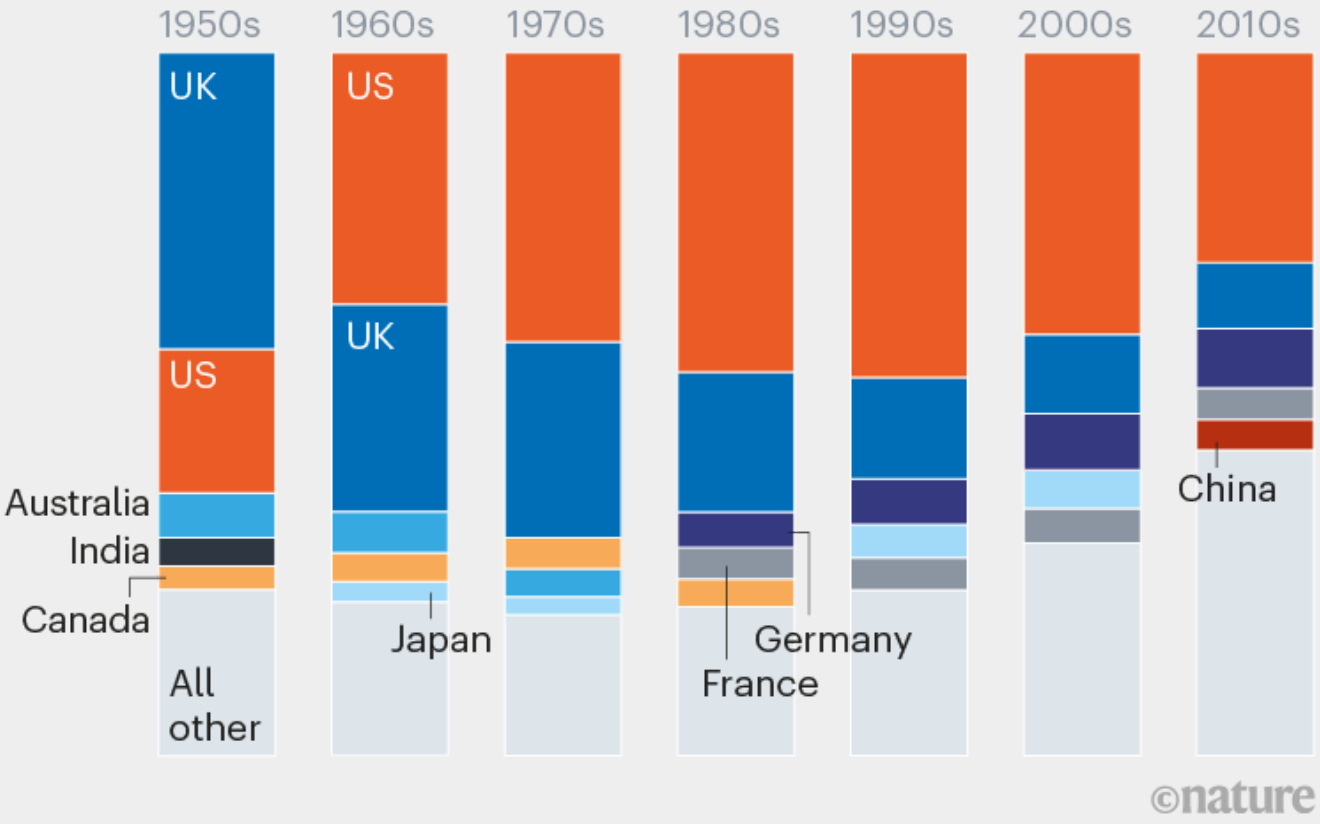
BY COUNTRY

Nature has grown more international over the decades, as seen in the countries of origin of scientists publishing research papers. Authors from the United Kingdom (UK) dominated the journal's first century, although data are limited for that time. Today, the United States (US) provides the largest share of authors.

Proportion of papers by decade (top 5)



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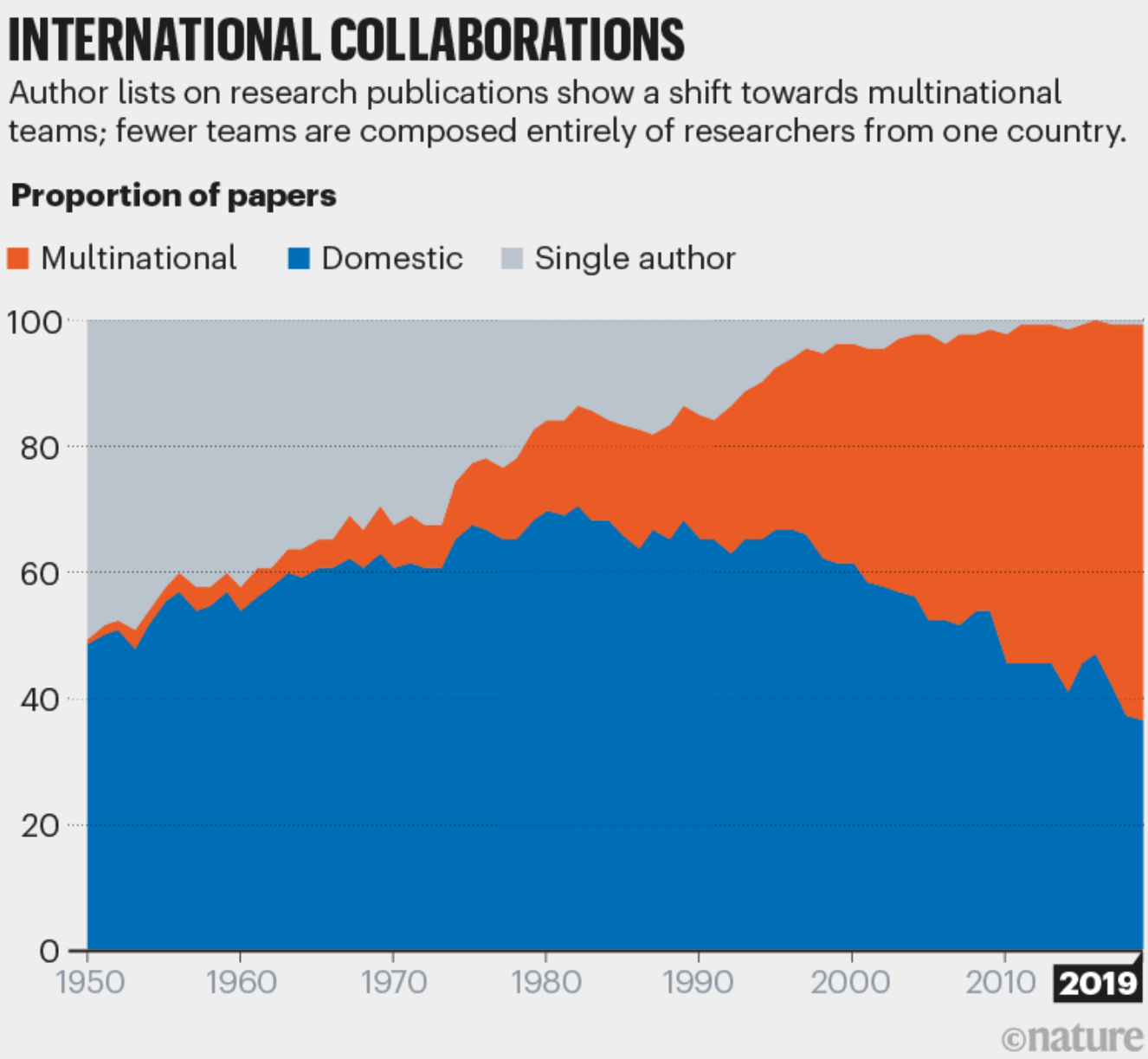

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SUPPLEMENTARY INFORMATION

1. Methodology

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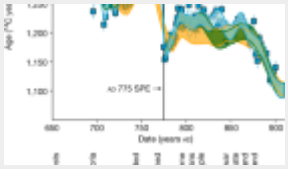

Single-year radiocarbon dating anchors Viking Age trade cycles in time

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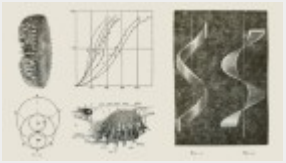

From the archive

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