

Scientist's birthright

How a new name embodied ideals of connection and inclusiveness.

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Although histories of science routinely mention the birth of our word 'scientist' from the pen of William Whewell a mere 167 years ago, revisiting the social and literary moment of that birth offers a fresh glimpse of the word's worthy parentage and generous potential.

The social events most directly related to Whewell's invention of 'scientist' were the first meetings of the British Association for the Advancement of Science (BAAS), in York (1831), Oxford (1832) and Cambridge (1833). The earliest of the BAAS proceedings reveal the strikingly inclusivist aims of the new association. In contrast with the conspicuously exclusive, London-based Royal Society, the BAAS (in the welcoming words of W. V. Harcourt) gathered "many distinguished members of learned and scientific bodies" from around the United Kingdom "in consequence of a general invitation to the friends of science".

It was, significantly, from a provincial body (the Yorkshire Philosophical Society) that the invitation issued. And against the recognition that "in our insular and insulated country, we have few opportunities of communicating with the cultivators of science in other parts of the world", the purpose of the BAAS was to open "new channels of communication" both internally and internationally, as well as to "promote science in every part of the empire." Moreover, it was decided that, at the meetings themselves, the "least abstract" of the scientific papers should be presented in evening sessions, to which would be admitted "a more popular audience".

All this emphasis on widening connections needed to be matched by a breaching of disciplinary boundaries. Warning that specialization can lead to "insulation", Harcourt declared: "The chief Interpreters of nature have always been those who grasped the widest field of inquiry, who have listened with the most universal curiosity to all information, and felt an interest in every question which the one great system of nature presents. Nothing ... could be a more disastrous event for the sciences, than that one of them should be in any manner dissociated from another."

And yet, of course, nowhere does there appear a single name for the citizens of the expanding commonwealth of science that Harcourt envisages. There are "friends of science", "cultivators of science", and "interpreters of nature" — but still no scientists.

The literary context in which that word first appears is Whewell's anonymous essay

(in *The Quarterly Review*, 1834) on Mary Fairfax Somerville's book *On the Connexion of the Physical Sciences*. This context is highly germane to the meaning of the new word, as signalled by Somerville's title with its stress on "connexion" — a motif which Whewell eagerly marshals against the forces of disintegration. This danger he renders in metaphors of bodily, territorial and imperial fragmentation, lamenting "the tendency of science ... to separation and dismemberment"; its "disintegration ... like that of a great empire falling to pieces"; the "division of the soil of science into infinitely small allotments". He acknowledges the contribution of the BAAS in "bringing together the cultivators of different departments", and he warmly praises Somerville for attempting in her own work to achieve the same end.

It is in the midst of this discussion of the need to connect the sciences that Whewell refers to those first meetings of the BAAS, which, he says, "felt very oppressively the want of any name by which we can designate the students of the knowledge of the natural world collectively". He recounts how terms from other languages were rejected: "*Savans* was rather assuming, besides being French instead of English" and the German *Natur-forscher* "might suggest such undignified compounds as *nature-poker*, or *nature-peeper*!" But sandwiched between these foreign nonstarters is Whewell's suggestion — made by a person he identifies merely as "some ingenious gentleman" — "that, by analogy with artist, they might form scientist". However, he adds (a little prematurely, as things turned out), "this was not generally palatable".

Clearly, the literary and social moment in which 'scientist' sprang forth was pregnant with a longing for greater "connexion" across various boundaries, including those of territory and discipline. It was a motive that continued to shape many scientific efforts in the

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Connected: inspired by Mary Somerville, William Whewell coined the word 'scientist'.

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decades following 1834 — for example, those of another admirer of Somerville's: Alexander von Humboldt, author of *Kosmos* and founder of what came to be called ecology, a science whose very foundation is the interconnectedness of disciplines and of living things and their environment.

However, it is worth noticing that Somerville's quickening presence at that vital moment marks two other crucial dimensions of inclusiveness that the name 'scientist' has not always consistently embodied. First, as Whewell implies, Somerville modelled with great lustre what we now, still rather nervously, call popular science: "How valuable a boon it is to the mass of readers, when persons of real science, like Mrs Somerville, condescend to write for the wider public."

The other boundary to be breached — which Somerville eminently did breach — is that of exclusion by gender. As Whewell says, with fitting satiric tone, "there are few individuals of that gender which plumes itself upon the exclusive possession of exact science, who may not learn much" from this book by a woman.

Such, at least in promise, was the inclusive birthright of 'scientist'. Long — and increasingly — may that birthright be exercised. ■

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