



SHOULD EPONYMS BE KEPT? EMPHATIC YES

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Conducting research in science education, the authors of the *Journal of Baltic Science Education* surely remember eponyms in school subjects and university courses. Eponym is a term that includes the name of the person, who discovered a species (biology), explored a glacier (geography), synthesized a compound (chemistry), formulated a law (physics), invented a device (engineering), proved a theorem (mathematics), treated or suffered a disease (medicine), etc. Most chemists and chemistry teachers know, e.g., such eponyms as Avogadro number, Wurtz reaction, Mendeleev table, Liebig condenser, Claisen adapter, Berthollet salt, asf.

Eponyms are a relatively new domain of scientific terminology: they first appeared in the 19th century, when the development of science and technology grew rapidly, and scientists decided to honor brilliant colleagues, attaching their names to the discoveries they made. Before this, scientists used words from national and Latin languages to name discovered phenomena.

Until the 1970s, opposition to eponyms was rare. In the following decades, a discussion about possible replacement of eponyms with descriptive terms developed among scientists (mostly physicians). Publications “Should eponyms be abandoned? Yes” (Woywodt & Matteson, 2007) and “Should eponyms be abandoned? No” (Whitworth, 2007) say for themselves, setting the problem in a most direct way. In brief, physicians come out against eponyms for their being: (a) not reflective of the collaborative nature of science, (b) not descriptive and therefore misleading, (c) disrespectful of the diseased people, and (d) often named after people of bad reputation, namely, doctors who compromised themselves by connections with German Nazi party.

Recent voices against eponyms strengthen the last argument by including more disreputable people. Considering biological eponyms, Guedes et al. (2023) argue:

Many of those honoured are strongly associated with the social ills and negative legacy of imperialism, racism and slavery. Moreover, 19th-century and early 20th-century taxonomy was largely dominated by white men who, by and large, honoured other men (funders, colleagues, collectors and so on) of their own nationality, ethnicity, race and social status. For example, a recent study has documented that over 60% of the eponyms given to the flora of New Caledonia have honoured French citizens and that 94% of the eponyms were named after a man.

To urgently address this issue, it is proposed “to preclude newly identified species being named after people” and to remove “all valid eponyms from biological nomenclature.” The authors reasonably anticipate that “such a proposal is unlikely to be implemented” because of “very strong resistance among the taxonomic community to alterations of the codes.”

In places, that reasoning lacks logic. It is stated that naming species in honor of a specific person is unjustifiable and out of step with equality and representation. If naming streets, schools, campus halls, scholarships, ships, cities in honor of deserved people is common practice, then why is naming species unjustifiable? It is admitted that



sociopolitical influences are infused into the ontology of science itself. Then isn't the desire to purge eponyms from biology based on politics rather than science? In every national language, eponyms constitute a unique golden layer, they are kind of a microlanguage with a rich legacy. Concerned about endangered languages, why don't we care about eponyms? Guedes et al. seek to ensure more inclusivity, but if their proposal comes true, prospective scholars from underrepresented groups will not be honored in new eponyms, thus being excluded from this form of recognition.

Speaking juridically, that initiative violates the principle of personal responsibility. According to contemporary systems of criminal law, guilt can only be personal. Eponymy is a form of recognition, and to be deprived of their eponym, a particular scholar should have a proven guilt that goes beyond mere being a "white man." "The collective guilt accusation is unacceptable in scholarship, let alone in normal discourse and is... one of the key ingredients in genocidal thinking" (Anderson et al., 2013). In fact, those calling for total elimination of eponyms want to punish not only "those honoured ... strongly associated with the social ills and negative legacy of imperialism, racism and slavery" but the majority of scholars for the crimes they did not commit.

One can agree with the authors that science is a field meant to stand separate from value or emotion; however, science education does imply both values and emotions (Lamanauskas, 2015). Educators cannot invent or legally alter eponyms, we have to borrow them "as is" from physics, math, chemistry, biology, medicine, geography, etc. In the classroom or in the auditorium, we can certainly make up eponyms on the fly, combining names of scientists with the discoveries we know for sure they authored, even though such eponyms do not actually exist. Such practice, however, would raise questions about cognitive overload and false knowledge. Anyway, with respect to the valuable significance of eponyms in science education (Govindarajan et al., 1993; Slabin, 2017b), we can and should discuss emerging initiatives to limit or even remove eponyms from science. Removal of eponyms seems unacceptable as it contradicts two important pedagogical principles.

Humanization. Introduced under the axiological approach, this principle requires that along with subject knowledge, educational tasks include additional information about human activity in various fields, especially history and art. E.g., explicitly declaring the principle of humanization in education, the Republic of Belarus Conception of the school subject of chemistry (2009), "requires demonstrated relationship between chemical knowledge and human life" (p. 5).

Removal of eponyms dehumanizes science and, consequently, science education. Yes, the identity of outstanding individuals remains in scientific history, but whereas calling their names within eponyms clearly explains the connection and is perceived naturally in the classroom, mentioning them separately will sound alienated from their achievements, as something extra-curricular or even far-fetched. "Unpopulated" science, stuffed with de-eponymized terms, will hardly be attractive for students. Tatarinov (2006, as cited in Kovalenko, 2022) pointed out that ISO and Austrian Standards International "see in a term merely a dead sign or a label of notion (object) it standardizes" (p. 221).

Compare it with this physician's opinion, full of respect and humanness, expressed at the time when calls to purge eponyms from science (medicine) were seldom voiced:

There is a dark movement gaining ground which teaches that the names of diseases should be descriptive and not eponymous ... May I expound an apologia for the eponym? I like names that have a ring of history, names that recall those who were mighty physicians in palmier days ... The full glory of the eponym is reached in the multiple-barrelled form: Hand-Schüller-Christian, Rendu-Osler-Weber—those give the tongue something to roll round, and you can almost smell the mothballs in their morning coats and dear old top-hats. Let us condemn dull impersonal names, utility names in a utility age. (Medd, 1953)

Fear of change? Yes, fear of simplistic and self-destructive change.

Historicism. Documents, governing education in many countries, emphasize historicism, not necessarily mentioning eponyms but encouraging their usage by default. The US National Science Education Standards (1996) in content standard G (history and nature of science) require, "All students should develop an understanding of science as a human endeavor ... Many individuals have contributed to the traditions of science. Studying some of these individuals provides further understanding of scientific inquiry, science as a human endeavor, the nature of science, and the relationships between science and society" (p. 171).

The US Next Generation Science Standards (2013) recommend "discussions involving the history of scientific and engineering ideas, of individual practitioners' contributions" because "for many students, these aspects are



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