Letters

Tie and Anti-tie

The image of the scientist as reflected in the increasing advertising in *Science* is beginning to distract me. Of course, it is the seemingly *de rigueur* attire of long, white laboratory coat *and* well-tightened necktie.

It is common knowledge that no one can perform bench work comfortably when so encumbered. I wonder whether there is an advertiser in this country bold enough to reveal a laboratory worker in a T-shirt?

Obviously, I am an anti-tie man.

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Latinization of Greek Words in Biological Taxonomy

Under the title "Questionable linguistics in *Bergey's Manual,*" D. A. Soulides, in a letter in *Science* [**135**, 968 (1962)] insists that the discussion on pages 26 and 27 of the 7th edition of *Bergey's Manual of Determinative Bacteriology* is full of linguistic errors and seriously misinterprets classic Greek. The pages criticized give a much abbreviated résumé of some of the rules governing the formation of new Latin words for use in naming taxa in biology. As the author of the section so roundly censured, it seems necessary that I reply and point out the flaws in Soulide's logic and his apparent misunderstanding of the classic rules governing transliteration and latinization of Greek words. I will comment on several of the points he makes.

1) Soulides states, "I view handling of a classic language for purposes of expediency as an undesirable practice." With this statement I believe most, perhaps all, systematists in the several fields of biology will agree. There is in my discussion in the *Manual* no hint that expediency is to be condoned. My discussion has to do solely with the formation of the scientific names of taxa.

2) All three international codes of nomenclature (botany, bacteriology, zoology) require that names of all taxa be Latin, or latinized words or words treated as Latin. The Greek language from pre-linnaean times has been used as a great reservoir of bases and stems which may be latinized and used in the construction of neo-Latin names and epithets to be used in naming taxa, primarily genera and species.

3) The Latins themselves not only transliterated great numbers of Greek words into words spelled with Latin letters but placed nouns and adjectives from the Greek into the equivalent declensions and substituted the corresponding appropriate Latin endings. The rules of all three codes specify clearly that the classic tradition of latinizing Greek words for use as Latin must be followed. One must recognize that transliteration alone often fails to form a usable Latin word from a Greek word. The transliteration *must* be latinized in the Latin tradition. Soulides fails to recognize this fact.

4) I stated (p. 27) that the Greek equivalent of the Latin word *sulfur* is *θεῖον*. This when transliterated becomes *theîon,* latinization changes the diphthong *ei* to *i,* and the Latin neuter ending *-um* replaces the Greek neuter *on,* giving the latinized *thium.* There is no evidence that the Latins ever had occasion to use this particular latinized Greek word. I noted that *thi-* was usefully combined with other Greek stems, as in the generic name *Thioploca* and others. Soulides insists that the stem is *thio-,* not *thi-.* He states: "To the reader who knows little or nothing of Greek this would mean that the above names are composed as follows: *thi-*oploca. . . ." This is, of course, nonsensical. The *o* is strictly a "connecting vowel" between the combining forms of two latinized Greek words. For the technique of composition of compounds, comprehensive treatments both in Latin grammars (such as Lane's) and Greek grammars (such as Goodwin and Gulick's) are quite adequate. In most compounds from latinized Greek words the combining vowel (where needed) is *o,* in true Latin compounds, *i.* But there are many exceptions. These problems of compounds are adequately discussed in the several nomenclatural codes.

5) Soulides is puzzled at the latinized compound *Rhabdomonas.* The student asks: "Why not *Rhabdmonas* or *Rhabdumonas* when *rhabdus* and *monas* are combined?" The reason is simple. The combining form *rhabd-* ends in a consonant, the second component *monas* has a consonant as the first letter, and the appropriate combining vowel is *o.*

6) Soulides questions the conclusion reached that *lysodicticus* would have been a better latinization than the *lysodeikticus* in *Micrococcus lysodeikticus* Fleming. The reasons for the conclusions were clearly set forth by me. I am wholly at a loss as to the pertinence of the criticism, "Probably it escaped him that the Greek language includes, together with the adjective δεικτικος the adjective δηκτικος, pronounced the same but differing both in spelling and in meaning. The first, with ει . . . means 'indicating,' the other with η means 'biting.' Consequently, the transliteration of *lysodeikticus* to *lysodicticus* would have concealed the etymology of the name [better, of the adjective] and, as a result, would have been incorrect." Certainly an example of a *non sequitur.* Soulides might have added that there are other Greek adjectives that differ in one letter only, such as δεκτικος, "fit for receiving," and δεηκτικος, "disposed to ask." Why does Soulides conclude that advocacy of the classic method of latinizing Greek words for use in new Latin is an example which "may serve to indicate the kind of pitfall one may step into in trying to force a sophisticated language like Greek into an artificial pattern"?

7) *Chlamyd-* is the stem of *chlamys,* it ends in a consonant, the connecting vowel should be *o,* and *Chlamydobacteriaceae* is correct, not *Chlamydibacteriaceae.*

8) The summary reads, "The procedure of transliteration applied in the current edition of *Bergey's Manual* may be characterized as an arbitrary mass latinization of Greek words that puzzles