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The ACRONYM (Alternatives for Circumvention of Restrictions On Naming BY Trialists of Their Manuscripts) Report

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Abstract

It is hoped that this commentary may draw attention in some modest way to the issues raised by the enthusiasm for the naming of large clinical trials. Although the article is tongue in cheek, the underlying concern is that the names of studies may not in fact correspond to the actual results they yield.

Keywords

Abbreviations; Acronyms; Clinical Trial; Nomenclature; Terminology

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Language constrains our ability to plan and conduct medical research, and to share research findings with our fellows. Yet the English language has changed much more slowly than has clinical medicine. It is only logical therefore, that the English language could soon create a stranglehold on future medical progress in the English-speaking world. Modest suggestions are offered for averting this linguistic catastrophe.

The purpose of this paper is to document a looming threat to the pace of progress in clinical research in the Anglophone world, specifically the risk that clinical trials may be hobbled by the limitations of the English language. In recent years, large clinical trials have increasingly been given names chosen to correspond to acronyms that are memorable, uplifting in their emotive content, and that sometimes point to the prophesied successful rejection of the null hypothesis by a clinical trial that has in fact not yet even begun to accrue patients at the time it is named. It seems apparent therefore, that no good research can proceed without a reserved marketable name.

Although (to the best of my knowledge) IMMORTALITY, CUREALL, and OMNIPOTENCE have not yet been claimed by trialists, it seems apparent that there will soon be a looming shortage of the best available names. Entrepreneurial researchers, aided by legions of intellectual property lawyers, may take advantage of the impending shortage by cornering the lexicographic market, as part of the PHILISTINE (Programmatic Hijacking of LInguiStic Tools In Nomenclature Evocation) futures market.

A similar issue has already arisen on the internet, where the most desirable domain names have become a scarce and marketable commodity. One hopes for the sake of parsimonious research budgets, however, that one need not pay for trial names the sort of high prices that are now being sought for internet domain names.

In Pubmed, under the clinical trials classification, in recent years there have been an average of 3.25×10^4 articles/year. There were some 31768 articles published for Pubmed Entrez date 2006 date, compared to 34544 in 2005 and 31250 in 2004; another 395,386 are from 2003 or earlier. The English language, as of 1986, consisted of approximately 9.86×10^5 words. New words enter into the English language at a rate of perhaps 10^4 words/year.¹

Some clinical trials publications may use more than one acronym, and some acronyms may appear in more than one publication, but we have assumed that on average each clinical trial publication will consume one unique word to name the study from which it derives. Based on these numbers (see figure), if one merely applies well-described linear fluidic extrapolation methodology,² one might well fear that biomedical science will cease in the English-speaking world by approximately 2028.

The situation is even more dire than is graphed, for several reasons. Archaic words are lost from the language as well, and even before their ultimate departure from the tongue they are largely abandoned as terms by biomedical researchers (e.g. poultice, quicksilver, miasma). While many positive terms are in demand, their negative-sounding antonyms may languish unused, producing (by a factor of 0.5) a reduction in the available lexicon.

Biomedical authors have tended to look to a relatively few literary sources, such as Shakespeare, Sherlock Holmes,³ and the ever-quotable baseball star Yogi Berra.⁴⁵ (Cricket stars seem not to have contributed their fair share to the universe of medical discourse, so far as one can tell from a trans-Atlantic perspective.) There has even been some effort to tap into the ephemera of video games and cartoons.⁶ Few biomedical authors though seem to have explored other literary sources, such as James Joyce, who might be expected to stretch the boundaries of conventional English. It seems clear that the unique skills of English literature scholars (and perhaps Scrabble and crossword enthusiasts) must be brought to bear on this problem, and quickly.

Another part of the solution could be a roadmap for trans-Atlantic neologic research and development. The National Library of Medicine could serve as the core clinical lingual facility for developing new words to meet the anticipated demand. Perhaps meta-words, for example, could be coined to name meta-analyses.

One might also assign to journal editors the task of assigning a final name to the study as a part of the peer review process. This might increase the rate of utilization of words such as IMPLAUSIBLE, UNIMPORTANT, and WRONGHEADED for study names to make full use of the limited lexicon. Retrospective naming would help to guide the reader to understand the actual study results without having to read the article at all, and might perhaps cause the reader to wonder why on earth the study was published in the first place.

Some limitations of this study should be noted. We have not taken into consideration the potential effects of global warming, as we assume that it will be language-size neutral. (While “winter” may disappear from the language, it is likely to be replaced by “continued-summer” in the vocabulary.) Nor have we considered the opportunity to use computer language binary code, on the assumption that names such as 100011101 would be inapposite for acronym generation.

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¹National Public Radio.

²See chapter 17 in Twain.

³Nusbaum (1994).

⁴Kramer.

⁵Baue.

⁶El-Zaatari.

We have not considered the potential of other human languages to offer new words, on the assumption that the supply (lexicon) and demand (clinical trial naming) issues are likely to parallel those in English. Researchers in the non-Anglophone world have need of their own vocabularies for study names, and any poaching by the English-speaking community on foreign linguistic resources would only prompt retaliatory raids that would compound the crisis described above. In any event, one suspects that many American researchers will have no more than a soupcon of acquaintance with foreign language resources, given that foreign language study is not among the topics emphasized in the premedical curriculum.⁷

Few biomedical researchers have the literary creativity of Shakespeare, yet clinical trials research is proceeding apace. All biomedical research could grind to a lexocographic end within a generation. If it does, at least one should readily be able to catch up on one's backlog of unread journals.

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⁷Nusbaum 2006.

Graph of supply versus demand of trial names

Figure 1.

Figure Graph of supply versus demand of trial names