

THREE MIRACULOUS SOLUTIONS

DMITRI A. BORGMANN
Dayton, Washington

One of the delights available to a logologist is analyzing a word problem and its solution. When the logologist makes the analytical process the focal point of his inquiry, both the problem as such and its solution as such are relegated to secondary importance. This article highlights such a situation.

In the November 1984 issue of *Word Ways*, the editor propounded a novel problem - that of finding words within which some four selected letters of the alphabet appeared in all of their 24 mathematically possible orders. On the basis of mathematical considerations beyond the ken of mere mortals like me, he notes in the current issue that all words possessing this property must contain at least 12 letters (not 13 as earlier asserted). Furthermore, from the 12-letter patterns he exhibits, it appears that one letter must occur 4 times, two letters 3 times, and the fourth letter 2 times. Patterns for qualifying longer words are not specified, but it is clear that they must contain at least as many of each of the four selected letters, and usually other letters as well. The aesthetic ideal is to find qualifying 12-letter words or, should the quest for them fail, examples exceeding 12 letters in length by as few letters as possible. Restating the problem, what is the shortest English word (or name) displaying a set of four letters in all their glory?

In his article, the editor presented two qualifying words, both in Webster's Third Edition: the 29-letter chemical term TRINITRO-PHENYLMETHYLNITRAMINE and the 45-letter medical term PNEUMONULTRAMICROSCOPICSLICOVOLCANOCONIOSIS. Each of these words is much too long to be an aesthetically acceptable solution to the problem posed. (Choose a word long enough - a 500-letter chemical term, for instance - and it would be miraculous if it did not include all 24 orders of one or more sets of 4 letters.) Moreover, these particular two words are excrescences - disfiguring additions - upon English, of value only to logologists, not to speakers and writers of English. The 29-letter word is an exact synonym for the 6-letter word TETRYL; the 45-letter word, for the 9-letter SILICOSIS. The 45-letter word has never appeared in medical literature and does not even possess the structure of an English word: it consists of two shorter words of 24 and 21 letters pushed together. Such a pushing together is permissible, and an everyday occurrence, in other Germanic languages, but not in English - at least, not indiscriminately. Had those coining the word been interested in making it look like an English word, they would have turned the component MICROSCOPIC into MICROSCOP-

ICO, just as HISTORIC was turned into HISTORICO to form the Websterian word HISTORICOCABBALISTICAL.

Technically, there is a third qualifying English word, a Websterian one, in the category of an unacceptably long excrescence upon the language. Webster's New Geographical Dictionary (1972) includes the 43-letter Indian name of a small lake in south-central Massachusetts, just southeast of the town of Webster in Worcester County: Lake CHARGOGGAGOGGMANCHAUGAGOGGCHAUBUNAGUNGAMAUG. (Other references spell it with 44 or 45 letters.) The four-letter set A-G-N-U, and probably some others, appears in all 24 possible letter orders or permutations. The name is completely superfluous because the lake is also known as Lake WEBSTER, replacing 43 letters with only 7.

If words and names of 29 or more letters are unacceptably long, what is the maximum length of an acceptable term? In the February 1974 Word Ways, Ralph Beaman defined long words as words of 20 or more letters. The change in the first digit of the number expressing the letter length of a word from "1" to "2" is a psychologically major one, investing words of 20 or more letters with the mantle of great length. I have accepted this definition, limiting my search to words and names of fewer than 20 letters.

My search for a solution to the problem soon established that it was in the category of a hopeless one. Words of fewer than 20 letters do not just happen to situate them in a way producing 24 different arrangements of some particular 4 letters. (For that matter, merely finding words with the proper 4-3-3-2 distribution of letters is not easy; short Websterian examples of 13 letters include PRESUPPRESSES and CONSENESCENCE.) The problem posed by the editor therefore fell into the category of an exceedingly difficult one. Solutions to exceedingly difficult logological problems do not, normally, fall into one's lap ready-made; rather, they evolve. I set about evolving the required solution.

According to Webster's Second Edition and the Funk & Wagnalls Unabridged, TRINITARIANISM is the Christian doctrine of the Trinity, with opposition to that doctrine known as ANTI-TRINITARIANISM. Since I find hyphenated words aesthetically objectionable, I consulted The Oxford English Dictionary (1933) and The Century Dictionary (1889-1891). Both of these works spelled the second term solidly, as ANTITRINITARIANISM, and I adopted the solid spelling.

In English, an agent noun corresponding to an abstract noun ending with the suffix -ISM ends with the suffix -IST. That fact is stated explicitly in the Oxford and in Webster's First and Second Editions. The fact is confirmed by considerably more than 1000 English word pairs such as HEDONISM/HEDONIST, CONSTITUTIONALISM/CONSTITUTIONALIST, and PROTECTIONISM/PROTECTIONIST. On this basis, the proper designation for an adherent to, or an advocate of, ANTRITRINITARIANISM is ANTITRINITARIANIST. It is, in fact, difficult to imagine what else such an individual could be called. Since all of the major dictionaries include the word

ANTITRINITARIANISM and the suffix -IST, that omission of the word ANTITRINITARIANIST must be attributed to the facts that (a) the meaning of the word is self-evident, and (b) it occurs comparatively seldom, so that using dictionary space to list it is not warranted. The same space can be used more profitably, for a word whose meaning is less obvious, or for a word more frequently used. In a sense, words ending with the suffix -IST can be regarded as inflectional forms of corresponding words ending in -ISM, making their invariable listing in dictionaries superfluous.

The foregoing observations can be challenged on one interesting ground: a supporter of ANTITRINITARIANISM may be referred to as an ANTITRINITARIAN, rendering a second, longer word for the same concept redundant. English is, however, the most redundant language on earth. The 29-letter and 45-letter words cited in the editor's article have already been held up as examples of that redundancy. More specifically, however, there are numerous instances of word pairs in English, one using the suffix -IST, the other dropping it, both meaning the same thing. Examples include CONFUCIAN/CONFUCIANIST, FABIAN/FABIANIST, HUMANITARIAN/HUMANITARIANIST, MENDELIAN/MENDELIANIST, MONARCHIAN/MONARCHIANIST, and UTILITARIAN/UTILITARIANIST. On the basis of these and other cases, it is fully acceptable for two precisely synonymous words, ANTITRINITARIAN and ANTITRINITARIANIST, to flourish side by side in English.

Why this extraordinary concern with ANTITRINITARIANIST? Because it is an acceptably short word - one of only 18 letters - featuring the four-letter set l-N-R-T in each of its 24 possible faces or permutations. By finding the word, I have evolved that which I set about to evolve. ANTITRINITARIANIST is truly a miraculous solution to the original problem: apparently one of a kind, destined never to be surpassed. Apparently ...

Readers who have followed the evolution of one miracle should now be ready for a greater one. One miracle tends to breed another. A dispute or other activity found solely within the ranks of Trinitarians, upholders of the Christian doctrine of the Trinity, is justly and inevitably described as INTRA-TRINITARIAN. Here is a word of only 16 letters - a mere 4 letters more than the mathematical minimum of 12 letters - which features all 24 permutations of the four-letter set A-l-N-R. The word is, admittedly, extralexical, but entirely logical and without any genuine alternative in English. Why not accept it? Is there any rational ground on which to deny it its place in the logological spectrum?

Miracles, like deaths of Jesuits, come in threes. For the greatest of all, one must turn from words to names. There is a person with the name GEORGE O. GREGORY who in 1981 resided in Richmond, Virginia. This 14-letter phrase contains all permutations of the 4-letter set E-G-O-R. Since the surname Gregor exists, it may be possible to find, somewhere, the 13-letter name GEORGE O. GREGOR, a single letter above the mathematical minimum. Who will be the first to find this logological treasure?