

The Analytical Language of John Wilkins

I see that the fourteenth edition of the *Encyclopaedia Britannica* has omitted the article about John Wilkins. The omission is justified if we remember how trivial it was (twenty lines of biographical data: Wilkins was born in 1614, Wilkins died in 1672, Wilkins was the chaplain of the Prince Palatine, Charles Louis; Wilkins was appointed rector of one of the colleges of Oxford; Wilkins was the first secretary of the Royal Society of London, etc.); but not if we consider the speculative work of Wilkins. He abounded in happy curiosities: he was interested in theology, cryptography, music, the manufacture of transparent beehives, the course of an invisible planet, the possibility of a trip to the moon, the possibility and the principles of a world language. It was to this last problem that he dedicated the book *An Essay towards a Real Character and a Philosophical Language* (600 pages in quarto, 1668). Our National Library does not have a copy of that book. To write this article I have consulted *The Life and Times of John Wilkins* by P. A. Wright Henderson (1910), the *Woerterbuch der Philosophie* by Fritz Mauthner (1924), *Delphos* by E. Sylvia Pankhurst (1935), and *Dangerous Thoughts* by Lancelot Hogben (1939).

At one time or another, we have all suffered through those unappealable debates in which a lady, with copious interjections and

anacolutha, swears that the word *luna* is more (or less) expressive than the word *moon*. Apart from the self-evident observation that the monosyllable *moon* may be more appropriate to represent a very simple object than the disyllabic word *luna*, nothing can be contributed to such discussions. After the compound words and derivatives have been taken away, all the languages in the world (not excluding Johann Martin Schleyer's *volapük* and Peano's romance-like *interlingua*) are equally inexpressive. There is no edition of the Royal Spanish Academy *Grammar* that does not ponder "the envied treasure of picturesque, happy and expressive words in the very rich Spanish language," but that is merely an uncorroborated boast. Every few years the Royal Academy issues a dictionary to define Spanish expressions. In the universal language conceived by Wilkins around the middle of the seventeenth century each word defines itself. Descartes had already noted in a letter dated November, 1629, that by using the decimal system of numeration we could learn in a single day to name all quantities to infinity, and to write them in a new language, the language of numbers.¹ He also proposed the formation of a similar, general language that would organize and contain all human thought. Around 1664 John Wilkins began to undertake that task.

Wilkins divided the universe into forty categories or classes, which were then subdivisible into differences, subdivisible in turn into species. To each class he assigned a monosyllable of two letters; to each difference, a consonant; to each species, a vowel. For example, *de* means element; *deb*, the first of the elements, fire; *deba*, a portion of the element of fire, a flame. In a similar language invented by Letellier (1850) *a* means animal; *ab*, mammalian; *abi*, herbivorous; *abiv*, equine; *abo*, carnivorous; *aboj*, feline; *aboje*, cat; etc. In the language of Bonifacio Sotos Ochando (1845) *imaba* means building;

¹ Theoretically, the number of systems of numeration is unlimited. The most complex (for the use of divinities and angels) would record an infinite number of symbols, one for each whole number; the simplest requires only two. Zero is written 0, one 1, two 10, three 11, four 100, five 101, six 110, seven 111, eight 1000 . . . It is the invention of Leibnitz, who was apparently stimulated by the enigmatic hexagrams of the *Yi tsing*.

imaca, brothel; *imafe*, hospital; *imajo*, pesthouse; *imari*, house; *imaru*, country estate; *imede*, pillar; *imedo*, post; *imego*, floor; *imela*, ceiling; *imogo*, window; *bire*, bookbinder, *birer*, to bind books. (I found this in a book published in Buenos Aires in 1886: the *Curso de lengua universal* by Dr. Pedro Mata.)

The words of John Wilkins's analytical language are not stupid arbitrary symbols; every letter is meaningful, as the letters of the Holy Scriptures were meaningful for the cabalists. Mauthner observes that children could learn Wilkins's language without knowing that it was artificial; later, in school, they would discover that it was also a universal key and a secret encyclopedia.

After defining Wilkins's procedure, one must examine a problem that is impossible or difficult to postpone: the meaning of the fortieth table, on which the language is based. Consider the eighth category, which deals with stones. Wilkins divides them into the following classifications: ordinary (flint, gravel, slate); intermediate (marble, amber, coral); precious (pearl, opal); transparent (amethyst, sapphire); and insoluble (coal, clay, and arsenic). The ninth category is almost as alarming as the eighth. It reveals that metals can be imperfect (vermilion, quicksilver); artificial (bronze, brass); recremental (filings, rust); and natural (gold, tin, copper). The whale appears in the sixteenth category: it is a viviparous, oblong fish. These ambiguities, redundances, and deficiencies recall those attributed by Dr. Franz Kuhn to a certain Chinese encyclopedia entitled *Celestial Emporium of Benevolent Knowledge*. On those remote pages it is written that animals are divided into (a) those that belong to the Emperor, (b) embalmed ones, (c) those that are trained, (d) suckling pigs, (e) mermaids, (f) fabulous ones, (g) stray dogs, (h) those that are included in this classification, (i) those that tremble as if they were mad, (j) innumerable ones, (k) those drawn with a very fine camel's hair brush, (l) others, (m) those that have just broken a flower vase, (n) those that resemble flies from a distance. The Bibliographical Institute of Brussels also resorts to chaos: it has parceled the universe into 1,000 subdivisions: Number 262 corresponds to the Pope; Number 282, to the Roman Catholic Church; Number 263, to the Lord's Day; Number 268, to Sunday schools;

Number 298, to Mormonism; and Number 294, to Brahmanism, Buddhism, Shintoism, and Taoism. It also tolerates heterogeneous subdivisions, for example, Number 179: "Cruelty to animals. Protection of animals. Moral Implications of duelling and suicide. Various vices and defects. Various virtues and qualities."

I have noted the arbitrariness of Wilkins, of the unknown (or apocryphal) Chinese encyclopedist, and of the Bibliographical Institute of Brussels; obviously there is no classification of the universe that is not arbitrary and conjectural. The reason is very simple: we do not know what the universe is. "This world," wrote David Hume, "... was only the first rude essay of some infant deity who afterwards abandoned it, ashamed of his lame performance; it is the work only of some dependent, inferior deity, and is the object of derision to his superiors; it is the production of old age and dotage in some superannuated deity, and ever since his death has run on . . ." (*Dialogues Concerning Natural Religion*, V, 1779). We must go even further; we must suspect that there is no universe in the organic, unifying sense inherent in that ambitious word. If there is, we must conjecture its purpose; we must conjecture the words, the definitions, the etymologies, the synonymies of God's secret dictionary.

But the impossibility of penetrating the divine scheme of the universe cannot dissuade us from outlining human schemes, even though we are aware that they are provisional. Wilkins's analytical language is not the least admirable of those schemes. It is composed of classes and species that are contradictory and vague; its device of using the letters of the words to indicate divisions and subdivisions is, without a doubt, ingenious. The word *salmon* does not tell us anything about the object it represents; *zana*, the corresponding word, defines (for the person versed in the forty categories and the classes of those categories) a scaly river fish with reddish flesh. (Theoretically, a language in which the name of each being would indicate all the details of its destiny, past and future, is not inconceivable.)

Hopes and utopias aside, these words by Chesterton are perhaps the most lucid ever written about language:

Man knows that there are in the soul tints more bewildering, more numberless, and more nameless than the colours of an autumn forest; . . .

Yet he seriously believes that these things can every one of them, in all their tones and semi-tones, in all their blends and unions, be accurately represented by an arbitrary system of grunts and squeals. He believes that an ordinary civilized stockbroker can really produce out of his own inside noises which denote all the mysteries of memory and all the agonies of desire. (*G. F. Watts*, 1904, p. 88)