

John Wilkins' Analytical Language

I see that the fourteenth edition of the *Encyclopedia Britannica* has omitted the article on John Wilkins. The omission is justifiable if we recall its triviality (twenty lines of mere 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 inexcusable if we consider Wilkins' speculative work. He was full of happy curiosity: 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. He devoted a book to this last problem: *An Essay Towards a Real Character and a Philosophical Language* (600 pages in quarto, 1668). Our National Library does not have a copy; to write this note I have consulted *The Life and Times of John Wilkins* by P. A. Wright Henderson (1910); the *Wörterbuch der Philosophie* by Fritz Mauthner (1924); *Delphos* by E. Sylvia Pankhurst (1935); and *Dangerous Thoughts* by Lancelot Hogben (1939).

All of us, at one time or another, have suffered through those unappealable debates in which a lady, with copious interjections and anacolutha, asserts that the word *luna* is more (or less) expressive than the word *moon*. Apart from the obvious comment that the monosyllable *moon* may be more appropriate as a representation of a simple object than the disyllabic *luna*, nothing can be contributed to such discussions; except for compound words and derivatives, all the languages in the world (not excluding Johann Martin Schleyer's Volapük and Peano's romantic Interlingua) are equally inexpressive. There is no edition of the Royal Spanish Academy Grammar that does not ponder "the envied treasure of picturesque, felicitous, and expressive words in the riches of the Spanish language," but that is mere boasting, with no corroboration. Meanwhile, that same Royal Academy

produces a dictionary every few years in order to define those words. . . . In the universal language conceived by Wilkins in the middle of the seventeenth century, each word defines itself. Descartes, in a letter dated November 1619, had already noted 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 creation of a similar, general language that would organize and contain all human thought. Around 1664, John Wilkins undertook that task.

He divided the universe into forty categories or classes, which were then subdivided into differences, and subdivided 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; *abo*, carnivorous; *aboj*, feline; *aboje*, cat; *abi*, herbivorous; *abiv*, equine; etc. In that of Bonifacio Sotos Ochando (1845), *imaba* means building; *imaca*, brothel; *imafe*, hospital; *imafo*, pesthouse; *imarri*, house; *imaru*, country estate; *imedo*, post; *imede*, pillar; *imego*, floor; *imela*, ceiling; *imogo*, window; *bire*, bookbinder; *birer*, to bind books. (I found this last census in a book published in Buenos Aires in 1886: the *Curso de lengua universal* [Course in Universal Language] by Dr. Pedro Mata.)

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

Having defined Wilkins' procedure, we must examine a problem that is impossible or difficult to postpone: the merit of the forty-part table on which the language is based. Let us consider the eighth category: stones. Wilkins divides them into common (flint, gravel, slate); moderate (marble, amber, coral); precious (pearl, opal); transparent (amethyst, sapphire); and insoluble (coal, fuller's earth, and arsenic). The ninth category is almost as

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

alarming as the eighth. It reveals that metals can be imperfect (vermillion, 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, redundancies, and deficiencies recall those attributed by Dr. Franz Kuhn to a certain Chinese encyclopedia called the *Heavenly Emporium of Benevolent Knowledge*. In its distant 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) etcetera; (m) those that have just broken the flower vase; (n) those that at a distance resemble flies. The Bibliographical Institute of Brussels also exercises chaos: it has parceled the universe into 1,000 subdivisions, of which 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. Nor does it disdain the employment of heterogeneous subdivisions, for example, number 179: "Cruelty to animals. Protection of animals. Dueling and suicide from a moral point of view. Various vices and defects. Various virtues and qualities."

I have noted the arbitrariness of Wilkins, the unknown (or apocryphal) Chinese encyclopedist, and the Bibliographical Institute of Brussels; obviously there is no classification of the universe that is not arbitrary and speculative. The reason is quite 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, and suspect that there is no universe in the organic, unifying sense of that ambitious word. If there is, then we must speculate on its purpose; we must speculate on the words, definitions, etymologies, and synonymies of God's secret dictionary.

The impossibility of penetrating the divine scheme of the universe cannot, however, dissuade us from planning human schemes, even though it is clear that they are provisional. Wilkins' analytical language is not the least remarkable of those schemes. The classes and species that comprise it are

contradictory and vague; the artifice of using the letters of the words to indicate divisions and subdivisions is undoubtedly ingenious. The word *salmon* tells us nothing; *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 fate, past and future, is not inconceivable.)

Hopes and utopias aside, perhaps the most lucid words written about language are these by Chesterton: "Man knows that there are in the soul tints more bewildering, more numberless, and more nameless than the colors 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], 88).

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