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Ology, Ologist

There are things not worth doing but that they can be done easily. Using a television is the best example. But there are others: eating a store-bought tomato, arguing politics, drinking a cup of cold coffee left out all night on the kitchen counter. None bring results worth the effort if true effort it took.

So it is with the counting of ologies. There are a lot of them, and beyond that who cares? It was many a year that the twelve pounds of my *Random House Dictionary of the English Language, Second Edition, Unabridged* (copyright 1987) sat on my desk without tempting me to count in its 2,478 pages the words that ended in *-ology*. Indeed, had I ever thought to undertake the task, I would no doubt have gotten the answer wrong—at least once I'd have missed a word in the fine print. No. I didn't wonder about this, and I was happy.

Came the day I bought a copy of this same dictionary on CD-ROM: the *Random House Unabridged Electronic Dictionary*. I explored its capabilities—looked up a few words, printed a few pictures, verified that *orange* had no rhymes, found the names of a great many red flowers. Eventually I began to consider the wildcard feature.

This of course is the technique whereby you type an asterisk to represent a varying string of letters in conjunction with a word fragment to find out what other words share the same fragment. As the instructions put it: to find words that end in *-icious* (and rhyme with delicious), you'd search for **icious*. Obviously you could equally well search for **ology*, and in little more time than it took to conceive the question—How many ologies are there?—I had an answer.

There are in the *Random House Unabridged* 518 words that end in *-ology*. Unavoidably, I began to peruse this list I'd so idly created and in so doing I was brought often to a gasp of delight at the breadth and improbability of the ologies' coverage. Alphabetically, they range from *abnormal psychology* to *zymology*; in scope

they span the range of human interests: *amenology*, the study of the wind; *balneology*, the science of baths and bathing; *campanology*, the art of making bells; *gnomology*, a collection of gnomes (aphorisms, that is, and not little men).

These 518 ologies are practiced by 304 ologists—a discrepancy with many explanations. There are, for instance, misspellings. In the electronic *Random House* the study of birds is the province of an *ornithologst*, apparently the only word in English to end in *ogst*. Another factor, and sadly so, are the handful of ologists with no ologies on which to focus their attentions: Soviet *Americanologists* may once have studied *Americana*, but none were students of *Americanology*.

By far, though, the greater reason for the discrepancy lies in the other direction: ologies sans ologists. Partly, this is due to a host of discarded usages and linguistic quirks that has led to the practice of many an ology by a motley assortment of *-ers*, *-ics*, and *-icians*; witness *tocology*, today the realm of the obstetrician. Some ologies are principles or phenomena not logically the purview of any practitioner (*phraseology*, say); others are legitimate fields seemingly free of inhabitants—*abnormal psychology* has yet to attract an admitted abnormal psychologist. Finally, too, it should not be surprising that the lexicographers of so huge a volume as the *Random House* are occasionally unfamiliar with an ology's usage and terminology. With—Dare we say?—its *orismology*.

Plant pathology, for instance, is the study and science of plant diseases. I know this because for nearly forty years my father was in the field, drawing a professor's salary and serving often on the editorial boards of the relevant journals. An older but synonymous term is *phytopathology*, and here a secondary entry allows for the profession of *phytopathologist*. But nowhere does *Random House* recognize the *plant pathologist*. Which is puzzling, for this is the only way my father ever referred to himself. Nor, he says, did he ever hear anyone else use the term *phytopathologist*. "If some guy on the street asked you what you did for a living," he told me, "and you said 'I'm a phytopathologist,' he'd think you were some kind of a damn fool." But such are the vagaries of language and of its cataloging.

So what then is an ology? And why—if we might—consider them important? Have they anything to say? Is there, in their listing, a story or a lesson?

Like you, I had not dwelled previously on these matters. By ologies I was untroubled. But it is the way of a curious mind—or at least of *my* mind—that the asking of one question leads more often than not merely to the asking of another. Was the *Random House* 518 the full count of ologies? If not, what was? And how might I answer this? Similarly, the discovery of one new capability leads most often only to the need for another, and hence have I paid my teenage son to transfer words to a database; hence do I have thick files stuffed with clippings—ologies circled in red; hence do I have multiple bound-and-covered volumes of printouts sorted this way and that; and hence does a small and inconsequential project grow large. For I have wondered, and wondered too much.

By itself, *ology* is a humorous or facetious term, used often in exasperation to refer to the seemingly endless growth of information about topics ever more narrow. So says *Random House*, and so do other dictionaries agree. The *Oxford English Dictionary*, second edition, in its twenty oh-so-heavy volumes of paper, ascribes an early use of the term to Dickens, who wrote in *Hard Times* of "Ologies of all kinds, from morning to night. If there is any Ology left . . . that has not been worn to rags . . . I hope I shall never hear its name."

As a suffix, *-ology* is a two-part hybrid consisting of *-o-* and *-logy*, the former a mere coupling device and the latter derived from *lógos*, the Greek word for *word* and whose meaning encompasses as well the notion of a thought, speech, or discourse. Together, the two pieces form a combining element that gives to a root one of four added meanings: 1) a science or body of knowledge (as in *biology*, *theology*, or *geology*), 2) a writing, discourse, or expression (*chronology*, *apology*), 3) a collection (*anthology*), or 4) a characteristic of speech or language (*tautology*, *tropology*).

In practice, the suffix has yet another use, which is to aid in the formation of *nonce words*—made-up words coined for a specific or one-time use, often with a humorous intent, sometimes because the situation seems simply to call for it, and sometimes

for the overt purpose of dressing up an otherwise dubious fancy. Thus does a sign at a Mount St. Helens visitors' center introduce a display on *ashology*; radio commentators in a year of strange weather speak of *El Niño-ology*; and the authors of a self-help book spun from a Winnie-the-Pooh theme acknowledge the contributions of a friend and Doctor of *Poohology*. Inevitably, some of these inventions commence a wider circulation and become anointed members of the language—so, perhaps, did *ufology* find its way into my *Random House*.

By definition, nonce words don't appear in the dictionary. But that aside, it still took none too long to realize that despite its prodigiousness the *Random House* roster is far from complete. The World Wide Web includes a surprising number of searchable dictionaries and lurking within are ologies galore. Mirriam-Webster, for instance, provides access to an online version of its tenth *Collegiate Dictionary* (copyright 1996), and entering the wildcard search **ology* yields 290 hits, of which a handful (e.g., *narratology* and *victimology*) are not in *Random House*. Of ologists, *Mirriam-Webster* allows for 211.

At the Web site of the University of Chicago's Project for American and French Research on the Treasury of the French Language, visitors can query a variety of bibles, dictionaries, and thesauri in French, English, and other languages. Among these is a fulltext version of *Webster's Revised Unabridged Dictionary of the English Language*, keyed in by hand from a physical volume published in 1913 (and therefore beyond the reach of copyright restrictions). The 1913 dictionary consists, as its original title page notes, of the complete *Webster's International Dictionary, Unabridged* of 1890 along with an added "Department of New Words." It contains 325 ologies and 132 ologists, and their review is instructive on many accounts, not the least of which is the often quaint, sometimes heartbreaking, definitions. *Acology* was the "science of remedies" and *hygrology* the "science which treats of the fluids of the body"; *atomology* was "the doctrine of atoms"; *aristology*, "the science of dining"; and *psychology*—psychology was "the science of the human soul." While some of the *Webster* ologies have shifted entirely in meaning over the last hundred years (*ethology*, then the study of ethics and morality is today the

study of animal behavior—a fitting change, perhaps, given the history of the twentieth century), more than a third have since dropped from the language and warrant no current entry in either *Random House* or *Mirriam-Webster's*.

This is the sort of thing you can learn roaming the Web. But there is no substitute for a real library, so one day I hied myself from home to university, hoping there among other tasks to query and mine the *OED* on disc. The library was in heavy use—the carrels, desks, and terminals were close to full—but the seat at the computer devoted to the queen of dictionaries was vacant, and I soon found out why. Irrespective of the merits of its underlying text and scholarship, the software of the *Oxford English Dictionary on CD-ROM* is all but unusable. I couldn't get it to perform a wildcard search, couldn't get it to copy to a floppy, couldn't get it to do much of anything—nor could the librarian. Perhaps this explains the deep discounts for which I've seen the product advertised. Deep, but not deep enough. The tally of *OEDologies* will, to me, forever remain a mystery.

All was not in vain, however, for it was at the library that I found another rich source of ologies. Now out of print, the "thematic dictionary" *-Ologies & -Isms* was published by the Gale Research Company in three successive editions: 1977, 1981, and 1986. As its title suggests, *-Ologies & -Isms* is a catalog of words so ending, though it includes as well an extensive stock of *-phobias*, *-manias*, *-mancies*, and *et ceteras*. The volume is organized like a thesaurus, so that by looking up a theme or concept you can find a collection of related words. Under *baldness*, for example, are entries for *acomia*, *alopecia* and *phalacrosis*. According to the editor's foreword, the first edition contained 463 ologies. Later editions grew fatter, but ceased reporting their counts. Nonetheless, by my reckoning the second edition (which I was able to take home) does include 164 ologies and 36 ologists not otherwise found in the three dictionaries I'd already searched.

Overall, then, between the electronic *Random House*, *Mirriam-Webster's Collegiate*, 1890/1913 *Webster's* and the printed *-Ologies & -Isms*, there are in the world at least 839 ologies and 390 ologists. But because this total necessarily fails to include the many *nonceologies* and *newologies* coined every day,

verily can we say that the number of ologies is not only large and growing, but beyond even counting.

In part, the ologies' multitude is due to their almost lifelike ability to combine and recombine with other combining forms. Stick a *-path-* in the middle of an ology and you've got a new, disease-ridden, field of study. Thus does *angiology* (the study of blood vessels) become *angiopathology* (the study of blood vessel disease) and *osteology*, *osteopathology*. Add *paleo-* to the front of an ology and, *voilà!* you've got new studies of old stuff, including ancient or fossilized fish, lakes, soils, and birds (*paleoichthyology*, *-limnology*, *-pedology*, and *-ornithology*). Ruminate on the diseases of days gone by and you're practicing *paleopathology*; do it a lot and you're a *paleopathologist*. Mix the right syllable with a *-psych-* and an *-ology* and you've got an array of new sub-specialties, among them the mirrored fields of *biopsychology* and *psychobiology*.

No subject is too small, no field too narrow, for an ology. The spines of a sea urchin; a virgin's virginity; finger rings and beards, the moon and the planet Mars; post card and doll collecting; herbs, worms, and time; young birds and old footprints; the study of wealth and the study of poverty, all have their ologies. To wit, and in order: *acanthology*; *parthenology*; *dactyliology* and *pogonology*, *selenology* and *areology*; *deltiology* and *planganology*; *herbology*, *helminthology*, and *horology*; *neossology* and *ichnology*; *plutology* and *ptochology*.

So broad is their range, so exact their focus, that from ologies alone you can devise a complete pantology, crowned at the top by *cosmology* (the study of the beginning of everything) and with first-level branches for both the animate and the inanimate—*biology* and *abiology*. From the former, branches lead naturally to accommodate the five taxonomic kingdoms (*bacteriology*, *protistology*, *mycology*, *phytology*, and *zoology*), with these in turn sitting each atop their own descending orders of ologies representing ever-finer distinctions of knowledge—the trail leading logically to the study of peat moss, if that's your desire, after cascading from *biology* to *phytology*, and thence to *bryology* (the study of mosses and liverworts), *muscology* (mosses), and *sphagnology* (the sphagnum, or peat, mosses). Should you wish instead to

pursue the inorganic, a first-level division might be made for the study of the heavens above (*uranology*) and the earth below (*geology*), and including in the first case early branches for devotees of the sun, planets, and meteors (*heliology*, *planetology*, *aerolithology*), and, for the spiritually inclined, another for *angelology*—this thereby enabling a connection to the many ologies of *theology* (home of *Christology*, *Maryology*, *martyrology*, and the *greater* and *lesser doxologies*).

Here, frankly, it must be admitted that some fields are simply overendowed. The ologists of yesteryear, according to *Webster's*, had an inordinate fondness for heads, brains, and skulls, and thereof they spawned *cephalogy*, *cerebrology*, *craniology*, *encephalology*, and *phrenology*. Food and its consumption are the domain of *sitology*, *aristology*, *threpsology*, *alimentology*, *phagology*, *trophology*, and *bromatology*. And shellfish are the grist not just of *testaceology*, but also of the related *carcinology*, *crustaceology*, *malacostracology*, *malacology*, and *conchology*.

Indeed, a review of the ologies in their collected mass leads one quickly to wonder whether enough isn't enough. Is there a need for *cryptozoology*—the study of the search for Bigfoot and other unproven creatures? Or how about *pyritology*, the science of blowpipe analysis? Need we hold a place for *sindonology* (the study of the Shroud of Turin)? And if not that, why *autonumerology* (the study of odd license plate numbers)? Eventually the cumulative weight of these lesser and petty ologies—this leptology of ologies—begins even to drive a search for words that don't exist, but might. Or should.

Mundane astrology, for instance, can only invite speculation about the presumptive but missing *nonsense astrology* and *Nancy Reagan governmental policy astrology*. *Soft-rock geology* suggests *soft-rock musicology*, which then demands aesthetically of a *hard-rock musicology* and that in turn of a derivative *Hip-Hop-ology*—this bearing no relation to the real-world *hippology*, which is the study of horses and not hippos. *Myology*, *urology*, and *ourology* imply the existence of a grand unifying *possessive pronounology*. And a systematic classification of disease in *rhinology* would yield a *nasologic nosology*, a task best performed by a *nasologic nosologist*—a person who knows noses.

Here, frankly, we have begun to enter the absurd and here then it is good to recall our earlier musings. Yes, the ologies are uncountable. But ought we study them anyway? What might we glean?

One arguable reason for a study of the ologies—that is, for an *ologyology*—is simply that they permeate our lives. The most cursory glance at a newspaper tells us of the doings and discoveries of ecology and ecologists, of criminology and criminologists; of methodology, ideology, meteorology, and seismology; of psychologists, biologists, cosmologists, and neurologists. Even, one memorable day, of *happyologists*. But how did we get to this? And what of the future?

To answer, let us digress. *Wrights* are people who make things—ships, boats, wheels and the like. There are in my *Random House*, eight variants of *wright*. The first of these, *wright* unadorned, came into use before the year 900; the next, *wainwright* (a wagon maker) gained currency before the end of the first millennium. Excluding the aberrant *playwright* (1680-90), the average date at which these words came into use is about 1150. Of *smiths*, who work mostly with metal, there are fifteen; not counting *wordsmith* (circa 1895) and its kin, the average date of their first appearance is around 1250. These are people, the *wrights* and the *smiths*, who make stuff; hard, physical things you can touch. The need for words to describe them came early, but once met there's been little call for more—there hasn't been a new *wright* in over 300 years.

In contrast, the ologists are people who know something. They're information people, and linguistically they're late-arrivers. The first didn't show until the mid-fourteenth century, and a random sample of some three dozen indicates their average date of entry into the language is about 1800. But more even than their initial tardiness, what most distinguishes the ologists and their ologies is their ever-accelerating rate of birth.

The first ologist's domain was *astrology*, a word whose coinage *Random House* dates to around 1350. In total, six ologies were introduced in the 1300s, yielding for the century a rate of 0.06 new ologies per year. These were the Dark Ages and none of

the six were the stuff of rocket science—*mythology* was one, *amphibology* (a grammatically ambiguous phrasing with multiple interpretations) another. For the same reason, things moved backwards before they began to progress: the 1400s saw only one new ology, albeit this of great and lasting utility: *apology*. The forward pace resumed in the 1500s (thirteen new introductions), and it is then that we have the first intimations of a dawning scientific outlook—though the slant is narrowly medical (*etiology*, *physiology*, *pathology*). Thirty-three new ologies were introduced in the 1600s, and by the 1800s the rate of new introductions had grown to 1.65 per year. Also by this time we begin to see the across-the-board explosion of science (*biology*, *sociology*, *ecology*, *radiology*), the pantologic accrual of knowledge and the resulting impetus toward specialization (*laryngology*, *otolaryngology*, *otorhinolaryngology*), and the ologization of everyday life (*thanatology*, *cosmetology*, *criminology*, *scatology*, *hypnology*).

The first half of the twentieth century brought a continued rise in the rate of new ology formation. Ninety-six of the *Random House* ologies have dates of first appearance within these fifty years—1.92 per year. The numbers since then have shown a slight tailing off, but this is almost certainly an artifact arising from the lexicographic need to ensure that a word has staying power before it is added to the dictionary. Nonetheless, recent entries that have made it to the dictionary speak reams about the times in which we live. The 1950s saw the introduction of *Kremlinology*, *ufology*, *space biology*, and *neonatology*. The '60s brought us *pop psychology*, *urbanology*, and *high technology*; the '70s, *recombinant DNA technology*, *androlog*y, and *garbology*. The '80s, when my *Random House* peters out, end with the introduction in 1987 of *nanotechnology*—"technology on the scale of nanometers."

To leave things at this point would be both incomplete and unsatisfying, but as with so much else these days we can make ourselves *au courant* by turning again to the Internet. Unlike the Mirriam-Webster or ARTFL Project Web sites, which provide access to a single dictionary at a time, OneLook Dictionaries (*www.onelook.com*) is a sort of megadictionary that searches multiple dictionaries all in one pass. Many of these "dictionaries" are little more than in-house glossaries from various groups and

organizations (e.g., Kodak's "Glossary of Film and Video Terms"), but even so, OneLook's coverage is truly astounding. The count increases almost daily, but recently the site provided access to definitions for more than 2.8 million words in over 570 dictionaries.

On any one search (say for **ology*) OneLook will return results from all contributing dictionaries with relevant entries. But because the output is limited to twenty entries per dictionary, OneLook can't be used to count and display all the ologies—leaving a definitive grand tally still out of reach. Nonetheless, a quick scan of even these limited results is enough to provide a feel for the tenor of our newest and emerging ologies. *Boxology* is a prose style much favored by consultants and bureaucrats (as in, "His report has a lot of boxology in it"). *Fontology* is similarly popular. *Lubarsky's Law of cybernetic entomology* states of computer software that, "There is always one more bug." And who hasn't succumbed to *Scarecrow technology*—a highly touted product or process that proves more image that substance?

This latter also helps return us to the thread left dangling at the chronologic end of *Random House*. *Technology*, plain vanilla, first appeared around 1610. The first variant—*electrotechnology*—wasn't introduced until 1880, and ten years after that the systematic study of how best to apply the knowledge and principles of a given field was still so inchoate that *Webster's* gave *technicology* as an accepted spelling. Indeed, among my earlier compilation of 839 ologies, only eleven were forms of *technology*. Yet on the day I searched OneLook, more than forty additional *technologies* were to be found, including *rail*, *automotive*, *aviation*, *rocket*, and *missile technology* (a pantology of *transportation technologies*); *information*, *push*, *pull*, and *appropriate technology*; *biogeo-*, *inter-*, *micro-*, *tero-*, and *transtechnology*; *axial gradient* and *beam-addressable technology*. Technology, clearly, is the ology *du jour*.

And so we have teased meaning from our sortings and listings, our meanderings and askings, and this is what we know: that in the beginning there was the word, *lógos*, followed some thousands of years later by *astrology* and *theology*; that these were fruitful and multiplied and have left us today with a vast and growing

assemblage of *greater-* and *lesser-ologies* and a tomorrow filling with a surfeit of *technologies.* It's not much. Vaguely, I knew this already. So did you. But it does give us another way of looking at things—to know that we live not only in the Information Age, but even more precisely in the age of the Ology and the Ologist.

Knowing this, however, we are left (as always) with yet another question: What of the nonologist? What of the tinker and the dabbler and the jack-of-all-trades? Ought the generalist to feel despair?—left out and behind in the great onrush of specialization? Certainly this would be easy—witness the plight each June of the lowly humanities graduate. But it would be equally unnecessary. For we all have our niche, and in truth we all are deep repositories of unrecognized expertise—ologists of many a sort. *Mirriam-Webster*, for example, recognizes the *nonanthropologist* and the *nonbiologist*, and surely most of us are these. And we each have a keen and abiding interest in ourselves and are therefore experts all in *autology*.

Then, too, there is that most boundless of fields, ever surprising and never to be exhausted, to which we all are contributors and of which we all are student and master—*agniology*, the study of human ignorance.