WHY 3-LETTER ACRONYMS

Three Letter Acronyms (TLAs) are very popular and can be found in almost everything written or spoken these days. Why? Perhaps it is because we are busy, lazy, or maybe there is just a fascination with things that come in threes. Most likely, we write or speak in TLAs because it makes our language more efficient at conveying information with the least possible cost. TLAs transform largely redundant information into a more expeditious form.

ACRONYMS VS ABBREVIATIONS

The dictionary defines an acronym as an abbreviation usually comprising the first letters of the words making up the name to be abbreviated. An acronym is to be distinguished here from an ordinary abbreviation that might contain letters from anywhere in the word to be abbreviated; these letters usually convey the important sounds of the original word. An acronym usually does not abbreviate just one word, nor does it hint to the sounds of the words abbreviated.

An acronym is usually composed of all upper-case letters, whereas an abbreviation may contain both upper-case and lower-case letters. Thus, Cpl (Corporal), Inc (Incorporated), and Sgt (Sergeant), are three letter abbreviations, but LLC (Limited Liability Corporation), MLB (Major League Baseball), NBC (National Broadcasting Corporation), NYC (New York City), and SLC (Salt Lake City), are all TLAs. Some places are known by three-letter abbreviations, not properly acronyms, such as ATL (Atlanta), CLE (Cleveland), and STL (Saint Louis).

There are certainly acronyms of less than three letters or more than three letters, but there seems to be a certain allure of the number three. The preference for three letter acronyms over other combinations is very strong. An example of this is the acronym for age-related macular degeneration, a disease of the eye. Age-related macular degeneration could have been known as ARMD, but instead has been given the acronym of AMD.

THE LURE OF THREES

There is something appealingly special about things that come in threes. A three-legged stool is more stable on uneven ground than a stool with fewer or more legs; the length of a leg of a triangle can always be found from the dimensions of the other two, the Christian Holy Trinity comprises three members; and bad luck events are said by some to come in threes. In music, there is often an evenly-spaced three note modulation when changing keys. The transition between verses and choruses, or from line to line, is often made with a three note run (for example, in Neil Diamond’s song, “Sweet Caroline,” the words of the first line go, “sweet caroline...” and then there is an unforgettable three note “bum, bum, bum” before the second line, “good times never seemed so good”). In sports, we have notable happenings in a “hat trick” for three goals made by the same player in a single game, a “trifecta,” which is a bet in which the person placing the bet forecasts the first three finishers in a
Three-word names and phrases are also popular. The appeal of three things extends even to political and commercial slogans. These phrases are always words, not TLAs, but comprising three words makes them easy to remember and particularly effective. Many of these three-word slogans have passed easily into the vernacular without recognizing their original sources. Some of these are: “Black Lives Matter” (also with a TLA – BLM), “Breakfast of Champions” (Wheaties cereal), “E Pluribus Unum” (Latin for “Out of many, one,” slogan of the USA), “I’m Lovin’ It” (McDonalds), “Imagination at Work” (General Electric), “Just Do It” (Nike athletic apparel), “Just Say No” (1970s anti-drug slogan), “King of Beers” (Budweiser), “Peace with Honor” (Vietnam War slogan), “Read My Lips” (President G.H.W. Bush), “Remember the Alamo” (from the Mexican–American War, 1846), “Yes We Can” (Obama political slogan), and “We Try Harder” (Avis car rental).

Three-syllables

And, is it just coincidence that commercial (as opposed to chemical) names of drugs and medicines most often contain three syllables? Or, were they purposefully constructed to make them especially easy to remember? Some of these are: Adderall (for ADHD/concentration), Ajovy (migraine headaches), Allegra (allergy), Aspirin (pain), Aveeno (dry skin), Benicar (blood pressure), Biktarvy (HIV treatment), Caplyta (depression), Claritin (allergies), Cosentyx (psoriasis), Demadex (diuretic), Dupixent (asthma, eczema), Eliquis (anticoagulant), Endurone (diuretic), Entresto (heart failure), Farxiga (kidney disease), Fentanyl (pain), Humira (rheumatoid arthritis), Hygroton (diuretic), Keytruda (cancer), Monopril (blood pressure), Mucinex (congestion), Numbbutal (sedative), Nexium (acid reflux), Nutrafol (hair health), Prevagen (memory loss), Prilosec (acid reflux), Saxenda (weight loss), Skyrizi (Crohn’s disease), Solara (diabetes), Sotyktu (psoriasis), Tylenol (pain), Vabysmo (diabetic macular edema), Valium (anxiety/depression), Warfarin (anticoagulant), and Wegovy (weight loss). And the list goes on.

The process that is used to name new medicines and drugs is largely opaque, but all these, and many more, medicines seem to resolve to be easily-remembered three syllable names. Three things seem to be especially easy to verbalize and to remember. So, that might explain why names, phrases, and acronyms of three elements are so popular, at least in American English language.

Personal TLA

This tendency toward three words that lend themselves to become three letter acronyms has special meaning in my career. The Airflow Perturbation Device (APD) is an instrument for noninvasive measurement of respiratory resistance. I invented the APD (Figure 1) and have used a good part of my career to develop it further and use it to research respiratory responses to various respiratory challenges. Along the way, a number of graduate students helped immensely toward these goals.

For years after the conception of the APD, we called it a “Perturbation Device,” without the “Airflow.” That is, there was a graduate student of mine (Chin-Shing Lin) who started calling it an APD, which is much easier to say than “perturbation device.” The TLA stuck, and it has been known as an APD ever since.

Examples of TLAs

The following lists of TLAs illustrate how much have permeated our speech. TLAs in each paragraph are given alphabetically as much as possible, with the exception of TLAs appearing within parentheses.

TLAs in common use by the general public might include ABS (Anti-lock Braking System for vehicles), APR (Annual Percentage Rate), ATM (Automated Teller Machine), ATV (All Terrain Vehicle), AWD (All Wheel Drive), BAE (Before Anyone Else), BCC (Blind Carbon Copy, secretly sending an email), BLT (Bacon, Lettuce, and Tomato sandwich), CDL (Commercial Driver’s License), CEO (Chief Executive Officer), CMA (Country Music Association), CSI (Crime Scene Investigation), DOA (Dead On Arrival), DUI (Driving Under the Influence of an intoxicant), DVD (Digital Video Disk), EDT (Eastern Daylight Time), and its counterparts, FYI (For Your Information), GHG (Green House Gases), GMA (Good Morning America, a television program), GMO (Genetically Modified Organism), HOV (High Occupancy Vehicle highway lane), IRA (Individual Retirement Account, or Inflation Reduction Act), IRS (Internal Revenue Service), KIA (Killed In Action),...
MIA (Missing In Action), NAE (No Antibiotics, Ever, for poultry raised for human consumption), NCO (Non-Commissioned Officer), NLT (No Later Than), OEM (Original Equipment Manufacturer), OJT (On-the-Job Training), PAC (Political Action Committee), POA (Power Of Attorney), POV (Privately Owned Vehicle, or Point Of View), PYO (Pick Your Own), RDA (Recommended Dietary (or Daily) Allowance), SNL (Saturday Night Live, television program), SOB (Son Of a B***), SOP (Standard Operating Procedure), SOS (Save Our Ship), SSN (Social Security Number), SUV (Sport Utility Vehicle), TBA (To Be Announced), TED (Technology, Entertainment, Design), UFO (Unidentified Flying Object), USB (Universal Serial Bus — a bus is an electrical connection line), and VIP (Very Important Person).

**COMMON TLAS**

TLAs that might be used under special circumstances include: ADP (Automated Data Processing), ADU (Accessibility Dwelling Unit), APB (All Points Bulletin, a police call), ASL (American Sign Language), BSO (Baltimore Symphony Orchestra), CGI (Computer Generated Image), CIP (Clean In Place), CPU (Central Processing Unit), CRP (Conservation Reserve Program, for farms), CSA (Community Supported Agriculture), DAV (Disabled American Veteran), DSP (Digital Service Provider, supplies Internet service), EDP (Electronic Data Processing), ESL (English as a Second Language), ETO (European Theater of Operations, during World War II), EVA (Extra Vehicular Activity, NASA’s term for a space walk), FOB (Freight On Board), GIF (Graphics Interchange Format), GMT (Greenwich Mean Time, where Earth’s day begins), IAQ (Indoor Air Quality), IED (Improvised Explosive Device), IPO (Initial Public Offering, of stocks on the stock market), ISO (In Search Of, in personal ads), JIT (Just In Time supply and inventory control), LTE (Long Term Evolution, new cell phone technology giving improved downloading capabilities), NDA (Non-Disclosure Agreement), NFT (Non-Fungible Token, for a digital creation), NYT (New York Times), OBO (Or Best Offer), OED (Oxford English Dictionary), OFM (Oriental Fruit Moth), OSB (Oriented Strand Board, engineered wood product), PDF (Portable Document Format), PWM (Pulse Width Modulation, means of electromechanical control), RIF (Reduction In Force), RMD (Required Minimum Distribution), SPR (Strategic Petroleum Reserve), SRO (Standing Room Only), SWD (Spotted Wing Drosophila), and URL (Uniform Resource Locator).

**NEW TLAS**

The tendency for brevity while texting has spawned many new TLAs. Some of these are: BTW (By The Way), IMO (In My Opinion), LOL (Lots of Love, or Laughing Out Loud), OMG (Oh My Gosh), PDA (Public Display of Affection), TFIH (To Be Honest), and TMI (Too Much Information). The three-letter extension domain names for web addresses, such as .com, .edu, and .org are not really TLAs; they are more often arbitrary abbreviations that may or may not be based on organizational names.

**SPORTS TLAS**

In sports, many TLAs are used: EPL (English Premier League, football), ERA (Earned Run Average for pitchers, or Equal Rights Amendment — U.S. Constitution), MMA (Mixed Martial Arts), MLS (Major League Soccer — USA), MVP (Most Valuable Player), NBA (National Basketball Association), NFL (National Football League), NHL (National Hockey League), NIL (Name, Image, and Likeness for college athletes’ business opportunities), OTC (Organized Team Activities, football), OTB (Off Track Betting), PGA (Professional Golfers’ Association), WWE (World Wrestling Entertainment). The three-letter “LIV” in golf is an interesting one; it is not a TLA. Instead, LIV golf is a Saudi Arabian-sponsored professional golf tour, and according to the Internet, the name refers to the Roman numerals for 54, the score if every hole on a standard LIV event par-72 course were birdied.

**GOVERNMENTAL TLAS**

Many government offices and agencies are known best by their TLAs, including, but not limited to BLM (Bureau of Land Management), CDC (Centers for Disease Control), CIA (Central Intelligence Agency), CPS (Child Protective Services), DMV (Department of Motor Vehicles), DOE (Department of Labor), EEC (European Economic Community), EPA (Environmental Protection Agency), FAO (Food and Agriculture Organization of the United Nations), FBI (Federal Bureau of Investigation), FDA (Food and Drug Administration), FWS (U.S. Fish and Wildlife Service), GAO (Government Accountability Office), HOA (Home Owners Association), HUD (Housing and Urban Development), ICC (International Criminal Court), ILO (International Labor Organization), IMF (International Monetary Fund), IOM (Institute of Medicine), ISA (International Seabed Authority), MTA (Mass Transit Authority or Metropolitan Transit Authority), NAE (National Academy of Engineering), NAM (National Association of Manufacturers), NAS (National Academy of Science), NGO (Non-Governmental Organization), NOP (National Organic Program), OPD (Office of the Public Defender), PSC (Public Service Commission), TSA (Transportation Safety Authority), and WHO (World Health Organization).

Laws and governmental programs often go by their TLAs as a means to avoid having to articulate, or even remember, their full names. ACA (Affordable Care Act, also known as “Obamacare”), ADA (Americans with Disabilities Act), CPI (Consumer Price Index), DEI (Diversity, Equity, and Inclusion), EEO (Equal Employment Opportunity, or the related EO, Equal Opportunity Employer), GDP (Gross Domestic Product), and its counterpart, GNP (Gross National Product), GPS (Global Positioning Satellite), KGB (Komitet Gosudarstvennoy Bezopasnosti, the security agency for the Union of Soviet Socialist Republics), MOU (Memorandum of Understanding), MPA (Marine Protected Area), PSA (Public Service Announcement), RFS (Renewable Fuel Standard), SDI (Strategic Defense Initiative), SSA (Social Security Administration), TVA (Tennessee Valley Authority), VAT (Value Added Tax), WIC (Women, Infants, and Children supplemental nutrition program) and WPA (Works Progress Administration, New Deal program) are among these.
Acid Alpha-Glycosidase, or GAA, is an interesting one, because it is also referred to as “acid”). The acronym LSD (Lysergic Acid Diethylamide, or “moss fet,” just like it is spelled. The meaning of a TLA may depend on the reader or listener is expected to know what they mean without a definition. The exact meaning of a TLA may depend on the audience to which the TLA use is directed. The meaning of TLC is Tender Loving Care in everyday use, but TLC is directed. The meaning of TLC is Tender Loving Care in everyday use, but TLC is directed. The meaning of TLC is Tender Loving Care in everyday use, but TLC is directed. The meaning of TLC is Tender Loving Care in everyday use, but TLC is directed. The meaning of TLC is Tender Loving Care in everyday use, but TLC is directed. The meaning of TLC is Tender Loving Care in everyday use, but TLC is directed. The meaning of TLC is Tender Loving Care in everyday use, but TLC is directed. 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respiratory care context. In fact, one website lists 214 definitions of the acronym AMC. Obviously, the speaker (or writer), and the listener (or reader) must have synchronized interests in order to know which meaning is understandable.

Airport designations are given by three-letter codes, but are not truly TLAs: DFW (Dallas Fort Worth), LGA (LaGuardia airport), ORD (O’Hare airport, standing for OrchaRD field, referring to the use of the property prior to building the airport), and SEA (Sea Tac Airport, serving Seattle & Tacoma, Washington State).

Whereas most TLAs are spoken as the three letters that they comprise, some TLAs are given nicknames and pronounced as their own words, such as BBC (British Broadcasting Corporation), sometimes called “the beeb,” FRC (Federal Regulatory Commission), pronounced “ferk,” GUI (Graphic User Interface), pronounced “gooey,” RAM (Random Access Memory), said as “ram,” and ROM (Read Only Memory), articulated as “rom.” Previously mentioned TLAs, FET, and PFAs are pronounced “fet” and “pee-fas.” Notice that, in each of these cases, the spoken nickname requires less effort to articulate than saying the actual acronym, and certainly less effort than saying the words for which the acronym stands for.

AKA (Also Known As, for an alias, nickname, or other moniker) is an acronym that doesn’t seem quite right, with a “K” in the place of a word that begins with an “n” sound. Similarly, the American Psychological Association (APA) has a “P” in place of a word starting with an “s” sound. On the other hand, IOU (I Owe You), is almost the opposite, with a “u” included to reflect the sound of the word “you,” rather than a “y,” which might typically be expected to be included. The more familiar TLA of UFO (Unidentified Flying Object) has been replaced by NASA with the acronym UAP (Unidentified Anomalous Phenomenon), with a “P” in place of an “F” sound. The above are just a few examples of the many TLAs that have peppered our language in recent years. The list is really so much longer, and most people could add at least a few without too much thought.

The common practice of cell phone texting has led to the proliferation of TLAs for repetitively used phrases. We have gotten so used to using three-letter acronyms that they slip off our tongues (or the tips of our fingers, in the case of texting) without thinking about whether or not others understand what we are talking about. Authors and speakers must be sure to define whatever TLAs they use in their writings or conversations to be sure that their audiences understand what is being introduced. TLAs are so common that it would be easy to forget that all listeners or readers may not have previously encountered some of them. Contrarily, it is likely that some other people may be more familiar with some TLAs that are commonly used among their peers. Perhaps there will come a time when all of our speech will consist of AMWs (Abbreviated Meaningful Words).

ARTHUR T. JOHNSON served as an officer in the U.S. Army and in Vietnam at the rank of captain. He was awarded the Army Commendation Medal and Bronze Star Medal. Arthur earned B.S., M.S., and Ph.D. degrees in agricultural engineering from Cornell University. He joined the Univ. of Maryland faculty in 1975, and became Professor Emeritus of bioengineering in 2009. He was co-chairman of the founding committee for the American Institute for Medical and Biological Engineering (AIMBE), served as its Executive Director (2004), and president of the Alliance for Engineering in Medicine and Biology (1984–88). He is a Founding Fellow of AIMBE, Fellow of the American Society for Engineering Education, and Fellow of the Institute for Electrical and Electronics Engineers. He has written three books on biomechanics, transport processes, and biology for engineers and holds six patents related to respiratory mechanics and measurement.