

Study of Acronyms and Initialisms on Dental Texts

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Abstract

This paper tends to work on some dental texts to study on acronyms and initialisms. It also finds out how their orthographic styles are and how they are transferred into the translated texts in Persian. It is also concluded that acronyms and initialisms utilization is an appropriate technique to simplify the sentences for the readers. Moreover, if these acronyms and initialisms have adequate equivalence in target language, it is advisable to translate them to clarify the sentences for the readers.

Keywords: Dental texts, Acronyms, Initialisms.

Introduction:

An acronym is a word formed from the initial letter of other words. It is derived from combination of the Greek words akros, meaning top, and onyma, meaning name. Although the word “acronym” is commonly used to refer to any phrase abbreviated by the use of initial letters of each word or syllable, the specific definition is for those initial – letter abbreviations that can be pronounced as words. Some common example include NATO (North Atlantic treaty Organization), JAMA (Journal of the American Medical Association), AWOL (absent Without Leave), and AIDS (Acquired Immunodeficiency Syndrome).

An acronym is defined by Bauer (1983:237) as “a word coined by taking the initial letter of the words in a title or phrase and using them as a new word, for example strategic Arms limitation Talks gives SALT. However, not every abbreviation counts as an acronym: to be an acronym the new word must not be pronounced as a series of letters, but as a word.”

According to Merriam – Webster’s collegiate dictionary, an acronym is: a word (such as NATO, radar, or snafu) formed from the initial letter or letters of each of the successive parts or major parts of a compound term.

For example, take the first letter of each word in North Atlantic Treaty organization and we get the acronym NATO.

Since acronyms are called words, their meanings are called definitions. The acronym NATO has the definition North Atlantic Treaty Organization. Not all acronyms form pronounceable words. SVP is an acronym that is not pronounceable, instead each letter is spoken. Some acronyms are formed from the first few letters of a word, instead of just the first letter. For

example, the acronym MILCON has the definition Military Construction. The first three letters of each word are used to form the acronym instead of just the first letter.

There is also a class of acronyms called initialisms. Initialisms are acronyms formed by the initial letters of each word. For example, IBM is initialism for International Business Machines. All initialisms are acronyms, but not all acronyms are initialisms. Initialism is a group of initial letters used as an abbreviation for a name or expression, each letter or part being pronounced separately. Some other examples of initialism include UN (United Nations), TWA (Trans World Airlines), and FDA (Food and Drug Administration).

It is common for acronyms to be cited in a kind of false etymology called a folk etymology for a word. Such etymology called a folk etymology for a WORD. Such etymologies persist in popular culture but have no scholarly basis in legends. For example, cop is commonly cited as being supposedly derived from “constable on patrol”, posh from “port out, starboard home,” and golf from “gentlemen only, ladies forbidden.”

Acronyms and initialisms add color, fun and interest to our language, and thereby they act as mnemonics or memory devices. Many technical and process – related acronyms and abbreviations greatly assist in memory retention and learning. Many acronyms and initialisms when used properly can certainly enhance communications, because they act as “short – hand” and therefore increase the efficiency of communications; in other words, more meaning is conveyed in less time and fewer words. Many old acronyms provide fascinating examples of the development of language and changing cultural attitudes. When using acronyms and initialisms for serious and intentionally open communications ensure that definitions and meaning are understood or explained, or the acronym defeats its own purpose. It’s advisable that if using acronyms in report and other important communications, such as instructions, manuals, procedures and training materials, you should include a glossary of acronyms and abbreviations, which hopefully enables the audience to understand the meanings involved. Some of the acronyms are region – specific that the US has numerous acronyms relating to gun – related incidents and injuries. The acronyms are directed variously at patients, other medical staff or mystifying medical conditions.

Acronyms and initialisms are used very frequently in medicine. They boost efficiency as long as they are used intelligently. The advantage of brevity should be weighed against the possibilities of crypticness (making the communication harder for others to understand) and ambiguity (having more than one possible interpretation). In other words, a smart communicator uses good shortcuts, but makes sure that other people will understand what means. Certain medical abbreviations should be avoided to prevent mistakes. SJ (Stanley Jablonski, 1993) believes that acronyms and initialisms are essential in medicine for economy of space and for convenience. Official abbreviations like Kg and Hz (for hertz) are unequivocal. The larger group of acronyms, however, may have several meanings. AP may stand for alkaline or acid phosphatase, action potential, angina pectoris, as well as several other things. Also, ALS stands for amyotrophic lateral sclerosis, but it also stands for afferent loop syndrome and antilymphocyte serum. In short, paying more attention in using acronyms and initialisms in medicine is very important. This paper tends to study the uses of acronyms and initialisms in some dental texts to find out how they are used in these texts, as well as how they are faced in their translated texts in Persian.

Literature Review:

There is no universal agreement on the precise definition of the acronyms and initialisms, or on written usage. While popular in recent English, such abbreviations have historical use in English, as well as other languages. Acronyms are a significant and the most dynamic area of the lexicon of many languages. They are universal phenomena, occurring in all languages

with a written form, and that their formation is governed by linguistic preferences, based on regularities at the character, phoneme, word and phrase levels, in the English language, the widespread use of acronyms and initialisms is a relatively new linguistic phenomenon, becoming increasingly evident since the mid – 20th century. As literacy rates rose, and as advances in science and concept, the practice of abbreviating terms became increasingly convenient. The Oxford English Dictionary (OED) records the first printed use of the word initialism as occurring in 1899, but it did not come in general use until 1965, well after acronym had become common.

Around 1943, the term acronym was coined to recognize abbreviations and contractions of phrase pronounced as words, for example, the army offense of being absent without official leave was abbreviated to “A.W.O.L.” in reports, but when pronounced “awol” become an acronym.

Despite the recent emergence in English, earlier examples of acronyms in other languages exist. The early Christians in Rome used of an acronym fish in Greek is *ichthus*, which was said to stand for (Iesous CHristos THEou Uios Soter: Jesus Christ, Son of God, Savior).

Initialisms were used in Rome dating back even earlier than the Christian era. For example, the official name for the Roman Empire, and the Republic before it, was abbreviated as SPQR (Senatus Populusque Romanus).

Acronyms pronounced as words may be a 20th century phenomenon linguist David Wilton in *Word Myths: Debunking linguistic Urban Legends* states that “forming words from acronyms is a distinctly twentieth-Century phenomenon. There is only one known pre – twentieth – century word with an acronymic origin and it was in vogue for only a short time in 1886. The word is *colonideries* or *colinda*, an acronym for the colonial and Indian Exposition held in London in that year. While such historic initial – letter abbreviations are recorded, it is impossible to know whether readers of the day pronounced them as acronyms or as initialisms or, on seeing the letters, actually spoke the full phrase. Use of acronyms and initialism increased over time particularly during and after World War II. McCully and Holmes (1988) investigated the segmental and suprasegmental structure of acronyms in English. Their investigation considered existing English acronyms and their present – day pronunciation rather than infrequent or novel acronyms. They view acronym formation as one of word – creation, cf. word – formation due to compounding, assimilations from foreign languages etc.. This means that for an acronym to be read as a word it has to fulfill the phonological rules governing the creative process of word – creation.

In the present day, the use of acronyms and initialisms abounds in The English Language throughout all aspects of both written and verbal communications. On any given day, acronyms and initialisms will be encountered in news report and popular literature. The use of acronyms and initialisms has speeded into everyday conversations as well, for example, ASAP (as soon as possible), ETA (estimated time of arrival), and VW (Volkswagen). During a visit to a chat room, one may come across BRBC (be right back), LOL (laughing out loud), or TTYL (talk to you later), among others.

This increase in the use of acronyms is also the case in the health sciences. In 1970, Britton observed that “in science, new words normally emerge in response to the need for novel, precise, and economical communication” and that the acronym is a result of the “need for economy and convenience of expression usually formed from the initials of a phrase name”. It is now rather unusual when a medical condition or procedure does not come with an associated acronym or initialism, for example, MRI (magnetic resonance imaging), ALS (amyotrophic lateral sclerosis), COPD (chronic obstructive pulmonary disease), HRT (hormone replacement therapy), and SARS (severe acute respiratory syndrome). For some years editorials, letter to editors and articles have been published in the health science

literature lamenting the use, overuse, misuse or abuse of acronyms in medical journals, Baue mentions that in one issue of a clinical journal, fifty – two acronyms are found. Fred and Cheng go further noting that more than ninety undefined acronyms were located in one review article.

Orthographic Styling:

Punctuation: Traditionally, in English, abbreviations have been written with a full stop/period in place of the deleted part to show the ellipsis of letters, although the colon and apostrophe have also had this role. In the case of most acronyms and initialisms, each letter is an abbreviation of a separate word. Some influential style guides, such as that of the BBC, no longer require punctuation to show ellipsis. However, the New York Times' guide recommends separating each segment with a period when the letters are pronounced as a word, as in NATO. When a multiple – letter abbreviation is formed from a single word, periods are generally proscribed, although they may be common in informal, personal usage. TV, for example, may stand for a single word and is generally spelled without punctuation (except in the plural).

Plural and possessives: The traditional style of pluralizing single letters with the addition of 's was extended to some of the earliest initialisms, which tended to be written with periods to indicate the omission of letters; some writers still pluralize initialisms in this way. Some style guides continue to require such apostrophes – perhaps partly to make it clear that the lower cases is only for pluralization and would not appear in the singular form of the word, for some acronyms and abbreviations do include lowercase letters.

However, it has become common among many writers to inflect initialisms as ordinary words, using simples, without an apostrophe, for the plural. In this case, compact discs become CDs. The logic here is that the apostrophe should be restricted to possessive: for example, the CD's label (the label of the compact disc).

Multiple options arise when initialisms are spelled with periods and are pluralized: for example, compact discs may become C.D. 's, C.D's, C.D.s., or CDs. Possessive plurals that also include apostrophes for mere pluralization and periods may appear especially complex: for example, the C.D. 's 'labels (the labels of the compact discs). A particularly rich source of options arises when the plural of initialism would normally be indicated in a word other than the final word if spelled out in full. A classic example is Member of Parliament, which in plural is Members of parliament. It is possible to abbreviate this as M's p. this usage is less common than forms with "s" at the end, such as MPs.

The argument that initialisms should have no different plural form (for example, if D can stand for discs, it can also stand for discs) is generally disregarded because of the practicality in distinguishing singulars and plurals. This is not the case, however, when the abbreviation is understood to describe a plural noun already: for example, U.S. is short for United States, but not United State. In this case, the options for making a possessive form of an abbreviation that is already in its plural form without a final s may seem awkward: for example, U.S. ', U.S.', U.S.'s, etc. in such instances, possessive abbreviations are often foregone in favor of simple attributive usage (for example, the U.S. economy) or expanding the abbreviation to its full form and then making the possessive (for example, the United States' economy). On the other hand, in colloquial speech the pronunciation United State's is sometimes used.

Abbreviations that come from single, rather than multiple, words such as TV(television) are pluralized both with and without apostrophes, depending on the logic followed: the apostrophe shows the omission of letters and makes them clear as only a pluralizer (TV's), or that the apostrophe should be reserved for the possessive (TVs).

Acronyms that are now always rendered in the lower case are pluralized as regular English nouns: for example, lasers.

Orthographic Styling of Acronyms in Medical Texts:

Periods (stops): Periods (stops) are often used in styling abbreviations. Common practice in medicine today is often not to use them as unnecessary.

Example: less common: The diagnosis was C.O.P.D.
More common: The diagnosis was COPD.

COPD (Chronic Obstructive Pulmonary Disease)

Plurals: The common way to represent plurals for medical acronyms is simply to affix a lowercase s (no apostrophe).

Example: one OCP, two OCPs (oral contraceptive pills).

Possessives: Possessive forms are not often needed, but can be formed using apostrophe + s. often the writer can also recast the sentence to avoid it.

Example: -BP's effect on risk of MI is multifaceted.
-The effect of BP on MI risk is multifaceted.

In short, In Medical texts, Periods are omitted from acronyms and initialisms. It uses periods for certain abbreviations that traditionally often have them (mostly older Latin/Neo – Latin. It generally uses the singular form of an abbreviation (not the plural) as the headword.

Now this paper tends to work on some dental texts to study on acronyms and initialisms and finds out their orthographic styles and how they are transferred into the translated texts in Persian.

Discussion:

This paper studies on a dental book named Restorative Dental Materials, 11th ed. C2002 by Robert George Graig and John M. Powers (2002), which is translated by Dr. Mehrdad Berktin and Dr. Atiyeh Feiz in 1382. Here, chapter 3 of this book is covered in this paper.

In chapter 3, there are some paragraphs that contain acronyms.

1- "Light having short wavelengths (+00 nm) is violet in color, and light having long wavelengths (700 nm) is red."

"نوری که دارای طول موجهای کوتاه (400 nm) باشد به رنگ بنفش و نور با طول موج های بلند (700 nm) به رنگ قرمز است."

(nm) is an acronym that it is not translated in this paragraph. It is just transferred into Persian. Besides, it doesn't have any periods (stops) between the letters.

In the next page:

2- "Curves of spectral reflectance versus wavelength can be obtained over the visible range (+05 to 700 nm) with a recording spectrophotometer and integrating sphere."

"منحنی های بازتاب طیفی برحسب طول موج را می توان در گستره نور مرئی (405 تا 700 نانومتر) توسط طیف نور سنج مثبت کننده به دست آورد."

As it is shown above, (nm) in previous paragraphs was not translated; however, it is translated into Persian in this paragraph. (nm) → نانومتر

3- "Typical curves for a resin composite before and after 300 hours of accelerated aging in a weathering chamber are shown in Fig. 3-1."

"در شکل 3-1 منحنی های نمونه برای کامپوزیت رزین قبل و بعد از 300 ساعت در یک محفظه هوا نشان داده شده است."

Here Fig. is translated. Also it doesn't have any period between the letters.

4- "Typically, the tristimulus values are computed relative to the Commission Internationale del'Eclairage (CIE) source"

"مقادیر سه تحریکه نسبت به منبع لامپ نئون از کمیسیون بین المللی اکی ریج (C.I.E.) محاسبه شده است....."

(CIE) is an official acronym which is translated word by word in Persian. It doesn't have any period in English text; however, periods are used between its letters in Persian text.

5- "A diagram of the CIE L*a*b* color space is shown in Fig.3-3."

"نمودار فضای رنگی C.I.E L*a*b* در شکل 3-3 نشان داده شده است."

L*a*b* are initials that are used as symbols here, they do not have a real meaning. A point here is that C.I.E. is not translated here; it is just transferred with periods between the letters. The logic here is that the translator once translated it so s/he considered the readers know its meaning; therefore, it doesn't need to translate it word by word again.

6- "For each of the 10 color families (red, R; yellow – red, YR; yellow, Y; green – yellow, GY; green, G; blue – green, BG; blue, B; purple – blue, PB; purple, P; red – purple, RP).

"برای هر عضو خانواده ده رنگی (قرمز، R، زرد - قرمز، YR، زرد، Y، سبز - زرد، GY، سبز، G، آبی - سبز، BG، آبی، B، بنفش - آبی، PB، بنفش، P، بنفش - بنفش، RP).

سبز، BG، آبی، B، ارغوانی - آبی، PB، ارغوانی، P،
 قرمز - ارغوانی، RP، اندازه گیری می شود."

Here, there are the initials which are mentioned to show the colors. The first letter of each color is its initial. And the colors are translated into Persian and the initials are just transferred and written in Persian. Some initials contain two colors but they don't have any periods to separate them from each other.

7- "The light reflectivity, RI, is the light reflectance of a material of infinite thickness, and is defined as follows:"

"انعکاس نور، RI، بازتاب نور یک ماده بسیار ضخیم
 است و بصورت زیر تعریف می شود."

RI is defined as light reflectivity. It is translated in Persian word by word. It doesn't have any periods (stops).

8- "Differential thermal analysis (DTA) has been used to study waxes used in the compounding of dental waxes."

"روش تحلیل حرارتی افتراقی (DTA) برای بررسی موم
 های مورد استفاده در ترکیب موم دندانی به کار
 رفته است."

DTA is translated word by word. There initials come with their definitions in English and they are translated word by word in Persian. It doesn't have any period.

9- "Thermo mechanical analysis (TMA) of the carnauba - paraffin wax mixture is also shown in Fig.3-9."

"تحلیل مکانیکی حرارتی (TMA) مخلوطی از موم پارافین
 و کارنابانیز در شکل 3-9 مشاهده می شود."

It is defined and translated in Persian. It doesn't any periods between the letters.

10- "Dynamic mechanical analysis (DMA) of a dimethacrylate copolymer is shown in Fig.3-10. a thin film of the copolymer was subjected to a sinusoidal tensile strain at a frequency of Π Hz."

"تحلیل مکانیکی حرکتی (DMA) یک کوپلیمر دی
 متاکریلات در شکل 3-10 نشان داده شده است. یک لایه
 نازک از کوپلیمر تست استرین کششی سینوسی با فرکانس
 Π هرتز قرار گرفت."

DMA is defined in English and translated word by word in Persian. It doesn't have any period between the letters. However, Hz is not defined in English. In Persian, it is translated as there is an equivalent in Persian for this initialism.

11- "The units are cal/sec/cm²/(oc/cm)."

"واحد هدایت حرارتی، کالری بر ثانیه بر سانتیمتر مربع بر درجه سانتیگراد است."

All these acronyms and initialisms (cal, sec, cm², oc, cm) have equivalence in Persian so all of them are translated.

12- "A less common practice is to report the change in parts per million (ppm) and the previous number would be expressed as 22 pp."

شیوه دیگری که البته عمومیت کمتری دارد آن است که تغییرات بر حسب قسمت بر میلیون (parts per million) یا ppm نمایش داده می شود، بنابراین عدد مذکور معادل 22 پی پی ام خواهد بود.

Ppm is defined and explained in English. It is translated word by word in Persian also. However, it came with its definition in English and its translation in Persian, all together in Persian text. It is written for the second time in the next sentence. This time, it is not translated; however, it is transcribed in Persian.

13- "Although most patients feel pain at a value between 20 and 50 Mamp, some may feel pain at 10 Mamp."

"اغلب بیماران وقتی مقدار جریان ما بین 20 تا 50 میکرو آمپر است احساس ناراحتی و درد دارند در حالیکه بعضی از افراد احتمالاً در 10 میکرو آمپر احساس درد می کنند."

Mamp is not defined in English. Maybe, because it is a kind of measurement and it is known for the readers. However, it is translated in Persian as it has the equivalence in Persian.

14- "The tendency of plastic denture bas a materials to have a high degree of water sorption is the reason this quality was include in American National Standards Institute/ American Dental Association (ANSI/ADA) specification NO.12 for this type of material."

"از آنجا که مواد پلاستیکی بیس دندان مصنوعی تمایل شدیدی بر جذب آب دارد، در دستورالعمل شماره 12 انجمن

دندانی آمریکا (ADA)، خاصیت مذکور برای این گونه مواد مورد بررسی قرار گرفته است."

ADA/ANSI, both is defined in English. It is completely explained. In Persian text, Just ADA is translated word by word and the translators missed the ANSI in their translation. Maybe, it didn't need to be rendered. Also, No. is an initialism which is rendered in Persian. They both don't have any periods between the letters.

Conclusions:

In sum, periods are omitted from acronyms and initialisms in this dental text. It generally uses the singular form of an abbreviation, not the plural form. It is also concluded that the logic of using acronyms and initialisms is to prevent repetitions of full definitions of the words. Besides, utilizing acronyms and initialisms is an appropriate technique to simplify the sentences for the readers. They make the sentences short and they prevent the readers from being confused of short sentences.

If these acronyms and initialisms have adequate equivalence in target language, it is advisable to translate them to clarify them to the readers and to simplify the text.

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