

Definitions of some sensitive medical words in dictionaries of English

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Abstract

The present article examines the definitions of six medical words (*warfarin*, *thalidomide*, *lobotomy*, *gastroscope*, *cystoscope*, *paroxysm*) in dictionaries of English. The entries in twenty-one non-specialist dictionaries were analysed and compared with corresponding passages in eleven medical dictionaries. The formulation of the definitions turned out to vary quite considerably from one volume to another. The variation may in some instances stem from the difficulty of deciding what is linguistic information, what encyclopedic, but the sensitive aspects of the six words are likely to be another contributory factor. The presentation of the medical terms would in many instances benefit from further refinement. The need for cooperation between lexicographers and medical experts is evident. Consultation of medical dictionaries may also be helpful and suggest certain items of information for inclusion in non-specialist works as well.

1. Introduction

Writing definitions that are illuminating to the intended users of a dictionary is among the major tasks facing lexicographers. Terms from different special and technical areas often prove something of a challenge when it comes to explaining their meaning to a lay audience. The amount of detail to be included in the explanation, for example, may be difficult to decide especially in the case of subject fields that rely heavily on taxonomy. Biology, as observed by Svensén (2009: 220), is one such area. In a general-purpose dictionary, it is usually impossible to provide a complete list of the features that distinguish a particular species from all the related ones. Instead, a superordinate concept is given, plus one or two distinctive characteristics, as in Svensén's example '**longhorn** *n.* a beetle with very long antennae' (ibid.).

There are further complexities surrounding the defining of technical terms. An exhaustive, academically accurate definition runs the risk of containing words that are less familiar to laypersons than the headword. Quirk (1982: 77) cites the entry for **anus** in the sixth edition of the *Concise Oxford Dictionary* as an example: '**anus** terminal excretory opening of alimentary canal'. He makes the pertinent comment that '[t]he reader who understands the words in definitions like these is unlikely to be ignorant of the words they define'. In general-purpose dictionaries, a certain degree of adaptation is therefore necessary when explaining technical terms to the user. Svensén (2009: 244) distinguishes two types of adaptation. On the concept level, the number of distinctive features is reduced—as in the *longhorn* example above—and on the term level, unfamiliar words are replaced by commoner ones. Learner's dictionaries occasionally attach a gloss to the more difficult words in their definitions (Béjoint 2010: 325). The process of simplification must not, however, be overdone. Landau (2001: 189) provides an example of the potentially infelicitous results in his discussion of the entry for **frog test** in *Butterworths Medical Dictionary*: '**frog test** a test used to indicate pregnancy, in which a frog is used'. For a reader who is not a specialist in medicine, it is, indeed, difficult to see what role exactly a frog might play in determining pregnancy.

A particular technical term may also occur in everyday language, but in a wider or narrower meaning. When that happens, a lexicographer should recognize both usages, although explaining the difference between the two may be a demanding enterprise. Rey and Delesalle (1979: 24) instance the word *étoile* 'star', which to an astronomer includes the sun. Referring

to their discussion of the matter, Béjoint (1988: 365) states that in common parlance, contrary to astronomical contexts, the sentence *You can't see the stars because of the sun* would be 'perfectly coherent', whereas *The star is the sun* would be 'unacceptable'.

As scientists progress in their study of particular phenomena, the meanings of the relevant terms are liable to change. Sometimes a term may be abandoned altogether owing to its unsuitability in the new circumstances. Commenting on developments of that nature, Béjoint (1988: 358) observes that 'whether the words disappear or change, their meanings and their uses seem more or less clearly to be "in the hands" of the specialists of the domain'. What follows from this is that 'terminological entries in dictionaries and termbanks should constantly be checked and updated, so as to maintain standards of current validity for the stored terminologies' (Picht and Draskau 1985: 57). In the drafting and revision of such definitions, a lexicographer would typically consult an expert in the special field. Landau (1974: 242) draws a distinction between what he calls 'extracted' meanings, obtained through an examination of citations, and 'imposed' meanings, based on expert advice. The latter type often needs to be rewritten, at least to a certain extent, in order to be understandable to the average user (Béjoint 1988: 363). Furthermore, even imposed meanings may benefit from the study of citations illustrating usage. Landau (2001: 33) states that '[w]hen a dozen or so terms are used to describe exactly the same concept—a common circumstance in medicine—usage is the most important criterion for determining what the preferred term should be'.

Manuila and Manuila (1981: 110–112) comment on four departures from generally accepted lexicographic practice that tend to occur in definitions written by specialists in different branches of medicine. Firstly, a textbook type of description of a medical condition, for example, is in fact not the same thing as a definition. Secondly, all the meanings of the term in the special field should be given and the dictionary should not restrict itself to one point of view in cases where there are different schools of thought. Thirdly, self-explanatory phrases such as *fracture of the tibia* should not appear as headwords in their own right. Fourthly, in medicine a synonym is a word that can be substituted for another without any change of meaning; thus, related terms with different meanings cannot be regarded as synonyms.

The present article examines the definitions of six medical words (*warfarin*, *thalidomide*, *lobotomy*, *gastroscope*, *cystoscope*, *paroxysm*) in dictionaries of English. The referents of these terms evoke negative associations or reactions in many doctors and patients. A lexicographer may find it difficult to decide whether those negative responses or the reasons for them should be mentioned in the dictionary entry. Many medical words can be said to involve such complexities, and the selection of the six words for closer scrutiny therefore calls for comment. Why just these six? Two of the words studied, *lobotomy* and *thalidomide*, denote forms of treatment or medication that are notorious for the tragedies that they caused. The general public is less aware of the new applications of thalidomide and better-developed versions of operations that could be characterized as lobotomies. It will be of interest to see the extent to which the past overshadows the present in the relevant dictionary entries. *Warfarin* is commonly used as an anticoagulant, but many patients dislike the idea of taking a medicine that was originally derived from rat poison. Such feelings, exacerbated by frequent difficulties in finding a suitable dosage, have been recognized by the medical profession. Dr John Mandrola calls warfarin a 'much-maligned blood thinner' and states that '[f]ew pharmacologic agents receive more bad press than warfarin' (<http://www.drjohnm.org/2010/06/warfarin-as-life-saver/>). The headline 'No more rat poison: New stroke drug is better than warfarin' in *The Daily Mail* (Hope 2011) is indicative of much of the popular response to the anticoagulant. *Gastroscope* and *cystoscope* are examples of words connected to medical examinations that patients often worry about before the procedure takes place. It has been observed that 'patients bring a variety of highly personal concerns and anxieties with them to their endoscopy' (Brandt 2001: 283), and there is vast literature on evaluating and allaying such worries and fears (e.g. Jones et al. 2004,

Kutlutürkan et al. 2010, Yeo et al. 2013, Previti et al. 2016). The sixth word, *paroxysm*, signifies a sudden onset or attack of a disease. The analysis of the definitions focusses on their inclusion or exclusion of the word *attack*, a prime example of a word that should be avoided in medical texts according to scholars writing about medical discourse.

Jackson and Zé Amvela (2000: 150–151) note that ‘[s]ome occupational jargons begin to filter into the core vocabulary, because the professional areas concerned impinge more extensively on the lives of lay people and are mediated by newspapers and other journalism’. The authors cite medical jargon and financial jargon as examples. Of the six medical terms examined, *lobotomy* and *thalidomide*, surrounded by an aura of scandal, are probably fairly well known among non-specialists, whereas the four other words are likely to be less familiar to them.

2. Notes on the dictionaries studied

In the analysis of the definitions, the emphasis will be on non-medical dictionaries. The selection of works examined comprises twelve British and nine American dictionaries, which are listed in Table One together with their abbreviations.

Besides varying in their geographical provenance, the twenty-one dictionaries also differ as regards their target audience. Most of them can be described as being general-purpose dictionaries, which aim to provide a comprehensive inventory and description of the vocabulary of the particular language, thus satisfying ‘various reference needs of the user, or many diverse needs of different user groups’ (Hartmann and James 1998 s.v. **general dictionary**). In the British group, three of the dictionaries (CALD, MEDAL, OALD) were compiled primarily for the foreign student of English and thus concentrate on the more basic vocabulary. The set of American volumes includes three college or collegiate dictionaries (AHCD, MWCD, WNWCD). As Kipfer (2013: 392) explains, the latter type of work is ‘an intermediate-size, single-volume dictionary intended for use by students or at an office desk and containing information similar to an abridged general dictionary’. Landau (2001: 90), too, observes that the audience for college dictionaries ‘extends far beyond college students, although they remain the core market’.

Table 1. The Non-Medical Dictionaries Studied

In the search for information about medical matters, a number of specialist dictionaries were consulted. It also proved illuminating to compare the definitions given therein with those found in general-purpose, learner’s, and collegiate dictionaries. Again, both British and American works were included in the selection, and these are listed in Table Two. The abbreviations for the medical dictionaries are throughout printed in italics to distinguish them from those used for the non-medical volumes.

Table 2. The Medical Dictionaries Studied

The six words under scrutiny were looked up in the latest editions, whether printed or electronic, of the thirty-two dictionaries mentioned.

3. Analysis of the Definitions

3.1. Warfarin

The drug known as *warfarin* belongs to coumarins, plant-based compounds found in for example red clover and sweet clover. In the early 1920s, some American and Canadian veterinarians noticed that cattle ingesting sweet clover hay which had not been dried properly tended to develop haemorrhagic illnesses and eventually bleed to death. The substance that caused the bleeding was isolated by Professor Paul Link and his research team at the University of Wisconsin in the 1930s and named *dicoumarol*. After successful testing in humans, dicoumarol was marketed in 1942 as an oral anticoagulant used to prevent and treat thrombosis (Ravina 2011: 146–147). Subsequently, several new coumarin derivatives were synthesized in Link's laboratory, among them warfarin, so called after Wisconsin Alumni Research Foundation (WARF). Warfarin 'soon gained popularity as an excellent rat poison' (ibid., 148), causing the rodent to bleed to death. Like dicoumarol, warfarin also started to be used as an anticoagulant in human patients.

It is perhaps understandable that the history of the medicine makes many patients taking warfarin feel a degree of uneasiness or worry. Doctors have addressed such concerns in information leaflets and on Internet sites such as 'Ask Dr. Louise' (www.askdrlooise.com), where one of the questions answered by Dr Louise Achey is 'I'm on warfarin. Is it true that I'm taking *RAT POISON*?'. Lexicographers, no doubt, are aware of patients consulting their works to learn the meanings of specific words relating to their treatment. In the drafting of the definitions, factual accuracy is essential, but creating unfounded panic should be avoided. With some medical terms, that may be a challenging task.

Each of the twenty-one non-specialist dictionaries examined, except for one, state that warfarin is used as both a rodenticide and an anticoagulant drug. The description in OAD, 'a water-soluble anticoagulant used esp. as a rat poison', surely leaves out an essential aspect of meaning and would be potentially worrying for a cardiac patient consulting the work.

The majority of the definitions do not mention any difference in the chemical composition of the rat poison and the medicine. The following are typical examples of how the meaning of *warfarin* is explained to the users of general-purpose, learner's, and collegiate dictionaries, respectively:

- (1)(a) a water-soluble compound with anticoagulant properties, used as a rat poison and in the treatment of thrombosis (COED)
- (1)(b) MEDICAL a drug used as a poison to kill rats, or for treating some illnesses by making your blood thinner (MEDAL)
- (1)(c) A white crystalline compound, $C_{19}H_{16}O_4$, used as a rodenticide and as an anticoagulant (AHCD)

Eight dictionaries, four of them British and another four American, distinguish between the types of warfarin used as a rodenticide and as a medical anticoagulant, typically mentioning that warfarin appears in the form of its sodium salt in the drug. The descriptions in (2)(a)–(b) would lead the reader to think that the rodenticide and the medicine are chemically two different substances.

- (2)(a) trademark a substance that is used to kill RATS and is also used in a slightly different form as a medical treatment in order to prevent blood from CLOTTING (= becoming solid) (CALD)
- (2)(b) a colorless crystalline compound that is used as rat poison and, usually in the form of its sodium salt, medicinally as an anticoagulant (EWED)

It is possible that the intention of the above lexicographers was to provide an element of reassurance for those readers not comfortable with the idea of a rat poison being adopted into medical use. If so, their approach was radically different from that of the compilers of AHD and MWCD, where the sodium salt form of warfarin is said to be used as both rodenticide and blood medication:

- (3)(a) A white crystalline compound, $C_{19}H_{16}O_4$, that inhibits production of prothrombin and is used in the form of its sodium salt as an anticoagulant drug and rodenticide (AHD)
- (3)(b) a crystalline anticoagulant coumarin derivative $C_{19}H_{16}O_4$ used chiefly in the form of its sodium salt as a rodent poison and in medicine (MWCD)

The discrepancies between the different definitions studied are perplexing. What, one might ask, *is* the relationship between the rat poison and the blood-clotting drug? The eleven medical dictionaries consulted do not necessarily provide any elucidation in the matter. *CLM* contains no entry for the word, and the other British volumes cite the two applications of warfarin without any comment on differences in chemical composition. Of the American works, surprisingly, two (*MMD*, *WNW*) do not mention that warfarin is also used as a rat poison. The other four include the fact in their entries, and, like the British medical dictionaries, draw no chemical distinction between the substances used for the two purposes. *SMD*, for instance, has the following entry for **warfarin**:

- (4) An anticoagulant with the same actions as dicumarol [alternative spelling of *dicoumarol*]; also used as a rodenticide; also available as the potassium salt, with the same actions and uses

In the light of the following passage from Pohanish (2015: 847), those dictionaries are closer to the mark that do not suggest, either intentionally or unintentionally, that the medicine is chemically something quite different from the rodenticide:

Warfarin and its sodium salt is an anticoagulant rodenticide used for controlling rats and house mice in and around homes, animal and agricultural premises, and commercial and industrial sites. It is effective in very low dosages ... The sodium salt is also used to treat people with blood hypercoagulation problems.

The rather confusing picture that emerges from the non-medical dictionaries in particular may have its origins in the lexicographers' awareness of the chemical property of solubility and its role in the development of the drug. Of the entries for *warfarin* quoted so far, only (1)(a) comments on the solubility of the substance, calling it 'water-soluble', a word that also occurs in four other Oxford dictionaries (IOD, ODE, OED2, OAD). Those descriptions apparently contrast with the ones in (5)(a)–(b), which leads to confusion worse confounded.

- (5)(a) a crystalline insoluble optically active compound, used as rodenticide and, in the form of its sodium salt, as a medical anticoagulant. Formula: $C_{19}H_{16}O_4$ (CED)
- (5)(b) a crystalline insoluble substance ($C_{19}H_{16}O_4$) used as a rodenticide and medically (in the form of its sodium salt) as an anticoagulant (ChD)

Five general-purpose dictionaries inform the reader that warfarin is soluble, another four (CED, ChD, TED, RHD) that it is insoluble. According to Pohanish (2012: 2723), the pure form

of warfarin is ‘a colorless, odorless crystalline solid’, which is ‘[p]ractically insoluble in water’. Medication taken orally has to be soluble to enable absorption from the gastrointestinal tract, hence pure warfarin cannot be used directly for that purpose. To circumvent this problem, the pharmaceutical industry routinely manufactures insoluble substances as sodium salts, which aid the solubilization of the active pharmaceutical component. But how many readers without a degree in chemistry know that? Those who do not may well think that the adjective *insoluble* in the above citations also applies to the medical anticoagulant.

Two of the twenty-one non-specialist dictionaries studied manifest a more radical policy than the other works, presenting as they do two different definitions of *warfarin*, numbered separately. One of these, RHD, also employs field labels in its entry, possibly in an attempt to further emphasize the distinction between rat poison and medicine:

- (6)(a) *Chem.* **1.** a colorless, crystalline, water-insoluble anticoagulant, C₁₉H₁₆O₄, used chiefly as a rodenticide. **2.** *Pharm.* a preparation of this used in the management of potential or existing clotting disorders (RHD)
- (6)(b) **1** a colorless, odorless, tasteless rat poison, C₁₉H₁₆O₄, a crystalline powder that causes fatal internal bleeding in rodents **2** this drug neutralized with sodium hydroxide, used in medicine as an anticoagulant (WNWCD; the verb *neutralize* is here used in the sense ‘make (an acidic or alkaline substance) chemically neutral’, but many readers probably misinterpret it to mean ‘render ineffective’)

Dictionaries often vary in how they divide polysemous words into meanings (Stock 2008: 159, Béjoint 2010: 287, Lew 2013: 288), but in the light of the above discussion it is doubtful whether *warfarin* can in fact be said to have two different meanings. The need for field labels can also be questioned. According to Landau (2001: 226), ‘[a] label or qualifying phrase is essential when a word is used in two or more different disciplines with different meanings, or if it is used in one sense technically and in another popularly’. The usefulness of a label in such instances is also noted by Verkuyl et al. (2003: 301–302). In addition to RHD, only two other dictionaries in our selection, MEDAL and OED2, assign a field label to *warfarin*, the former opting for MEDICAL, the latter for *Pharmacol.* In both, the label appears at the very beginning of the entry, followed by a single definition. The contrast between (6)(a) and (7) points up the complexities involved in labelling, but also suggests that the compilers of RHD strove to separate the rodenticide from the drug more clearly than was seen necessary by their colleagues at OED2.

- (7) *Pharmacol.* A water-soluble crystalline anticoagulant used as a selective rodenticide, and as a prophylactic against embolism in the treatment of thrombosis; 3-(3-oxo-1-phenylbutyl)-4-hydroxycoumarin, C₁₉H₁₆O₄; (also *warfarin sodium*) the sodium salt of this (OED2)

3.2. *Thalidomide*

The sedative-hypnotic thalidomide, first synthesized in 1953, was widely marketed for the treatment of nausea in pregnant women from 1958 onwards (Dally 2001: 807). It soon transpired that the drug could have dramatic side effects for the mother and the fetus. The patient under medication was liable to peripheral neuropathy and the baby was often born with malformed limbs and damage to eyes, ears and internal organs. Owing to its potential to cause fetal malformations, thalidomide was withdrawn from general use in the early 1960s (Richardson and Gangolli 1999: 382, Kim and Scialli 2011: 1). Dally (2001: 807) states that the drug ‘created one of the most dramatic tragedies in the history of medicine’.

Although banned in the treatment of pregnant women, thalidomide has more recently been approved for treatment of leprosy, multiple myeloma (a tumour of the bone marrow), and the wasting syndrome of advanced HIV infection. It has been proposed that a number of other diseases might benefit from the anti-inflammatory properties of the drug (Kim and Scialli 2011: 4). According to Kim and Scialli (*ibid.*, 5), '[b]ecause thalidomide is useful in the treatment of serious diseases, it is likely that this product will continue to be used in therapeutics until safer alternatives become available'.

All twenty-one non-specialist dictionaries refer to the tragic consequences of thalidomide ingestion by pregnant women. Most of the definitions, like (8)(a)–(b), contain a time adverbial such as *formerly* or *once*, indicating that the drug is no longer used. Some entries, among them (8)(c)–(d), make specific mention of the 1950s or 1960s.

- (8)(a) a drug formerly used as a sedative and hypnotic but withdrawn from use when found to cause abnormalities in developing fetuses (TED)
- (8)(b) a drug that was once used to help people relax or sleep. It was found to cause damage to babies inside the WOMB, especially by stopping the development of their arms and legs, when it was taken by their mothers (CALD)
- (8)(c) a drug produced in the 1950s to help people to relax. Doctors later discovered that it caused babies to be born with arms and legs that had not developed normally (MEDAL)
- (8)(d) a drug formerly used as a sedative, but withdrawn in the UK in the early 1960s after it was found to cause congenital malformation or absence of limbs in children whose mothers took the drug during early pregnancy (ODE)

The omission of a time adverbial locating the sedative-hypnotic use of thalidomide firmly in the past may mislead the reader into thinking that the drug is still prescribed for that purpose. In (9)(a)–(b), the present perfect form of the verb phrase would further contribute to that interpretation.

- (9)(a) a synthetic sedative and hypnotic drug that has caused physical defects, including limb malformation, in fetuses when taken by women in the first three months of pregnancy (EWED)
- (9)(b) a sedative and hypnotic drug $C_{13}H_{10}N_2O_4$ that has been the cause of malformation in infants born to mothers using it during pregnancy (W3)

The specialist dictionaries studied have in general formulated their definitions of *thalidomide* with great care, but the entry in *MIM*, like the ones in EWED and W3, may suggest a continued use of the drug as a sedative-hypnotic:

- (10) A sedative and hypnotic drug, $C_{13}H_{10}N_2O_4$; produces fetal deformities of the limbs and other defects when taken by pregnant women (*MIM*)

Not all mothers who had been exposed to thalidomide gave birth to malformed babies, and malformations also occurred in babies whose mothers had not taken the drug (Warkany 1988, 217). Rightly, therefore, the definitions in the non-specialist dictionaries, including (8)(a)–(9)(b), do not usually imply or directly state any automatic cause-effect relationship between the drug and fetal malformation. The entry in RHD, however, seems too categorical. Instead of 'affects' and 'results', 'may affect' and 'may result' would have been more accurate formulations in (11). In fact, none of the general-purpose, learner's, or collegiate dictionaries have resorted to modal auxiliaries on this point.

- (11) *Pharm.* a crystalline, slightly water-soluble solid, C₁₃H₁₀N₂O₄, formerly used as a tranquilizer, sedative, or hypnotic: it was discovered that when taken during pregnancy it affects normal growth of the fetus and results in abnormally shortened limbs of the newborn (RHD)

In their quest for maximum accuracy, OALD and OED2 have respectively included the words *some* and *sometimes* in their explanations:

- (12)(a) a SEDATIVE drug which was used until the 1960s, when it was discovered that if given to pregnant women, it prevented some babies from developing normal arms and legs (OALD)
- (12)(b) A non-barbiturate sedative and hypnotic, C₁₃H₁₀N₂O₄, which was found to be teratogenic when taken early in pregnancy, sometimes causing malformation or absence of limbs in the foetus (OED2)

In corresponding passages, half of the medical dictionaries consulted use an explicit word or phrase indicating tentativeness, some examples being ‘[a] drug ... which was thought to have been responsible for up to an estimated 12–15 000 cases of embryopathy’ (*DMM*), ‘[i]ts use was halted because use during early pregnancy was often followed by the birth of infants with serious developmental ANOMALIES’ (*MKE*), ‘[a] hypnotic drug that ... may cause the birth of infants with phocomelia and other defects’ (*SMD*), and ‘it can cause a syndrome of congenital malformations in the developing fetus’ (*WNW*). Contrary to those citations, the one in (10) does not tone down the statement in any way. Here, too, ‘may produce’ would have been a better description than ‘produces’.

The most radical difference between the specialist and the non-specialist works lies in the inclusion or exclusion of the newer applications of thalidomide. Except for *MIM*, all the medical dictionaries that list the word (*CLM* does not) observe that the drug now has what *DMM* calls ‘a new generation of indications’. In the group of non-specialist dictionaries, only two mention the re-emergence of thalidomide as a medication against leprosy. Both volumes are American, one a general-purpose dictionary, the other a collegiate one:

- (13)(a) A sedative and hypnotic drug, C₁₃H₁₀N₂O₄, withdrawn from general use after it was found to cause severe birth defects when taken during pregnancy. It is currently used to treat leprosy (AHD)
- (13)(b) a drug C₁₃H₁₀N₂O₄ that was formerly used as a sedative and is now used as an immunomodulatory agent esp. in the treatment of leprosy and that is known to cause malformations of infants born to mothers using it during pregnancy (MWCD)

In AHCD, a collegiate dictionary derived from AHD, limitations of space have probably resulted in nothing being said about the present-day use thalidomide. The complete omission of such information from the British general-purpose and learner’s dictionaries may be connected to Britain, alongside Germany, being one of the countries hit hardest by the thalidomide tragedy, with hundreds of malformed babies being born when the sedative-hypnotic was commonly prescribed (Dally 2001: 807). The disaster was averted in the United States because of the hold on the drug’s approval and, when the news from Europe reached the country, the subsequent ban on its marketing (Kim and Scialli 2011: 1).

3.3. Lobotomy

The story of lobotomy is another sad chapter in the history of medicine. The basic meaning of the term *lobotomy* is ‘surgical incision into a lobe’ (e.g. *DIM*, *MIM*, and *SMD* s.v.). More often the word applies specifically to what was formerly the most common procedure in psychosurgery, that is, the cutting through of the nerve fibres of a lobe of the brain. In most operations, the areas affected were the prefrontal and frontal lobes, whose connection with the thalamus was severed. The synonymous terms *frontal* and *prefrontal lobotomy* apply to such cases (e.g. *DIM*, *MIM*, and *MKE* s.v. **lobotomy**). Prefrontal lobotomy, which involves incision of white nerve fibres, is also known as *leucotomy* or *leukotomy* (e.g. *DIM* s.vv., *MKE* s.v. **leukotomy**). The longer phrase *prefrontal leucotomy/leukotomy* also occurs in the same sense (*CLM* s.v. **lobotomy/prefrontal leucotomy**, *CMD* s.v. **leucotomy**, *MIM* s.v. **leukotomy**, *SMD* s.v. **lobotomy**).

Lobotomy as a form of treatment for mental disorders was introduced in the 1930s by the Portuguese Antonio Egaz Moniz. In 1936, Walter Freeman was the first to adopt the technique in the United States. Freeman ‘reported favorable results in patients with schizophrenia and affective disorders’ (Ponce 2014: 912). Especially after Moniz’s 1949 Nobel Prize, lobotomy gained a firm foothold in many countries. It has been estimated that between 1936 and the 1970s, approximately 50 000 operations were performed in the United States (Wood and Wood 2008: 153). The technique remained controversial owing to a high mortality rate and severe side effects, which included ‘seizures, inertia, apathy, social inappropriateness, and decreased attention’ (Ponce 2014: 912). The introduction of the drug chlorpromazine in 1954 gradually led to the abandoning of prefrontal lobotomy, which is now banned in some countries (ibid.). Bentall (2009, 16) states that ‘[t]he widespread use of the prefrontal leucotomy is now regarded as a dark episode in the history of psychiatry’.

Those who consult several medical books and dictionaries in an attempt to learn whether lobotomies are still performed are likely to become slightly perplexed. *CMD* s.v. **leucotomy** agrees with Ponce (2014) in its statement that ‘prefrontal leucotomy ... has now been abandoned’. *MKE* is less categorical in its description s.v. **lobotomy**: ‘Once fairly common as a method of controlling violent behavior, in recent decades its use has become rare’, and *MMD* concurs in its entries for **lobotomy** (‘It is seldom performed’) and **prefrontal lobotomy** (‘An archaic technique, it is rarely used today’). In *CLM*, lobotomy is described as ‘a seldom-performed procedure’. Quite a few of the medical dictionaries, among them *DIM*, *MIM*, *ODP*, and *SMD*, give no information about the currency of the procedure in modern times.

The variation in the descriptions may be due to different countries each adopting their own policies in the treatment of psychiatric patients. More likely, however, the lack of harmony is due to terminological issues and the question of what exactly counts as a lobotomy. It would appear that certain less invasive procedures than the original prefrontal lobotomy are subsumed under the terms *lobotomy* and *leucotomy* in present-day medical literature. In its entry for **leucotomy**, *CMD* observes that ‘[m]odern procedures use stereotaxy and make selective lesions in smaller areas of the brain’. The following passage from Cave (2002: 24–25) further testifies to the term *lobotomy*, at least for some authors, covering several types of operations on the brain:

Lobotomies now involve drilling two small holes in the forehead through which radioactive rods can be inserted; electrical probes or lasers can also be used to burn out tissue in selected areas. For example, a bilateral stereotactic subcaudate tractotomy cuts the pathway between the limbic system and the hypothalamus ... and is used to treat depression. Obsessive-compulsive disorder is treated by a cingulotomy, which cuts the connections between the prefrontal cortex and the limbic system ... Aggressive and violent patients can be treated with a limbic leucotomy.

Neurosurgery meant to alleviate psychiatric symptoms, known as *psychosurgery*, is not commonly practised. *DMM* s.v. **psychosurgery** states that before doctors resort to such operations, ‘it must be established that the patients are unresponsive to all other therapy and that the condition is chronic, i.e. of greater than three years’ duration’. In his article of 1994, Snaith wrote that psychosurgery was still performed in Britain, with ‘probably over 20 operations a year’ (Snaith 1994: 583).

In the light of the above discussion, it is not surprising that the entries for **lobotomy** in the twenty-one non-specialist dictionaries vary in their descriptions of the present-day currency of the operation. Of the British and the American titles alike, half omit any comment on the matter. In the group of British works, we find such entries in CED, ChD, IOD, MEDAL, OED2, and TED, the American volumes with a similar policy being AHCD, RHD, WNED, and W3. A comparison of AHD in (14)(a) with AHCD in (14)(b), as with *thalidomide*, shows how space constraints typical of printed works have led to the omission of certain types of information in the collegiate version.

- (14)(a) Surgical incision into the frontal lobe of the brain to sever one or more nerve tracts, a technique formerly used to treat certain mental disorders but now rarely performed (AHD)
- (14)(b) Surgical incision into the frontal lobe of the brain, a technique used to treat certain mental disorders (AHCD)

Half of the definitions place the practice of lobotomy in the past by using time adverbials such as *formerly*, *once*, or *in the past*. In two instances, *formerly* is modified by *especially*, which appears to be an appropriate addition:

- (15)(a) a brain operation used, *esp* formerly, in the treatment of some mental disorders, e.g. violent psychoses, in which nerve fibres in the cerebral cortex are cut in order to change behaviour (PED)
- (15)(b) surgical severance of nerve fibers connecting the frontal lobes to the thalamus performed esp. formerly for the relief of some mental disorders (MWCD)

OALD uses the adjective *rare* in its entry for the word, as seen in example (16). In view of the commonness of the operation in the past, one might have considered adding *now* in front of *rare*. The adverb phrase ‘now rarely’ in fact appears in the AHD passage in (14)(a). It is an economical formulation that expresses things neatly, yet accurately.

- (16) a rare medical operation that cuts into part of a person’s brain in order to treat mental illness (OALD)

Explaining the reasons for the decline of lobotomy would be beyond the scope of a dictionary definition, one of the traditional principles of defining being ‘Aim for maximum economy’ (Atkins and Rundell 2008: 435). The only non-specialist dictionaries that mention the adverse effects of the treatment are BED and its sister volume EWED, both of which note that ‘the operation had serious side effects’.

As noted earlier, *lobotomy* basically means ‘surgical incision into a lobe’. That meaning is given in only six of the general-purpose, learner’s, and collegiate dictionaries, five of them British (CED, ChD, IOD, OED2, TED), one American (RHD). In non-specialist contexts, indeed, the word would most often denote the brain operation in particular, a sense that can also

be expected to be prevalent in the corpora examined by lexicographers working for various publishing houses.

For some of the specialist words to be entered into a dictionary, it may be difficult to draft a definition that is scientifically accurate but not too technical for a layperson. When the target audience are learners of English, the task is complicated by the need to use fairly basic and common words in explaining what the term means. Such complications notwithstanding, the definition of *lobotomy* in MEDAL, one feels, would have benefited from further consideration and reformulation:

- (17) MEDICAL a medical operation in which part of someone's brain is removed as a way of treating serious mental illness (MEDAL)

3.4. *Gastroscope, cystoscope*

Gastrosopes and cystoscopes belong to a group of medical instruments known as *endoscopes*, which are used for examining the interior of a hollow tubular structure or body cavity. Modern gastrosopes are fully flexible tubes passed into the stomach through the mouth and esophagus. Cystoscopes are either flexible or rigid, inserted into the bladder via the urethra. Patients scheduled to undergo gastroscopy or cystoscopy often have a high pre-operative anxiety level. One of the Internet sites where doctors aim to allay such fears is GastroNet (<http://www.gastro.net.au/>), where Dr G. M. Andrew writes as follows:

Patients usually have three major concerns prior to endoscopy – the outcome of the procedure (could it be cancer?), complications of the procedure, and most importantly the question “Doctor, how much will I feel the procedure?” or “Will it hurt?” With modern sedation and careful monitoring the great majority of patients will feel comfortable during the procedure.

The learner's dictionaries CALD, MEDAL, and OALD give neither *gastroscope* nor *cystoscope*, and the same applies to the general-purpose WNED. The seventeen other non-specialist works list both terms and state that the former instrument is meant for visualizing the stomach, the latter for examining the interior of the bladder, some descriptions also including the urethra. CED and TED do not specify how a gastroscope or a cystoscope is inserted into the body, as shown by examples (18)(a)–(b). The adjectives *slender* and *tubular* in the entries for **cystoscope** do, however, give the reader a clue to the nature of the procedure. MWCD employs the word *endoscope* in its definitions, but passages such as (18)(c) are likely to send the reader from one entry to another. Ayto (1983: 90) makes the relevant comment that the genus word designating the superordinate category to which the thing defined belongs ‘must not, in a general dictionary, be so specific as to lie outside the probable competence of a general reader’.

- (18)(a) a medical instrument for examining the interior of the stomach (CED and TED s.v. **gastroscope**)
 (18)(b) a slender tubular medical instrument for examining the interior of the urethra and urinary bladder (CED and TED s.v. **cystoscope**)
 (18)(c) an endoscope for viewing the interior of the stomach (MWCD s.v. **gastroscope**)

Only two dictionaries, BED and the closely related EWED, supply their users with exact information about the channel of entry of both instruments:

- (19)(a) an instrument passed through the mouth and used to examine the stomach, consisting of a flexible tube that contains optical fibres coupled to an eyepiece and light source (BED and EWED s.v. **gastroscope**; ‘fibres’ spelt ‘fibers’ in EWED)
- (19)(b) a narrow tubular instrument that is passed through the urethra to examine the interior of the urethra and the urinary bladder (BED and EWED s.v. **cystoscope**)

Table Three indicates, for each of the seventeen publications listing the terms, the presence or absence of a mention of the manner of insertion of a gastroscope or cystoscope. What is noteworthy is that as many as twelve dictionaries give that information for one of the words, but not for the other. In the British group, there is one work that is more detailed in its description of **gastroscope** in this respect (OED2), whereas five provide a fuller account of **cystoscope**. In the American selection, the figures are reversed, with five dictionaries manifesting a more detailed treatment of **gastroscope**. Examples (20)(a)–(d) illustrate how the definitions for words describing similar objects may vary rather unaccountably within one and the same dictionary when it comes to the inclusion or exclusion of particular items of information.

- (20)(a) an instrument for looking at the interior of the stomach (PED s.v. **gastroscope**)
- (20)(b) an instrument that is passed through the URETHRA (tube that discharges urine from the bladder) for the visual examination of the bladder and the introduction of instruments into the bladder under visual control (PED s.v. **cystoscope**)
- (20)(c) a fiber-optic endoscope inserted through the mouth for visually inspecting the inside of the stomach (WNWCD s.v. **gastroscope**)
- (20)(d) an instrument for visually examining the interior of the urinary bladder (WNWCD s.v. **cystoscope**)

The causes of the discrepancies between the entries in a particular volume can only be conjectured. It is possible that the definitions for **gastroscope** and **cystoscope** were written by two lexicographers differing in the inclusiveness of their definitions. The difficulty of drawing a line between linguistic and encyclopedic features may be a further explanatory factor (cf. Ayto 1983: 94–95, Mackenzie and Mel’čuk 1988). It may be questioned whether the way in which the instrument is applied in fact contributes to the linguistic differentiation of types of endoscope. That information may by some lexicographers be considered encyclopedic and therefore excluded. From the reader’s perspective, however, definitions like ‘an instrument for looking at the interior of the stomach’ in (20)(a) are likely to prompt the further question of how the ‘looking’ in fact takes place. It is difficult to say whether the omission of specifics has something to do with the supposed unpleasantness of the procedure. Some lexicographers may have been influenced by such considerations when drafting their definitions.

Of the eleven medical dictionaries, only two (*ODP*, *WNW*) state the manner of insertion s.v. **gastroscope**, the corresponding figure for **cystoscope** being five (*CMD*, *ODP*, *MKE*, *TCM*, *WNW*). The information may have been considered self-evident, possibly rendered unnecessary by the word *endoscope*, which appears in as many as nine of the entries. Some examples of policies of inclusion and exclusion are given in (21)(a)–(d).

- (21)(a) An instrument for viewing the interior of the stomach (*MIM* s.v. **gastroscope**)
- (21)(b) A flexible, lighted instrument that is put through the mouth and esophagus to view the stomach (*WNW* s.v. **gastroscope**)
- (21)(c) an endoscope used to visualize the inside of the urinary bladder (*CLM* s.v. **cystoscope**)

- (21)(d) An instrument for interior examination of bladder and ureter. It is introduced through the urethra into the bladder (*TCM* s.v. **cystoscope**)

Table 3. Mention of manner of insertion for *gastroscope* and *cystoscope*

3.5. *Paroxysm*

The longest and most detailed definition of *paroxysm* in the non-specialist dictionaries occurs in OED, where the word, labelled *Med.*, is stated to mean ‘[a]n episode of increased acuteness or severity of a disease, *esp.* one recurring periodically in the course of the disease; a sudden recurrence or attack, e.g. of coughing; a sudden worsening of symptoms’. The present article focusses on the occurrence of the word *attack* in the definitions of those dictionaries that contain an entry for *paroxysm*. Medical discourse relies heavily on metaphors derived from war and battle: illnesses are said to *attack* a patient, and medical practice is likened to ‘a *war* in which doctors do *battle* with diseases and in which patients follow doctors’ *orders* to *fight* the enemy within’ (Woods 2006: 127). The use of military and belligerent metaphors in medical contexts has aroused a certain amount of criticism. It has been argued, for example, that the description of illness via war scenarios may lead to the demonization of the medical condition, raise the patient’s anxiety level, suggest the possibility of defeat, and portray the sufferer’s body as a battlefield (Woods 2006: 127–128, Semino 2008: 176–178). According to Goatly (2006: 28–29), in discourse about antibiotic-resistant bacteria and auto-immune diseases, the DISEASE IS INVASION metaphor has started to give way to metaphors based on ‘communication, balance, and symbiosis’ as researchers progress in their study of etiological mechanisms and methods of treatment.

In the general-purpose, learner’s, and collegiate dictionaries, most of the definitions of *paroxysm* describe the phenomenon as an *attack*. Some typical examples are given in (22)(a)–(c), but the absence of any mention of the specifically medical uses of the word in COED distinguishes that dictionary from all the other ones. That omission is perhaps worth reconsidering in future editions.

- (22)(a) a fit, attack, or sudden increase or recurrence of disease symptoms, a convulsion (PED)
 (22)(b) a fit, attack, or sudden increase of violence of a disease that occurs at intervals (WNED)
 (22)(c) a sudden attack or violent expression of something (COED)

The formulations without the word *attack* use either *fit* or *onset* to explain the concept to the reader, (23)(a)–(b) being two examples of such entries.

- (23)(a) a fit of disease (IOD and OAD)
 (23)(b) a sudden onset or intensification of a pathological symptom or symptoms, especially when recurrent (BED)

In the group of non-specialist dictionaries, altogether fourteen works out of the nineteen relevant ones (CALD and MEDAL only give the sense ‘uncontrolled expression of emotion’) employ the word *attack* in their definitions of *paroxysm*. Such definitions are thus found in 74% of the dictionaries.

A rather different picture emerges from the study of the specialist dictionaries that include an entry for *paroxysm*. Three of the eleven volumes (*DMM*, *ODP*, *WNW*) do not list the term.

Of the eight that do, three state that a paroxysm is a kind of *attack*, but five avoid the latter word in their definitions and instead produce formulations such as the ones in (24)(a)–(b).

- (24)(a) **1.** A sudden onset or recurrence of symptoms of a disease. **2.** A convulsion (*MIM*)
 (24)(b) **1.** a marked, usually episodic increase in symptoms. **2.** a convulsion, fit, seizure, or spasm (*MMD*)

What the above means is that only 38% of the relevant medical dictionaries resort to the word *attack* when explaining the meaning of *paroxysm*, a significant drop from the seventy-four for the non-specialist works. There is a similar difference in the frequency of the word *fit*, which only one medical dictionary, *MMD*, includes in its definition of *paroxysm*, the corresponding figure for the non-medical works being as many as ten.

4. Conclusion

The present article has examined the treatment of six medical words in dictionaries of English. When drafting their definitions, lexicographers will need to exercise particular care to avoid reinforcing potentially unfounded ideas about medical conditions and treatments. At the same time, the description of the phenomenon or object should aim at being scientifically accurate. That may be a difficult goal to achieve if the general public is used to seeing the word in overwhelmingly positive or negative contexts, unlike medical experts who possess a greater knowledge about the issue. Striking a balance between Landau's 'extracted' and 'imposed' meanings presents a challenge in such instances.

Dictionary-makers working upon entries for medical terms are not immune to the kinds of complexities that are faced by their colleagues defining general-language words. Deciding what to include and what to exclude can be difficult at times, and drawing a line between linguistic and encyclopedic features often proves far less straightforward in practice than it sounds in theory. When considering the results obtained in the present article, one should therefore keep in mind that not all cases of omitted or modified information are necessarily due to those facts being somehow sensitive. Two or more lexicographers may well assess the centrality of the same feature or characteristic differently.

The two words for medicines, *warfarin* and *thalidomide*, tend to evoke negative associations in the minds of many. The dictionaries studied usually mention both applications of warfarin, but some of them, either intentionally or unintentionally, imply that the rat poison and the medicine are two chemically different substances, when in fact warfarin sodium has both uses. Readers consulting several of the works examined are likely to experience some confusion when trying to learn whether the pesticide and the drug are in fact the same substance or not. In the entries for *thalidomide*, the tragic consequences of the sedative-hypnotic for the fetus are mentioned by all the dictionaries. The modern uses of thalidomide, including the treatment of leprosy in particular, are ignored in all but two of the non-specialist works. It seems that past events dominate laypeople's view of thalidomide to the extent that it will take time for the more recent applications of the drug to be more widely mentioned in dictionary definitions.

Lobotomy is another word commonly associated with medical tragedies of the past. Consultation of the twenty-one non-specialist dictionaries leaves one rather perplexed as to whether such operations are still performed. The variation in the descriptions may be due to methods of treating psychiatric disorders varying from country to country. It is more probable, however, that the lack of harmony stems from terminological issues, in particular the question of what operations exactly count as types of *lobotomy*. It seems that the most appropriate description of the currency of lobotomy would be something like 'now rare'.

The words *gastroscope* and *cystoscope* relate to medical examinations which cause a high pre-operative anxiety level in many patients because of the way the instrument is inserted into the stomach or bladder. Some of the dictionary definitions contain no information about the channel of entry, others state it for both words, but the majority of the non-specialist dictionaries rather unaccountably give that information for one of the words, but not for the other. The discrepancies may have less to do with the sensitivity of the matter than with the difficulty of distinguishing between linguistic and encyclopedic information.

The sixth word in the survey, *paroxysm*, is frequently defined as an *attack* of illness in the non-specialist dictionaries. It is noteworthy that the latter word is considerably rarer in the medical dictionary entries for *paroxysm*. The use of metaphors based on war and battle in medical discourse has been criticized by several writers, and the difference in the frequency of the word *attack* in the two groups of dictionaries may reflect that discussion.

Comparison of the thirty-two dictionaries examined has certainly shown that there are significant differences between the definitions of medical terms therein. It can be surmised that the sensitive issues relating to the six words under scrutiny have contributed to those differences, in some instances more clearly than in others. The findings highlight the need for lexicographers to consult experts in medicine when drafting definitions for technical medical terms. It may also be helpful to check what information medical dictionaries and leading medical textbooks and journals give about a particular word. The latter volumes, as has been observed, are not always in harmony, either, but they may bring to focus facts that can or should be considered for inclusion in dictionaries meant for the general public.

The present article suggests a number of avenues for further research. It can be asked, for example, whether the variation that has been observed in the definitions among general dictionaries is greater or of another character for medical words than for other professional terminologies. Lexicographers defining technical terms for the benefit of the layperson in general feel the need to replace unfamiliar words by commoner ones and reduce the amount of detail that would be necessary in specialist works. The decision concerning such modification or condensation is not always straightforward, and two dictionary-makers may well adopt a different policy when defining the same word. It is likely that the definitions of medical and non-medical terms alike occasionally contain words that are unfamiliar to many in the target audience (e.g. *endoscope* s.v. **gastroscope** in MWCD) and therefore should be avoided. The attempts to use very basic defining vocabulary may lead to oversimplification, but there is the further risk of producing a definition that is potentially misleading, as in the entry for *lobotomy* in MEDAL. The definitions of both medical and non-medical terms vary in the number and type of distinctive characteristics that individual lexicographers choose for inclusion. Sometimes it is not evident whether the mention of a particular characteristic is in fact essential or helpful for a reader who is not a specialist in the field (cf. the comments on solubility in the entries for *warfarin*). Most present-day dictionaries are the result of team work, which may explain why the definitions of similar referents (cf. *gastroscope* and *cystoscope*) sometimes vary rather unaccountably within one and the same work. When it comes to issues of sensitivity, their role is probably most central and pervasive in areas where there are debates about the very existence of the referents. Among the words that Norri (2001) studied for his article, there are some that relate to religion (*stigmata*), demonology (*incubus*, *succubus*), and ufology (*alien*, *extraterrestrial*, *Martian*). The results show that there is great variation in both British and American dictionaries as regards the indications of the uncertain existence of the referent.

Comparison of the specialist and non-specialist dictionaries resulted in a number of findings that could also be pursued in future studies, including fields other than medicine. The popular perception of a thing or object may be different from the specialist's view and emphasize one aspect of the referent at the expense of others. As a result, dictionaries meant for the layperson may omit information that would be considered essential in specialist works. It is also possible

that in their entries for particular terms, dictionaries for professionals hedge certain statements more often than happens in dictionaries meant for the general public (cf. *thalidomide*). The technical meanings of a word may be so rare in everyday language that they are omitted from the entries in non-specialist dictionaries (cf. *paroxysm*). Definitions in general tend to be longer in specialist works, but a certain degree of economy is achieved by the use of unglossed technical terms (e.g. *endoscope*) assumed to be familiar to professionals in the field. Although scientific and technical terminologies are generally considered to include precise definitions, it is worth keeping in mind that there are instances where even professionals have different opinions about the application of a word. The entries for *lobotomy* in both specialist and non-specialist works may illustrate variation due to such indeterminacy, another example being the definition controversies surrounding *acute kidney injury* (Himmelfarb and Ikizler 2007, Prasad and Krishna 2012). In recent times, there has been a good deal of discussion about the presentation of technical and scientific matters to the general public. One of the recommendations is that misleading or otherwise inappropriate metaphors should be avoided. It is interesting to note that medical dictionaries follow such guidelines in their definitions of *paroxysm* more clearly than non-medical works, but without further investigation it is difficult to say to what extent this is true of medical terms in general and whether a similar tendency is observable in fields other than medicine.¹

Notes

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Table 1. The Non-Medical Dictionaries Studied

British Works	
BED	<i>Bloomsbury English Dictionary</i>
CALD	<i>Cambridge Advanced Learner's Dictionary</i>
CED	<i>Collins English Dictionary</i>
ChD	<i>The Chambers Dictionary</i>
COED	<i>Concise Oxford English Dictionary</i>
IOD	<i>Illustrated Oxford Dictionary</i>
MEDAL	<i>Macmillan English Dictionary for Advanced Learners</i>
OALD	<i>Oxford Advanced Learner's Dictionary of Current English</i>
ODE	<i>Oxford Dictionary of English</i>
OED	<i>The Oxford English Dictionary</i>
PED	<i>The Penguin English Dictionary</i>
TED	<i>The Times English Dictionary & Thesaurus</i>
American Works	
AHCD	<i>The American Heritage College Dictionary</i>
AHD	<i>The American Heritage Dictionary of the English Language</i>
EWED	<i>Encarta World English Dictionary</i>
MWCD	<i>Merriam-Webster's Collegiate Dictionary</i>
OAD	<i>The Oxford American Dictionary and Language Guide</i>
RHD	<i>Random House Webster's Unabridged Dictionary</i>
WNED	<i>Webster's New Encyclopedic Dictionary</i>
WNWCD	<i>Webster's New World College Dictionary</i>
W3	<i>Webster's Third New International Dictionary, Unabridged</i>

Table 2. The Medical Dictionaries Studied

British Works	
<i>CLM</i>	<i>Churchill Livingstone Medical Dictionary</i>
<i>CMD</i>	<i>Concise Medical Dictionary</i>
<i>DMM</i>	<i>The Dictionary of Modern Medicine</i>
<i>MIM</i>	<i>Melloni's Illustrated Medical Dictionary</i>
<i>ODP</i>	<i>Operating Department Practice A-Z</i>
American Works	
<i>DIM</i>	<i>Dorland's Illustrated Medical Dictionary</i>
<i>MKE</i>	<i>Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing, and Allied Health</i>
<i>MMD</i>	<i>Mosby's Medical Dictionary</i>
<i>SMD</i>	<i>Stedman's Medical Dictionary</i>
<i>TCM</i>	<i>Taber's Cyclopedic Medical Dictionary</i>
<i>WNW</i>	<i>Webster's New World Medical Dictionary</i>

Table 3. Mention of manner of insertion for *gastroscope* and *cystoscope*

The table shows whether the general-purpose, learner's, and collegiate dictionaries that give the words *gastroscope* and *cystoscope* inform the reader about the channel through which each instrument is inserted into the body. A plus means that the channel (mouth and esophagus; urethra) is mentioned in the particular dictionary, a minus signifying absence of any such information. The nine British dictionaries are listed first, followed by the eight American ones.

Dictionary	<i>gastroscope</i>	<i>cystoscope</i>
BED	+	+
CED	-	-
ChD	-	+
COED	-	+
IOD	-	+
ODE	-	+
OED2	+	-
PED	-	+
TED	-	-
AHCD	+	-
AHD	+	-
EWED	+	+
MWCD	-	-
OAD	-	+
RHD	+	-
WNWCD	+	-
W3	+	-