12 Technical Vocabulary: Law and Medicine

1 Technical vocabulary in relation to ordinary language

Jargon. All professions – indeed, all occupations and hobbies – develop their own jargons. *Birdy* and *bogey* are part of the jargon of golf, as *smash* and *seed* belong to tennis. **Jargon** is not a word to which negative connotations should be attached: it simply means "words belonging to a specific area of expertise." Linguistics is full of jargon like *phoneme*, *morpheme*, *constituent*, *thematic role*, *etymon*, and so on with no end in sight. Part of what it means to be a "professional" in some field, perhaps a very large part, is to understand the jargon. In this chapter we are not discussing the jargon but the overflow of the jargon, which bubbles out of a heated and constantly renewed cauldron, into general usage. Let us exemplify this distinction. Consider the word *transposon.* Anyone who has gotten this far into etymology can make a reasonable guess that this word has to do with changing locations of something from one position to another: *trans* "across" + *pose* "position" + *on* "thing which." But that much information does not tell us what it really means. Here is a definition from the field that coined the term,[1] namely biology. The source is a standard textbook in that field.

> **transposon** (L. *transponere*, to change the position of): A DNA sequence carrying one or more genes and flanked by insertion sequences that confer the ability to move from one DNA molecule to another; an element capable of transposition, the changing of chromosomal location.

To understand what it really means, obviously we must know what DNA is, what a molecule is, what a gene is, what an insertion sequence is, what a chromosome is, and what a chromosomal location is. Technical fields define one technical word in terms of other technical words, and you can only understand such definitions by learning enough about the content of the field to break into that circle of technical terms.

But *transposon* has not yet gotten out into ordinary language: it is not a term normally used by anyone except a biologist talking to another biologist. If someone learns enough etymology to recognize

[1] Taken from *Understanding Biology* by Peter H. Raven and George B. Johnson (Mosby Year Book, 1991). The quotation is taken from the glossary, p. G21.

the morphemes of *transposon*, and if that person also learns the relevant scientific facts and interpretations, then etymological knowledge of the morphemes is useful in **retaining** the meaning of *transposon* in one's memory for future needs. But etymology and this book cannot be expected to be a substitute for scientific knowledge. Because it is a **purely** technical term not found in general usage, the term *transposon* would not be included in the coverage of this book or books of this type. It may or may not show up in a general purpose dictionary. This term, for example, does appear in the 1993 edition of the *American Heritage College Dictionary*, but it does not appear in the 1973 *American Heritage Dictionary of the English Language*, even though the latter is considerably larger. Since these dictionaries do not give dates of first usage, we cannot determine whether the word was simply coined between 1973 and 1993, or whether in 1973 the makers of the dictionary knew the word but did not consider it suitable for a general purpose dictionary, or whether it has become more widespread in usage in the last twenty years, or whether they have made a conscious decision to include more technical terms in the later editions.

The important point is that etymology is useful as a pigeon hole for the recollection of the meanings of technical terms, but it is ***not at all*** to be taken as a ***substitute*** for technical definitions. The real meanings, the technical definitions, have to be learned ***from inside the field***. They cannot be understood outside that context.

2 The language of law

Disclaimer. Let us begin our discussion of the language of law with an important disclaimer, related to what we have said above: we are talking about the words from legal language which have percolated out into the ordinary language of educated speakers who are not themselves lawyers, or perhaps even the husbands or wives or sons or daughters of lawyers. We are also not talking about law itself, nor about the precise legalistic interpretations that might be given to any of these phrases in a matter of serious litigation. Our definitions are oriented toward **etymology**, rather than toward the precise legal sense of these words. To master the legal sense, one needs to study **law**, just as one needs to study medicine in order to acquire a real understanding of the technical jargon of the medical profession.

2.1 Specialized dictionaries

All fields have specialized dictionaries which can be consulted for the technical senses of words within the field. In law, *Mellinkoff's*

Dictionary of American Legal Usage (1992) is highly reputed, though it is not the only one. If you really want to understand legal language, don't consult an etymologist or even a general-purpose dictionary: consult a lawyer, a law professor, and/or a proper legal dictionary like *Mellinkoff's*. With that said, we can turn to legal language from an etymological perspective.

2.2 Attorneys and discovery

The word ***attorney*** itself means "one appointed to serve for another" (borrowed from French *atorné*), literally "one who is turned to" (*torn* is cognate with *turn*). Attorneys very commonly use ordinary everyday words in a highly specialized sense. Such a word is ***discovery***. They use it to refer to pretrial procedures by which one finds out about information, facts, and records in the possession of the other party. So an attorney can say things like, "During discovery, we'll get all the records we need." Without knowledge of this special sense, the sentence sounds very strange indeed.

2.3 Latin and the law

Since court procedures were actually conducted in Latin during the Middle Ages, it is not surprising that the language of law is shot through with Latin phrases, much more commonly even than general educated or even scholarly English. For example, *a fortiori* "from stronger (reason, conviction)" – *fort* as in *fortitude*, not as in *fortuitous* – is used once a position/view/fact is established to some reasonable degree, to assert that something else becomes thereby better established by virtue of being entailed by the first position/view/fact. To the extent that A is true, then B – which is entailed by A or in some way depends on it – is *a fortiori* likely to be true. *A priori* literally means "from first," and is used casually in ordinary English to mean "a best first guess." But lawyers use it in a more specific sense: "necessarily true, not susceptible of proof." *Caveat* is actually a whole sentence in Latin – "let him beware" – a warning or caution, for example, used by a justice to indicate that he is about to suspend proceedings. As actually used in ordinary English, it simply refers to the expression of some qualification or limitation placed on a generalization. *Contra bonos mores* "against good customs" refers to behavior that goes against commonly accepted standards: it is the technical term for immorality.

De facto and de jure. A useful pair of phrases that have oozed out from the courts into common parlance are *de facto* and *de jure. De facto* means "actually, as a matter of practice, not of law"; whereas *de jure* means "legitimized by law or legal precedent." *Nolo contendere* –

"I don't want to contend" – has also come out of the legal closet, but with a slight loss of its technical sense in the courtroom, where it is specifically an admission that can **not** be used against the defendant outside the case under trial; it is not an admission of guilt like a confession, since the alleged facts can be denied in another trial.

Quid pro quo "something for something," a consideration in a legal contract, has come out into ordinary language to refer to any more or less equal exchange or substitution.

Fungibility. Another word that has moved from legal contracts into general use – especially on the financial pages of the daily newspaper – is *fungible* from *fung* "perform" (e.g. *function*), that is to say, having equivalent performance – goods like oil, corn, grain, where any subset can be freely exchanged for any other, are said to be fungible. If you loan me $10, I don't have to pay you back with the same $10 bill: two fives will do fine, or ten ones, or any old ten dollar bill that I have in my possession. Money is fungible.

Torts. A *tort* is a wrong or injury not involving breach of contract (from Latin *tort* "twist," "turn," as in *tortuous*, *torture*), whereby someone acquires the right of civil legal action for damages. It acquired this sense of "a wrong" in ninth-century French; the semantic extension involved in the change from "twist" to "wrong" may be connected with the sense we see in *torture*, but it is not certain. No modern dictionary has produced a satisfactory explanation of this curious semantic twist.

Attainder. In our constitution a *bill of attainder* is specifically prohibited because it would condemn a person without a hearing just because that person belongs to some group (like, say, the Communist Party). But what is the *attainder* part of this phrase? The *-tain-* part of it is actually the same as the morpheme *tang* "touching" as in *tangent.* It obviously underwent some elaborate changes on the way from Latin to French, before it was borrowed into English. Nonetheless the "touching" sense is fundamental: the word means "contaminating, spreading like a disease," for example the additional conditions (besides prison) in which one finds oneself after conviction for a felony, namely loss of civil rights or liberties.

Making your will. Suppose you die *intestate*. You have not done your relatives any favor: you did not make out a proper will. *Intestate* contains the root *test* meaning "witness," so the word means "not witnessed" (*in-* = "not"). Your will is a witness to your wishes about what is to be done with your property. There will have to be a special judicial hearing to *probate* your will in any case, which is from another root meaning "test," the source of *prove*. All in all, with all this testing, it's probably better just not to die. But when one does, it is common to have a *fiduciary* "in faith" relationship (*fid* = "faith") with a *trustee* or an

executor (*secu* "follow" – "one who follows out") who can be trusted to carry out your wishes for you. And if you change your mind about your will, you can add a *codicil* (*code* "code of law," + diminutive suffix *-cil* = appendix to a will). As long as there aren't too many *debentures* (*deb* "owe"; *debentur* is a full verb in Latin meaning "they are due," a note of unsecured debt) outstanding against you, your surviving relatives will not hold you *culpable* (*culp* "blame," as in *mea culpa* "my fault").

Plaintiffs, collusion, and depositions. If you initiate suit against someone else, you are the *plaintiff* (*planc*, *plaint* "lament" from "to strike (one's breast))," the same root that gives us *plague* and *apoplexy*, both of which involve a blow being struck metaphorically. In the course of filing your complaint, you want to be sure not to engage in *collusion* (*lud* "play," with an interesting semantic change: it doesn't mean play at all when you etymologically "play together with" someone or something in a litigious context, because that would be non-serious behavior: the word has therefore come to mean, in the serious context of the law, "secret agreement to defraud, or to suppress evidence," which is a strange kind of play indeed). In the course of the litigation, you may become a *deponent* – one who gives a *deposition*, a statement under oath; literally *depose* = "to put away," that is, give testimony under oath. Indeed, if you lie while under oath you are guilty of *perjury* – "to swear falsely" – the "false" sense comes from the intensifier *per-*. *Jur* really simply means "law"; *jurisprudence* is "knowledge of law" (*prud* = "know," as in *prudent* "one who knows"), though it is also used to refer to a division or department of law within the government. Not only must you tell the truth under oath, you may be required to show documents in your possession: they are obtained by *subpoena*, which is short for *subpoena duces tecum* "you bring it with you," i.e., a legally binding requirement that you must bring certain documents to court or to deposition for examination.

Injunctions and hearing. You may have gone to court to obtain an *injunction* in which someone is *enjoined* to cease some action (e.g., to stop a strike). *Enjoin* means literally to "join onto," to put pressure onto someone, therefore to prohibit some action. While in court you may have a *plenary* hearing – a "full" hearing (*pl* is cognate with *full*, though the cognate relationship is not transparent because it is so remote in time) – or you may have a *summary* hearing, a shortened, condensed, concise hearing.

Jury service. If you serve on a jury, you will at some point likely be *sequestered*. That word looks as though it should break down into *se* "apart" and *ques* "ask," but in fact it comes from *sequ* "to follow" – the jurors "follow each other" off into a separate place for their deliberations. During their deliberations they may decide on a large award for a plaintiff, but that award will be subject to *remittitur* – *re* + *mit* "send" in

the passive form of the verb, therefore "to be sent back," referring to the possibility of the judge reducing the jury award.

Indictments. An *indictment* is simply a list of formal charges: *in-* "in, on" + *dict* "say, speak." The pronunciation *in-DIGHT* comes from the earlier form *indite*. The letter *c* was reinserted into the spelling (but not the pronunciation) of the word by some printer who apparently thought it was connected with *indicate*, "to point at someone, to accuse." If you have been frequently indicted, you may be guilty of *recidivism* – *re* + *cad* "fall back," the tendency to habitual criminality. Of course even so you are entitled to avoid confinement under the procedure of *habeas corpus* "you have the body," a procedure to determine legitimacy of confinement.

3 The language of medicine

The science of medicine began with the ancient Greeks, with a common-lore history that fades into the mists of human origins, not written down but transmitted by word of mouth. The oath still taken by physicians was authored by a Greek physician named Hippocrates, in the fifth century B.C. Therefore it is not surprising that their specialized language is both ancient and full of etymological curiosities. Most people are interested, at least until they or people close to them fall ill and they need to learn more, mainly in three areas of vocabulary: (1) the names of medical specializations; (2) the names of disorders and diseases; and (3) the names of common medical procedures. A fourth area might be the names of medications, but these have proliferated so rapidly in recent years, and are still being innovated, that we cannot hope to say anything useful about them here.

Specialized dictionaries. As with law, the field of medicine is well served by superb specialized dictionaries that should be consulted for all technical definitions. Among the widely used ones are *Black's Medical Dictionary* (37th edition, 1992), and *Webster's Medical Desk Dictionary* (1986 with more recent reprints and up-dates).

3.1 General

"That which is fitting." The root *med* (*medical*, *medicine*, *medicate*, *remedy*) itself is of some interest: it means "that which is fitting"; it is distantly cognate with *modest*, *modulate*, *moderate* and more closely related to *mete* as in the expression "mete and fit." So the meaning "heal" is really a narrowed and specialized sense of "taking appropriate measures" in the event of illness. *Doctor*, understood as "medical doctor," is another instance of specialized meaning. The root

dog (from which *doc* derives by normal voicing assimilation) refers to teaching, as in *dogma*, *doctrine*. It comes by this meaning via the same semantic path as *med*, since its earliest meaning is "to be fitting or acceptable," and to persuade others of what is fitting (hence, teaching). And the subject of the teaching is the most basic of all subjects, to judge from the name: the root *phys* (in *physician*, *physical*, *physics*, *physique*) means "nature."

Handwork. It is not so long ago that the surgeons were at the bottom of the medical status scale – their status changed greatly after they learned to wash their hands properly and to sterilize their tools, as well as the discovery of the miracle drugs to prevent infections in open wounds. The word *surgery* comes to us, by way of a significant amount of Middle English phonetic butchery, from Greek *cheir* "hand" + *erg* "work" + *-ia* "abstract noun suffix." It is etymologically exactly like the Latin-derived word *manufacture*, namely "hand" + "work." The real work of surgery is still performed by hand; in the task of manufacturing they prefer robots and computers these days. But at least etymologically we might well have had brain manufacturing and automobile surgery, with no change in what they do.

Treatment and service. The word for physician in Ancient Greece was not based on either *med-* or *dog-*. It was *iatr-* the root used in naming many medical specialties like *pediatrics* (children), *geriatrics* (the elderly), *psychiatry* (the mind), *podiatry* (the feet). The practice in which they engaged was called *therapy*, from the Greek word for "servant, to be of service" – one of the nice examples of semantic amelioration and from which we get the many types of therapy – *hydrotherapy*, *therapeutic*, *balneotherapy*, *chemotherapy.*

Knowledge. A root of considerable frequency in medicine is *gno(s)*, which also occurs in non-medical words like *agnostic*. *Gno(s)* is cognate with *know* and means the same thing. Words like *diagnosis*, *prognosis*, *physiognomy* are therefore just different forms or areas of knowledge: *dia-* normally means "through, across," but in *diagnosis* it is probably best defined as "apart," since the essence of *diagnosis* is **differentiation**, separating out symptoms (root *ptom* "fall" + "together," i.e., "concurrence"), and distinguishing the nature of a particular medical problem from other possible ones. The full Greek verbal form from which *diagnosis* comes meant "to differentiate," and that meaning has survived essentially unchanged down through these last 2,000 years or so. *Prognosis* is etymologically transparent: *pro-* "before, in advance," i.e., to make predictions about the future behavior of a disease, how long it will take to recover, and the like. *Physiognomy*, though it looks medical, is actually not a medical term at all: the *-gnomy* part of the word had come to mean "interpreter" in Ancient Greece, and *physiognomy* refers to the skill of interpreting character from facial features – a skill to

which physicians are not likely to give much credence, and certainly one which they do not view as part of their profession.

3.2 The branches of medicine

Medical specialties are named most commonly by creating a compound which has the area of study as the first member and *-ology* as the second. *-ology* generally means "the study of X," but in specialty names it has come to mean "**specialization** in X," as in:

anesthesiology (*an* "lacking" *esthet* "feeling")
cardiology (*card* "heart")
dermatology ("skin")
endocrinology (*endo-* "within" + *crin* "to separate, like a sieve"; etmology is not helpful here, since glands and hormones, which are the focus of endocrinology, are not obviously sieve-like; the idea is that hormones are internally secreted and pass directly into the bloodstream)
epidemiology (*epidem* "prevalent," i.e., through a large population, epidemics)
gastroenterology (*gaster* "stomach" + *enter* "intestines")
gerontology (*geront* "old, aged")
gynecology (*gynec* "female")
hematology (*hem(at)* "blood")
immunology (*immune* "exempt")
laryngology (*larynx* "windpipe")
neonatology (*neo* "new" *nat* "born")
neurology (*neur* "nerve")
oncology (*onc* "tumor")
ophthalmology (*ophthalm* "eye")
otology (*ot* "ear")
pathology (*path* "suffering" – study of the nature of disease)
pharmacology (*pharmac* "drugs")
radiology (*rad* "ray, beam," the role of X-ray technology in medicine)
rheumatology (*rheum* "flow," the phlegm once thought to cause rheumatic disorders)
toxicology (*tox* "poison")
urology (*ur* "urine")

-Ics. A much smaller number of specialties are formed on the suffix *-ics*, which though common throughout the sciences (*mathematics*, *physics*, *economics*, *phonetics*, *ballistics*) has been put to use less in medicine. One of the oldest of these is *obstetrics*, literally "standing in front of" (a midwife helping a woman give birth to a child). *Orthopedics* is the branch of medicine that deals with injuries to the skeletal system:

etymologically it is misleading, since *ortho* means "correct" and *ped* means "child"; the compound originally mean "child-rearing." The connection is that originally the specialty was focused on correcting skeletal problems of children. It has been generalized now. *Orthodontics* similarly began – and largely remains – a dental specialty having to do with straightening out the teeth of children.

3.3 The names of disorders and diseases[2]

Naming diseases. The two most common ways of naming diseases are (a) from the nature of the disturbance in some bodily system, some organ, or some particular kind of cell; and (b) from the name of the organ that is suffering, plus a suffix indicating what type of abnormality has occurred. A third common way is to name the disease after the person who first discovered it or described it exhaustively, like Hodgkin's Disease (Dr. Thomas Hodgkin, first half of the nineteenth century).

Size. The nature of the disturbance may be, for example, abnormality in **size:** *macrocephalic* "enlarged head"; *megaloblasty* (*megalo* "great, enlarged," *blast* "bud, sprout" – having abnormally large red blood cells, e.g., in anemia), *polycythemia* (*poly* "many" + *cyt* "cell" + *hem* "blood" + *ia* "condition" – condition – characterized by having too many red blood cells)

Color, shape, texture, formation, function. Or it may be an abnormality in **color**, as in *cyanosis* "blueness," *jaundiced* "yellow," *cirrhosis* "reddish yellow," *chlorosis* "green," *poliomyelitis* "inflamation of gray cells" (*poli* "gray"); in **shape**, as in *brachydactyly* "having short fingers"; in **texture**, as in *sclerodermia* "having hard (thick) skin"; in **formation**, as in *hyperostosis* "excessive bone formation," or *osteoclasis* (*clas* "break") "destruction of bone"; or in **function**, as in *tachycardia* (*tachy* "rapid," *card* "heart").

Bodily organs. More commonly, however, diseases are named from the name of a bodily organ and a suffix indicating a particular type of abnormality:

-*itis* "inflamation" e.g. *appendicitis*, *laryngitis*, *meningitis* (*meninx* "membrane")

-*sis* -*is* -*esis* -*osis* -*asis*- *iasis* "state of, act of", e.g. *anthracosis*, *neurosis*

-*oma* "tumor" (benign or malignant), e.g. *fibroma*, *myoma* (*muscle*)[3]

-*ia* "condition," "disorder," e.g., *hypochondria*, *alexia* (reading), *agraphia* (writing)

-*cele* "swellings containing fluid," e.g., *cystocele*

[2] Much of our information in this section is drawn from an older but quite interesting book by Ffrangcon Robert entitled *Medical Terms: Their Origin and Construction* (Heinemann: London 1959). [3] *Glaucoma* is an exception: it is not a tumor.

Classical names of body parts. The main problem with such names of diseases is that most of us do not know enough of the anatomical lexicon to recognize the Greek and Latin names of parts of our own anatomies: and there is no way to repair that deficiency except to study anatomy. The roots chosen for naming diseases are quite likely to be taken from Greek rather than Latin, and these roots are less likely to be familiar to an English speaker (because the Latin roots are more likely than Greek roots to occur in non-technical words we have borrowed). Thus, for example, most of the following Greek roots have a much more recognizable Latin equivalent, but the Greek root is the one used in one or more medical coinages (many of the more familiar Latin roots are used in medical coinages also, of course):

Greek	**Latin**	**English**
aden	*glans*	*gland*
arthr	*articul*	*joint*
card	*cor(d)*	*heart*
cephal	*cap*, *cep*	*head*
cheil	*lab*	*lip*
chondr	*cartilag*	*cartilage*
colp	*vagin*	*vagina*
dactyl	*digit*	*finger*
dermat	*cut*	*skin*
encephal	*cerebr*	*brain*
glos, *glot*	*lingu*	*tongue*
hem, *hemat*	*sangu*	*blood*
hyster	*uter*	*uterus*
mast	*mamm*	*breast*
myel	*medul*	*marrow*
mys	*muscul*	*muscle*
nephr	*ren*	*kidney*
neur	*nerv*	*nerve*
odon(t)	*den(t)*	*tooth*
omphal	*umbil*	*navel*
onych	*ungu*	*nail*
oon	*ov*	*egg*
ophthalm	*ocul*	*eye*
orchid	*test*	*testicle*
osteo	*os(s)*	*bone*
oul	*gingiv*	*gum*
ot	*aur*	*ear*
phal(l)	*pen*	*penis*
phleb	*ven*	*vein*

pleum, pneum	*pulmon*	*lung*
pod	*ped*	*foot*
proct	*an*	*anus*
rhach	*spin*	*spine*
rhin	*nas*	*nose*
sarc	*car(n)*	*flesh*
som(at)	*corp(or)*	*body*
steth	*pector*	*chest*
stom	*or*	*mouth*
trachel	*cervic*	*neck*

3.4 The names of common medical procedures

As with the names of disorders, clinical procedures are frequently identified by the name of the relevant organ with a suffix attached which indicates the kind of procedure involved. The most common such suffixes are these:

-*tomy* "cutting or cutting into," e.g., *colotomy* "opening of the colon," *nephrotomy* "incision of the kidney," *gastrotomy* "an incision into the stomach to introduce nourishment directly into it," *tracheotomy* "cutting an opening in the windpipe"

-*ectomy* "cutting out, removing," e.g., *neurectomy* "excision of part of a nerve," *hysterectomy* "removal of the uterus"

-*desis* "a binding," e.g., *arthrodesis* "joining two bones together"

-*pexy* "fastening," e.g., *nephropexy* (*neph-* "kidney")

3.5 Curiosities

Because the terminology of medicine is so ancient, and because physicians have continued to use inherited words for concepts that have changed radically along with new technology, the etymology is often curious and unrevealing about the real meanings of these words. The word ***estrus*** is an example: it simply means "gadfly," and it referred originally to the behavior of mammals that were being bitten by gadflies. It came to refer to the recurrent period of sexual excitement in female mammals, a period when, it would appear, some ancient wordcrafter divined a similarity between their behavior in heat and that of animals being pestered by gadflies. ***Myopia***, from *my* "closed, squinting" + *op* "eye," is based on the way nearsighted people squint. ***Venereal*** is one of those depressing instances of pejoration: Venus was, after all, the Roman goddess of love. ***Thorax*** simply meant "breastplate," the kind of leather protective plate worn over the front of the upper body by Greek soldiers. The transfer of meaning, from "armor" to "upper chest cavity," is a classic instance of metonomy.

Hypochondria **i**s a classic instance of misinformation: the Greeks thought the tendency to worry about one's health was a condition originating *hypo-* "under" *chondri* "cartilage (of the upper chest)." They were wrong: it's all in the head. The Greeks many times gave names to parts of the body which were simply based on similarity of appearance. ***Chiasma***, for instance, is simply the crossing of two nerves or ligaments, which look like an X (the Greek letter *chi*). The large triangular-shaped muscle called the ***deltoid*** muscle owes its name to the Greek letter delta, which looks like a triangle. Similarly the ***hyoid*** muscle gets its name from the Greek letter upsilon (Y) – a u-shaped bone at the base of the tongue.