

WORDING OR HOW *ACCESS* “GOT VERBED”

WALTER HIRTLE

Université Laval, Quebec City

TO SPEAK OF THE THEME OF THIS CONFERENCE, “Language and linguistics in North America: Diversity and Convergence,” I would like to begin with a point of convergence, an assumption about words which, if not unanimous, seems widespread on this continent and elsewhere, an assumption whose well-foundedness I want to question. To do so, I will present several examples of what appears to be the coining of new words in English, and then examine them in the light of different grammarians’ comments on conversion. This will bring out the inadequacy of the assumption and lead to asking “What’s in a word?” To answer this question I will consider a traditional view of words and propose an alternative assumption about wording in order to provide a different explanation of the examples examined. As a conclusion, I will suggest why the erroneous (in my opinion) assumption has become so widespread and what lesson linguists can draw from this.

1. AN ASSUMPTION. The following citation from a study on prepositions expresses the assumption quite clearly: “Linguists have often assumed that words constitute lexical forms that are stored in a mental dictionary or lexicon” (Tyler & Evans 2003:1). Likewise for a study on lexical semantics: “It will be assumed in this book that a (relatively) closed set of lexical units is stored in the mental lexicon, together with rules or principles of some kind which permit the production of a possibly unlimited number of new (i.e., not specifically stored) units” (Cruse 1986:50). Another linguist speaks of “a lexicon that provides a list of ‘formatives’ (words and morphemes) and their associated properties” (O’Grady 2008:8). And in a book on cognitive linguistics, the authors speak of how “we retrieve a word from the mental lexicon” (Croft & Cruse 2004:109). This idea that speakers store all the words they know in a mental dictionary or lexicon is so widespread that some scholars outside of linguistics take it, not as an assumption, but as a well established fact, as in the following passage from a study by psychologists working in neuroscience:

A normal speaker produces about three words a second. These words are extracted from a stored mental dictionary (a *lexicon*) of somewhere between 20,000 and 50,000 words. On the average, only about one word per million is selected or pronounced incorrectly. Our remarkable ability to produce words... (Kosslyn & Koenig 1992:211)

One may well wonder what this assumption is based on, and the answer is not far to seek. As ordinary speakers we do not have to invent the means of expressing ourselves on the spur of the moment, as we would have to in a situation where we neither speak nor understand the language of those around us. Rather, when speaking, the moment we need a word it

emerges into consciousness ready to take its place in the sentence we are constructing. This gives us the impression that all the words we have acquired are somehow ready to be used whenever we need them. What more natural than the idea that our vocabulary is stocked in memory as in a personal dictionary, that words are “stored in the speaker’s mental lexicon” (Taylor 2002:74) and that we need merely “select” the ones we need for the sentence we are producing.

According to one study, this assumption has been around for some time:

Starting as early as Bloomfield (1933) and rearticulated as recently as Chomsky (1995), influential linguistic theories have asserted that the lexicon is the repository for the arbitrary and the idiosyncratic. (Tyler & Evans 2003:5)

Besides suggesting where it started, this comment brings out another facet of the lexicon assumption. If we can assume that words are learned and stored in memory as arbitrary items, the ultimate elements of a sentence—the way they usually appear in discourse—then there is no need to analyze them, and attention can be focused on syntax. That is, besides appearing obvious, this assumption has the convenience of obviating the problem of the word. This would, in fact, appear to be the reason why “linguists are a bit uncomfortable with the idea of *words*. Words are slippery critters...” (Davis 1993:83). In fact, the very term *word* is not in favour with linguists, many of whom prefer to speak of lexical items, or lexical units, or lexical entries, thereby assimilating words to prefixes, suffixes, idioms and other “arbitrary and idiosyncratic” entities, and some even deny their existence (cf. Mounin 2004:222).

This then is the assumption of many linguists and, as we shall see, of grammarians. Before pursuing our discussion on the abstract level of assumptions and the status of the word as a unit of language, however, I want to look at some data which pose the question concretely, on the level of real examples.

2. NEW WORDS? My attention was first drawn to the mental lexicon question by a commentary about a swimmer, heard during a television broadcast on the Olympics:

(1) Will he medal tonight?

The sentence caught my attention because I understood perfectly well what was a new word for me. What intrigued me here was that I had no such word in my vocabulary, no verb *medal* I could “retrieve from my mental lexicon,” and yet I had no trouble making sense of the sentence. This triggered my interest in the phenomenon which grammarians usually call *conversion*, and I started collecting other examples.

I got the same reaction from some of the more recent ones, picked up by observant students, like the following from a university publication:

(2) I see that kids are focused on science. They’re asking science questions. They’re ‘sciencing’ as (CETUS researcher) David Blades says.¹

¹ *UVIC Torch* (Autumn 2006:24).

The next two examples were picked up in conversation:

- (3) They're squirreling stuff away.
- (4) It ouches.²

And the following was found on the net³:

- (5) I got totally homered this Christmas when my Dad bought me a fly fishing kit.

This one I did not understand until the link with the well-known character on television was pointed out, but then, once I understood the sentence, I had the same impression of calling to mind a new word. Like the *medal* example, each of these examples seemed to run counter to the idea that my vocabulary consists of a set of words stocked in a mental dictionary.

Written texts have provided examples for me as well, and then the context helps comprehension:

- (6) I warrant him, Petruchio is Kated.

At this point in *The Taming of the Shrew* (III, ii, 245), *Kated* is readily understood and witnesses to the vigour of Shakespeare's language. The same can be said of the following example from *Coriolanus* (V, i, 5–6):

- (7) A mile before his tent fall down and knee
The way into his mercy.

While *Kated* is a nonce formation, *knee* here is a new formation from the substantive, according to the *OED*. Looking at things from the point of view of how the speaker/writer formed them, one gets the impression of words being created for the occasion.

The point of these examples is that, whether or not they were just nonce uses created by the speaker on the spur of the moment, for me they were new, yet quite comprehensible. To figure out what makes this possible, I turned to Quirk *et al.* (1985) where a whole section (1558–63) treats such uses as examples of conversion, i.e., “the derivational process whereby an item is adapted or converted to a new word class without the addition of an affix.” This attributes to the speaker, and presumably the hearer, a mental process for deriving new words from known items. The above verbs are called *denominals* because, except for *ouches*, they are, according to Quirk *et al.*, derived from nouns. They also give examples of denominal adjectives, nouns converted into adjectives, as in:

- (8) His accent is very Mayfair (very Harvard).

² When I suggested this might well have been a child speaking, one scholar, married to a phonetician, pointed out that her seven year old daughter once said: “Oh Dad, stop phoneticianing.”

³ <http://www.urbandictionary.com/define.php?term=homered>

- (9) She dislikes city life.

Like previous examples, *Mayfair* is striking as an adjective, but the interesting one here is *city* because there is no longer the striking effect of a new use, of a conversion, and this opens up another, far more prevalent, aspect of the question.

Considering *city* a case of conversion brings in the historical aspect because, although common as an adjective today, this implies that as long ago as the fourteenth century (*OED*) someone first used *city* as an adjective. This also applies to many denominal verbs (*to bottle, to grease, to elbow, etc.*), to deverbal nouns, (*a desire, a swim, a catch, etc.*), to de-adjectival nouns (*a natural, a weekly, an empty, etc.*) and de-adjectival verbs (*to calm, to humble, to empty, etc.*), few of which would attract attention today as being derived from another word. In short, these few examples indicate that this process of word formation is, and has been, far more prevalent than it appears at first sight. Finally, there are less easily classified examples like *ouches* above, which appears to be derived from the interjection, and less frequent cases like:

- (10) It tells you about the how and the why of flight.
 (11) They downed tools in protest.

Quirk *et al.* consider these to be derived from closed-class words, though it is not clear why they consider *down* here a convert from its use as a preposition, rather than its use as an adverb, or an adjective, or a substantive.

The point to be remembered from this rapid survey is that uses like those above which catch our attention because of their novelty, witness to an innovative process “now available for extending the lexical resources of the language” (Quirk *et al.* 1985:1558) and so are of interest to the linguist. On the other hand, such uses are just the tip of the iceberg since the vast majority of novel uses in the past—all except nonce uses—have become part of our everyday usage. A glance in a dictionary to see how many entries are classified under two or more parts of speech will show how widespread this means of word formation has been historically, even though in general we are no longer aware when we use converts (like *glance, show, even, general, converts* in this sentence). All this raises an important question. What is this process called conversion? How can it produce new words?

3. GRAMMARIANS ON CONVERSION. Grammars consulted characterize the process in terms of its result. Most⁴ consider that *medal* is “used as” a verb in the above example, a view implying that that is just a different use of the noun, the same word. Other grammars speak of a word being “totally or partially converted”⁵ into another part of speech. In both cases, the same word is found, either in another use or with another part of speech. This would also seem to be the position of Quirk *et al.*, when they speak of “the derivational

⁴ See for example, Curme, (1931:534-8); Christophersen & Sandved (1969:115-17); Schibsbye (1970:123-28).

⁵ Poutsma (1926:192); cf. also Zandvoort (1957:265-77).

process whereby an item is adapted or converted to a new word class.” For such grammarians, then, it appears that the part of speech is an accidental element, something added on to, but not a constituent element of, the word, and so conversion does not produce new words, new items.

Huddleston and Pullum (2002:1640–44) adopt a different position: “We include conversion within the set of lexical word-formation processes because we see it as creating new words.” The reason they give for this is clear: “we regard any difference in primary category as sufficient to establish a difference between one word and another.” That is, they recognize that a different “word class” or “primary category”, i.e., a different part of speech, is the mark of a different word.⁶ That is, notwithstanding what they have in common meaning-wise, *medal* in example (1) is a different word from *medal* used as a noun, and this in spite of the fact that there is no overt indication of this difference within the word. In short, the part of speech is an essential component of a word.

Grammarians who speak of converting a word obviously take for granted that the word exists already, presumably in some sort of mental lexicon, but none of them indicate how words are converted. Huddleston and Pullum describe the process as follows: “a word is formed from a pre-existing morphological unit by simply giving it new grammatical properties.” That is, recognizing the different syntactic possibilities of verbs and adjectives, they assume “the creation of the verb *humble* from the adjective *humble*.” But to my knowledge, no grammarian has ever analyzed this assumed process of creation or conversion, of “simply giving new grammatical properties” to a word.

One might of course reply that the job of grammarians is to describe and not to analyze and explain, and that they have done their job when they observe *medal* or *humble* or *down* used as verbs and assume that this result, like any other result, must have been produced by some process, some “word-formation process”. Granted that this lets grammarians off the hook, we turn to linguists, but to my knowledge no analysis of this process of word forming has been forthcoming to explain how the ordinary speaker can innovate as in a sentence I heard recently:

(12) That will involve a lot of grandfathering.

One gets the impression that the assumed existence of words ready-made in a mental lexicon has become so entrenched in people’s minds that, outside of cases involving affixing and compounding, the very idea that a process is required for forming a word like *medal* or *humble* or *down* has not occurred to most linguists. One of the rare questionings of the makeup of a word in influential linguistic theories arises toward the end of a lengthy study on morphology from a generative point of view, where the author finally reaches the conclusion that “one of the key unresolved questions in morphology is ‘what is a word?’” (Spencer 1991:453). The author seems to suggest that perhaps a word is not arbitrary, that perhaps it is analyzable into its component parts, that perhaps this has been neglected.

⁶ The traditional expression “part of speech” is adopted here because it is closer to the ordinary speaker’s experience: words are parts of the speech, the sentence, being constructed.

Whether or not the cause of this neglect of the word is the lexicon assumption, the notion of conversion poses the as yet unexplained problem of how a word is recycled if it already exists ready-made in the mental lexicon. This problem concerns not just cases like the above examples that strike us as innovative today, but also the far more frequent cases of words which were innovative at some time in the past and today do not appear to involve anything to be explained. For example, is *empty*, commonly found in three parts of speech to be considered three homonyms (cf. Huddleston & Pullum, 1641), each an entry in the mental lexicon? Or is there one entry which is simply given new grammatical properties according to the needs of discourse? Since neither of these is satisfactory as an explanation, we will examine the question from a more general point of view in order to analyze what sort of word-forming process would make innovation possible, innovation resulting in such versatility of usage in contemporary English.

4. WHAT'S IN A WORD? The diverse comments on conversion cited above presuppose that one component of the word, its physical sign, undergoes no change, nor do they mention any change in another component, its lexical meaning. This leaves the third component, the word's grammatical properties: conversion is a process which involves a word's grammatical meaning, its part of speech. That is, the grammarians consulted make a distinction, often implicitly, within the word's meaning between the lexical and the grammatical, a distinction which is by no means original with them. In his history of English grammars up to 1800, Michael (1970:44-47) points out that medieval grammarians, building on the concept of words as "the smallest unit of discourse" coming from antiquity, make "a threefold distinction between *vox*, the mere speech-sound; *dictio*, the word regarded as a meaningful speech-sound; *pars*, the word regarded as a syntactical unit." That is to say, the speech-sound or sign both signifies a word's lexical import, or lexeme, and "consignifies"⁷ its grammatical import, or part of speech. In short, since it is the part of speech which determines a word's function in the sentence, "the syntactical function of a word is part of its meaning." Michael recounts that, "The renaissance grammarians made no use of the two most important ideas about the word which were available to them: Dionysius Thrax's description of it as a minimum unit of discourse and the speculative grammarians' distinction between semantic and syntactic units." That is, the distinction between a word's lexical and grammatical meanings was no longer considered pertinent.

Grammarians' failure to take into account such a crucial distinction within the word may have been occasioned by the drastic reduction of visible morphology since antiquity, particularly in English, or by a positivist leaning which left meaning in the shade. Although the work of nineteenth century linguists in historical grammar always distinguished between the lexical and the grammatical on the level of the sign, this distinction on the level of the meaning within the word is often ignored or considered of no interest even today. One consequence of this is that the word itself is often neglected regardless of Saussure's view (1916:154) that, "[i]n spite of the difficulty of defining it, the word is a unit which imposes itself on the mind, something central in the mechanism of language."⁸

⁷ "To signify conjointly; to mean or signify when combined with something." *OED*

⁸ My translation.

Unfortunately, Saussure did not explore the subject further, considering that it would take a whole book to do so, but in a moment we shall turn to a linguist who did undertake to analyze the word.

Words are in fact a universal in language, not just in the sense that in every language we find “minimum units of discourse”, but in the stronger sense that we find words in every act of speech.⁹ Miller calls words “the fundamental units of human language” (1991:261) and stresses their importance for linguists when he asks:

What is at issue in a scientific discussion of words is not so much specific words as wordiness: why are all languages wordy? Why are words a universal design feature of languages? It is words in general, not scientific words, that are scientifically important (1991:5).

Moreover Miller echoes the medieval grammarians when he brings out the three components of a word as follows:

Each word is the synthesis of a concept, an utterance, and a syntactic role. A person who knows a word knows what it means, knows how to pronounce it, and knows the contexts in which it can be used. These are not three independent kinds of knowledge; they are different views of a single entity (viii).

In like fashion, Wierzbicka (1988:561) makes a clear distinction between the lexical and the grammatical when she speaks of “pre-packaged semantic bundles” in the lexicon, and “pre-packaged semantic configurations” in the grammar. This manner of expressing it suggests that what is pre-packaged is not the word itself but its “semantic bundle” or lexeme, and its “semantic configuration” or part of speech. Distinguishing between lexemes and the grammatical system as two components of a speaker’s linguistic resources in this way is a crucial step, one which leads to the next point I want to make.

Granted that the meaning of a word is composed of a lexical component or semantic bundle which is signified, and a grammatical component or semantic configuration which is consigned, the question of the relation between the two remains to be clarified. Though she does not develop the idea, what Wierzbicka appears to be implying here is that the grammatical configures, gives a certain shape or form to, the lexical. This is precisely the relation perceived some years previously by Gustave Guillaume, the only linguist I know of who devoted his career to developing a theory of the word.¹⁰

For Guillaume, it is the relation of matter to form that holds between the two components of a word’s mental import: a lexeme is the notional content or matter which the part of speech configures or forms. This of course presupposes a process of grammatical

⁹ It would be more precise to say that “vocables” are universal since some languages do not include a grammatical import in their minimum sayable units. This distinction need not be introduced here, however, since we are concerned with English.

¹⁰ See my *Language in the Mind* (2007a) for an introduction to this theory.

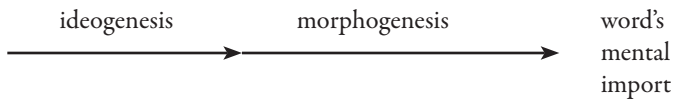


Figure 1. *Forming a word's meaning.*

configuring or categorizing which provides a word with its final form, its part of speech, a process which Guillaume (19894:113–18) called *morphogenesis*. Morphogenesis is a mental operation undertaken every time a speaker produces a word, though in most cases in English a word's visible morphology gives no indication of its part of speech. A word's part of speech is generally recognized by the listener thanks to its position in the sentence. This point is important, crucial even, because it implies that through the process of morphogenesis the speaker of example (1) configured the lexeme *medal* as a verb, and this determined the predicative function the word *medal* would fulfill in the sentence, and this in turn determined its place in the sentence. But for me as listener, it was the position of the word *medal* in the sentence that indicated its function and so led me to form or configure the lexeme 'medal' as a verb.

What I am trying to show here is that a word is not an arbitrary, unanalyzable element of language, but a unit the speaker puts together, i.e., constitutes, in view of the sentence being constructed. A necessary part of this process of formation is to provide the word with a part of speech giving it certain syntactic possibilities. Otherwise all words would be like interjections "lacking grammatical connection." But there is more than this. The appropriate lexical matter must also be called to mind—that specific lexeme, among all the "pre-packaged semantic bundles" the speaker has learned, which best corresponds to what the speaker wants to talk about. This is another part of the word-forming process, a part Guillaume calls *ideogenesis*. Since ideogenesis provides the lexical matter to be formed, its result is needed for carrying out morphogenesis. Thus there is a temporal, before/after relation between the two pre-conscious mental operations which can be most simply diagrammed as in **Figure 1**.

Each of these operations calls for further analysis, in lexical semantics and grammatical semantics respectively, but this simple figure suffices to bring out the relationship which is important for our needs here, namely that, meaning-wise, word-formation is a two-phase process whereby the result of ideogenesis is configured by morphogenesis to produce a word's mental import, its meaning.

The importance of viewing word-formation in this way is that it replaces the static view of retrieving a word listed in a mental lexicon by a dynamic view of calling to mind an appropriate lexeme and configuring it to produce the mental import of a word (whose physical sign must then be actualized). This view presupposes that speakers do not possess ready-made words but something far more useful: the necessary resources—the lexemes they have acquired and the grammatical systems—to produce whatever words they need at the moment of need. The advantage of this is nowhere more evident than in cases of so-called conversion because it implies that a lexeme (linked to a sign) exists in our mind with no grammatical strings attached (though its lexical matter may predispose it to be more readily formed as a verb than as a substantive, or vice versa).

5. WORDING. Just as we speak of “linguaging” something when it is being expressed in language, and “Englishing” a text when it is being translated into English, so I may be permitted to speak of “wording” an experience when it is being put into words. In any case, this will help us keep in mind the dynamics of word-formation involved in examples discussed above, starting with *Will he medal tonight?* Having in mind one swimmer’s performance in the coming competition, the commentator called on the lexeme *medal* as the most appropriate notion to suggest a comparison with other competitors. Instead of configuring it as a substantive as in *Will he win a medal tonight?* he actualized the lexeme to express an activity necessarily linked with the metal object in the Olympics—a winning performance. Confronted with *medal* in the position of an infinitive, I construed it as a verb and interpreted the lexeme not as representing the object but rather an activity linked with it, the activity of obtaining a medal. Discussion of the example later brought out that it might also be interpreted as a different activity associated with the metal object, one arising after the winning performance, namely, receiving the medal during the awards ceremony.

This example helps show not only how abstract a lexeme must be before the speaker forms it as a word and then puts it into relation with other words in the sentence, but also how the listener has to perform similar mental operations to understand the word and, ultimately, the sentence. Furthermore, the example indicates how the lexeme is formed or configured or grammaticized,¹¹ and that it would be misleading to speak of conversion here. The same can be said of the example *They’re sciencing*, where the speaker forms the lexeme as a verb to express the activity associated with, or rather inherent in, science. Similarly for *asking science questions* in the same example, where the lexeme is configured as an adjective: the notion ‘science’ calls to mind certain properties, here attributed to the questions asked. Again, such unusual uses (instead of the expected *doing science* and *scientific questions*) bring out how adaptable the abstract lexeme *science* is, ready to be actualized to meet the needs of the speaker in the particular sentence being constructed.

The other examples above illustrate the same word-forming process. *It ouches, squirrel-ing stuff away* and even *knee the way* all call to mind a typical activity linked with the prototypical use of the lexeme, just as *very Mayfair/Harvard* suggest a certain quality or type of accent associated with these well known places. On the other hand, to be able to interpret *got homered* and *Petruchio is Kated* requires a familiarity with the particular situation and the particular person designated by the corresponding proper noun. For the listener, the novelty of all these uses, and particularly the last two, involves a feeling of discovering the meaning they call to mind, and this gives a special expressive impact to them.

The remaining examples, however, involve no novelty. *City life, to bottle, a swim*, etc. are such common uses of the lexeme that they would probably be noticed only by grammarians and linguists as word-formations introduced into usage in the past and now understood as routine configurations of the lexeme. Nevertheless they form a very large part, if not most, of our vocabulary and so pose an even more important problem for the linguist. The rudimentary description of the word-forming process in English presented above applies just

¹¹ See my *Lessons on the English Verb* (2007b) for the detail of how a lexeme is formed by the different subsystems of the verb.

as well to these commonplace uses as to the nonce and innovative ones. To take only one example: by postulating that the very abstract lexeme *down* is to be configured by morphogenesis each time it is used, we have a basis for explaining how it is grammaticized by any one of five systemic programs depending on what kind of a word the speaker needs for the projected sentence—*ups and downs, downing a drink, a down payment, to fall down, down the drain*. We even find *down* providing a lexical component for a compound as in *to downgrade*. A use like *the down from geese*, however, would be a homonym, that is, an identical sign signifying a different lexeme.

6. CONCLUSION. My aim here has been to question the assumption that words are stored in a mental lexicon as pre-fabricated items to be selected or retrieved when needed for constructing a sentence. Calling on the traditional view that a word's meaning consists of a lexical component and a grammatical component, I proposed an alternative assumption: that a word is (re)constructed during the moment of speech each time it is needed. Speakers combine the appropriate lexeme (the one best representing what they have in mind to express) and the appropriate part of speech (providing the necessary syntactic capabilities) to produce the word capable of playing the roles, lexical and grammatical, required of it in the sentence under construction. That is, the resources permanently available to the speaker are not words, but something far more useful, namely, the formative elements needed to construct words: lexemes (with their signs) and grammatical systems.

One may well wonder why the assumption of a word-stocked lexicon is so widespread. It probably reflects the view of the ordinary speaker since the only experience we have of words is when they emerge into consciousness, i.e., when they are already formed. We can have no direct experience of the word-forming process, only of its result. As in other sciences, the linguist's job is to explain the observed result by what led up to it, and so a pre-conscious mental operation accomplished during the act of speech was proposed as an alternative hypothesis to the mental lexicon hypothesis, which does not explain how speakers can come up with new words.

Viewing word-formation as a two-phase process in this way makes it easy to understand how the same lexeme can arise in grammatically different words. This is a widespread phenomenon, as testified by the many entries in a dictionary listed under different parts of speech. Explaining such a common fact of usage is in itself an achievement, but this incipient theory of word-formation applies to all words in English.¹² Exploring its implications is therefore an undertaking of fundamental importance for any linguist who considers that the word is "something central in the mechanism of language" because words are "the fundamental units of human language."

We began with a brief discussion of conversion to focus on the problem of how a speaker can create a new word, and ended up showing that this is always a possibility since, whenever we speak, we (re)construct the words we need. We will finish with a striking example of word-making from a comic strip character:

¹² And words in other languages with grammatical systems based on the parts of speech.

I like to verb words....

Remember when “access” was a thing? Now it’s something you *do*. It got verbed.

Verbing wierds language.¹³

These amusing comments suggest the wording process involved in verbing *access*, and bring out how a speaker’s language resources cope with the ever-changing panorama of one’s conscious awareness—how languaging words experiencing.

¹³ Cited in Fine & Josephson (2004:13).



REFERENCES

- BLOOMFIELD, LEONARD. 1933. *Language*. New York: Hold, Rinehart & Winston.
- CHRISTOPHERSEN, P. & A. O. Sandved. 1969. *An advanced English grammar*. London: Macmillan.
- CHOMSKY, NOAM. 1995. *The minimalist program*. Cambridge MA: MIT Press.
- CROFT, WILLIAM & D. Alan Cruse. 2004. *Cognitive linguistics*. Cambridge: University Press.
- CRUSE, D. A. 1986. *Lexical semantics*. Cambridge: University Press.
- CURME, GEORGE O. 1931. *Syntax*. Boston: Heath.
- DAVIS, JOEL. 1993. *Mother tongue: How humans create language*. New York: Carol.
- FINE, EDITH H. & Judith P. Josephson. 2004. *Nitty-gritty grammar: A not-so-serious guide to clear communication*. New York: Scholastic Inc.
- GUILLAUME, GUSTAVE. 1984. *Foundations for a science of language*. Amsterdam: John Benjamins.
- HIRTLE, WALTER. 2007a. *Language in the mind: An introduction to Guillaume’s theory*. Montreal: McGill-Queens University Press.
- . 2007b. *Lessons on the English verb: No expression without representation*. Montreal: McGill-Queens University Press.
- HUDDLESTON, RODNEY & GEOFFREY K. Pullum. 2002. *The Cambridge grammar of the English language*. Cambridge: Cambridge University Press.
- KOSSLYN, STEPHEN M. & OLIVIER KOENIG. 1992. *Wet mind: The new cognitive neuroscience*. New York: The Free Press, Macmillan.
- MICHAEL, IAN. 1970. *English grammatical categories and the tradition to 1800*. Cambridge: Cambridge University Press.
- MILLER, GEORGE A. 1991. *The science of words*. New York: Scientific American Library.
- MOUNIN, GEORGES. 2004. *Dictionnaire de la linguistique*, 4th ed. Paris: Presses Universitaires de France.
- O’GRADY, WILLIAM. 2008. The emergentist program. <http://www.ling.hawaii.edu/faculty/ogrady>.

- POUTSMA, H. 1926. *A grammar of late modern English*, part 2, sec. 2. Groningen: P. Noordhoff.
- QUIRK, R., S. GREENBAUM, G. LEECH & J. SVARTVIK. 1985. *A comprehensive grammar of the English language*. London: Longman.
- DE SAUSSURE, FERDINAND, 1916/1955. *Cours de linguistique générale*. Paris: Payot.
- SCHIBSBYE, KNUD. 1970. *A modern English grammar*. London: Oxford University Press.
- SPENCER, ANDREW. 1991. *Morphological theory: An introduction to word structure in generative grammar*. Oxford: Basil Blackwell.
- TAYLOR, JOHN R. 2002. *Cognitive grammar*. Oxford: Oxford University Press.
- TYLER, ANDREA & VYVYAN EVANS. 2003. *The semantics of English prepositions: Spatial scenes, embodied meaning and cognition*. Cambridge: Cambridge University Press.
- WIERZBICKA, ANNA. 1988. *The semantics of grammar*. Amsterdam: John Benjamins.
- ZANDVOORT, R. W. 1957. *A handbook of English grammar*. London: Longmans Green.

