



VOLUME THREE

ENCYCLOPEDIA OF LANGUAGE & LINGUISTICS

SECOND EDITION

语言与语言学百科全书

(第2版)

EDITOR-IN-CHIEF
KEITH BROWN

CO-ORDINATING EDITORS
ANNE H. ANDERSON
LAURIE BAUER
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GRAEME HIRST
JIM MILLER



 上海外语教育出版社
外教社 SHANGHAI FOREIGN LANGUAGE EDUCATION PRESS

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GUIDE TO USE OF THE ENCYCLOPEDIA

Structure of the Encyclopedia

The material in the Encyclopedia is arranged as a series of articles in alphabetical order. To help you realize the full potential of the material in the Encyclopedia we have provided several features to help you find the topic of your choice: an Alphabetical list of Articles, a Subject Classification, Cross-References and a Subject Index.

1. Alphabetical List of Articles

Your first point of reference will probably be the alphabetical list of articles. It provides a full alphabetical listing of all articles in the order they appear within the work. This list appears at the front of each volume, and will provide you with both the volume number and the page number of the article.

Alternatively, you may choose to browse through the work using the alphabetical order of the articles as your guide. To assist you in identifying your location within the Encyclopedia, a running head line indicates the current article.

You will also find 'dummy entries' for certain languages for which alternative language names exist within the alphabetical list of articles and body text.

For example, if you were attempting to locate material on the *Apalachee* language via the contents list, you would find the following:

Apalachee *See* Muskogean Languages.

The dummy entry directs you to the *Muskogean Languages* article.

If you were trying to locate the material by browsing through the text and you looked up *Apalachee*, you would find the following information provided in the dummy entry:

Apalachee <i>See</i> : Muskogean Languages.
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2. Subject Classification

The subject classification is intended for use as a thematic guide to the contents of the Encyclopedia. It is divided by subject areas into 36 sections; most sections are further subdivided where appropriate. The sections and subdivisions appear alphabetically, as do the articles within each section. For quick reference, a list of the section headings and subheadings is provided at the start of the subject classification.

Every article in the encyclopedia is listed under at least one section, and a large number are also listed under one or more additional relevant sections. Biographical entries are an exception to this policy; they are listed only under biographies. Except for a very few cases, repeat entries have been avoided within sections, and a given

article will appear only in the most appropriate subdivisions. Again, biographical entries are the main exception, with many linguists appearing in several subdivisions within biographies.

As explained in the introduction to the Encyclopedia, practical considerations necessitate that, of living linguists, only the older generation receive biographical entries. Those for members of the Encyclopedia's Honorary Editorial Advisory Board and Executive Editorial Board appear separately in Volume 1 and are not listed in the classified list of entries.

3. Cross-References

All of the articles in the Encyclopedia have been extensively cross-referenced. The cross-references, which appear at the end of each article, serve three different functions. For example, at the end of *Norwegian* article, cross-references are used:

1. to indicate if a topic is discussed in greater detail elsewhere

Norwegian

See also: Aasen, Ivar Andreas (1813–1896); Danish; Inflection and Derivation; Language/Dialect Contact; Language and Dialect; Linguistic Varieties; Morphological Typology; Norway: Language Situation; Norse and Icelandic; Scandinavian Lexicography; Subjects and the Extended Projection Principle; Swedish.

2. to draw the reader's attention to parallel discussions in other articles

Norwegian

See also: Aasen, Ivar Andreas (1813–1896); Danish; Inflection and Derivation; Language/Dialect Contact; Language and Dialect; Linguistic Varieties; Morphological Typology; Norway: Language Situation; Norse and Icelandic; Scandinavian Lexicography; Subjects and the Extended Projection Principle; Swedish.

3. to indicate material that broadens the discussion

Norwegian

See also: Aasen, Ivar Andreas (1813–1896); Danish; Inflection and Derivation; Language/Dialect Contact; Language and Dialect; Linguistic Varieties; Morphological Typology; Norway: Language Situation; Norse and Icelandic; Scandinavian Lexicography; Subjects and the Extended Projection Principle; Swedish.

4. Subject Index

The index provides you with the page number where the material is located, and the index entries differentiate between material that is an entire article, part of an article, or data presented in a figure or table. Detailed notes are provided on the opening page of the index.

Other End Matter

In addition to the articles that form the main body of the Encyclopedia, there are 176 Ethnologue maps; a full list of contributors with contributor names, affiliations, and article titles; a List of Languages, and a Glossary. All of these appear in the last volume of the Encyclopedia.

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Concordances

R Krishnamurthy, Aston University, Birmingham, UK

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What Are Concordances?

Definitions of 'concordance' vary considerably but agree on the main features: an alphabetical list (or index) of the words (or ideas; some restrict this to the principal or significant words) in a text or group of texts (or a particular author's works), giving the textual locations (chapter, verse, act, scene, line number, etc.) of each word's occurrences, and citations or contextual passages. The purpose of concordances seems to be both to establish which are the significant words in the text (e.g., by their frequency) and to illustrate their usage.

Concordances to the Bible, Shakespeare, etc.

Concordances to the Bible were compiled from the 14th century onward, and were used by scholars to identify and study biblical themes and their treatment. Concordances of the works of Shakespeare, and poets such as Tennyson, Shelley, and Blake, were subsequently used in literary studies. Lexicographers, however, requiring a much wider range of texts, too many to create concordances for manually, relied on individually remembered or encountered citations until computer technology became available and large corpora of general language could be created.

Computer Corpora and Electronic Concordancing

Until the 1980s, the few, relatively small, corpora (1 million words of text) were only used by a handful of linguists and language teachers. The lexicographical use of computer-generated concordances was initiated by Cobuild, a joint project by Collins publishers and Birmingham University. Technological limitations meant that initially their corpus had to be handled in million-word batches, and concordances were only printed out as and when required, from microfiche. By 1983, the batches were merged, and the frequency list from the 7.3-million-word corpus became the main basis for their dictionary headword list. Concordances for every word form in the corpus were printed out, and lexicographers analyzed them as the principal source of their dictionary entries.

The KWIC (Key Word in Context) concordance format displayed each occurrence of a word in the middle of a line of text (100 characters, roughly 20

words of context), with a source text identification code in a separate column. Lexicographers copied typical examples onto paper slips, grouped them by word class and meaning, and then wrote definitions for each group.

The concordances were sorted alphabetically by the word after the keyword (English being a left-to-right language), so linguistic patterns following the keyword (right-context patterns) became quite evident, although their quantitative analysis for frequent words remained impressionistic. However, patterns preceding the keyword (left-context patterns) were much more difficult to detect. And the 100-character context limit caused considerable problems for lexicographers needing, for example, to look at the beginning or the end of the sentence containing the keyword.

By the late 1980s, corpus sizes had increased (20–50 million words) and computer technology had improved, so concordances were now viewed on screen, and single keystrokes allowed users to dictate subcorpus sampling and sample size; to select single words, word families, or multiword units; to resort concordances to the left or right; to vary the amount of context; to restrict concordances by word class, genre, variety, or collocational information. In general, lexicographers would gain an overview of the item or items first, and only then look at concordances for more detailed patterning and usage features. Statistics, analyses, and examples could of course be easily stored in databases, and extracted for use in dictionary entries at a later stage.

Since the 1990s, several other UK publishers (Longman, Oxford University Press, Cambridge University Press, Macmillan) have been using very large corpora (100–500 million words) and concordances in their dictionary compilation procedures, mainly for EFL products. Some publishers, e.g., Oxford University Press and Collins (now HarperCollins), have additionally used them for native-speaker and bilingual dictionaries.

Each feature of modern corpus software has yielded benefits for lexicographers, and their effects can be seen in the resulting dictionaries. For the impact of corpus frequency lists, and subcorpus distribution information, *see* Corpus Lexicography; for more details about collocation, *see* Collocations.

The Impact of Electronic Concordancing on Lexicography

Information about the source texts enables lexicographers to provide accurate labels for each sense/meaning distinction, such as 'used mainly in UK

broadsheet newspapers,' 'in American radio broadcasts,' or 'in UK informal speech.' Sentence-length concordances provide accurate information on the behavior of the word in sentences (e.g., positional, syntactic); more extended contexts allow sharper delineation of pragmatic functions, especially in speech (emphasis, disapproval, humor, etc.), and discourse functions (e.g., signaling change of topic or closure of conversation).

The ability to view concordances for individual word forms and for groups of word forms allows the lexicographer to identify forms that are significantly associated with specific senses or word classes (e.g., the *-ing* form of a verb may be used as a noun or adjective mainly in a specific sense, such as *counting* mainly with elections and votes, *budding* mainly with careers and situations), and senses that are generally available for all forms of a headword. The traditional practice of adding derivative forms at the end of an entry (e.g., *-ly*, *-ness* at the end of adjective entries) has given way to placing derivatives only at senses for which they are particularly used (e.g., *lamely* for excuses, arguments, remarks rather than for 'walking with difficulty').

The ability to sort concordances alphabetically to the left or right of the keyword (and specify which position to sort on, e.g., two words before or three words after) allows greater specification of variations in phrases, collocational positions, semantic preferences, etc. Right-sorting may identify, for example, verb and noun complementation patterns (e.g., *like* + *to*-infinitive/-*ing*, but *enjoy* + *-ing* only; *authority* + *to*-infinitive, or + *in* with location in place/time, or + *on* with topic/domain), the adverbs associated with a verb (e.g., *argue* + *convincingly* or *successfully*, etc., but rarely *argue* + *well*), the noun objects of a verb (e.g., *aim* + weapons, but rarely *weapon[s]* itself), the nouns modified by an adjective (e.g., *crisp* with specific nouns meaning food, weather, cloth or paper, leaves or snow, and writing or speech).

Left-sorting may indicate the subjects associated with a particular verb (e.g., anyone can *authenticate* something, but only people in authority usually *authorize* something, only famous people usually *autograph* something; only cities or buildings tend to *be blitzed*, etc.), nouns that tend to be the object of specific verbs (e.g., *commit* + *crime[s]*), the adjectives that modify a particular noun (e.g., *bystanders* is usually modified by *innocent*, but occasionally by *curious*, *passive*, *bemused*, *interested*, *hapless*, etc.), the prepositional phrases that a noun is head of (e.g., *time*: *at the time*, *by the time*, *from the time*, *for the first time*; *at a time*, *for a time*; *at the same time*, *for some time*, *for a long time*; etc.), or the verbs that are typically modified by an adverb (e.g., *crisply*

with verbs of speech). Sorting in either direction will show up nominal compounds (e.g., *birth control*, *fibre optics*, *package deal*).

Sinclair's corpus analysis of the collocation *naked eye* showed how sorting concordances by one position at a time (in this case to the left) can be very revealing of lexical phraseology. Firstly, *naked eye* is usually preceded by *the*; *the naked eye* is usually preceded by a preposition (*with*, *to*, *by*, *from*, *as*, *upon*, *than*; i.e., a weak colligation, word class + lexical phrase, rather than word class + word class); the preposition is preceded by one of two word classes, a verb (e.g., *see*) or an adjective (e.g., *visible*), so cannot be called colligation; but on closer inspection all the items in this position (*detect*, *spot*, *appear*, *perceive*, etc.; *invisible*, *apparent*, *obvious*, *evident*, etc.) share the semantic notion of visibility, so Sinclair terms this feature 'semantic preference.' Strict positioning weakens here, but the leftward context almost invariably contains items indicating difficulty, whatever their word class (e.g., *small*, *faint*, *weak*, *difficult*; *barely*, *rarely*, *just*; negative words or morphemes such as *not*, *invisible*; modals such as *can*, *could*; etc.), which Sinclair labels 'semantic prosody.' Sinclair notes that variation is negligible at the 'core' of the lexical phrase, and increases further away to allow it to fit in with previous context.

Concordances are now a relatively everyday and unremarkable part of the lexicographer's toolbox, and it is hard to conceive of any significant improvement in their format. Some attempts have been made to create software that automatically selects the 'most typical' concordance lines (weighting such factors as lexical frequencies, collocations, grammatical structures, etc.), and would represent another leap in the methodology, but unfortunately they are either kept under proprietorial lock and key by their dictionary-publisher proprietors or have not so far been completely successful.

Concordances and Pedagogical Applications

However, it is now in the field of pedagogy that rapid developments are taking place. Tim Johns's pioneering efforts in using concordances in language teaching have gained ground (with later contributions from Chris Tribble and others) and become a recognized field: data-driven learning (DDL). A major problem for language learners has been that they come across individual items (words, patterns, or structures) too infrequently, and therefore have to practically relearn them at each encounter.

Concordances enable learners to view many examples of the same item simultaneously, and make and

internalize generalizations about the item in their own way and at their own pace. Retention is improved, confidence is strengthened, and motivation and general linguistic awareness are heightened by such discovery procedures. Teachers can also edit concordances for teaching materials and classroom exercises, for example by deleting keywords (often called 'gapped concordances') or elements in the contextual environment. The greater public availability of concordancing software (e.g., Wordsmith Tools, MonoConc, Conc, Free Text, etc.) and the realization that smaller user-built corpora are sufficient for many pedagogical (as opposed to lexicographical) purposes have contributed to the popularity of concordancing as a learning/teaching tool.

Conclusions and the Future

Although the initial thrust and major developments concerned the English language, concordances are now used worldwide in lexicography and pedagogy for many other languages. Bilingual concordancing, providing concordances of source texts and their translations simultaneously and adjacently, is still in its relative infancy (e.g., software such as ParaConc and MultiConcord), but seems likely to prove useful to translators, interpreters, and language learners in the future. For example, early research by Church & Gale showed that the ambiguity of *drug* in English could be resolved by parallel concordances in French, which separated instances of illegal substances (*drogues*) from prescription drugs (*médicaments*). Concordancing is also being used in other linguistic fields, such as forensic linguistics.

See also: Collocations; Corpus Lexicography.

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Condillac, Etienne Bonnot de (1714–1780)

D Droixhe

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Condillac was born in Grenoble on September 30, 1714. His *Essai sur l'origine des connaissances humaines, ouvrage où l'on réduit à un seul principe tout ce qui concerne l'entendement humain* (1746) solemnly broke with the religious dogma of the divine gift of language, and radicalized the Lockian revolution as to the relationships between signs and thought. The Cartesian and Port-Royalist traditions considered words to be 'expressions' of an autonomous thinking. Condillac associated mind and language in a circle of genetic interdependence. He is "unquestionably the philosopher of his time who granted the greatest importance to language in his theory of knowledge" (Auroux in Sgard, 1982). He died on August 2, 1780.

The most famous and influential part of his *Essay* finds the roots of the origin of language in a *language d'action* mixing gestures and emotional sounds, from which also arose dance and music. 'Natural or accidental signs' were supposed to have given birth, with the help of 'imagination,' to 'artificial' ones (*signes d'institution*) – which constitute the fundamental tools of human mental ability and progress. But Herder (see Herder, Johann Gottfried (1744–1803)) stressed Condillac's failure to "shape the animal cry" so that "a fact ruled by a law of nature becomes the human language, expression of man's will," it is well known that Herder tried to cross the gap by an acute

analysis of the faculty of 'reflection.' Turgot (see Turgot, Anne Robert Jacques (1727–1781)) also pointed critically at the circle involving the primitive invention of signs, and the degree of consciousness implied by the operation, and Rousseau (see Rousseau, Jean-Jacques (1712–1778)) added to this the difficulty of separating the birth of language from the formation of some form of society.

The semiotic *objectivation* of the material world determines the appearing of the *parties du discours* and the elaboration of 'sensible words' into abstractions. According to the *Essay*, the linguistic signs arose in the following order: substantive, adjective, adverb, verb – the concept of the latter culminating in the invention of *to be*. That genetic point of view was the basis of the conceptions expressed in the *Grammaire* and the *Art d'écrire* written *pour l'instruction du prince de Parme* (1775). Condillac's *Grammar* aims to reconstruct, historically and functionally, how a total perception, or mental image, is fragmented and transmitted by a more and more elaborated system of general signs. "Four kinds of words of words only are required to express all our thoughts: substantives, adjectives, prepositions, and one verb such as *être*." So, Condillac moves away from a tradition dealing essentially with common logico-semantic categories, towards a grammar where the possible universals are defined by the role assumed from a primitive stage of holophrasis (where the total perception was expressed by a single word). That is why, especially, the grammatical analysis begins with the sentence, then descends to the proposition, and after this to its elements. Their description is governed by the principle of the *genetic situation*,

which inverts the procedure of the *Grammaire générale*, in which “one starts from the elements to reach the different ways of combination.” From this, Condillac developed an original conception of the subordinate proposition.

“*L’analogie et l’analyse. Voilà à quoi se réduisent, dans le vrai, tous les principes des langues.*” The famous axiom of the *Grammar* (Sect. I.1) opens up a varied but highly coherent prospect. Historically, it legitimates a regular genealogy of modern discourse, tracing back abstract to concrete designations, pronouns to adjectives (Latin *ille* > French *il*), prepositions to nouns of spatial or temporal meaning, etc. It also led to a very dynamic conception of the vocabulary, whose ‘artificial’ elements work together to cover reality (*Dictionnaire des synonymes*, only published in the 20th century). So, Condillac introduced into the French tradition the idea – so strongly expressed by Vico – that languages have a special value as cultural imprints and ‘measure of the ideas’ (as Turgot was to say). From that point, the topics of linguistic relativism and *génie des langues* quickly developed (see Maupertuis’s *Plans d’idées* in 1748) and could foster conceptions usually assigned to German romanticism (Aarsleff, 1974; Christmann, 1976).

On another side, which left a deep mark on Condorcet and the politics of language of the French Revolution, Condillac renewed the project of a linguistic improvement which would restore a true *liaison des idées* by a logical combination defying any arbitrariness. “*Toute langue est une méthode analytique et toute méthode analytique est une langue.*” In other words – to quote an equally famous statement of the *Logique* (1780) and the *Langue des calculs* (published in 1798): “*Une science bien traitée n’est qu’une langue bien faite.*” After 1789, the *Idéologues* were to base on that belief a democratic reform of education, where *grammaire générale*, working on the naked spirit of the average citizen, would allow him to master the unlimited combination of his ideas through the hierarchy of human faculties, and climb the whole scale of social functions.

Developing with great acuteness the genetic and functional aspects of signs, Condillac appears in the long run to have laid the basis for a historical orientation that the systematic one was still actively challenging. In his lectures on *General and comparative*

grammar of 1797 for the Lycée des Étrangers, François Thurot was to express his concern (as noticed by Coseriu) to strike a balance between the most visible part of the sensualist legacy and a more discreet current of Enlightened linguistics: “analysis, analogy and etymology.”

See also: Herder, Johann Gottfried (1744–1803); Rousseau, Jean-Jacques (1712–1778); Turgot, Anne Robert Jacques (1727–1781).

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Conditionals

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Form and Meaning

Conditionals are complex sentences built up from two constituent clauses, called the *antecedent* and the *consequent*; alternatively, the terms *protasis* and *apodosis* are found in the linguistic literature. English conditionals are typically of the form *if A, (then) B*, where *A* and *B* are the antecedent and consequent, respectively. Some examples are given in (1).

- (1a) If the sun comes out, Sue will go on a hike.
- (1b) If the sun came out, Sue went on a hike.
- (1c) If the sun had come out, Sue would have gone on a hike.

In the linguistic and philosophical literature, a distinction is commonly drawn between *indicative* conditionals, such as (1a) and (1b), and *subjunctive* or *counterfactual* conditionals, like (1c). This classification is not uncontroversial: some authors would draw the major dividing line between (1a) and (1c) on the one hand and (1b) on the other. However, we adopt the standard classification and focus on indicative conditionals (see also Counterfactuals). The class of indicatives may be further divided into *predictive* and *nonpredictive* conditionals, illustrated in (1a) and (1b), respectively. Despite subtle differences, these share a common semantic core and have similar logical properties. We do not distinguish between them in this discussion.

In general, *if A, B* asserts that *B* follows from, or is a consequence of *A*, without asserting either *A* or *B*. Often the relation in question is causal (*A* causes *B*) or inferential (*B* is inferable from *A*). Other uses include the statement that *B* is *relevant* if *A* is true (2a), conditional speech acts (2b), and metalinguistic comments on the consequent (2c).

- (2a) If you want to meet, I am in my office now.
- (2b) If you will be late, give me a call.
- (2c) If you excuse my saying so, she is downright incompetent.

The form *if A, B* is neither necessary nor sufficient for the expression of conditionality. Inverted forms, as in (3a), are used as conditional antecedents. Sentences like (3b) and (3c) also typically have conditional interpretations.

- (3a) Should the sun come out, Sue will go on a hike.
- (3b) Buy one – get one free.
- (3c) Give me \$10 and I will fix your bike.

On the other hand, some *if-then* sentences do not fit the semantic characterization and are not considered conditionals, as in (4).

- (4) If these problems are difficult, they are also fascinating.

Despite these marginal counterexamples, *if* is clearly the prototypical conditional marker in English. Other languages show more diversity in their expression of conditionality. The German conditional maker *falls* is freely interchangeable with *wenn* 'when/if', which also functions as a temporal conjunction. Japanese employs a family of verbal suffixes and particles (*-ba*, *-tara*, *-tewa*, *nara*, *to*), each of which adds subtle semantic and pragmatic constraints to the conditional meaning and some of which may also express temporal relations without conditionality (*-tara* 'and then'; *A to B* 'upon A, B'). Languages also vary in the extent to which they overtly mark (non)counterfactuality. In Japanese, the distinction is usually inferred from context; Classical Greek, on the other hand, has an elaborate inventory of markers of different degrees of hypotheticality.

In all languages, the interpretation of conditionals is determined and constrained by expressions of temporal relations, modality, quantification, and a variety of pragmatic factors. For instance, the differences in (1a) through (1c) arise from the interaction of the marker *if* with the tenses and modal auxiliaries in the constituent clauses.

For descriptive surveys of conditionals in English and other languages, see Traugott *et al.* (1986), Athanasiadou and Dirven (1997), Dancygier (1998), and Declerck and Reed (2001).

Truth-Conditional Semantics

The formal semantic approach in linguistics and philosophical logic is concerned with the truth conditions of sentences and their logical behavior. Conditionals are among the most extensively studied linguistic constructions in this tradition and pose specific challenges, which have been addressed in a number of ways.

Material Conditional

In classical Fregean logic, *if A, B* is interpreted as the *material conditional* (also called material implication) ' \rightarrow ':

- (5) $A \rightarrow B$ is true iff either *A* is false, or *B* is true, or both.