

an adposition must be understood from the context, as illustrated, or the meaning is so vague that the adposition becomes meaningless. When this occurs, all that may be said about it is that it is the head of a prepositional (or postpositional) phrase. This occurs very conspicuously in pidgins and creoles. The preposition *long* in the Melanesian pidgin Bislama not only has a host of temporal and locative meanings determined by the context, for example, ‘in, on, at, to’, but plays, too, an important syntactic role in which it is semantically meaningless. *Long* marks the second object of a ditransitive verb, although this second object is often the indirect object, which in English and many other European languages may be marked by the preposition *to* or its equivalent. However, in

hem	i	tijim	mifala	long	matematik
he	PRED	teach	us	PREP	mathematics
‘he teaches us mathematics’					

it is clear that the prepositional phrase *long matematik* is not the equivalent of the English *to mathematics*, a prepositional phrase functioning as goal or recipient (indirect object), but is marked as the second complement in terms of word order.

A further example of an adposition becoming a syntactic marker is the English *to* when it functions as the marker of the verb infinitive (labeled in some syntactic theories as a complementizer). This function is similar in some respects to *à* and *de* in French, although in this language further morphological means are found (viz. suffixes such as *-er*, *-re*, *-ir*).

This may be contrasted to languages such as Russian and Spanish, in which the infinitive is marked by suffix only, for example, *-at’/ -it’* in Russian and *-ar/ -ir* in Spanish.

See also: Semantics of Spatial Expressions; Word Classes/Parts of Speech: Overview.

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## Adverbs

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### Introduction

Adverbs easily constitute the most heterogeneous of all word classes; they often are described as a ‘dustbin’ category to which items will be assigned that do not fit into other word classes. Semantically and morphologically, adverbs are most closely related to adjectives, from which they are often derived.

The earliest attempts at defining adverbs reflect the etymology of the word (cf. Latin *ad-verbium*); adverbs are “used in construction with a verb” (Appolonios Dyscolos). Even today, manner adverbs are typically considered the core group of adverbs.

One definition commonly encountered in linguistic textbooks is more general than the one proposed by scholars in classical antiquity: adverbs modify verbs, adjectives, or other adverbs. Apart from its patent circularity, the traditional textbook definition does not apply to countless items that are commonly classified as adverbs (e.g., words that usually relate to whole sentences, such as *fortunately*). Many linguists have tried to remedy the shortcomings of traditional accounts by assigning some putative ‘adverbs’ to other word classes (cf. ‘Semantics versus syntax’).

### Semantic Categories

Of the many semantic classifications of adverbs that have been suggested, the following semantic subclasses seem to have the widest currency in the

pertinent literature (examples and classification from Ramat and Ricca, 1994: 307f):

1. predicate adverbs (*quickly, already, repeatedly, again*)
2. degree adverbs (*very, extremely*)
3. sentence adverbs (*unfortunately, strangely, probably, allegedly, frankly*)
4. setting adverbs of space and time (*today, now, here, recently*)
5. focalizers (*only, also, even*)
6. text adverbs (*firstly, consequently, however, hence*).

Following Ramat and Ricca, predicate adverbs modify verbs or verb phrases, whereas degree adverbs modify adjectives and other adverbs. The class of sentence adverbs includes many different types of items. Their defining characteristic is that their scope extends over more than one constituent. Setting adverbs and focalizers lack many characteristic features of adverbs (cf. below). Text adverbs “give textual coherence to a sequence of sentences,” and thus are similar in function to conjunctions (Ramat and Ricca, 1994: 308). It is not always easy to differentiate between text adverbs and conjunctions. One crucial difference is that the former function as adverbials. Moreover, conjunctions create a higher-order syntactic unit by joining two smaller syntactic units. By contrast, text adverbs merely connect units (viz. complete sentences) that remain syntactically independent.

### Syntactic Functions

Typically, adverbs and adverb phrases have either of two syntactic functions (cf. Quirk *et al.*, 1985: 439f): They can occur as adverbials (e.g., *never* in *Tom never loses his temper*) or as premodifiers of adjectives (*extremely sad*), adverbs (*extremely quickly*), and (according to some definitions) nouns or noun phrases (*even George*). According to some linguists, adverbs and adverb phrases can also function as arguments (e.g. as subject in *Tomorrow will be fine*; Quirk *et al.*, 1985: 440). It is not clear, however, whether *tomorrow* in this example should be counted as an adverb in the first place (cf. Semantics vs. syntax).

### Coherence of the Word Class: Defining Criteria

The heterogeneity of the class of items commonly labeled *adverbs* prompts the question how to justify the postulation of a single category covering all these lexemes. The basis for such a justification should be the iconicity hypothesis, according to which “the

concepts that fall into the same grammatical category are cognitively similar in some respects” (Croft, 2003: 204). This similarity may be reflected in the presence of necessary or sufficient semantic or syntactic features shared by all items classified as adverbs. Alternatively, it may be reflected in the presence of prototypical adverbs, to which the more marginal members of the class bear a sufficient similarity – although what counts as ‘sufficient’ similarity is a matter of debate. The following morphosyntactic features have been suggested as unifying characteristics of all or at least the prototypical adverbs in English: (i) adverbs are invariable; (ii) adverbs are optional; (iii) adverbs can be modified by items such as *very* or *quite*; (iv) adverbs are used as modifiers of categories other than nouns (e.g., Ramat and Ricca, 1994; Tallerman, 1998; Huddleston and Pullum, 2002). The first two features are at best necessary criteria (because prepositions and conjunctions, for example, also are invariable; and adjectives also often are optional). In a sense, the second criterion does not invariably apply even to typical adverbs. Certain verbs do require the presence of adverbs or other items functioning as adverbials (e.g., *The job paid us handsomely*; \**The job paid us*; Jackendoff, 1972: 64), but these are exceptional cases. The third criterion only applies to prototypical adverbs. The fourth criterion is a good candidate for a defining feature, but it entails that certain items discussed below are excluded from the class of adverbs.

### Semantics versus Syntax

In light of these four morphosyntactic criteria, close scrutiny of the six semantic categories of adverbs mentioned above reveals that some of these categories are problematic. For example, focalizers (group 5) should not be classified as adverbs, primarily because they serve to modify nouns (e.g., *only/even George*); also, they do not combine with typical adverbial modifiers like *very* or *quite*. Similar problems arise with setting adverbs (group 4). There is some evidence, though, that some of the examples which Ramat and Ricca group under this heading are more akin to (pro)nouns than to adverbs proper. For instance, items such as *today* or *tomorrow* can be found in argument positions usually occupied by noun phrases (e.g., they can function as subjects or complements of prepositions, as in *She’ll be ready by tomorrow*). Furthermore, *today* and similar lexemes behave like nouns in that they can take the possessive ‘s (cf. Tallerman, 1998: 48f). In contrast to typical adverbs, these lexemes do not permit modifiers such as *very* or *quite*, and may even be obligatory (e.g., *here* in *put it here*). Most important, setting ‘adverbs’ do not

always act as modifiers: *here* in *put it here* does not really **modify** the verb (for a parallel argument relating to *outside*, cf. Huddleston and Pullum, 2002: 564). There are thus quite a few features that warrant excluding items such as *today* or *tomorrow* from the class of adverbs.

Other setting adverbs do not qualify as nouns but, rather, as prepositions. Thus, lexemes such as *there* can be plausibly reanalyzed as prepositions, primarily because they take modifiers that usually only modify prepositions, like *right* in *right there* (cf. Aarts, 2001: 184f for a number of arguments). Some setting adverbs, however, do seem to be clear adverbs (e.g., *recently* does not exhibit most of the above-mentioned ‘deviant’ features). The example of setting adverbs shows that the semantic subcategories traditionally posited for adverbs have to be subjected to careful analysis. Moreover, it is not always easy to draw the boundary between adverbs and nouns, or between adverbs, prepositions and conjunctions. Some scholars also argue that there is a certain overlap between adverbs and adjectives (cf. Quirk *et al.*, 1985: 403–409).

In light of the foregoing discussion, a definition of adverbs along the lines of Huddleston and Pullum (2002: 563) seems particularly promising. The authors capture “the most important defining property of adverbs” as follows: “Adverbs characteristically modify verbs and other categories except nouns.” This definition is an improvement on the traditional textbook definition – adverbs modify verbs, adjectives, or other adverbs – because it also covers lexemes that modify larger syntactic units such as clauses (e.g., *perhaps*). Furthermore, it specifically excludes nouns as the only category that cannot be modified by adverbs and thus allows us to draw a relatively neat distinction between adjectives and adverbs. Note that this definition does allow for adverbs that modify noun **phrases**, as opposed to mere nouns. More specifically, “adverbs do not occur as attributive modifiers within a nominal” (*\*his almost success*), although they may modify a noun phrase (*almost the whole season*; Huddleston and Pullum, 2002: 563). Attributive modifiers within nominals are always adjectives; thus, *only* in *only his child* is an adverb, *only* in *his only child* is an adjective. Huddleston and Pullum’s definition holds out the promise for a more succinct conception of adverbs for the following reason: those items that by this definition should be excluded from the category of adverbs (e.g., *tomorrow*) also usually fail to exhibit many other typical features of adverbs. For the same reason, a definition that requires that adverbs function as modifiers may be preferable to conceptions that additionally allow for a predicative use

or other uses of adverbs (e.g., Huddleston and Pullum themselves or Hengeveld, 1992).

### Semantics Complements Syntax: A Prototype Approach

A syntactic definition of adverbs should be complemented by a semantic characterization. Such a characterization necessarily focuses on prototypical adverbs, as it seems impossible to capture the common denominator of all adverbs in semantic terms. A compelling approach to defining parts of speech in semantic terms has been put forward by Croft (2001), who argues that a universally applicable definition of parts of speech has to be framed in terms of prototypes (for another intriguing explanation, cf. Sasse, 1993). Croft proposes a scheme based on pairings of semantic class (object, action, property) and propositional act functions (reference, modification, predication). The author suggests the following definitions: noun = ‘reference to an object’; adjective = ‘modification by a property’; verb = ‘predication of an action.’ Croft’s original scheme only covers modification of a referent, but, as noted by the author himself, can be expanded to cover adverbial modification, which he captures as “modification of a predicate” (Croft, 2001: 94). Prototypical adverbs, much like prototypical adjectives, could then be defined as items that provide ‘modification by a property,’ the difference being that prototypical adjectives modify referents and prototypical adverbs modify predicates. This definition reflects the close link between adjectives and adverbs: Many adverbs are formed from adjectives (e.g., by means of *-ly* in English); and numerous languages do not even make a formal distinction between adjectives and adverbs. For example, non-standard varieties of English generally dispense with the typical adverb ending *-ly*. According to Hengeveld’s Part-of-speech hierarchy (Verb > Noun > Adjective > Adverb), “a category of predicates is more likely to occur as a separate part of speech the more to the left it is in this hierarchy” (Hengeveld, 1992: 70).

Items that qualify as prototypical adverbs by Croft’s definition (viz. manner adverbs) exhibit all the previously mentioned syntactic criteria of adverbs. Manner adverbs are invariable and almost always optional; they act as modifiers (but never modify nouns), and they can be modified by words like *very* or *quite*. In contrast to problematic items like *today* or *aboard*, they can never follow a copular verb. Most members of the remaining subcategories lack at least one of these features (e.g., they cannot be modified by degree adverbs). Our approach is cognitivist in spirit, as word classes are seen as having a

“prototype structure, with central members sharing a range of both syntactic and semantic attributes. Failure of an item to exhibit some of these attributes does not of itself preclude membership” (Taylor, 1995: 196). Such an approach is not at odds with the idea that all adverbs have at least one feature in common.

*See also:* Adjectives; Adpositions; Grammatical Meaning; Nouns; Prototype Semantics; Word Classes/Parts of Speech: Overview.

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## Aegean Scripts

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### Introduction

In the 2nd millennium B.C.E., literacy spread from Mesopotamia and Egypt to adjacent parts of the eastern Mediterranean area. There can be little doubt that the Semitic consonantal alphabet (*abjad*) was directly inspired by Egyptian logoconsonantal writing. In the case of the essentially logosyllabic Sumero–Akkadian cuneiform writing system, it is, however, not entirely clear whether the creation of several logosyllabic and syllabic writing systems in the 2nd millennium B.C.E. was directly inspired by the principles behind the cuneiform script or only very loosely so.

Three such logosyllabic and syllabic writing traditions are known: the Byblos (pseudohieroglyphic) script of Phoenicia (*see Scripts, Undeciphered*), the Cretan–Mycenean–Cypriot scripts (Cretan hieroglyphic, Linear A, Linear B, the Phaistos Disk script, Cypro–Minoan, and the Cypriot syllabary), and the Anatolian hieroglyphs (a.k.a. Hittite hieroglyphs or

Luwian hieroglyphs). Of these, only Linear B, the Cypriot syllabary (both mainly used to write Greek), and the Anatolian hieroglyphs (mainly used to write the Luwian language) have been wholly or largely deciphered.

### General Characteristics of Open Syllabaries

The main point of agreement between the deciphered (logo)syllabic scripts previously enumerated is that they are basically open syllabaries; that is the syllabic signs are overwhelmingly of the type (C)V. We may provisionally assume that the same goes for the as yet undeciphered syllabaries. This contrasts, on the one hand, with Sumero–Akkadian cuneiform, whose syllabic signs are a mix of (C)VC and (C)V, and, on the other, with Egyptian hieroglyphics and the Semitic *abjad*, which are (logo)consonantal systems (i.e., the signs denote one or more consonants, but the quality and quantity of the vowels, or lack thereof, are not expressed in the writing).