Written Accents
Linguistic Imperialism

William Neal

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Chapter 1

Accent (Sociolinguistics)

In sociolinguistics, an **accent** is a manner of pronunciation peculiar to a particular individual, location, or nation. An accent may be identified with the locality in which its speakers reside (a regional or geographical accent), the socioeconomic status of its speakers, their ethnicity (an ethnolect), their caste or social class (a social accent), or influence from their first language (a foreign accent).

Accents typically differ in quality of voice, pronunciation and distinction of vowels and consonants, stress, and prosody. Although grammar, semantics, vocabulary, and other language characteristics often vary concurrently with accent, the word "accent" may refer specifically to the differences in pronunciation, whereas the word "dialect" encompasses the broader set of linguistic differences. "accent" is often a subset of "dialect".

History

As human beings spread out into isolated communities, stresses and peculiarities develop. Over time, they can develop into identifiable accents. In North America, the interaction of people from many ethnic backgrounds contributed to the formation of the different varieties of North American accents. It is difficult to measure or predict how long it takes an accent to form. Accents from Canada, South Africa, Australia and the

United States for example, developed from the combinations of different accents and languages in various societies and their effect on the various pronunciations of British settlers.

Accents may vary within regions of an area in which a uniform language is spoken. In some cases, such as regional accents of English in the United States, accents can be traced back to when an area was settled and by whom. Areas like the city of New Orleans in Louisiana that are, or at one point in time were, semi-isolated have distinct accents due to the absence of contact between regions. Isolated regions allow dialects to expand and evolve independently. Social and economic factors can also influence the way people speak. Regardless of where someone is from, their general level of education can be reasonably inferred based on the way they speak.

Sound change

A **sound change**, in historical linguistics, is a change in the pronunciation of a language over time. A sound change can involve the replacement of one speech sound (or, more generally, one phonetic feature value) by a different one (called **phonetic change**) or a more general change to the speech sounds that exist (**phonological change**), such as the merger of two sounds or the creation of a new sound.

A sound change can eliminate the affected sound, or a new sound can be added. Sound changes can be **environmentally conditioned** if the change occurs in only some sound environments, and not others.

The term "sound change" refers to diachronic changes, which occur in a language's sound system over time. On the other hand, "alternation" refers to changes that happen synchronically (within the language of an individual speaker, depending on the neighbouring sounds) and do not change the language's underlying system (for example, the -*s* in the English plural can be pronounced differently depending on the preceding sound, as in *bet*[s], *bed*[z], which is a form of alternation, rather than sound change).However, since "sound change" can refer to the historical introduction of an alternation (such as postvocalic /k/ in the Tuscan dialect, which was once [k] as in *di* [k]*arlo* 'of Carlo' but is now [h] *di* [h]*arlo* and alternates with [k] in other positions: *con* [k]*arlo* 'with Carlo'), that label is inherently imprecise and must often be clarified as referring to either phonemic change or restructuring.

Research on sound change is usually conducted under the working assumption that it is *regular*, which means that it is expected to apply mechanically whenever its structural conditions are met, irrespective of any non-phonological factors like the meaning of the words that are affected. However, apparent exceptions to regular change can occur because of dialect borrowing, grammatical analogy, or other causes known and unknown, and some changes are described as "sporadic" and so they affect only one or a few particular words, without any apparent regularity.

The Neogrammarian linguists of the 19th century introduced the term "sound law" to refer to rules of regular change, perhaps in imitation of the laws of physics, and the term "law" is still used in referring to specific sound rules that are named

after their authors like Grimm's Law, Grassmann's Lawetc.. Real-world sound changes often admit exceptions, but the expectation of their regularity or absence of exceptions is of great heuristic value by allowing historical linguists to define the notion of *regular correspondence* by the comparative method.

Each sound change is limited in space and time and so it functions in a limited area (within certain dialects) and for a limited period of time. For those and other reasons, the term "sound law" has been criticized for implying a universality that is unrealistic for to sound change.

A sound change that affects the phonological system or the number or the distribution of its phonemes is a phonological change.

Principles

The following statements are used as heuristics in formulating sound changes as understood within the Neogrammarian model. However, for modern linguistics, they are not taken as inviolable rules but are seen as guidelines.

Sound change has no memory: sound change does not discriminate between the sources of a sound. If a previous sound change causes X,Y> Y (features X and Y merge as Y), a new one cannot affect only an original X.

Sound change ignores grammar: a sound change can have only phonological constraints, like X > Z in unstressed syllables. For example, it cannot only affect adjectives. The

only exception to this is that a sound change may or may not recognise word boundaries, even when they are not indicated by prosodic clues. Also, sound changes may be regularized in inflectional paradigms (such as verbal inflection), in which case the change is no longer phonological but morphological in nature.

Sound change is exceptionless: if a sound change can happen at a place, it will. It affects all sounds that meet the criteria for change. Apparent exceptions are possible, because of analogy and other regularization processes, another sound change, or an unrecognized conditioning factor. That is the traditional view expressed by the Neogrammarians. In past decades, however, it has been shown that sound change does not necessarily affect all possible words. However, when a sound change is initiated, it often eventually expands to the whole lexicon. For example, the Spanish fronting of the Vulgar Latin [g] (voiced velar stop) before [i e ɛ] seems to have reached every possible word. By contrast, the voicing of word-initial Latin [k] to [g] occurred in *colaphus>golpe* and *cattus>gato* but not in *canna>caña*. See also lexical diffusion.

Sound change is inevitable: All languages vary from place to place and time to time, and neither writing nor media prevents that change.

Formal notation

A statement of the form

- A > B

is to be read, "Sound A changes into (or is replaced by, is reflected as, etc) sound B". Therefore, A belongs to an older stage of the language in question, and B belongs to a more recent stage. The symbol ">" can be reversed, B < A, which also means that the (more recent) B derives from the (older) A":

- POc. *t > Rot. f
- means that "Proto-Oceanic (POc.) *t is reflected as [f] in the Rotuman (Rot.)".

The two sides of such a statement indicate only the start and the end of the change, but additional intermediate stages may have occurred. The example above is actually a compressed account of a *sequence* of changes: *[t] first changed to [θ] (like the initial consonant of English*thin*), which has since yielded [f] and can be represented more fully:

- t >θ> f

Unless a change operates unconditionally (in all environments), the context in which it applies must be specified:

- A > B /X__Y
- = "A changes to B when it is preceded by X and followed by Y."

For example:

- It. b > v /[vowel]__[vowel], which can be simplified to just
- It. b > v /V__V (in which the V stands for any vowel)

- = "Intervocalic [b] (inherited from Latin) became [v] in Italian" (such as in *caballum, dēbet>cavallo* 'horse', *deve* 'owe (3rd pers. sing.)'

Here is a second example:

- PIr. [–cont][–voi] > [+cont]/__[C][+cont]
- = "A preconsonantal voiceless non-continuant (voiceless stop) changed into corresponding a voiceless continuant (fricative) in Proto-Iranian (PIr.)" when it was immediately followed by a continuant consonant (a resonant or a fricative): Proto-Indo-Iranian **pra* 'forth' >Avestan*fra*; **trayas* "three" (masc. nom. pl.)> Av. *θrayō*; **čatwāras* "four" (masc. nom. pl.) > Av. *čaθwārō*; **pśaws* "of a cow" (nom. **paśu*) > Av. *fšāoš* (nom. *pasu*). Note that the fricativization did not occur before stops and so **sapta* "seven" > Av. *hapta*. (However, in the variety of Iranian that led to Old Persian, fricativization occurred in all clusters: Old Persian *hafta* "seven".)

The symbol "#" stands for a word boundary (initial or final) and so the notation "/__#" means "word-finally", and "/#__" means "word-initially":

- Gk. [stop] >Ø /__#
- = "Word-final stops were deleted in Greek (*Gk.*)".

That can be simplified to

- Gk. P >Ø / __#

in which P stands for any plosive.

Terms for changes in pronunciation

In historical linguistics, a number of traditional terms designate types of phonetic change, either by nature or result. A number of such types are often (or usually) sporadic, that is, more or less accidents that happen to a specific form. Others affect a whole phonological system. Sound changes that affect a whole phonological system are also classified according to how they affect the overall shape of the system; see *phonological change*.

- Assimilation: One sound becomes more like another, or (much more rarely) two sounds become more like each other. Example: in Latin the prefix **kom-* becomes *con-* before an apical stop ([t d]) or [n]: *contactus* "touched", *condere* "to found, establish", *connūbium* "legal marriage". The great majority of assimilations take place between contiguous segments, and the great majority involve the earlier sound becoming more like the later one (e.g. in *connūbium*,*m-* + *n* becomes *-nn-* rather than *-mm-*). Assimilation between contiguous segments are (diachronically speaking) exceptionless sound laws rather than sporadic, isolated changes.
- Dissimilation: The opposite of assimilation. One sound becomes less like another, or (much more rarely) two sounds become less like each other. Examples: Classical Latin *quīnque*/kʷiːnkʷe/ "five" >

Vulgar Latin **kinkʷe* (whence French *cinq*, Italian *cinque*, etc.);Old Spanish*omne* "man" > Spanish *hombre*. The great majority of dissimilations involve segments that are **not** contiguous, but, as with assimilations, the great majority involve an earlier sound changing with reference to a later one. Dissimilation is usually a sporadic phenomenon, but Grassmann's Law (in Sanskrit and Greek) exemplifies a systematic dissimilation. If the change of a sequence of fricatives such that one becomes a stop is dissimilation, then such changes as Proto-Germanic *hs to /ks/ (spelled *x*) in English would count as a regular sound law: PGmc. **sehs* "six" >Old English*siex*, etc.

- Metathesis: Two sounds switch places. Example: Old English *th**ri**dda* became Middle English *th**ir**d*. Most such changes are sporadic, but occasionally a sound law is involved, as Romance **tl*> Spanish *ld*, thus **kapitlu, *titlu* "chapter (of a cathedral)", "tittle" > Spanish *cabildo, tilde*. Metathesis can take place between non-contiguous segments, as Greek *amélgō* "I milk" > Modern Greek *armégō*.
- Lenition, softening of a consonant, e.g. stop consonant to affricate or fricative; and its antonymfortition, hardening of a consonant.
- Tonogenesis: Syllables come to have distinctive pitch contours.
- Sandhi: conditioned changes that take place at word-boundaries but not elsewhere. It can be morpheme-specific, as in the loss of the vowel in the enclitic forms of English *is*/ɪz/, with subsequent change of /z/ to /s/ adjacent to a voiceless consonant *Frank's*

not here/ˈfræŋksnɒtˈhɪər/. Or a small class of elements, such as the assimilation of the /ð/ of English *the, this* and *that* to a preceding /n/ (including the /n/ of *and* when the /d/ is elided) or /l/: *all the* often /ɔːllə/, *in the* often /ɪnnə/, and so on. As in these examples, such features are rarely indicated in standard orthography. In a striking exception, Sanskrit orthography reflects a wide variety of such features; thus, *tat* "that" is written *tat*,*tac*, *taj*, *tad*,or *tan* depending on what the first sound of the next word is. These are all assimilations, but medial sequences do not assimilate the same way.

- Haplology: The loss of a syllable when an adjacent syllable is similar or (rarely) identical. Example: Old English *Englaland* became Modern English *England*, or the common pronunciation of *probably* as [ˈprɒbli]. This change usually affects commonly used words. The word haplology itself is sometimes jokingly pronounced "haplogy".
- Elision, aphaeresis, syncope, and apocope: all losses of sounds. Elision is the loss of unstressed sounds, aphaeresis the loss of initial sounds, syncope is the loss of medial sounds, and apocope is the loss of final sounds.
- Elision examples: in the southeastern United States, unstressed schwas tend to drop, so "American" is not /əˈmɛɹəkən/ but /ˈməkən/. Standard English is *possum*<*opossum*.
- Syncope examples: the Old French word for "state" is *estat*, but the *s* disappeared, yielding *état*. Similarly, the loss of /t/ in English *soften, hasten, castle*, etc.

- Apocope examples: the final -*e*[ə] in Middle English words was pronounced, but is only retained in spelling as a silent E. In English /b/ and /ɡ/ were apocopated in final position after nasals: *lamb, long*/læm/, /lɒŋ ~ lɔːŋ/.
- Epenthesis (also known as anaptyxis): The introduction of a sound between two adjacent sounds. Examples: Latin *humilis*> English *humble*; in Slavic an -l- intrudes between a labial and a following yod, as **zemya* "land" > Russian *zemlya* (земля). Most commonly, epenthesis is in the nature of a "transitional" consonant, but vowels may be epenthetic: non-standard English *film* in two syllables, *athlete* in three. Epenthesis can be regular, as when the Indo-European "tool" suffix *-*tlom* everywhere becomes Latin -*culum* (so *speculum* "mirror" < **spe□tlom*, *pōculum* "drinking cup" < **poH*$_3$*-tlom*). Some scholars reserve the term *epenthesis* for "intrusive" vowels and use *excrescence* for intrusive consonants.
- Prothesis: The addition of a sound at the beginning of a word. Example: word-initial /s/ + stop clusters in Latin gained a preceding /e/ in Old Spanish and Old French; hence, the Spanish word for "state" is *estado*, deriving from Latin *status*.
- Nasalization: Vowels followed by nasal consonants can become nasalized. If the nasal consonant is lost but the vowel retains its nasalized pronunciation, nasalization becomes phonemic, that is, distinctive. Example: French "-in" words used to be pronounced [in], but are now pronounced [ɛ̃], and the [n] is no longer pronounced (except in cases of liaison).

Examples of specific historical sound changes

- Anglo-Frisian nasal spirant law
- Canaanite shift
- Dahl's law
- Grassmann's law
- Great Vowel Shift (English)
- Grimm's law
- High German consonant shift
- Kluge's law
- Ruki sound law
- Slavic palatalization
- Sound change in Japanese
- Umlaut
- Verner's law

Non-native accents

Accents of non-native speakers may be the result of the speaker's native language. Each language contains distinct sets of sounds. At around 12 months of age, human infants will pick out which sounds they need to learn their language. As they get older it becomes increasingly harder to learn these "forgotten" sounds. A prime example of this can be seen between German and English - the "w" and "th" sounds, like in the English words "wish" and "this" respectively, do not exist in German - the closest sounds are "v" and "z". As a result,

many English-speaking Germans pronounce "wish" as "vish" and "this" as "ziss." A similar disjunction occurs in German speaking native English speakers, who may find it difficult to pronounce the vowels in German words such as "schön" (beautiful) and "müde" (tired).

An important factor in predicting the degree to which the accent will be noticeable (or strong) is the age at which the non-native language was learned. The critical period theory states that if learning takes place after the critical period (usually considered around puberty) for acquiring native-like pronunciation, an individual is unlikely to acquire a native-like accent. This theory, however, is quite controversial among researchers. Although many subscribe to some form of the critical period, they either place it earlier than puberty or consider it more of a critical “window,” which may vary from one individual to another and depend on factors other than age, such as length of residence, similarity of the non-native language to the native language, and the frequency with which both languages are used.

Nevertheless, children as young as 6 at the time of moving to another country often speak with a noticeable non-native accent as adults. There are also rare instances of individuals who are able to pass for native speakers even if they learned their non-native language in early adulthood. However, neurological constraints associated with brain development appear to limit most non-native speakers’ ability to sound native-like. Most researchers agree that for adults, acquiring a native-like accent in a non-native language is near impossible.

Social factors

When a group defines a standard pronunciation, speakers who deviate from it are often said to "speak with an accent". However, everyone speaks with an accent. People from the United States would "speak English with an accent" from the point of view of an Australian, and vice versa. Accents such as Received Pronunciation or General American English may sometimes be erroneously designated in their countries of origin as "accentless" to indicate that they offer no obvious clue to the speaker's regional or social background.

Being understood

Many teachers of, for example, English as a second language neglect to teach speech/pronunciation. Many adult and near-adult learners of second languages have unintelligible speech patterns that may interfere with their education, profession, and social interactions. Pronunciation in a second or foreign language involves more than the correct articulation of individual sounds. It involves producing a wide range of complex and subtle distinctions which relate sound to meaning at several levels.

Teaching of speech/pronunciation is neglected in part because of the following myths:

- Pronunciation isn't important: "This is patently false from any perspective." Speech/Pronunciation forms the vehicle for transmitting the speaker's meaning. If the listener does not understand the message, no

communication takes place, and although there are other factors involved, one of the most important is the intelligibility of the speaker's pronunciation.

- Students will pick it up on their own: "Some will learn to pronounce the second language intelligibly; many will not."

Inadequate instruction in speech/pronunciation can result in a complete breakdown in communication. The proliferation of commercial "accent reduction" services is seen as a sign that many ESL teachers are not meeting their students' needs for speech/pronunciation instruction.

The goals of speech/pronunciation instruction should include: to help the learner speak in a way that is easy to understand and does not distract the listener, to increase the self-confidence of the learner, and to develop the skills to self-monitor and adapt one's own speech.

Even when the listener does understand the speaker, the presence of an accent that is difficult to understand can produce anxiety in the listener that he will not understand what comes next, and cause him to end the conversation earlier or avoid difficult topics.

Intelligibility of speech, in comparison to native-like accent, has been experimentally reported to be of greater importance for the second language speakers. As such ways of increasing intelligibility of speech has been recommended by some researchers within the field.

Prestige

Certain accents are perceived to carry more prestige in a society than other accents. This is often due to their association with the elite part of society. For example, in the United Kingdom, Received Pronunciation of the English language is associated with the traditional upper class. The same can be said about the predominance of Southeastern Brazilian accents in the case of the Brazilian variant of the Portuguese language, especially considering the disparity of prestige between most *caipira*-influenced speech, associated with rural environment and lack of formal education, together with the Portuguese spoken in some other communities of lower socioeconomic strata such as *favela* dwellers, and other sociocultural variants such as middle and upper class *paulistano* (dialect spoken from Greater São Paulo to the East) and *fluminense* (dialect spoken in the state of Rio de Janeiro) to the other side, inside Southeastern Brazil itself. However, in linguistics, there is no differentiation among accents in regard to their prestige, aesthetics, or correctness. All languages and accents are linguistically equal.

Accent stereotyping and prejudice

Stereotypes refer to specific characteristics, traits, and roles that a group and its members are believed to possess. Stereotypes can be both positive and negative, although negative are more common.

Stereotypes may result in prejudice, which is defined as having negative attitudes toward a group and its members. Individuals

with non-standard accents often have to deal with both negative stereotypes and prejudice because of an accent. Researchers consistently show that people with non-native accents are judged as less intelligent, less competent, less educated, having poor English/language skills, and unpleasant to listen to. Not only people with standard accents subscribe to these beliefs and attitudes, but individuals with accents also often stereotype against their own or others' accents.

In some cases, the *way* you hear someone can be more impactful than *what* you actually hear. Humans can (and often do) judge each other as soon as someone says "hello." Even as they continue to speak, your mind has already identified the type of person with whom you're speaking, applied existing stereotypes and generalizations you might hold about that type of person, and in a way categorized them. People associate different behaviors and stereotypes with different accents; in some cases these notions can hold some truth but are often blown out of proportion. This can lead to generalizations about entire cultures.

People place certain amounts of trust in others based on two factors stemming solely from the way they speak. First, people naturally relate to, and form connections with, other people when they can. It's comforting to the mind to find someone like you and accent is an easily identifiable factor with which to make a connection, even if it's subconsciously. Second are your previously held conceptions about people with certain accents. Despite forming a connection with someone, these factors could clash. It's the dynamic created by these two factors that works to shape your trust in a specific person (or general population for that matter) with an identifiable accent.

Additionally, perspective is key: British accents are seen as "scholarly" or "intellectual" in America while in parts of Ireland and parts of Europe they are looked down upon.

Accents have even found to be more impactful on perception than known perceptual dividers like race, religion, or sex. In a PNAS study, babies were told to choose a toy from two recorded speakers with varying characteristics. Ahead of all variables tested, including race and gender, recordings speaking with an accent native to the child were selected at a considerably higher frequency.

Accent discrimination

Discrimination refers to specific behaviors or actions directed at a group or its individual members based solely on the group membership. In accent discrimination, one's way of speaking is used as a basis for arbitrary evaluations and judgments. Unlike other forms of discrimination, there are no strong norms against accent discrimination in the general society. Rosina Lippi-Green writes,

Accent serves as the first point of gate keeping because we are forbidden, by law and social custom, and perhaps by a prevailing sense of what is morally and ethically right, from using race, ethnicity, homeland or economics more directly. We have no such compunctions about language, thus, accent becomes a litmus test for exclusion, and excuse to turn away, to recognize the other.

Speakers with certain accents often experience discrimination in housing and employment. For example, speakers who have

foreign or ethnic-minority accents are less likely to be called back by landlords and are more likely to be assigned by employers to lower status positions than those with standard accents. In business settings, individuals with non-standard accents are more likely to be evaluated negatively. Accent discrimination is also present in educational institutions. For example, non-native speaking graduate students, lecturers, and professors, across college campuses in the US have been targeted for being unintelligible because of accent. Second language speakers have reported being discriminated against, or feeling marginalized for, when they attempted to find a job in higher ranking positions mainly because of their accents. On average, however, students taught by non-native English speakers do not underperform when compared to those taught by native speakers of English. Some English native-speaker students in Canada reported a preference for non-native speaker instructors as long as the instructor's speech is intelligible. This was due to the psychological impacts such circumstances has on the students requiring them to pay closer attention to the instructor to ensure they understand them.

Studies have shown the perception of the accent, not the accent by itself, often results in negative evaluations of speakers. In a study conducted by Rubin (1992), students listened to a taped lecture recorded by a native English speaker with a standard accent. They were then shown an image of the "lecturer", sometimes Asian-looking, sometimes white. Participants in the study who saw the Asian picture believed that they had heard an accented lecturer and performed worse on a task that measured lecture

comprehension. Negative evaluations may reflect the prejudices rather than real issues with understanding accents.

Legal implications

In the United States, Title VII of the Civil Rights Act of 1964 prohibits discrimination based on national origin, implying accents. However, employers may claim that a person's accent impairs their communication skills that are necessary to the effective business operation. The courts often rely on the employer's claims or use judges' subjective opinions when deciding whether the (potential) employee's accent would interfere with communication or performance, without any objective proof that accent was or might be a hindrance.

Kentucky's highest court in the case of *Clifford vs. Commonwealth* held that a white police officer, who had not seen the black defendant allegedly involved in a drug transaction, could, nevertheless, identify him as a participant by saying that a voice on an audiotape "sounded black". The police officer based this "identification" on the fact that the defendant was the only African American man in the room at the time of the transaction and that an audio-tape contained the voice of a man the officer said "sounded black" selling crack cocaine to a European American informant planted by the police.

Acting and accents

Actors are often called upon to speak a variety of language other than their own. Similarly, an actor may portray a

character of some nationality other than their own by adopting into the native language the phonological profile typical of the nationality to be portrayed in what is commonly called "speaking with an accent".

Accents may have stereotypical associations. For example, in Disney animated films mothers and fathers typically speak with white middle class American or English accents. English accents in Disney animated films are frequently employed to serve one of two purposes, slapstick comedy or evil genius. Examples include *Aladdin* (the Sultan and Jafar, respectively) and *The Lion King* (Zazu and Scar, respectively), among others.

Chapter 2

Stress (Linguistics)

In linguistics, and particularly phonology, **stress** or **accent** is the relative emphasis or prominence given to a certain syllable in a word or to a certain word in a phrase or sentence. That emphasis is typically caused by such properties as increased loudness and vowel length, full articulation of the vowel, and changes in tone. The terms *stress* and *accent* are often used synonymously in that context but are sometimes distinguished. For example, when emphasis is produced through pitch alone, it is called *pitch accent*, and when produced through length alone, it is called *quantitative accent*. When caused by a combination of various intensified properties, it is called *stress accent* or *dynamic accent*; English uses what is called *variable stress accent*.

Since stress can be realised through a wide range of phonetic properties, such as loudness, vowel length, and pitch (which are also used for other linguistic functions), it is difficult to define stress solely phonetically.

The stress placed on syllables within words is called **word stress**. Some languages have *fixed stress*, meaning that the stress on virtually any multisyllable word falls on a particular syllable, such as the penultimate (e.g. Polish) or the first (e.g. Finnish). Other languages, like English and Russian, have *lexical stress*, where the position of stress in a word is not predictable in that way but lexically encoded. Sometimes more

than one level of stress, such as *primary stress* and *secondary stress*, may be identified.

Stress is not necessarily a feature of all languages: some, such as French and Mandarin, are sometimes analyzed as lacking lexical stress entirely.

The stress placed on words within sentences is called **sentence stress** or **prosodic stress**. That is one of the three components of prosody, along with rhythm and intonation. It includes **phrasal stress** (the default emphasis of certain words within phrases or clauses), and **contrastive stress** (used to highlight an item, a word or part of a word, that is given particular focus).

Phonetic realization

There are various ways in which stress manifests itself in the speech stream, and these depend to some extent on which language is being spoken. Stressed syllables are often louder than non-stressed syllables, and may have a higher or lower pitch. They may also sometimes be pronounced longer. There are sometimes differences in place or manner of articulation – in particular, vowels in unstressed syllables may have a more central (or "neutral") articulation, while those in stressed syllables have a more peripheral articulation. Stress may be realized to varying degrees on different words in a sentence; sometimes the difference between the acoustic signals of stressed and unstressed syllables are minimal.

These particular distinguishing features of stress, or types of prominence in which particular features are dominant, are sometimes referred to as particular types of accent – *dynamic accent* in the case of loudness, *pitch accent* in the case of pitch (although that term usually has more specialized meanings), *quantitative accent* in the case of length, and *qualitative accent* in the case of differences in articulation. These can be compared to the various types of accent in music theory. In some contexts, the term *stress* or *stress accent*is used to mean specifically dynamic accent (or as an antonym to *pitch accent* in its various meanings).

A prominent syllable or word is said to be *accented* or *tonic*; the latter term does not imply that it carries phonemic tone. Other syllables or words are said to be *unaccented* or *atonic*. Syllables are frequently said to be in *pretonic* or *post-tonic* position; certain phonological rules apply specifically to such positions. For instance, in American English, /t/ and /d/ are flapped in post-tonic position.

In Mandarin Chinese, which is a tonal language, stressed syllables have been found to have tones realized with a relatively large swing in fundamental frequency, while unstressed syllables typically have smaller swings. (See also Stress in Standard Chinese.)

Stressed syllables are often perceived as being more forceful than non-stressed syllables.

Word stress

Word stress, or sometimes **lexical stress**, is the stress placed on a given syllable in a word. The position of word stress in a word may depend on certain general rules applicable in the language or dialect in question, but in other languages, it must be learned for each word, as it is largely unpredictable. In some cases, classes of words in a language differ in their stress properties; for example, loanwords into a language with *fixed* stress may preserve stress placement from the source language, or the special pattern for Turkish placenames.

Non-phonemic stress

In some languages, the placement of stress can be determined by rules. It is thus not a phonemic property of the word, because it can always be predicted by applying the rules.

Languages in which the position of the stress can usually be predicted by a simple rule are said to have *fixed stress*. For example, in Czech, Finnish, Icelandic and Hungarian, the stress almost always comes on the first syllable of a word. In Armenian the stress is on the last syllable of a word. In Quechua, Esperanto, and Polish, the stress is almost always on the penult (second-last syllable). In Macedonian, it is on the antepenult (third-last syllable).

Other languages have stress placed on different syllables but in a predictable way, as in Classical Arabic and Latin, where stress is conditioned by the structure of particular syllables. They are said to have a regular stress rule.

Statements about the position of stress are sometimes affected by the fact that when a word is spoken in isolation, prosodic factors (see below) come into play, which do not apply when the word is spoken normally within a sentence. French words are sometimes said to be stressed on the final syllable, but that can be attributed to the prosodic stress that is placed on the last syllable (unless it is a schwa, when stress is placed on the second-last syllable) of any string of words in that language. Thus, it is on the last syllable of a word analyzed in isolation. The situation is similar in Standard Chinese. French (some authors add Chinese) can be considered to have no real lexical stress.

Phonemic stress

Languages in which the position of stress in a word is not fully predictable are said to have *phonemic stress*. For example, English, Russian, Italian, Portuguese and Spanish. Stress is usually truly lexical and must be memorized as part of the pronunciation of an individual word. In some languages, such as Spanish, Portuguese, Lakota and, to some extent, Italian, stress is even represented in writing using diacritical marks, for example in the Spanish words *c**é**lebre* and *celebr**é***. Sometimes, stress is fixed for all forms of a particular word, or it can fall on different syllables in different inflections of the same word.

In such languages with phonemic stress, the position of stress can serve to distinguish otherwise identical words. For example, the English words *insight* (/ˈɪnsaɪt/) and *incite* (/ɪnˈsaɪt/) are distinguished in pronunciation only by the fact that the stress falls on the first syllable in the former and on

the second syllable in the latter. Examples from other languages include German*umschreiben* ([ˈʔʊmʃʁaɪbn] "to rewrite" vs. [ʔʊmˈʃʁaɪbn̩] "to paraphrase"); and Italian*ancora* ([ˈaŋkora] "anchor" vs. [aŋˈkoːra] "more, still, yet, again").

In many languages with lexical stress, it is connected with alternations in vowels and/or consonants, which means that vowel quality differs by whether vowels are stressed or unstressed. There may also be limitations on certain phonemes in the language in which stress determines whether they are allowed to occur in a particular syllable or not. That is the case with most examples in English and occurs systematically in Russian, such as за́мок ([ˈzamək], "castle") vs. замо́к ([zɐˈmok], "lock"); and in Portuguese, such as the triplet *sábia* ([ˈsabjɐ], "wise woman"), *sabia* ([sɐˈbiɐ], "knew"), *sabiá* ([sɐˈbja], "thrush").

Dialects of the same language may have different stress placement. For instance, the English word *laboratory* is stressed on the second syllable in British English (*labóratory* often pronounced "labóratry", the second *o* being silent), but the first syllable in American English, with a secondary stress on the "tor' syllable (*láboratory* often pronounced "lábratory"). The Spanish word *video*is stressed on the first syllable in Spain (*v**í**deo*) but on the second syllable in the Americas (*vid**e**o*). The Portuguese words for Madagascar and the continent Oceania are stressed on the third syllable in European Portuguese (*Madag**á**scar* and *Oce**â**nia*), but on the fourth syllable in Brazilian Portuguese (*Madagasc**a**r* and *Ocean**i**a*).

Compounds

With very few exceptions, English compound wordsare stressed on their first component. And even such exceptions, for example *mankínd*, are instead often stressed on the first component by some people or in some kinds of English. Sometimes the same components as those of a compound word are used in a descriptive phrase with a different meaning and with stress on both words, but that descriptive phrase is then not usually considered a compound: *blácк bírd* (any bird that is black) and *blácкbird* (a specific bird species) and *páper bág* (a bag made of paper) and *páper bag* (very rarely used to mean a bag for carrying newspapers but is often also used to mean a bag made of paper).

Levels of stress

Some languages are described as having both *primary stress* and *secondary stress*. A syllable with secondary stress is stressed relative to unstressed syllables but not as strongly as a syllable with primary stress. As with primary stress, the position of secondary stress may be more or less predictable depending on language. In English, it is not fully predictable, but the different secondary stress of the words *organization* and *accumulation* (on the first and second syllable, respectively) is predictable due to the same stress of the verbs *órganize* and *accúmulate*. In some analyses, for example the one found in Chomsky and Halle's *The Sound Pattern of English*, English has been described as having four levels of stress: primary, secondary, tertiary, and quaternary, but the treatments often disagree with one another.

Peter Ladefoged and other phoneticians have noted that it is possible to describe English with only one degree of stress, as long as prosody is recognized and unstressed syllables are phonemically distinguished for vowel reduction. They find that the multiple levels posited for English, whether *primary–secondary* or *primary–secondary–tertiary*, are not phonetic stress (let alone phonemic), and that the supposed secondary/tertiary stress is not characterized by the increase in respiratory activity associated with primary/secondary stress in English and other languages. (For further detail see Stress and vowel reduction in English.)

Prosodic stress

Prosodic stress, or *sentence stress*, refers to stress patterns that apply at a higher level than the individual word – namely within a prosodic unit. It may involve a certain natural stress pattern characteristic of a given language, but may also involve the placing of emphasis on particular words because of their relative importance (contrastive stress).

An example of a natural prosodic stress pattern is that described for French above; stress is placed on the final syllable of a string of words (or if that is a schwa, the next-to-final syllable). A similar pattern is found in English (see § Levels of stress above): the traditional distinction between (lexical) primary and secondary stress is replaced partly by a prosodic rule stating that the final stressed syllable in a phrase is given additional stress. (A word spoken alone becomes such a phrase, hence such prosodic stress may

appear to be lexical if the pronunciation of words is analyzed in a standalone context rather than within phrases.)

Another type of prosodic stress pattern is *quantity sensitivity* – in some languages additional stress tends to be placed on syllables that are longer (moraically heavy).

Prosodic stress is also often usedpragmatically to emphasize (focus attention on) particular words or the ideas associated with them. Doing this can change or clarify the meaning of a sentence; for example:

*I*didn't take the test yesterday. (Somebody else did.)
I *didn't* take the test yesterday. (I did not take it.)
I didn't*take* the test yesterday. (I did something else with it.)
I didn't take *the* test yesterday. (I took one of several. *or* I didn't take the specific test that would have been implied.)
I didn't take the *test* yesterday. (I took something else.)
I didn't take the test *yesterday*. (I took it some other day.)

As in the examples above, stress is normally transcribed as italics in printed text or underlining in handwriting.

In English, stress is most dramatically realized on focused or accented words. For instance, consider the dialogue

"Is it brunch tomorrow?"

"No, it's *dinner* tomorrow."

In it, the stress-related acoustic differences between the syllables of "tomorrow" would be small compared to the differences between the syllables of "*dinner*", the emphasized

word. In these emphasized words, stressed syllables such as "*din*" in "*din*ner" are louder and longer. They may also have a different fundamental frequency, or other properties.

The main stress within a sentence, often found on the last stressed word, is called the *nuclear stress*.

Stress and vowel reduction

In many languages, such as Russian and English, vowel reduction may occur when a vowel changes from a stressed to an unstressed position. In English, unstressed vowels may reduce to schwa-like vowels, though the details vary with dialect (see Stress and vowel reduction in English). The effect may be dependent on lexical stress (for example, the unstressed first syllable of the word *photographer* contains a schwa /fəˈtɒgrəfər/, whereas the stressed first syllable of *photograph* does not /ˈfoʊtəˌgræf -grɑːf/), or on prosodic stress (for example, the word *of* is pronounced with a schwa when it is unstressed within a sentence, but not when it is stressed).

Many other languages, such as Finnish and the mainstream dialects of Spanish, do not have unstressed vowel reduction; in these languages vowels in unstressed syllables have nearly the same quality as those in stressed syllables.

Stress and rhythm

Some languages, such as English, are said to be *stress-timed languages*; that is, stressed syllables appear at a roughly constant rate and non-stressed syllables are shortened to accommodate that, which contrasts with languages that have *syllable timing* (e.g. Spanish) or *mora timing* (e.g. Japanese), whose syllables or moras are spoken at a roughly constant rate regardless of stress. For details, see Isochrony.

Historical effects

It is common for stressed and unstressed syllables to behave differently as a language evolves. For example, in the Romance languages, the original Latin short vowels/e/ and /o/ have often become diphthongs when stressed. Since stress takes part in verb conjugation, that has produced verbs with vowel alternation in the Romance languages. For example, the Spanish verb *volver* (to return, come back) has the form *v**o**lví* in the past tense but *v**ue**lvo* in the present tense (see Spanish irregular verbs). Italian shows the same phenomenon but with /o/ alternating with /uo/ instead. That behavior is not confined to verbs; note for example Spanish *v**ie**nto* "wind" from Latin *v**e**ntum*, or Italian *f**uo**co* "fire" from Latin *f**o**cum*.

Stress "deafness"

An operational definition of word stress may be provided by the stress "deafness" paradigm. The idea is that if listeners

perform poorly on reproducing the presentation order of series of stimuli that minimally differ in the position of phonetic prominence (e.g. [súmi]/[sumí]), the language does not have word stress. The task involves a reproduction of the order of stimuli as a sequence of key strokes, whereby key "1" is associated with one stress location (e.g. [súmi]) and key "2" with the other (e.g. [sumí]). A trial may be from 2 to 6 stimuli in length. Thus, the order [súmi-súmi-sumí-súmi] is to be reproduced as "1121". It was found that listeners whose native language was French performed significantly worse than Spanish listeners in reproducing the stress patterns by key strokes. The explanation is that Spanish has lexically contrastive stress, as evidenced by the minimal pairs like *tópo* ("mole") and *topó* ("[he/she/it] met"), while in French, stress does not convey lexical information and there is no equivalent of stress minimal pairs as in Spanish.

An important case of stress "deafness" relates to Persian. The language has generally been described as having contrastive word stress or accent as evidenced by numerous stem and stem-clitic minimal pairs such as /mɒhi/ [mɒ.hí] ("fish") and /mɒh-i/ [mɒ́.hi] ("some month"). The authors argue that the reason that Persian listeners are stress "deaf" is that their accent locations arise postlexically. Persian thus lacks stress in the strict sense.

Spelling and notation for stress

The orthographies of some languages include devices for indicating the position of lexical stress. Some examples are listed below:

- In Modern Greek, all polysyllablesare written with an acute accent (΄) over the vowel of the stressed syllable. (The acute accent is also used on some monosyllables in order to distinguish homographs, as in η ('the') and ή ('or'); here the stress of the two words is the same.)
- In Spanish orthography, stress may be written explicitly with a single acute accent on a vowel. Stressed antepenultimate syllables are always written with that accent mark, as in *árabe*. If the last syllable is stressed, the accent mark is used if the word ends in the letters *n*, *s*, or a vowel, as in *está*. If the penultimate syllable is stressed, the accent is used if the word ends in any other letter, as in *cárcel*. That is, if a word is written without an accent mark, the stress is on the penult if the last letter is a vowel, *n*, or *s*, but on the final syllable if the word ends in any other letter. However, as in Greek, the acute accent is also used for some words to distinguish various syntactical uses (e.g. *té* 'tea' vs. *te* a form of the pronoun *tú* 'you'; *dónde*'where' as a pronoun or *wh*-complement, *donde* 'where' as an adverb). For more information, see Stress in Spanish.
- In Portuguese, stress is sometimes indicated explicitly with an acute accent (for *i*, *u*, and open*a*, *e*, *o*), or circumflex (for close *a*, *e*, *o*). The orthography has an extensive set of rules that describe the placement of diacritics, based on the position of the stressed syllable and the surrounding letters.

- In Italian, the grave accent is needed in words ending with an accented vowel, e.g. *città*, 'city', and in some monosyllabic words that might otherwise be confused with other words, like *là* ('there') and *la* ('the'). It is optional for it to be written on any vowel if there is a possibility of misunderstanding, such as *condomìni* ('condominiums') and *condòmini* ('joint owners'). See Italian alphabet § Diacritics. (In this particular case, a frequent one in which diacritics present themselves, the difference of accents is caused by the fall of the second "i" from Latin in Italian, typical of the genitive, in the first noun (con/domìnii/, meaning "of the owner"); while the second was derived from the nominative (con/dòmini/, meaning simply "owners").

Though not part of normal orthography, a number of devices exist that are used by linguists and others to indicate the position of stress (and syllabification in some cases) when it is desirable to do so. Some of these are listed here.

- Most commonly, the **stress mark**is placed before the beginning of the stressed syllable, where a syllable is definable. However, it is occasionally placed immediately before the vowel. In the International Phonetic Alphabet (IPA), primary stress is indicated by a high vertical line (**primary stress mark**: ˈ) before the stressed element, secondary stress by a low vertical line (**secondary stress mark**: ˌ). For example, [sɪˌlæbəfɪˈkeɪʃən] or /sɪˌlæbəfɪˈkeɪʃən/. Extra stress can be indicated by doubling the symbol: ˈˈ◌.

- Linguists frequently mark primary stress with an acute accent over the vowel, and secondary stress by a grave accent. Example: [sɪlæ̀bəfɪkéɪʃən] or /sɪlæ̀bəfɪkéɪʃən/. That has the advantage of not requiring a decision about syllable boundaries.
- In English dictionaries that show pronunciation by respelling, stress is typically marked with a prime mark placed after the stressed syllable: /si-lab′-ə-fi-kay′-shən/.
- In *ad hoc* pronunciation guides, stress is often indicated using a combination of bold text and capital letters. For example, si-**lab**-if-i-**KAY**-shun or si-LAB-if-i-KAY-shun
- In Russian, Belarusian, and Ukrainian dictionaries, stress is indicated with marks called *znaki udareniya* (знакиударения, 'stress marks'). Primary stress is indicated with an acute accent (◌́) on a syllable's vowel (example: вимовля́ння). Secondary stress may be unmarked or marked with a grave accent: о̀колозе́мный. If the acute accent sign is unavailable for technical reasons, stress can be marked by making the vowel capitalized or italic. In general texts, stress marks are rare, typically used either when required for disambiguation of homographs (compare вбольши́хколичествах 'in great quantities', and вбо́льшихколичествах 'in greate*r* quantities'), or in rare words and names that are likely to be mispronounced. Materials for foreign learners may have stress marks throughout the text.
- In Dutch, *ad hoc* indication of stress is usually marked by an acute accent on the vowel (or, in the case of a diphthong or double vowel, the first two

vowels) of the stressed syllable. Compare *achterúitgang* ('deterioration') and *áchteruitgang* ('rear exit').

- In Biblical Hebrew, a complex system of cantillation marks is used to mark stress, as well as verse syntax and the melody according to which the verse is chanted in ceremonial Bible reading. In Modern Hebrew, there is no standardized way to mark the stress. Most often, the cantillation mark *oleh* (part of *oleh ve-yored*), which looks like a left-pointing arrow above the consonant of the stressed syllable, for example בֹּוקר*bóker* ('morning') as opposed to בוקֹר*bokér* ('cowboy'). That mark is usually used in books by the Academy of the Hebrew Language and is available on the standard Hebrew keyboard at AltGr-6. In some books, other marks, such as *meteg*, are used.

Chapter 3

Pitch-accent Language

A **pitch-accent language** is a language that has word accents in which one syllable in a word or morpheme is more prominent than the others, but the accentuated syllable is indicated by a contrasting pitch (linguistic tone) rather than by loudness, as in a stress-accent language. Pitch-accent also contrasts with fully-tonal languages like Standard Chinese in which each syllable can have an independent tone.

Languages that have been described as pitch-accent languages include most dialects of Hebrew, Serbo-Croatian, Slovene, Baltic languages, Ancient Greek, Vedic Sanskrit, Tlingit, Turkish, Japanese, Norwegian, Swedish, Western Basque, Yaqui, certain dialects of Korean, Shanghainese, and Livonian.

Pitch-accent languages tend to fall into two categories: those with a single pitch-contour (for example, high, or high–low) on the accented syllable, such as Tokyo Japanese, Western Basque, or Persian; and those in which more than one pitch-contour can occur on the accented syllable, such as Punjabi, Swedish, or Serbo-Croatian. In this latter kind, the accented syllable is also often stressed.

Some of the languages considered pitch-accent languages, in addition to accented words, also have accentless words (e.g., Japanese and Western Basque); in others all major words are accented (e.g., Blackfoot and Barasana).

Some have claimed that the term "pitch accent" is not coherently defined and that pitch-accent languages are just a sub-category of tonal languages in general.

The term "pitch accent" is also used to denote a different feature, namely the use of pitch to give prominence (accent) to a syllable or mora within a phrase.

Characteristics of pitch-accent languages

Definitions

Scholars give various definitions of a pitch-accent language. A typical definition is as follows: "Pitch-accent systems [are] systems in which one syllable is more prominent than the other syllables in the same word, a prominence that is achieved by means of pitch" (Zanten and Dol (2010)). That is to say, in a pitch-accent language, in order to indicate how a word is pronounced it is necessary, as with a stress-accent language, to mark only one syllable in a word as accented, not specify the tone of every syllable. This feature of having only one prominent syllable in a word or morpheme is known as *culminativity*.

Another property suggested for pitch-accent languages to distinguish them from stress languages is that "Pitch accent languages must satisfy the criterion of having *invariant tonal contours* on accented syllables ... This is not so for pure stress

languages, where the tonal contours of stressed syllables can vary freely" (Hayes (1995)). Although this is true of many pitch-accent languages, there are others, such as the Franconian dialects, in which the contours vary, for example between declarative and interrogative sentences.

According to another proposal, pitch-accent languages *can only use F0* (i.e., pitch) to mark the accented syllable, whereas stress languages may also use duration and intensity (Beckman). However, other scholars disagree, and find that intensity and duration can also play a part in the accent of pitch-accent languages.

A feature considered characteristic of stress-accent languages is that a stress-accent is *obligatory*, that is, that every major word has to have an accent. This is not always true of pitch-accent languages, some of which, like Japanese and Northern Bizkaian Basque, have accentless words. But there are also some pitch-accent languages in which every word has an accent.

One feature shared between pitch-accent languages and stress-accent languages is *demarcativeness*: prominence peaks tend to occur at or near morpheme edges (word/stem initial, word/stem penult, word/stem final).

Often, however, the difference between a pitch-accent language, a stress-accent language, and tonal language is not clear. "It is, in fact, often not straightforward to decide whether a particular pitch system is best described as tonal or accentual. ... Since raised pitch, especially when it coincides with vowel length, makes a syllable perceptually more prominent, it can often require detailed phonetic and

phonological analysis to disentangle whether pitch is playing a more stress-like or a more tone-like role in a particular language" (Downing).

Larry Hyman argues that tone is made up of a variety of different typological features, which can be mixed and matched with some independence from each other. Hyman claims that there can be no coherent definition of pitch-accent, as the term describes languages that have non-prototypical combinations of tone system properties (or both a tone system, usually still non-prototypical, and a stress system simultaneously). Since all pitch-accent languages can be analysed just as well in purely tonal terms, in Hyman's view, the term "pitch-accent" should be superseded by a wider understanding of what qualifies as a tone system - thus, all "pitch-accent" languages are tone languages, and there is simply more variety within tone systems than has historically been admitted.

Characteristics of the accent

High vs. low accent

When one particular tone is marked in a language in contrast to unmarked syllables, it is usual for it to be a high tone. There are, however, a few languages in which the marked tone is a low tone, for example the Dogrib language of northwestern Canada and certain Bantu languages of the Congo such as Ciluba and Ruund.

Disyllabic accents

One difference between a pitch accent and a stress accent is that it is not uncommon for a pitch accent to be realised over two syllables. Thus in Serbo-Croatian, the difference between a "rising" and a "falling" accent is observed only in the pitch of the syllable following the accent: the accent is said to be "rising" if the following syllable is as high as or higher than the accented syllable, but "falling" if it is lower (see Serbo-Croatian phonology#Pitch accent).

In Vedic Sanskrit, the ancient Indian grammarians described the accent as being a high pitch (*udātta*) followed by a falling tone (*svarita*) on the following syllable; but occasionally, when two syllables had merged, the high tone and the falling tone were combined on one syllable.

In Swedish, the difference between accent 1 and accent 2 can only be heard in words of two or more syllables, since the tones take two syllables to be realised. In the central Swedish dialect of Stockholm, accent 1 is an LHL contour and accent 2 is an HLHL contour, with the second peak in the second syllable.

In Welsh, in most words the accent is realised as a low tone on the penultimate syllable (which is also stressed) followed by a high tone on the final; but in some dialects this LH contour may take place entirely within the penultimate syllable.

Similarly in the Chichewa language of Malawi a tone on a final syllable often spreads backwards to the penultimate syllable, so that the word *Chichewá* is actually pronounced *Chichēwā*

with two mid-tones, or *Chichěwā*, with a rising tone on the penultimate syllable. Sentence-finally it can become *Chichěwà* with a rising tone on the final.

Peak delay

A phenomenon observed in a number of languages, both fully tonal ones and those with pitch-accent systems, is peak delay. In this, the high point (peak) of a high tone does not synchronise exactly with the syllable itself, but is reached at the beginning of the following syllable, giving the impression that the high tone has spread over two syllables. The Vedic Sanskrit accent described above has been interpreted as an example of peak delay.

One-mora accents

Conversely, a pitch accent in some languages can target just part of a syllable, if the syllable is bi-moraic. Thus in Luganda, in the word *Abagânda* "Baganda people" the accent is considered to occur on the first mora of the syllable *ga(n)*, but in *Bugáńda* "Buganda (region)" it occurs on the second half (with spreading back to the first half). In Ancient Greek, similarly, in the word οἶκοι (***oî**koi*) "houses" the accent is on the first half of the syllable *oi*, but in οἴκοι (***oí**koi*) "at home" on the second half. An alternative analysis is to see Luganda and Ancient Greek as belonging to the type of languages where there is a choice of different contours on an accented syllable.

High tone spread

Anticipation

In some pitch-accent languages, the high pitch of the accent can be anticipated in the preceding syllable or syllables, for example, Japanese*atám**á** ga* "head", Basque*lagúnén am**ú**ma* "the friend's grandmother", Turkish*sínírl**é**nmeyecektiniz* "you would not get angry", Belgrade Serbian*páp**r**íka* "pepper", Ancient Greek *ápáít**é**i* "it demands".

Forwards spreading

Forwards spreading of a tone is also common in some languages. For example, in the Northern Ndebele language of Zimbabwe, the tonal accent on the prefix *ú-* spreads forward to all the syllables in the word except the last two: ***ú**kúhleka* "to laugh"; ***ú**kúhlékísana* "to make one another laugh". Sometimes the sequence HHHH then becomes LLLH, so that in the related language Zulu, the equivalent of these words is *uk**ú**hleka* and *ukuhlek**í**sana* with an accent shifted to the antepenultimate syllable.

In the Mexican language Yaqui, the accent is signalled by an upstep before the accented syllable. The high pitch continues after the accent, declining slightly, until the next accented syllable. Thus it is the opposite of Japanese, where the accent is preceded by high pitch, and its position is signalled by a downstep after the accented syllable.

Plateau between accents

In other languages the high pitch of an accent, instead of dropping to a low on the following syllable, in some circumstances can continue in a plateau to the next accented syllable, as in Luganda*k**í**rí mú Búg**á**ń**á**da* "it is in Buganda" (contrast *k**í**ri mu Bunyóró* "it is in Bunyoro", in which *Bunyóró* is unaccented apart from automatic default tones).

Plateauing is also found in Chichewa, where in some circumstances a sequence of HLH can change to HHH. For example, *nd**í*** + *njing**á*** "with a bicycle" makes *nd**í** njíng**á*** with a plateau.

In Western Basque and Luganda, the default high tones automatically added to accentless words can spread in a continuous plateau through the phrase as far as the first accent, for example, in Basque *Jonén lágúnén ám**ú**ma* "John's friend's grandmother", Luganda *abántú mú kíb**ú**ga* "people in the city".

Simple pitch-accent languages

According to the first two criteria above, the Tokyo dialect of **Japanese** is often considered a typical pitch-accent language, since the pronunciation of any word can be specified by marking just one syllable as accented, and in every word the accent is realised by a fall in pitch immediately after the accented syllable. In the examples below the accented syllable is marked in bold (the particle *ga* indicates that the word is subject):

- *m**á**kura ga* "pillow"
- *an**á**ta ga* "you"
- *atám**á** ga* "head"
- *sakáná gá* "fish" (unaccented)

In Japanese there are also other high-toned syllables, which are added to the word automatically, but these do not count as accents, since they are not followed by a low syllable. As can be seen, some of the words in Japanese have no accent.

In **Proto-Indo-European** and its descendant, **Vedic Sanskrit**, the system is comparable to Tokyo Japanese and Cupeño in most respects, specifying pronunciation through inherently accented morphemes such as **-ró-* and **-tó-* (Vedic *-rá-* and *-tá-*) and inherently unaccented morphemes. The examples below demonstrate the formation of such words using morphemes:

- PIE */$h_2$erǵ-ró-(o)s/>*h_2r̥ǵrós* "shining" (Vedic r̥jrás)
- PIE */ḱlew-tó-(o)s/>*ḱlutós* "heard (of), famous" (Vedic *śrutás*)

If there are multiple accented morphemes, the accent is determined by specific morphophonological principles. Below is a comparison of Vedic, Tokyo Japanese and Cupeño regarding accent placement:

- Vedic */gáv-ā́/ >gáv-ā* "with the cow"
- Japanese */yón-dára/ >yón-dara* "if (he) reads"
- Cupeño */ʔáyu-qá/ >ʔáyu-qa* "(he) wants"

The **Basque** language has a system very similar to Japanese. In some Basque dialects, as in Tokyo Japanese, there are accented and unaccented words; in other dialects all major

words have an accent. As with Japanese,the accent in Basque consists of a high pitch followed by a fall on the next syllable.

Turkish is another language often considered a pitch-accent language (see Turkish phonology#Word accent). In some circumstances, for example in the second half of a compound, the accent can disappear.

Persianhas also been called a pitch-accent language in recent studies, although the high tone of the accent is also accompanied by stress; and as with Turkish, in some circumstances the accent can be neutralised and disappear. Because the accent is both stressed and high-pitched, Persian can be considered intermediate between a pitch-accent language and a stress-accent language.

More complex pitch accents

In some simple pitch-accent languages, such as **Ancient Greek**, the accent on a long vowel or diphthong could be on either half of the vowel, making a contrast possible between a rising accent and a falling one; compare οἶκοι (***oí**koi*) "at home" vs. οἷκοι (***oî**koi*) "houses". Similarly in **Luganda**, in bimoraic syllables a contrast is possible between a level and falling accent: *Bug**á**ńda* "Buganda (region)", vs. *Abag**â**nda* "Baganda (people)". However, such contrasts are not common or systematic in these languages.

In more complex types of pitch-accent languages, although there is still only one accent per word, there is a systematic contrast of more than one pitch-contour on the accented syllable, for example, H vs. HL in the Colombian language

Barasana, accent 1 vs. accent 2 in **Swedish** and **Norwegian**, rising vs. falling tone in **Serbo-Croatian**, and a choice between level (neutral), rising, and falling in **Punjabi**.

Other languages deviate from a simple pitch accent in more complicated ways. For example, in describing the Osaka dialect of **Japanese**, it is necessary to specify not only which syllable of a word is accented, but also whether the initial syllable of the word is high or low.

In **Luganda** the accented syllable is usually followed immediately after the HL of the accent by an automatic default tone, slightly lower than the tone of the accent, e.g., *t**ú**gendá* "we are going"; however, there are some words such as *b**á**lilabá* "they will see", where the automatic default tone does not follow the accent immediately but after an interval of two or three syllables. In such words it is therefore necessary to specify not only which syllable has the accent, but where the default tone begins.

Because of the number of ways languages can use tone some linguists, such as the tonal languages specialist Larry Hyman, argue that the category "pitch-accent language" can have no coherent definition, and that all such languages should simply be referred to as "tonal languages".

Languages

Proto-Indo-European

The extinct language Proto-Indo-European, the putative ancestor of most European, Iranian and North Indian languages, is usually reconstructed to have been a free pitch-accent system. ("Free" here refers to the position of the accent since its position was unpredictable by phonological rules and so could be on any syllable of a word, regardless of its structure.) From comparisons with the surviving Indo-European daughter languages, it is generally believed that the accented syllable was higher in pitch than the surrounding syllables. Among daughter languages, a pitch-accent system is found in Vedic Sanskrit, Ancient Greek, the Baltic languages and some South Slavic languages, although none of them preserves the original system intact.

Vedic Sanskrit

Vedic Sanskrit, the earliest form of the Indian language Sanskrit, is believed to have had a pitch accent that was very similar to that of ancestor language Proto-Indo-European. Most words had exactly one accented syllable, but there were some unaccented words, such as finite verbs of main clauses, non-initial vocatives, and certain pronouns and particles. Occasionally, a compound word occurred with two accents: ***á**pa-bhart**á**vai* "to take away".

The ancient Indian grammarians describe the accented syllable as being "raised" (*udātta*), and it appears that it was followed in the following syllable by a downwards glide, which the grammarians refer to as "sounded" (*svarita*). In some cases, language change merged an accented syllable with a following svarita syllable, and the two were combined in a single syllable, known as "independent svarita".

The precise descriptions of ancient Indian grammarians imply that the *udātta* was characterised by rising pitch and the *svarita* by falling pitch. In the tradition represented by the Rigveda, a collection of hymns, the highest point of the accent appears not to have been reached until the beginning of the *svarita* syllable. In other words, it was an example of "peak delay" (see above).

In the later stages of Sanskrit, the pitch accent was lost and a stress accent remained. The stress in Sanskrit, however, was weaker than that in English and not free but predictable. The stress was heard on the penultimate syllable of the word if it was heavy, on the antepenultimate if the antepenultimate was heavy and the penultimate light, and otherwise on the pre-antepenultimate.

Ancient Greek

- Main article: Ancient Greek accent

In Ancient Greek, one of the final three syllables of a word carried an accent. Each syllable contained one or two vocalicmorae, but only one can be accented, and accented morae were pronounced at a higher pitch. In polytonic

orthography, accented vowels were marked with the acute accent. Long vowels and diphthongsare thought to have been bimoraic and, if the accent falls on the first mora, were marked with the circumflex. Long vowels and diphthongs that were accented on the first mora had a high–low (falling) pitch contour and, if accented on the second mora, may have had a low–high (rising) pitch contour:

• γάλα	• [gála]	• "milk"	• short accented vowel
• γῆ	• [gɛ́ɛ̃]	• "earth"	• long vowel accented on the first mora
• ἐγώ	• [egɔ̃ɔ́]	• "I"	• long vowel accente

			d on the seco nd mor a

The Ancient Greek accent was melodic, as is suggested by descriptions by ancient grammarians but also by fragments of Greek music such as the Seikilos epitaph, in which most of words are set to music that coincides with the accent. For example, the first syllable of the word φαίνου (*phaínou*) is set to three notes rising in pitch, the middle syllable of ὀλίγον (*olígon*) is higher in pitch than the other two syllables, and the circumflex accent of ζῆν (*zên*) has two notes, the first a third higher than the second.

In addition to the two accents mentioned above (the acute and the circumflex), Ancient Greek also had a grave accent. It was used only on the last syllable of words, as an alternative to an acute. The acute was used when the word was cited in isolation or came before a pause, such as a comma or a full stop, or an enclitic. Otherwise, a grave was written. The exact interpretation of the grave is disputed: it may have indicated that the accent was completely suppressed or that it was partly suppressed but not entirely absent.

By comparing the position of the Ancient Greek and Vedic Sanskrit accents, the accent of the ancestor language Proto-Indo-European can often be reconstructed. For example, in the

declension of the word for "father" in these two languages, the position of the accent in some cases is identical:

In later stages of Greek, the accent changed from a pitch accent to a stress accent, but remained largely on the same syllable as in Ancient Greek. The change is thought to have taken place by the 4th century AD. Thus, the word ἄνθρωπος (*ánthrōpos*) ("man, person"), which is believed to have been pronounced in ancient times with the first syllable always higher than the other two, is now pronounced with the first syllable either higher or lower than the other two.

Baltic languages

- Two languages of the Baltic branch of the Indo-European family survive today: Lithuanian and Latvian. (Another Baltic language, Old Prussian, died out in the 18th century.) Both languages have a tonal accent that is believed to derive from the ancestral Proto-Indo-European language.

Baltic tones are often classified as either "acute" or "circumflex." However, these labels indicate a diachronic correspondence rather than a phonetic one. For example, the "acute" accent is falling in Lithuanian but a high level tone in Latvian and is presumed to have been rising in Old Prussian and Classical Greek. The "circumflex" is rising in Lithuanian but falling in Latvian, Prussian and Classical Greek.

In the tree diagram on the right, as adopted from Poljakov, names for (original) Baltic tones have been equated with those of modern Standard Lithuanian and the falling tone in Latvian

is depicted as derived from a Baltic rising tone. According to some it was Lithuanian that "switched the places" of the Baltic tones. This might explain why most languages call a rising tone "acute" while in Baltic terminology a falling tone is "acute." Some controversy surrounds Poljakov's model, and it has been harshly criticized by Frederik Kortlandt. Kortlandt contends that broken tone in Latvian and Žemaitian is a reflex of a now disappeared glottal stop in Balto-Slavic not preserved in Aukštaitian (Standard Lithuanian) or Slavic languages and not a recent development of acute.

Lithuanian

Long segments in Lithuanian can take one of two accents: rising or falling. "Long segments" are defined as either long vowels, diphthongs or a sequence of a vowel followed by a sonorant if they are in a stressed position. Pitch can serve as the only distinguishing characteristic for minimal pairs that are otherwise orthographically identical, e.g., *karˆtų* 'time:gen.pl' vs. *kártų* 'hang:irr.3' (rising and falling tone indicated by a tilde and an acute accent respectively.)

Latvian

In Latvian, long segments (the same criteria as in Lithuanian) can take on one of three pitches (*intonācijas* or more specifically *zilbes intonācijas*) either *stiepta* ("level"), *lauzta* ("broken") or *krītoša* ("falling") indicated by Latvian linguists with a tilde, circumflex or a grave accent respectively (in IPA, however, the tilde is replaced by a macron because the former

is already reserved to denote nasalized vowels.) Some authors note that the level pitch is realized simply as "ultra long" (or overlong.) Endzelīns (1897) identifies "level diphthongs" as consisting of 3moras not just two. Broken pitch is, in turn, a falling pitch with superadded glottalization. And, indeed, the similarity between the Latvian broken pitch and Danish stød has been described by several authors. At least in Danish phonology, stød (unlike Norwegian and Swedish pitch accents) is not considered a pitch accent distinction but, rather, variously described as either glottalization, laryngealization, creaky voice or vocal fry. Some authors point out that the so-called broken pitch is not a pitch accent but a *pitch register* distinction similar to the *ngã* register of Northern Vietnamese.

Outside of Central Vidzeme (Standard Latvian), the three-way system has been simplified, in Eastern Latvian (Latgale) only broken and falling pitches are distinguished. Speakers of Rīga Latvian and other more westward varieties differentiate only between level and broken pitches with the falling pitch being merged with the broken one. Thus the Standard Latvian "minimal triplet" or "minimal set" of [zā: le] (hall), [zâ: le] (grass) and [zà: les] (medicine) in Rīga Latvian would be reduced to "hall" (level pitch) and "grass" (broken pitch) and "medicine" would be pronounced with a broken pitch just like "grass." Speakers around Ērgļi tend to have just levelled pitch.

Livonian

The extinct Livonian language is a Finnic language rather than Baltic but was influenced by Latvian. In the late 19th century, Danish linguist Vilhelm Thomsen identified a characteristic in

the speech of a Livonian sailor that to him seemed very similar to the Danish *stød*. The feature was later the subject of research by several Finno-Ugricists. Although the (Indo-European) Latvian and (Uralic) Livonian are phylogenetically unrelated (being from different language families) both have influenced each other heavily in terms of phonology. Whether Livonian acquired this feature from Latvian or vice versa is debated; however, owing to the fact that Livonian is the only Finno-Ugric language to have this feature, the majority of researchers believe it was a product of Latvian influence on Livonian and not the other way around. It is possible that "Livonian stød" would be classified as a pitch accent only by Latvian classification just like the identical Latvian *lauztāintonācija*, otherwise it would be considered a pitch register, glottalization or similar categories as discussed above.

The Livonian-Estonian-Latvian dictionary at www.murre.ut.ee uses an apostrophe after a vowel to indicate broken pitch, for example, *Mi'nnõn u'm vajāg* instead of just *Minnõn um vajāg*.

Norwegian and Swedish

Norwegian and Swedish are stress-accent languages, but in addition to the stress, two-syllable words in most dialects also have differences in tone. There are two kinds of tonal accent, referred to as the acute and grave accents, but they are also called *accent 1* and *accent 2* or *tone 1* and *tone 2*. Over 150 two-syllable word pairs are differentiated only by their use of the accent. Accent 1 is used generally for words whose second syllable is the definite article and for words that were monosyllabic in Old Norse.

For example, in many East Norwegian dialects, the word *bønder* (farmers) is pronounced with tone 1, while *bønner* (beans or prayers) uses tone 2. Differences in spelling occasionally let readers distinguish written words, but most minimal pairsare written alike. An example in Swedish is the word *anden*, which means "the duck" when using tone 1 and "the spirit" when using tone 2.

In some dialects of Swedish, including those spoken in Finland, the distinction is absent. There are significant variations in the realization of pitch accent between dialects. Thus, in most of western and northern Norway (the so-called high-pitch dialects), accent 1 is falling, and accent 2 is rising in the first syllable and falling in the second syllable or somewhere around the syllable boundary.

The word accents give Norwegian and Swedish a "singing" quality that makes them easy to distinguish from other languages. In Danish (except for some southern dialects), the pitch accent of Swedish and Norwegian corresponds to the glottalization phenomenon known as stød.

Franconian dialects

A pitch accent is found in the following Franconian languages or dialects: Limburgish, Ripuarian and Moselle Franconian (excluding Luxembourgish). They are sometimes collectively referred to as West Central German tonal languages.

In these dialects there is a distinction between two different tonal contours, known as "tonal accent 1" and "tonal accent 2". As with Lithuanian, the distinction is made only in stressed

syllables and, for the most part, only when the syllable contains a long vowel or diphthong or vowel that is followed in the same syllable by a sonorant (*r, l, m, n, ŋ*). No distinction of tones is made in stressed syllables containing a short vowel only. Although the accentual system resembles that of Swedish, the two are thought to have arisen independently. Unlike Swedish, where the distinction in tones is not made in monosyllables, in the Franconian dialects it very frequently occurs in monosyllables, e.g., (Ripuarian dialect) *zɛɪ* "sieve" vs. *zɛɪ* "she".

The tonal accents are referred to under a variety of names. Tonal accent 1 is called *stoottoon* ("thrusting tone") in Dutch or *Schärfung* in German, while tonal accent 2 is named *sleeptoon* ("slurring tone") in Dutch and *Schleifton* in German, apparently referring to the double peak it has in areas such as Limburg.

The two accents have different realisations in different dialects. For example, in Cologne, accent 1 has a sharp fall near the beginning of the syllable, and accent 2 remains level for a while before falling. In Arzbach, near Koblenz, on the other hand, accent 1 rises slightly or remains level, while it is accent 2 that falls sharply, that is, more or less the reverse of the Cologne pattern. In Hasselt in Limburg in Belgium, accent 1 rises then falls, and with accent 2 there is a fall and then a rise and another fall. The three types are known as Rule A, Rule B and Rule 0, respectively. Although traditionally accent 2 has been analysed as the marked variant, in certain Rule A areas (especially Cologne, where accent 2's realization is nigh-indistinguishable from an unpitched long vowel) accent 1 is thought of as the marked variant. Grammars of the Cologne dialect will treat the pitches as *"ungeschärft"* (accent 2) and

"geschärft" (accent 1). Adam Wrede's influential dictionary of the Cologne dialect also treats accent 2 as indistinct; the above examples *zɛɪ* "sieve" and *zɛɪ* "she," "they" are transcribed (zei:) and (zei) respectively. (The differing transcriptions of the vowel are due to the pronunciation being different in Cologne than the surrounding dialects)

It has recently been observed that in interrogative sentences, however, all three types have nearly identical intonations. In all dialects in accent 1, there is then a rise and then a fall. In accent 2, there is then a fall, a rise and then another fall.

Since the contour of the accent changes in different contexts, from declarative to interrogative, those dialects apparently contradict Hayes's proposed criterion for a pitch-accent language of the contour of a pitch-accent remaining stable in every context.

West South Slavic languages

The West South Slavic languages include Serbo-Croatian (Bosnian-Croatian-Montenegrin-Serbian) and Slovenian, spoken in the former Yugoslavia.

The late Proto-Slavic accentual system was based on a fundamental opposition of a short/long circumflex (falling) tone, and an acute (rising) tone, the position of the accent being free as was inherited from Proto-Balto-Slavic. Common Slavic accentual innovations significantly reworked the original system primarily with respect to the position of the accent (Dybo's law, Illič-Svityč's law, Meillet's law etc.), and further developments yielded some new accents, such as the so-called

neoacute (Ivšić's law), or the new rising tone in Neoštokavian dialects (the so-called "Neoštokavian retraction").

As opposed to other Slavic dialect subgroups, West South Slavic dialects have largely retained the Proto-Slavic system of free and mobile tonal accent (including the dialect used for basis of Modern Standard Slovene and the Neoštokavian dialect used for the basis of standard varieties of Serbo-Croatian: Bosnian, Croatian and Serbian), though the discrepancy between the codified norm and actual speech may vary significantly.

Serbo-Croatian

The Neoštokavian dialect used for the basis of standard Bosnian, Croatian and Serbian distinguishes four types of pitch accents: short falling (è), short rising (è), long falling (ê), and long rising (é). There are also unaccented vowels: long (ē) and short (e). The accent is said to be relatively free, as it can be manifested on any syllable except the last. The long accents are realized by pitch change within the long vowel; the short ones are realized by the pitch difference from the subsequent syllable.

Accent alternations are very frequent in inflectional paradigms by both types of accent and placement in the word (the so-called "mobile paradigms", which were present in the PIE itself but became much more widespread in Proto-Balto-Slavic). Different inflected forms of the same lexeme can exhibit all four accents: *lònac* 'pot' (nominative sg.), *lónca* (genitive sg.), *lȏnci* (nominative pl.), *lȍnācā* (genitive pl.).

Restrictions on the distribution of the accent depend on the position of the syllable but also on its quality, as not every kind of accent is manifested in every syllable.

- A falling tone generally occurs in monosyllabic words or the first syllable of a word (*pâs* 'belt', *rôg* 'horn'; *bäba* 'old woman', *lâđa* 'river ship'; *kȕća* 'small house', Kârlovac). The only exception to this rule are the interjections, i.e., words uttered in the state of excitement (*ahä*, *ohô*)
- A rising tone generally occurs in any syllable of a word except the ultimate and never in monosyllabic words (*vòda* 'water', *lúka* 'harbour'; *lìvada* 'meadow', *lúpānje* 'slam'; *siròta* 'female orphan', *počétak* 'beginning'; *crvotòčina* 'wormhole', *oslobođénje* 'liberation').

Thus, monosyllables generally have falling tone, and polysyllabic words generally have falling or rising tone on the first syllable and rising in all the other syllables except the last. The tonal opposition rising vs. falling is generally possible only in the first accented syllable of polysyllabic words, but the opposition by length, long vs. short, is possible even in the nonaccented syllable and the post-accented syllable (but not in the preaccented position).

Proclitics (clitics that latch on to a following word), on the other hand, can "steal" a falling tone (but not a rising tone) from the following monosyllabic or disyllabic words (as seen in the examples /vîdiːm/→/ně◡vidiːm/, /ʒěliːm/→/ne◡ʒěliːm/). The stolen accent is always short and may end up being either falling or rising on the proclitic. That phenomenon is

obligatory in Neoštokavian idiom and therefore in all three standard languages, but it is often lost in spoken dialects because of the influence of other dialects (such as in Zagreb because of the influence of Kajkavian dialect).

Slovenian

In Slovenian, there are two concurrent standard accentual systems: the older, tonal, with three "pitch accents", and the younger, dynamic (i.e., stress-based), with louder and longer syllables. The stress-based system was introduced because two thirds of Slovenia has lost its tonal accent. In practice, however, even the stress-based accentual system is just an abstract ideal, and speakers generally retain their own dialect even when they try to speak Standard Slovenian. For example, speakers of urban dialects in the west of Slovenia without distinctive length fail to introduce a quantitative opposition when they speak the standard language.

The older accentual system is tonal and free (*jágoda* 'strawberry', *malína* 'raspberry', *gospodár* 'master, lord'). There are three kinds of accents: short falling (è), long falling (ê) and long rising (é). Non-final syllables always have long accents: *rakîta* 'crustacea', *tetíva* 'sinew'. The short falling accent is always in the final syllable: *bràt* 'brother'. Three-way opposition among accents can only then be present: *deskà* 'board' : *blagọ̑* 'goods, ware' : *gospá* 'lady'. Accent can be mobile throughout the inflectional paradigm: *dâr — darû*, *góra — gorẹ́ — goràm*, *bràt — bráta — o brâtu*, *kráva — krâv*, *vóda — vodọ̑ — na vọ̑do*). The distinction is made between open *-e-* and *-o-* (either long or short) and closed *-ẹ-* and *-ọ-* (always long).

Basque

The Basque language of northeastern Spain and southwestern France has a number of different dialects and a number of accentual patterns. Only western varieties seem to have a tonal accent, and eastern varieties have a stress accent (the stress-accent dialects also differ one from another). According to an analysis first suggested by J.R. Hualde, Northern Bizkaian has most nouns accentless in their absolutive singular form , but they have a default high tone (shown by underlining below), which continues throughout the word except for the first syllable. These examples come from the Gernika (Guernica) dialect:

- *Gerníké* "Guernica"
- *basóá* "forest"
- *patátié* "potato"
- *guntsúrrúné* "kidney"

There are, however, a few nouns (often borrowings) with a lexical accent. As in Japanese,the accent consists of a high tone, followed by a low one:

- *B**í**lbo* "Bilbao"
- *ap**á**riže* "supper"

In addition, some suffixes (including all plural suffixes) are preaccenting and so cause an accent on the syllable before the suffix:

- ***á**ndrak* "women"
- *txak**ú**rren* "of dogs" (genitive plural)

- *Gerník**é**tik* "from Guernica"

Other suffixes do not cause any extra accent:

- *txakúrrén* "of the dog" (genitive singular)

When a preaccenting suffix is added to an already-accented word, only the first accent is retained:

- *B**í**lbotik* "from Bilbao"

The accent from Ondarroa is similar but the accent of the word, if any, always appears on the penultimate syllable:

- *Bilb**ó**tik* "from Bilbao" (Ondarroa pronunciation)

Intonation studies show that when an accentless word is spoken either in isolation or before a verb, it acquires an accent on its last syllable (or, in Ondarroa, on its penultimate syllable). However, that is an intonational accent, rather than a lexical accent:

- *lágún**á** etorri da* "the friend (*laguna*) has come"

When an accentless word in those dialects of Basque is followed by an accented word, the automatic high tones continue in a plateau as far as the accent:

- *lagúnén ám**ú**ma ikusi dot* "I have seen the friend's grandmother (*am**ú**ma*)"

That also applies if the accent is intonational. In the following sentence, all words are unaccented apart from the intonational accent before the verb:

- *lagúnén álábí**á** etorri da* "the friend's daughter has come"

When an accented word is focused, the pitch of the accented syllable is raised, but if the word is accentless, there is no rise in pitch on that word but only on the accented word. In the following phrase, only the word *am**ú**ma* "grandmother" is thus accented, whether the focus is on "John", "friend", or "grandmother", or none of these:

- *Jonén lágúnén ám**ú**ma* "John's friend's grandmother"

Another pitch accent area in Basque is found in western Navarre, near the border with France in the towns of Goizueta and Leitza. There is a strong stress accent there on the second or the first syllable of every word, like with central dialects of Basque, but there is also a pitch contrast superimposed on the stress: *mend**i**k* (rise-dip-rise) "the mountain" vs. *mend**i**k* (rise-fall) "the mountains".

Turkish

Although the Turkish accent is traditionally referred to as "stress", recent studies have pointed out that the main correlate of lexical accent is actually pitch. In a word like *sözc**ü**kle* "with a word", the accented second syllable is thus higher than the other two but has less intensity (loudness).

Turkish word-accent is found especially in geographical names (*İst**a**nbul*, ***A**nkara*, *Yunanist**a**n* "Greece", *Ad**a**na*), foreign borrowings (*sal**a**ta* "salad", *lok**a**nta* "restaurant"), some proper names (***E**rdoğan*, *Ken**e**di*), compound words (*b**a**şkent* "capital

city"), some words referring to relatives (***a**nne* "mother"), and certain adverbs (*ş**i**mdi* "now", *y**a**lnız* "only"). It is also caused by certain suffixes, some of which are "pre-accenting" and so cause an accent on the syllable preceding them, such as negative *-me-/-ma-*, question particle *mi?*, or copula *-dir* "it is" (*g**e**lmedi* "he did not come", *geld**i** mi?* "did he come?", *güz**e**ldir* "it is beautiful"). The accented syllable is slightly higher in pitch than the following syllable. All other words, when pronounced in isolation, either have a slightly raised pitch on the final syllable or are pronounced with all the syllables level.

Turkish also has a phrase-accent and focus-accent. An accent on the first word of a phrase usually causes an accent in the following words or suffixes to be neutralised, e.g., *çob**a**n salatası* "shepherd salad", ***A**nkara'dan da* "also from Ankara", *telef**o**n ettiler* "they telephoned", with only one accent.

A controversy exists over whether Turkish has accentless words, like Japanese and Basque. Some scholars, such as Levi (2005) and Özçelik (2016), see the final raised pitch sometimes heard in words such as *arkadaş* ("friend") or *geldi* ("he came") as a mere phrasal tone or boundary tone. Others, such as Kabak (2016), prefer the traditional view that the final accent in such words is a kind of stress.

Persian

The accent of Persian words used to be always referred to as "stress" but is recognised as a pitch accent in recent works. Acoustic studies show that accented syllables have some of the characteristics of stressed syllables in stress-accent languages (slightly more intensity, more length, more open vowels), but

that effect is much less than would normally be expected in stress-accent languages. The main difference is one of pitch, with a contour of (L)+H*.

Normally, the pitch falls again at the end of the syllable (if final) or on the next syllable.

Persian nouns and adjectives are always accented on the final syllable. Certain suffixes, such as the plural *-ha*, shift the accent to themselves:

- *ket**â**b* "book"
- *ketâb-h**â*** "books"
- *ketâb-**i*** "bookish"

Other suffixes, such as possessives and the indefinite *-i*, are clitic and so are unaccented:

- *ket**â**b-etun* "your book"
- *ket**â**b-i* "a book"

In verbs, the personal endings in the past tense are clitic but are accented in the future tense:

- *ger**e**ft-am* "I took"
- *gerefte-am* "I have taken"
- *xâh**a**m gereft* "I will take"

When prefixes are added, the accent shifts to the first syllable:

- *m**i**-gir-am* "I'm taking"
- *n**a**-gereft-am* "I did not take"
- *b**e**-gir-am* "I should take"

In the vocative (*x**â**nom!* "madam") and sometimes elsewhere, such as *b**a**le!* "yes" or ***a**gar* "if", the accent is also on the first syllable.

In compound verbs, the accent is on the first element:

- *k**â**r kard-am* "I worked"

However, in compound nouns, the accent is on the second element:

- *ketâb-xân**e*** "bookcase"

In the *ezâfe* construction, the first noun is optionally accented but generally loses its pitch:

- *mard**o**m-e Ir**â**n / mardom-e Ir**â**n* "the people of Iran"

When a word is focussed, the pitch is raised, and the words that follow usually lose their accent:

- *nâme-ye mâm**â**n-am bud ru miz* "it was my mom's letter that was on the table"

However, other researchers claim that the pitch of post-focus words is reduced but sometimes still audible.

Japanese

Standard Japanese and certain other varieties of Japaneseare described as having a pitch accent, which differs significantly among dialects. In Standard Japanese, the "accent" may be characterized as a downstep rather than as pitch accent. The

pitch of a word rises until it reaches a downstep and then drops abruptly. In a two-syllable word, a contrast thus occurs between *high–low* and *low–high*. Accentless words are also *low–high*, but the pitch of following enclitics differentiates them.

The Ōsaka accent (Kansai dialect) (marked red on the map to the right) differs from the Tokyo accent in that in some words, the first syllable of the word (always *low* in Tokyo Japanese unless accented) can be *high*. To give a full description of the accent of a word, therefore, it is necessary to specify not only the position of the accent (downstep) but also the height of the first syllable.

Korean

Standard (Seoul) Korean uses pitch only for prosody. However, several other dialects retain a Middle Korean pitch-accent system.

In the dialect of North Gyeongsang, in southeastern South Korea, any syllable and the initial two syllables may have a pitch accent in the form of a high tone. For example, in trisyllabic words, there are four possible tone patterns:

Shanghainese

The Shanghai dialect of Wu Chinese is marginally tonal, with characteristics of a pitch accent.

Not counting closed syllables (those with a final glottal stop), a monosyllabic Shanghainese may carry one of three tones: *high*, *mid*, *low*. The tones have a contour in isolation, but for the

following purposes, it can be ignored. However, *low* tone always occurs after voiced consonants and only then. Thus, the only tonal distinction is after voiceless consonants and in vowel-initial syllables, and there is only a two-way distinction between *high* tone and *mid* tone.

In a polysyllabic word, the tone of the first syllable determines the tone of the entire word. If the first tone is *high*, the following syllables are mid. If it is *mid* or *low*, the second syllable is *high*, and any following syllables are *mid*.

Bantu languages

The Bantu languages are a large group of some 550 languages, spread over most of south and central Africa. Proto-Bantuis believed to have had two tones: H and L. However, it does not appear to have had a pitch-accent system, as defined above, since words with such forms as HL, HH, LH, and LL were all found: **káda* "charcoal", **cómbá* "fish", **nyangá* "horn" and **tope* "mud". In other words, some words like **cómbá* could have two high tones, and others had one tone or none.

However, in the course of time, processes such as Meeussen's Rule, by which sequences such as HHH became HLL, LHL, or LLH, tended to eliminate all but one tone in a word in many Bantu languages, making them more accent-like. Thus in Chichewa, the word for "fish" (*nsómba*) now has HL tones, exactly like the word for "charcoal" (*khála*).

Another process that makes for culminativity in some Bantu languages is the interaction between stress and tone. The penultimate syllable of a word is stressed in many Bantu

languages, and some of them have a tendency for high tones to be on the penultimate. For example, in Chitumbuka, every phonological phrase is accented with a falling tone on the penultimate: *ti-ku-phika sî:ma* "we are cooking porridge". In other languages, such as Xhosa, the high tone is attracted to the antepenultimate although the penultimate being stressed.

Ciluba and Ruund, in the Democratic Republic of the Congo, are two Bantu languages thaty are interesting for their "tone reversal". Low tone is phonologically active in places that other languages of the same family have a high tone. Thus, in a word like **muk**í**la* "tail", most other Bantu languages have a high tone on the second syllable, but Chiluba has *muk**ì**la* and Ruund has *muk**ì**l*, with a low-toned accent.

Luganda

Luganda, a language of Uganda, has some words with apparent tonal accents. They can be either high or falling (rising tones do not occur in Luganda). Falling tones are found on bimoraic syllables or word-finally:

- *ens**î*** "country"
- *ekib**ú**ga* "city"
- *eddw**â**liro* "hospital"

Some words, however, have two accents, which are joined in a plateau:

- *K**á**mpál**â*** "Kampala"

Other words are accentless:

- *ekitabo* "book"

However, accentless words are not always without tones but usually receive a default tone on all syllables except the first one or the first mora:

- *ekítábó* "book"
- *Bunyóró* "Bunyoro" (name of region)

A double consonant at the beginning of a word counts as a mora. In such words, the first syllable also can have a default tone:

- *Ttóró* "Toro" (a region)

Default tones are also heard on the end of accented words if there is a gap of at least one mora after the accent (the default tones are lower in pitch than the preceding accent):

- *amas**é**rengétá* "south"
- *eddw**â**líró* "hospital"

The default tones are not always heard but disappear in certain contexts, such as if a noun is the subject of a sentence or used before a numeral:

- *Mbarara kib**ú**ga* "Mbarara is a city"
- *ebitabo kk**ú**mi* "ten books"

In some contexts such as affirmative verb + location, or phrases with "of"), the high tone of an accent (or of a default

tone) can continue in a plateau all the way until the next accented syllable:

- *mu mas**é**réngétá g**á** Úg**áń**da* "in the south of Uganda"
- *alí mú Búgáńda* "he is in Buganda"

The situation with verbs is more complicated, however, since some of the verbal roots have their own inherent word-accent, but also, the prefixes added to the verb also often have an accent. Also, some tenses (such as negative tenses and relative clause tenses) add an accent on the final syllable.

When two or three accents come in a row in a verb, H-H becomes H-L, and H-H-H becomes H-L-L. However, the default tones are not added on the syllables with deleted accents, which leads to forms like *b**á**lilabá* (from **b**á**-l**í**-l**á**ba*) "they will see". There, not one but two low-toned syllables follow the accent.

Another rule is that if two accents in the same verb are not next to each other, they form a plateau. Thus, the negative tense *t**á**gul**â*** "he does not buy" is pronounced ''*t**á**gúl**â***, with a plateau.

Chichewa

Chichewa, a language widely spoken in Malawi, is tonal but has accentual properties. Most Chichewa simple nouns have only one high tone, usually on one of the last three syllables. (See Chichewa tones.)

- *ch**í**manga* "maize"

- *chik**ó**ndi* "love"
- *chinangw**á*** "cassava" (usually pronounced *chinăngwā*, with rising tone on the penultimate)

However, many number of nouns have no high tone but are accentless. Unlike the accentless words in Luganda, however, they do not acquire any default tones but are pronounced with all the syllables low:

- *chipatala* "hospital"

A few nouns (often but not always compounds) have two high tones. If they are separated by only one syllable, they usually join in a plateau:

- *chiz**ó**lówez**í*** "habit"
- *b**í**rím**á**nkhwe* "chameleon"

Most verbal roots in Chichewa are accentless. However, a few verbs also have lexical accents, but they are not inherited from Proto-Bantu. When there is an accent, it is always heard on the final *-a* of the verb:

- *thokoz**á**-ni* "give thanks (pl.)"

Some accents are added by prefixes and suffixes. For example, the infinitive prefix *ku-* is postaccenting, adding a tone on the following syllable, while the suffix *-nso* "again/also" is preaccenting:

- *fotokoza* "explain" (toneless)
- *kuf**ó**tokoza* "to explain"
- *kuf**ó**tokoz**á**nso* "to explain again"

The verbal system is complicated by the fact that overlying the tones of the verb and suffixes is a series of tonal patterns that changes by tense. There are at least eight patterns for affirmative tenses and other different patterns for relative clause verbs and negative verbs.

For example, the present habitual tense has tones on the first and penultimate syllables, the recent past has a tone after the tense-marker *-na-*, the subjunctive has a tone on the final syllable and the potential is toneless. The tones apply, with minor variations, to all verbs, whether the stem is long or short:

- *nd**í**mafotok**ó**za* "I (usually) explain"
- *ndinaf**ó**tokoza* "I explained (just now)"
- *ndifotokoz**é*** "I should explain"
- *ndingafotokoze* "I could explain"

When a verb has a penultimate accent, most other tones tend to be suppressed. For example, in the negative future, both the tone of the future-tense marker, *-dz**á**-*, and the tone of the negative marker, *s**í**-* (both normally high), are neutralised:

- *sindidzafotok**ó**za* "I will not explain"

Those and other processes cause most verb tenses to have only one or two high tones, which are at the beginning, the penultimate or the final of the verb stem or at a prefix or sometimes even both. That gives the impression that the tones in the resultant words have a clearly-accentual quality.

English

Most dialects of English are classified as stress-accent languages. However, there are some dialects in which tone can play a part in the word accent.

Hong Kong English

Lexical words in Hong Kong Englishare assigned at least one H (high) tone. Disyllabic words may have the tone pattern H-o (clóckwise), H-H (sómetímes), o-H (creáte), where "o" stands for tonelessness. Trisyllabic words receive any one of seven possible tone assignments H-H-H (kángároo), H-H-o (hándwríting), H-o-H (róundabóut), H-o-o (thréátening), o-H-H (abóut-túrn), o-H-o (esséntial), o-o-H (recomménd). Toneless syllables receive other pitch assignments depending on their positions: word-initial toneless syllables are M(id)-toned, utterance-final toneless syllables are L(ow), and word-medial toneless syllables vary across two major sub-dialects in the community surfacing as either H or M. Because lexical stipulation of Hong Kong English tones are {H, o} privative, one is easily misled into thinking of Hong Kong English as a pitch-accented language. It is, however, probably more accurate to think of Hong Kong English as a language with lexical tones.

South African English

In Broad South African English, /h/ (phonetically [ɦ]) is often deleted, such as in word-initial stressed syllables (as in ***h****ouse*), but at least as often, it is pronounced even if it seems

to be deleted. The vowel that follows /h/ in the word-initial syllable often carries a low or low rising tone. In rapid speech, that can be the only trace of the deleted /h/. Potentially minimal tonal pairs are thus created, like *oh* (neutral [ʌʊˈ] or high falling [ʌʊ˥˩]) vs. *hoe* (low [ʌʊˌ] or low rising [ʌʊˌ˩˧]).

Welsh English

A distinctive feature of Welsh English is the rising pitch on the last syllable of major words, imitating the rising pitch of word-final syllables in Welsh (see below). An important factor in the realisation of stress in both Welsh and Welsh English is the length of the post-stress consonant, which tends to be longer than the stressed vowel itself.

Welsh

In Welsh a stress accent usually comes on the penultimate syllable (with a few exceptions accented on the final, such as the word *Cymraeg* "Welsh"), and is usually on a low pitch followed by a rising pitch. "In Welsh, the stressed syllable is associated with lower pitch than less stressed or unstressed syllables ... However, the post-stress syllable in Welsh is typically produced on a higher pitch." It is believed that this came about because late Brythonic (the ancestor of Welsh) had a penultimate accent that was pronounced with a high pitch. When the final vowels of words were lost, the high pitch remained on what was now the final syllable, but the stress moved to the new penultimate. Thus LHL changed to LH, with the stress on the low syllable.

Although it is usually said that the high pitch is in the final syllable of the word, an acoustic study of Anglesey Welsh found that in that dialect at least the peak of the tone was actually in the penultimate syllable, thus the last two syllables were L+H* L.

Yaqui

The Yaqui are a native American people living mostly in Mexico but also in Arizona. About 17,000 people are said to speak Yaqui, which is a Uto-Aztecan language.

Yaqui has a tonal accent in which the accent is on the first or the second mora of the word. A long vowel has two moras in Yaqui, and a short vowel or diphthong has one mora. After the accent, the high tone continues with a very slight decline until the end of the word.

About two thirds of words have an accent on the first mora, and all tones of the word are then high:

- k**á**rí "house"
- ham**ú**t "woman"
- t**é**éká "sky" (where *ee* represents a long vowel)
- te**é**ká "lay down"

In some words with a long first vowel, the accent moves to the second syllable, and the vowel of the first syllable then becomes short:

- b**á**kót "snake"
- bak**ó**ttá "snake (object of verb)"

In a certain kind of reduplication, the accent moves to the first mora, and the next consonant is then usually doubled. At the same time, since a long vowel cannot follow the accent, the vowel after the accent is also shortened:

- *te**é**ká* "lay down"
- *t**é**ttéká* "in the process of laying something down"

At the end of a phrase, the pitch drops, with a low boundary tone.

To an English-speaker, the first high tone in Yaqui "sounds very much like a stress". However, acoustic studies show that the amplitude of the accented syllable is not really greater than the other syllables in the word are.

Chapter 4

Diacritic

A **diacritic** (also **diacritical mark**, **diacritical point**, **diacritical sign**, or **accent**) is a glyph added to a letter or to a basic glyph. The term derives from the Ancient Greekδιακριτικός (*diakritikós*, "distinguishing"), from διακρίνω (*diakrī́nō*, "to distinguish"). The word *diacritic* is a noun, though it is sometimes used in an attributive sense, whereas *diacritical* is only an adjective. Some diacritics, such as the acute (◌́) and grave (◌̀), are often called *accents*. Diacritics may appear above or below a letter or in some other position such as within the letter or between two letters.

The main use of diacritics in Latin script is to change the sound-values of the letters to which they are added. Historically, English has used the diaeresis to indicate the correct pronunciation of ambiguous words, such as "coöperate", without which the <oo> letter sequence could be misinterpreted to be pronounced /ˈkuːpəreɪt/. Other examples are the acute and grave accents, which can indicate that a vowel is to be pronounced differently than normal in that position, for example not reduced to /ə/ or silent as in the case of the two uses of the letter e in the noun *résumé* (as opposed to the verb *resume*) and the help sometimes provided in the pronunciation of some words such as *doggèd*, *learnèd*, *blessèd*, and especially words pronounced differently than normal in poetry (for example *movèdbreathèd*).

Most other words with diacritics in English are borrowings from languages such as Frenchto better preserve the spelling, such as the diaeresis on *naïve* and *Noël*, the acute from *café*, the circumflex in the word *crêpe*, and the cedilla in *façade*. All these diacritics, however, are frequently omittedin writing, and English is the only major modern European language that does not use diacritics in common.

In Latin-script alphabets in other languages, diacritics may distinguish between homonyms, such as the French*là* ("there") versus *la* ("the"), which are both pronounced /la/. In Gaelic type, a dot over a consonant indicates lenition of the consonant in question.

In other alphabetic systems, diacritics may perform other functions. Vowel pointing systems, namely the Arabicharakat(ـَ ,ـُ ,ـِ, etc.) and the Hebrewniqqud (,◌ִ ,◌ֵ ,◌ֶ ,◌ַ ,◌ָ ,◌ֹ etc.) systems, indicate vowels that are not conveyed by the basic alphabet. The Indicvirama(◌् etc.) and the Arabic sukūn (◌ْ) mark the absence of vowels. Cantillation marks indicate prosody. Other uses include the Early Cyrillictitlo stroke (◌҃) and the Hebrew gershayim (״), which, respectively, mark abbreviations or acronyms, and Greek diacritical marks, which showed that letters of the alphabet were being used as numerals. In the Hanyu Pinyin official romanization system for Chinese and Vietnamese, diacritics are used to mark the tones of the syllables in which the marked vowels occur.

In orthography and collation, a letter modified by a diacritic may be treated either as a new, distinct letter or as a letter–diacritic combination. This varies from language to language and may vary from case to case within a language.

In some cases, letters are used as "in-line diacritics", with the same function as ancillary glyphs, in that they modify the sound of the letter preceding them, as in the case of the "h" in the English pronunciation of "sh" and "th". Such letter combinations are sometimes even collated as separate letters. For example, the spelling sch was traditionally often treated as a separate letter in German. Words with that spelling were listed after all other words spelled with s in card catalogs in the Vienna public libraries, for example (before digitization).

Types

Among the types of diacritic used in alphabets based on the Latin script are:

- accents (so called because the acute, grave, and circumflex were originally used to indicate different types of pitch accents in the polytonic transcription of Greek)
- ◌́ – acute (Latin: *apex*)
- ◌̀ – grave
- ◌̂ – circumflex
- ◌̌ – caron, wedge
- ◌̋ – double acute
- ◌̏ – double grave
- ◌̃ – tilde
- dots
- ◌̇ – overdot (Indic *anusvara*)
- ◌̣ – an underdot is used in Rheinische Dokumenta and in Hebrew, Indic and Arabic transcription
- ◌·◌–interpunct

- tittle, the superscript dot of the modern lowercase Latin *i* and *j*
- ◌̈ – umlaut or diaeresis
- ◌ː – triangular colon, used in the IPA to mark long vowels.
- curves
- ◌̆ – breve
- ◌̑ – inverted breve
- ◌̡ – sicilicus, a palaeographic diacritic similar to a caron or breve
- ◌̃ – tilde
- ◌̓– titlo
- vertical stroke
- ◌̩ – syllabic a subscript vertical stroke is used in IPA to mark syllabicity and in Rheinische Dokumenta to mark a schwa
- macron or horizontal line
- ◌̄ – macron
- ◌̲ – underbar
- overlays
- ◌̵ – vertical bar through the character
- ◌̷ – slash through the character
- ◌̶ – crossbar through the character
- ring
- ◌̊ – overring
- superscript curls
- ◌̍ – apostrophe
- ◌̎ – inverted apostrophe
- ◌̒ – reversed apostrophe
- ◌̉ – hook above (Vietnamese: *dấu hỏi*)
- ◌̛ – horn (Vietnamese: *dấu móc*)

- subscript curls
- ◌̦ – undercomma
- ◌̧ – cedilla
- ◌̡◌̢ – hook, left or right, sometimes superscript
- ◌̨ – ogonek
- double marks (over or under two base characters)
- ◌͝◌ – double breve
- ◌͡◌ – tie bar or top ligature
- ◌͠◌ – double circumflex
- ◌͟◌ – longum
- ◌͞◌ – double tilde
- double sub/superscript diacritics
- ◌̧◌̧ – double cedilla
- ◌̨◌̨ – double ogonek
- ◌̈◌̈ – double diaeresis
- ◌̥◌̣ – double ypogegrammeni

The tilde, dot, comma, titlo, apostrophe, bar, and colon are sometimes diacritical marks, but also have other uses.

Not all diacritics occur adjacent to the letter they modify. In the Wali language of Ghana, for example, an apostrophe indicates a change of vowel quality, but occurs at the beginning of the word, as in the dialects *'Bulengee* and *'Dolimi*. Because of vowel harmony, all vowels in a word are affected, so the scope of the diacritic is the entire word. In abugida scripts, like those used to write Hindi and Thai, diacritics indicate vowels, and may occur above, below, before, after, or around the consonant letter they modify.

The tittle (dot) on the letter *i* or the letter *j*, of the Latin alphabet originated as a diacritic to clearly distinguish *i* from

the minims (downstrokes) of adjacent letters. It first appeared in the 11th century in the sequence *ii* (as in *ingeníí*), then spread to *i* adjacent to *m*, *n*, *u*, and finally to all lowercase *i*s. The *j*, originally a variant of *i*, inherited the tittle. The shape of the diacritic developed from initially resembling today's acute accent to a long flourish by the 15th century. With the advent of Roman type it was reduced to the round dot we have today.

Languages from Eastern Europe tend to use diacritics on both consonants and vowels, whereas in Western Europe digraphsare more typically usedto change consonant sounds. Most languages in Western Europe use diacritics on vowels, aside from English where there are typically none (with some exceptions).

Diacritics specific to non-Latin alphabets

Arabic

- (ئـــؤإأ and stand aloneء) *hamza*: indicates a glottal stop.
- (-ً-ٍ-ٌ--) *tanwīn* (تنوين) symbols: Serve a grammatical role in Arabic. The sign -ً is most commonly written in combination with alif, e.g. ـًا.
- (-ّ--) *shadda*: Gemination (doubling) of consonants.
- (ٱ) *wa*ʔ*la*: Comes most commonly at the beginning of a word. Indicates a type of *hamza* that is pronounced

only when the letter is read at the beginning of the talk.

- (آ) *madda*: A written replacement for a *hamza* that is followed by an alif, i.e. (ءا). Read as a glottal stop followed by a long /aː/, e.g. ءاداب، ءاية، قرءان، مرءاة are written out respectively as آداب، آية، قرآن، مرآة. This writing rule does not apply when the alif that follows a *hamza* is not a part of the stem of the word, e.g. نتوءات is not written out as نتوآت as the stem نتوء does not have an alif that follows its *hamza*.
- (ـٰـ) *superscript alif* (also "short" or "dagger alif": A replacement for an original alif that is dropped in the writing out of some rare words, e.g. لاكن is not written out with the original alif found in the word pronunciation, instead it is written out as لٰكن.
- *ḥarakāt* (In Arabic: حركات also called تشكيل*tashkīl*):
- (ـَـ) *fatḥa* (a)
- (ـِـ) *kasra* (i)
- (ـُـ) *ḍamma* (u)
- (ـْـ) *sukūn* (no vowel)
- The *ḥarakāt* or vowel points serve two purposes:
- They serve as a phonetic guide. They indicate the presence of short vowels (*fatḥa*, *kasra*, or *ḍamma*) or their absence (*sukūn*).
- At the last letter of a word, the vowel point reflects the inflection case or conjugation mood.
- For nouns, The*ḍamma* is for the nominative, *fatḥa* for the accusative, and *kasra* for the genitive.
- For verbs, the *ḍamma* is for the imperfective, *fatḥa* for the perfective, and the *sukūn* is for verbs in the imperative or jussive moods.

- Vowel points or *tashkīl*should not be confused with consonant points or *iʿjam* (إعجام) – one, two or three dots written above or below a consonant to distinguish between letters of the same or similar form.

Greek

These diacritics are used in addition to the acute, grave, and circumflex accents and the diaeresis:

- ◌ͅ (ᾳ, ῃ, ῳ) – iota subscript
- ◌῾ – rough breathing (Ancient Greek: δασὺπνεῦμα, romanized: *dasỳ pneûma*, Latin: *spīritus asper*): aspiration
- ◌᾽ – smooth (or soft) breathing (Ancient Greek: ψιλὸνπνεῦμα, romanized: *psilòn pneûma*, Latin: *spīritus lēnis*): lack of aspiration

Hebrew

- Niqqud
- ◌ּ – Dagesh
- ◌ּ – Mappiq
- ◌ֿ – Rafe
- ◌ׁ – Shin dot (at top right corner)
- ◌ׂ – Sin dot (at top left corner)
- ◌ְ – Shva
- ◌ֻ – Kubutz
- ◌ֹ – Holam
- ◌ָ – Kamatz

- ֭ – Patakh
- ֶ – Segol
- ֵ – Tzeire
- ִ – Hiriq
- Cantillation marks do not generally render correctly; refer to Cantillation#Names and shapes of the ta'amim for a complete table together with instructions for how to maximize the possibility of viewing them in a web browser
- Other
- ׳ – Geresh
- ״ – Gershayim

Korean

- The diacritics ㆍ and ᛫, known as Bangjeom (방점; 傍點), were used to mark pitch accents in Hangul for Middle Korean. They were written to the left of a syllable in vertical writing and above a syllable in horizontal writing.

Syriac

- A dot above and a dot below a letter represent [a], transliterated as *a* or *ă*,
- Two diagonally-placed dots above a letter represent [ɑ], transliterated as *ā* or *â* or *å*,
- Two horizontally-placed dots below a letter represent [ɛ], transliterated as *e* or *ĕ*; often pronounced [ɪ] and transliterated as *i* in the East Syriac dialect,

- Two diagonally-placed dots below a letter represent [e], transliterated as *ē*,
- A dot underneath the *Beth* represent a soft [v] sound, transliterated as *v*
- A tilde (~) placed under *Gamel* represent a [dʒ] sound, transliterated as *j*
- The letter *Waw* with a dot below it represents [u], transliterated as *ū* or *u*,
- The letter *Waw* with a dot above it represents [o], transliterated as *ō* or *o*,
- The letter *Yōḏ* with a dot beneath it represents [i], transliterated as *ī* or *i*,
- A tilde (~) under *Kaph* represent a [t͡ʃ] sound, transliterated as *ch* or *č*,
- A semicircle under *Peh* represents an [f] sound, transliterated as *f* or *ph*.

In addition to the above vowel marks, transliteration of Syriac sometimes includes *ə*, *e*˚ or superscript (or often nothing at all) to represent an original Aramaic schwa that became lost later on at some point in the development of Syriac. Some transliteration schemes find its inclusion necessary for showing spirantization or for historical reasons.

Non-alphabetic scripts

Some non-alphabetic scripts also employ symbols that function essentially as diacritics.

- Non-pure abjads (such as Hebrew and Arabic script) and abugidas use diacritics for denoting vowels.

Hebrew and Arabic also indicate consonant doubling and change with diacritics; Hebrew and Devanagari use them for foreign sounds. Devanagari and related abugidas also use a diacritical mark called a *virama* to mark the absence of a vowel. In addition, Devanagari uses the moon-dot *chandrabindu*(ँ).

- Unified Canadian Aboriginal Syllabics use several types of diacritics, including the diacritics with alphabetic properties known as Medials and Finals. Although long vowels originally were indicated with a negative line through the Syllabic glyphs, making the glyph appear broken, in the modern forms, a dot above is used to indicate vowel length. In some of the styles, a ring above indicates a long vowel with a [j] off-glide. Another diacritic, the "inner ring" is placed at the glyph's head to modify [p] to [f] and [t] to [θ]. Medials such as the "w-dot" placed next to the Syllabics glyph indicates a [w] being placed between the syllable onset consonant and the nucleus vowel. Finals indicate the syllable coda consonant; some of the syllable coda consonants in word medial positions, such as with the "h-tick", indicate the fortification of the consonant in the syllable following it.
- The Japanese *hiragana* and *katakana*syllabaries use the *dakuten* (◌゛) and *handakuten* (◌゜) (in Japanese: 濁点 and 半濁点) symbols, also known as *nigori* (濁 "muddying") or *ten-ten* (点々 "dot dot") and *maru* (丸 "circle"), to indicate voiced consonants or other phonetic changes.

- Emoticonsare commonly created with diacritic symbols, especially Japanese emoticons on popular imageboards.

Alphabetization or collation

Different languages use different rules to put diacritic characters in alphabetical order. French and Portuguese treat letters with diacritical marks the same as the underlying letter for purposes of ordering and dictionaries.

The Scandinavian languages and the Finnish language, by contrast, treat the characters with diacritics *å*, *ä*, and *ö* as distinct letters of the alphabet, and sort them after *z*. Usually*ä* (a-umlaut) and *ö* (o-umlaut) [used in Swedish and Finnish] are sorted as equivalent to *æ* (ash) and *ø* (o-slash) [used in Danish and Norwegian]. Also, *aa*, when used as an alternative spelling to *å*, is sorted as such. Other letters modified by diacritics are treated as variants of the underlying letter, with the exception that *ü* is frequently sorted as *y*.

Languages that treat accented letters as variants of the underlying letter usually alphabetize words with such symbols immediately after similar unmarked words. For instance, in German where two words differ only by an umlaut, the word without it is sorted first in German dictionaries (e.g. *schon* and then *schön*, or *fallen* and then *fällen*). However, when names are concerned (e.g. in phone books or in author catalogues in libraries), umlauts are often treated as combinations of the vowel with a suffixed *e*; Austrian phone books now treat

characters with umlauts as separate letters (immediately following the underlying vowel).

In Spanish, the grapheme *ñ*is considered a new letter different from *n* and collated between *n* and *o*, as it denotes a different sound from that of a plain *n*. But the accented vowels *á*, *é*, *í*, *ó*, *ú* are not separated from the unaccented vowels *a*, *e*, *i*, *o*, *u*, as the acute accent in Spanish only modifies stress within the word or denotes a distinction between homonyms, and does not modify the sound of a letter.

For a comprehensive list of the collating orders in various languages, see Collating sequence.

Generation with computers

Modern computer technology was developed mostly in English-speaking countries, so data formats, keyboard layouts, etc. were developed with a bias favoring English, a language with an alphabet without diacritical marks. Efforts have been made to create internationalized domain names that further extend the English alphabet (e.g., "pokémon.com").

Depending on the keyboard layout, which differs amongst countries, it is more or less easy to enter letters with diacritics on computers and typewriters. Some have their own keys; some are created by first pressing the key with the diacritic mark followed by the letter to place it on. Such a key is sometimes referred to as a dead key, as it produces no output of its own but modifies the output of the key pressed after it.

In modern Microsoft Windows and Linux operating systems, the keyboard layouts *US International* and *UK International* feature dead keys that allow one to type Latin letters with the acute, grave, circumflex, diaeresis, tilde, and cedilla found in Western European languages (specifically, those combinations found in the ISO Latin-1 character set) directly: ¨ + e gives *ë*, ~ + o gives *õ*, etc. On Apple Macintosh computers, there are keyboard shortcuts for the most common diacritics; ⌥ Option+E followed by a vowel places an acute accent, ⌥ Option+U followed by a vowel gives an umlaut, ⌥ Option+C gives a cedilla, etc. Diacritics can be composed in most X Window System keyboard layouts, as well as other operating systems, such as Microsoft Windows, using additional software.

On computers, the availability of code pages determines whether one can use certain diacritics. Unicode solves this problem by assigning every known character its own code; if this code is known, most modern computer systems provide a method to input it. With Unicode, it is also possible to combine diacritical marks with most characters. However, as of 2019, very few fonts include the necessary support to correctly render character-plus-diacritic(s) for the Latin, Cyrillic and some other alphabets (exceptions include Andika).

Languages with letters containing diacritics

The following languages have letters that contain diacritics that are considered independent letters distinct from those without diacritics.

Latin/Roman Letters

- Baltic
- Latvian has the following letters: *ā*, *ē*, *ī*, *ū*, *č*, *ģ*, *ķ*, *ļ*, *ņ*, *š*, *ž*
- Lithuanian. In general usage, where letters appear with the caron (*č*, *š* and *ž*), they are considered as separate letters from *c*, *s* or *z* and collated separately; letters with the ogonek (*ą*, *ę*, *į* and *ų*), the macron (*ū*) and the superdot (*ė*) are considered as separate letters as well, but not given a unique collation order.
- Celtic
- Welsh uses the circumflex, diaeresis, acute, and grave on its seven vowels *a*, *e*, *i*, *o*, *u*, *w*, *y* (hence the composites â, ê, î, ô, û, ŵ, ŷ, ä, ë, ï, ö, ü, ẅ, ÿ, á, é, í, ó, ú, ẃ, ý, à, è, ì, ò, ù, ẁ, ỳ).
- Following spelling reforms since the 1970s, Scottish Gaelic uses graves only, which can be used on any vowel (*à*, *è*, *ì*, *ò*, *ù*). Formerly acute accents could be used on *á*, *ó* and *é*, which were used to indicate a specific vowel quality. With the elimination of these

accents, the new orthography relies on the reader having prior knowledge of pronunciation of a given word.

- Manx uses the single diacritic ç combined with h to give the digraph ⟨çh⟩ (pronounced /tʃ/) to mark the distinction between it and the digraph ⟨ch⟩ (pronounced /h/ or /x/). Other diacritics used in Manx included â, ê, ï, etc. to mark the distinction between two similarly spelled words but with slightly differing pronunciation.
- Irish uses only acute accents to mark long vowels, following the 1948 spelling reform.
- Breton does not have a single orthography (spelling system), but uses diacritics for a number of purposes. The diaeresis is used to mark that two vowels are pronounced separately and not as a diphthong/digraph. The circumflex is used to mark long vowels, but usually only when the vowel length is not predictable by phonology. Nasalization of vowels may be marked with a tilde, or following the vowel with the letter <ñ>. The plural suffix -où is used as a unified spelling to represent a suffix with a number of pronunciations in different dialects, and to distinguish this suffix from the digraph <ou> which is pronounced as /u:/. An apostrophe is used to distinguish c'h, pronounced /x/ as the digraph <ch> is used in other Celtic languages, from the French-influenced digraph ch, pronounced /ə /.
- Finno-Ugric
- Estonian has a distinct letter *õ*, which contains a tilde. Estonian "dotted vowels" *ä*, *ö*, *ü* are similar to German, but these are also distinct letters, not like

German umlauted letters. All four have their own place in the alphabet, between *w* and *x*. Carons in *š* or *ž* appear only in foreign proper names and loanwords. Also these are distinct letters, placed in the alphabet between *s* and *t*.

- Finnish uses dotted (umlauted) vowels (*ä* and *ö*). As in Swedish and Estonian, these are regarded as individual letters, rather than vowel + umlaut combinations (as happens in German). It also uses the characters *å*, *š* and *ž* in foreign names and loanwords. In the Finnish and Swedish alphabets, *å*, *ä* and *ö* collate as separate letters after *z*, the others as variants of their base letter.
- Hungarian uses the umlaut, the acute and double acute accent (unique to Hungarian): (*ö, ü*), (*á, é, í, ó, ú*) and (*ő, ű*). The acute accent indicates the long form of a vowel (in case of *i*/*í*, *o*/*ó*, *u*/*ú*) while the double acute performs the same function for *ö* and *ü*. The acute accent can also indicate a different sound (more open, like in case of *a*/*á*, *e*/*é*). Both long and short forms of the vowels are listed separately in the Hungarian alphabet, but members of the pairs *a*/*á*, *e*/*é*, *i*/*í*, *o*/*ó*, *ö*/*ő*, *u*/*ú* and *ü*/*ű* are collated in dictionaries as the same letter.
- Livonian has the following letters: ā, ä, ā̱, ḏ, ē, ī, ļ, ņ, ō, ȯ, ō̱, õ, õ̱, ŗ, š, ţ, ū, ž.
- Germanic
- Faroese uses acutes and other special letters. All are considered separate letters and have their own place in the alphabet: *á*, *í*, *ó*, *ú*, *ý* and *ø*.

- Icelandic uses acutes and other special letters. All are considered separate letters, and have their own place in the alphabet: *á*, *é*, *í*, *ó*, *ú*, *ý*, and *ö*.
- Danish and Norwegian use additional characters like the o-slash *ø* and the a-overring *å*. These letters come after *z* and *æ* in the order *ø*, *å*. Historically, the *å* has developed from a ligature by writing a small superscript *a* over a lowercase *a*; if an *å* character is unavailable, some Scandinavian languages allow the substitution of a doubled *a*. The Scandinavian languages collate these letters after *z*, but have different collation standards.
- Swedish uses a-diaeresis (*ä*) and o-diaeresis (*ö*) in the place of ash (*æ*) and slashed o (*ø*) in addition to the a-overring (*å*). Historically, the diaeresis for the Swedish letters *ä* and *ö*, like the German umlaut, developed from a small Gothic *e* written above the letters. These letters are collated after *z*, in the order *å*, *ä*, *ö*.
- Romance
- In Asturian, Galician and Spanish, the character *ñ* is a letter and collated between *n* and *o*.
- Asturian uses Ḷ (lower caseḷ), and Ḥ (lower caseḥ)
- Leonese: could use *ñ* or *nn*.
- Romanian uses a breve on the letter *a* (*ă*) to indicate the sound schwa/ə/, as well as a circumflex over the letters *a* (*â*) and *i* (*î*) for the sound /ɨ/. Romanian also writes a comma below the letters *s* (*ş*) and *t* (*ţ*) to represent the sounds /ʃ/ and /t͡s/, respectively. These characters are collated after their non-diacritic equivalent.
- Slavic

- The Bosnian, Croatian, and Serbian Latin alphabets have the symbols *č*, *ć*, *đ*, *š* and *ž*, which are considered separate letters and are listed as such in dictionaries and other contexts in which words are listed according to alphabetical order. They also have one digraph including a diacritic, *dž*, which is also alphabetized independently, and follows *d* and precedes *đ* in the alphabetical order. The Serbian Cyrillic alphabet has no diacritics, instead it has a grapheme (glyph) for every letter of its Latin counterpart (including Latin letters with diacritics and the digraphs dž, *lj* and *nj*).
- The Czech alphabet uses the acute (á é í ó ú ý), caron (čďěňřšťž), and for one letter (ů) the ring. (Note that in ď and ť the caron is modified to look rather like an apostrophe.)
- Polish has the following letters: *ąćęłńóśźż*. These are considered to be separate letters: each of them is placed in the alphabet immediately after its Latin counterpart (e.g. *ą* between *a* and *b*), *ź* and *ż* are placed after *z* in that order.
- The Slovak alphabet uses the acute (á é í ó ú ý Íŕ), caron (čďľňšťž dž), umlaut (ä) and circumflex accent (ô). All of those are considered separate letters and are placed directly after the original counterpart in the alphabet.
- The basic Slovenian alphabet has the symbols *č*, *š*, and *ž*, which are considered separate letters and are listed as such in dictionaries and other contexts in which words are listed according to alphabetical order. Letters with a caronare placed right after the letters as written without the diacritic. The letter

*đ*may be used in non-transliterated foreign words, particularly names, and is placed after *č* and before *d*.

- Turkic
- Azerbaijani includes the distinct Turkish alphabet letters Ç, Ğ, I, İ, Ö, Ş and Ü.
- Crimean Tatar includes the distinct Turkish alphabet letters Ç, Ğ, I, İ, Ö, Ş and Ü. Unlike Standard Turkish (but like Cypriot Turkish), Crimean Tatar also has the letter Ñ.
- Gagauz includes the distinct Turkish alphabet letters Ç, Ğ, I, İ, Ö and Ü. Unlike Turkish, Gagauz also has the letters Ä, Ê Ş and Ţ. ŞandŢ are derived from the Romanian alphabet for the same sounds. Sometime the Turkish Şmay be used instead of Ş.
- Turkish uses a *G* with a breve (*Ğ*), two letters with an umlaut (*Ö* and *Ü*, representing two rounded front vowels), two letters with a cedilla (*Ç* and *Ş*, representing the affricate /tʃ/ and the fricative /ʃ/), and also possesses a dotted capital *İ* (and a dotless lowercase *ı* representing a high unrounded back vowel). In Turkish each of these are separate letters, rather than versions of other letters, where dotted capital *İ* and lower case *i* are the same letter, as are dotless capital *I* and lowercase *ı*. Typographically, *Ç* and *Ş* are sometimes rendered with a subdot, as in *Ş̣*; when a hook is used, it tends to have more a comma shape than the usual cedilla. The new Azerbaijani, Crimean Tatar, and Gagauz alphabets are based on the Turkish alphabet and its same diacriticized letters, with some additions.

- Turkmen includes the distinct Turkish alphabet letters Ç, Ö, Ş and Ü. In addition, Turkmen uses A with diaeresis (*Ä*) to represent /æ/, N with caron (*Ň*) to represent the velar nasal/ŋ/, Y with acute (*Ý*) to represent the palatal approximant/j/, and Z with caron (*Ž*) to represent /ʒ/.
- Other
- Albanian has two special letters Ç and Ë upper and lowercase. They are placed next to the most similar letters in the alphabet, c and e correspondingly.
- Esperanto has the symbols *ŭ*, *ĉ*, *ĝ*, *ĥ*, *ĵ* and *ŝ*, which are included in the alphabet, and considered separate letters.
- Filipino also has the character *ñ* as a letter and is collated between n and o.
- Hawaiian uses the kahakō (macron) over vowels, although there is some disagreement over considering them as individual letters. The kahakō over a vowel can completely change the meaning of a word that is spelled the same but without the kahakō.
- Kurdish uses the symbols Ç, Ê, Î, Ş and Û with other 26 standard Latin alphabet symbols.
- Lakota alphabet uses the caron for the letters *č*, *ȟ*, *ǧ*, *š*, and *ž*. It also uses the acute accent for stressed vowels á, é, í, ó, ú, áŋ, íŋ, úŋ.
- Malay uses some diacritics such as *á*, *ā*, *ç*, *í*, *ñ*, *ó*, *š*, *ú*. Uses of diacritics was continued until late 19th century except *ā* and *ē*.
- Maltese uses a C, G, and Z with a dot over them (Ċ, Ġ, Ż), and also has an H with an extra horizontal bar.

For uppercase H, the extra bar is written slightly above the usual bar. For lowercase H, the extra bar is written crossing the vertical, like a *t*, and not touching the lower part (Ⱨ, ⱨ). The above characters are considered separate letters. The letter 'c' without a dot has fallen out of use due to redundancy. 'Ċ' is pronounced like the English 'ch' and 'k' is used as a hard c as in 'cat'. 'Ż' is pronounced just like the English 'Z' as in 'Zebra', while 'Z' is used to make the sound of 'ts' in English (like 'tsunami' or 'maths'). 'Ġ' is used as a soft 'G' like in 'geometry', while the 'G' sounds like a hard 'G' like in 'log'. The digraph 'għ' (called *għajn* after the Arabic letter name *ʻayn* for ع) is considered separate, and sometimes ordered after 'g', whilst in other volumes it is placed between 'n' and 'o' (the Latin letter 'o' originally evolved from the shape of Phoenician *ʻayin*, which was traditionally collated after Phoenician *nūn*).

- The romanization of Syriac uses the altered letters of. *Ā*, *Č*, *D̲*, *Ē*, *Ë*, *Ġ*, *Ḥ*, *Ō*, *Š*, *Ṣ*, *Ṭ*, *Ū*, *Ž* alongside the 26 standard Latin alphabet symbols.
- Vietnamese uses the horn diacritic for the letters *ơ* and *ư*; the circumflex for the letters *â*, *ê*, and *ô*; the breve for the letter *ă*; and a bar through the letter *đ*. Separately, it also has á, à, ả, ã and ạ, the five tones used for vowels besides the flat tone 'a'.

Cyrillic Letters

- Belarusian and Uzbek Cyrillic have a letter *ў*.

- Belarusian, Bulgarian, Russian and Ukrainian have the letter *ў*.
- Belarusian and Russian have the letter *ё*. In Russian, this letter is usually replaced by *е*, although it has a different pronunciation. The use of *е* instead of *ё* does not affect the pronunciation. *Ё*is always used in children's books and in dictionaries. A minimal pair is все (*vs'e*, "everybody" pl.) and всё (*vs'o*, "everything" n. sg.). In Belarusian the replacement by *е* is a mistake; in Russian, it is permissible to use either *е* or *ё* for *ё* but the former is more common in everyday writing (as opposed to instructional or juvenile writing).
- The CyrillicUkrainian alphabet has the letters *ґ*, *ў* and *ї*. Ukrainian Latynka has many more.
- Macedonian has the letters *ќ* and *ѓ*.
- In Bulgarian and Macedonian the possessive pronoun *ѝ* (*ì*, "her") is spelled with a grave accent in order to distinguish it from the conjunction *и* (*i*, "and").
- The acute accent "◌́" above any vowel in Cyrillic alphabets is used in dictionaries, books for children and foreign learners to indicate the word stress, it also can be used for disambiguation of similarly spelled words with different lexical stresses.

Diacritics that do not produce new letters

English

English is one of the few European languages that does not have many words that contain diacritical marks. Instead, digraphs are the main way the Modern English alphabet adapts the Latin to its phonemes. Exceptions are unassimilated foreign loanwords, including borrowings from French and, increasingly, Spanish like jalapeño; however, the diacritic is also sometimes omitted from such words. Loanwords that frequently appear with the diacritic in English include *café*, *résumé* or *resumé* (a usage that helps distinguish it from the verb *resume*), *soufflé*, and *naïveté* (see *English terms with diacritical marks*). In older practice (and even among some orthographically conservative modern writers) one may see examples such as *élite*, *mêlée* and *rôle.*

English speakers and writers once used the diaeresis more often than now in words such as *coöperation* (from Fr. *coopération*), *zoölogy* (from Grk. *zoologia*), and *seeër* (now more commonly *see-er* or simply *seer*) as a way of indicating that adjacent vowels belonged to separate syllables, but this practice has become far less common. *The New Yorker* magazine is a major publication that continues to use the diaeresis in place of a hyphen for clarity and economy of space.

A few English words, out of context, can only be distinguished from others by a diacritic or modified letter, including exposé, lamé, maté, öre, øre, pâté, and rosé. The same is true of *résumé,* alternatively *resumé,* but nevertheless it is regularly spelled *resume*. In a few words, diacritics that did not exist in the original have been added for disambiguation, as in maté (from Sp. and Port. *mate*), saké (the standard Romanization of the Japanese has no accent mark), and Malé (from Dhivehi މާލެ), to clearly distinguish them from the English words "mate", "sake", and "male".

The acute and grave accents are occasionally used in poetry and lyrics: the acute to indicate stress overtly where it might be ambiguous (*rébel* vs. *rebél*) or nonstandard for metrical reasons (*caléndar*), the grave to indicate that an ordinarily silent or elided syllable is pronounced (*warnèd,parlìament*).

In certain personal names such as *Renée* and *Zoë*, often two spellings exist, and the preference will be known only to those close to the person themselves. Even when the name of a person is spelled with a diacritic, like Charlotte Brontë, this may be dropped in English language articles and even official documents such as passports either due to carelessness, the typist not knowing how to enter letters with diacritical marks, or for technical reasons—California, for example, does not allow names with diacritics, as the computer system cannot process such characters. They also appear in some worldwide company names and/or trademarks such as Nestlé or Citroën.

Other languages

The following languages have letter-diacritic combinations that are not considered independent letters.

- Afrikaans uses a diaeresis to mark vowels that are pronounced separately and not as one would expect where they occur together, for example *voel* (to feel) as opposed to *voël* (bird). The circumflex is used in *ê, î, ô* and *û* generally to indicate long close-mid, as opposed to open-mid vowels, for example in the words *wêreld* (world) and *môre* (morning, tomorrow). The acute accent is used to add emphasis in the same way as underlining or writing in bold or italics in English, for example *Dit is jóú boek* (It is **your** book). The grave accent is used to distinguish between words that are different only in placement of the stress, for example *appel* (apple) and *appèl* (appeal) and in a few cases where it makes no difference to the pronunciation but distinguishes between homophones. The two most usual cases of the latter are in the sayings *òf... òf* (either... or) and *nòg... nòg* (neither... nor) to distinguish them from *of* (or) and *nog* (again, still).
- Aymara uses a diacritical horn over *p, q, t, k, ch*.
- Catalan has the following composite characters: *à, ç, é, è, í, ï, ó, ò, ú, ü, l·l*. The acute and the grave indicate stress and vowel height, the cedilla marks the result of a historical palatalization, the diaeresis indicates either a hiatus, or that the letter *u* is pronounced when the graphemes *gü, qü* are followed

by *e* or *i*, the interpunct (·) distinguishes the different values of *ll*/*l·l*.

- Some orthographies of Cornish such as Kernowek Standard and Unified Cornish use diacritics, while others such as Kernewek Kemmyn and the Standard Written Form do not (or only use them optionally in teaching materials).
- Dutch uses the diaeresis. For example, in *ruïne* it means that the *u* and the *i* are separately pronounced in their usual way, and not in the way that the combination *ui* is normally pronounced. Thus it works as a separation sign and not as an indication for an alternative version of the *i*. Diacritics can be used for emphasis (*érg koud* for *very* cold) or for disambiguation between a number of words that are spelled the same when context doesn't indicate the correct meaning (*één appel* = one apple, *een appel* = an apple; *vóórkomen* = to occur, *voorkómen* = to prevent). Grave and acute accents are used on a very small number of words, mostly loanwords. The ç also appears in some loanwords.
- Faroese. Non-Faroese accented letters are not added to the Faroese alphabet. These include *é*, *ö*, *ü*, *å* and recently also letters like *š*, *ł*, and *ć*.
- Filipino has the following composite characters: *á, à, â, é, è, ê, í, ì, î, ó, ò, ô, ú, ù, û*. The actual use of diacritics for Filipino is, however, uncommon, meant only to distinguish between homonyms with different stresses and meanings that either occur near each other in a text or to aid the reader in ascertaining its otherwise ambiguous meaning. The letter eñe is due to the Spanish alphabet and too, is considered a

separate letter. The diacritics appears in Spanishloanwords and names if Spanish orthography is observed.

- Finnish. Carons in *š* and *ž* appear only in foreign proper names and loanwords, but may be substituted with *sh* or *zh* if and only if it is technically impossible to produce accented letters in the medium. Contrary to Estonian, *š* and *ž*are not considered distinct letters in Finnish.
- French uses five diacritics. The grave (*accent grave*) marks the sound /ɛ/ when over an e, as in *père* ("father") or is used to distinguish words that are otherwise homographs such as *a*/*à* ("has"/"to") or *ou*/*où* ("or"/"where"). The acute (*accent aigu*) is only used in "é", modifying the "e" to make the sound /e/, as in *étoile* ("star"). The circumflex (*accent circonflexe*) generally denotes that an S once followed the vowel in Old French or Latin, as in *fête* ("party"), the Old French being *feste* and the Latin being *festum*. Whether the circumflex modifies the vowel's pronunciation depends on the dialect and the vowel. The cedilla (*cédille*) indicates that a normally hard "c" (before the vowels "a", "o", and "u") is to be pronounced/s/, as in *ça* ("that"). The diaeresis (*tréma*) indicates that two adjacent vowels that would normally be pronounced as one are to be pronounced separately, as in *Noël* ("Christmas").
- Galician vowels can bear an acute (*á, é, í, ó, ú*) to indicate stress or difference between two otherwise same written words (*é*, 'is' vs. *e*, 'and'), but the diaeresis (*trema*) is only used with *ï* and *ü* to show two separate vowel sounds in pronunciation. Only in

foreign words may Galician use other diacritics such as *ç* (common during the Middle Ages), *ê*, or *à*.

- German uses the three umlauted characters *ä*, *ö* and *ü*. These diacritics indicate vowel changes. For instance, the word *Ofen*[ˈoːfən] "oven" has the plural *Öfen*[ˈøːfən]. The mark originated as a superscript *e*; a handwritten blackletter *e* resembles two parallel vertical lines, like a diaeresis. Due to this history, "ä", "ö" and "ü" can be written as "ae", "oe" and "ue" respectively, if the umlaut letters are not available.
- Hebrew has many various diacritic marks known as *niqqud* that are used above and below script to represent vowels. These must be distinguished from cantillation, which are keys to pronunciation and syntax.
- The International Phonetic Alphabet uses diacritic symbols and characters to indicate phonetic features or secondary articulations.
- Irish uses the acute to indicate that a vowel is long: *á*, *é*, *í*, *ó*, *ú*. It is known as *síneadh fada* "long sign" or simply *fada* "long" in Irish. In the older Gaelic type, overdotsare used to indicate lenition of a consonant: *ḃ*, *ċ*, *ḋ*, *ḟ*, *ġ*, *ṁ*, *ṗ*, *ṡ*, *ṫ*.
- Italian mainly has the acute and the grave (*à*, *è*/*é*, *ì*, *ò*/*ó*, *ù*), typically to indicate a stressed syllable that would not be stressed under the normal rules of pronunciation but sometimes also to distinguish between words that are otherwise spelled the same way (e.g. "e", and; "è", is). Despite its rare use, Italian orthography allows the circumflex (î) too, in two cases: it can be found in old literary context (roughly up to 19th century) to signal a syncope

(fêro→fecero, they did), or in modern Italian to signal the contraction of "-ii" due to the plural ending -i whereas the root ends with another -i; e.g., s. demonio, p. demonii→demonî; in this case the circumflex also signals that the word intended is not demoni, plural of "demone" by shifting the accent (demònî, "devils"; dèmoni, "demons").

- Lithuanian uses the acute, grave and tilde in dictionaries to indicate stress types in the language's pitch accent system.
- Maltese also uses the grave on its vowels to indicate stress at the end of a word with two syllables or more:– lowercase letters: à, è, ì, ò, ù ; capital letters: À, È, Ì, Ò, Ù
- Māori makes use of macrons to mark long vowels.
- Occitan has the following composite characters: *á, à, ç, é, è, í, ï, ó, ò, ú, ü, n·h, s·h*. The acute and the grave indicate stress and vowel height, the cedilla marks the result of a historical palatalization, the diaeresis indicates either a hiatus, or that the letter *u* is pronounced when the graphemes *gü, qü* are followed by *e* or *i*, and the interpunct (·) distinguishes the different values of *nh*/*n·h* and *sh*/*s·h* (i.e., that the letters are supposed to be pronounced separately, not combined into "ny" and "sh").
- Portuguese has the following composite characters: *à, á, â, ã, ç, é, ê, í, ó, ô, õ, ú*. The acute and the circumflex indicate stress and vowel height, the grave indicates crasis, the tilde represents nasalization, and the cedilla marks the result of a historical lenition.

- Acutes are also used in Slavic language dictionaries and textbooks to indicate lexical stress, placed over the vowel of the stressed syllable. This can also serve to disambiguate meaning (e.g., in Russian писа́ть (*pisáť*) means "to write", but пи́сать (*písať*) means "to piss"), or "бо́льшаячасть" (the biggest part) vs "больша́ячасть" (the big part).
- Spanish uses the acute and the diaeresis. The acute is used on a vowel in a stressed syllable in words with irregular stress patterns. It can also be used to "break up" a diphthong as in *tío* (pronounced [ˈti.o], rather than [ˈtjo] as it would be without the accent). Moreover, the acute can be used to distinguish words that otherwise are spelled alike, such as *si* ("if") and *sí* ("yes"), and also to distinguish interrogative and exclamatory pronouns from homophones with a different grammatical function, such as *donde*/*¿dónde?* ("where"/"where?") or*como*/*¿cómo?* ("as"/"how?"). The acute may also be used to avoid typographical ambiguity, as in *1 ó 2* ("1 or 2"; without the acute this might be interpreted as "1 0 2". The diaeresis is used only over *u* (*ü*) for it to be pronounced [w] in the combinations *gue* and *gui,* where *u* is normally silent, for example *ambigüedad.* In poetry, the diaeresis may be used on *i* and *u* as a way to force a hiatus. As foreshadowed above, in nasal *ñ*the tilde (squiggle) is not considered a diacritic sign at all, but a composite part of a distinct glyph, with its own chapter in the dictionary: a glyph that denotes the 15th letter of the Spanish alphabet.

- Swedish uses the acute to show non-standard stress, for example in *kafé* (café) and *resumé* (résumé). This occasionally helps resolve ambiguities, such as *ide* (hibernation) versus *idé* (idea). In these words, the acute is not optional. Some proper names use non-standard diacritics, such as Carolina Klüft and Staël von Holstein. For foreign loanwords the original accents are strongly recommended, unless the word has been infused into the language, in which case they are optional. Hence *crème fraîche* but *ampere*. Swedish also has the letters *å*, *ä*, and *ö*, but these are considered distinct letters, not *a* and*o* with diacritics.
- Tamil does not have any diacritics in itself, but uses the Arabic numerals 2, 3 and 4 as diacritics to represent aspirated, voiced, and voiced-aspirated consonants when Tamil script is used to write long passages in Sanskrit.
- Thai has its own system of diacritics derived from Indian numerals, which denote different tones.
- Vietnamese uses the acute (*dấu sắc*), the grave (*dấu huyền*), the tilde (*dấu ngã*), the underdot (*dấu nặng*) and the hoi (*dấu hỏi*) on vowels as tone indicators.
- Welsh uses the circumflex, diaeresis, acute, and grave on its seven vowels *a, e, i, o, u, w, y*. The most common is the circumflex (which it calls *to bach*, meaning "little roof", or *acen grom* "crooked accent", or *hirnod* "long sign") to denote a long vowel, usually to disambiguate it from a similar word with a short vowel. The rarer grave accent has the opposite effect, shortening vowel sounds that would usually be pronounced long. The acute accent and diaeresis are

also occasionally used, to denote stress and vowel separation respectively. The *w*-circumflex and the *y*-circumflex are among the most commonly accented characters in Welsh, but unusual in languages generally, and were until recently very hard to obtain in word-processed and HTML documents.

Transliteration

Several languages that are not written with the Roman alphabet are transliterated, or romanized, using diacritics. Examples:

- Arabic has several romanisations, depending on the type of the application, region, intended audience, country, etc. many of them extensively use diacritics, e.g., some methods use an underdot for rendering emphatic consonants (ṣ, ṭ, ḍ, ẓ, ḥ). The macron is often used to render long vowels. š is often used for /ʃ/, ġ for /ɣ/.
- Chinese has several romanizations that use the umlaut, but only on *u* (*ü*). In Hanyu Pinyin, the four tones of Mandarin Chinese are denoted by the macron (first tone), acute (second tone), caron (third tone) and grave (fourth tone) diacritics. Example: *ā*, *á*, ǎ, *à*.
- Romanized Japanese (Rōmaji) occasionally uses macrons to mark long vowels. The Hepburn romanization system uses macrons to mark long vowels, and the Kunrei-shiki and Nihon-shiki systems use a circumflex.

- Sanskrit, as well as many of its descendants, like Hindi and Bengali, uses a lossless romanization system, IAST. This includes several letters with diacritical markings, such as the macron (ā, ī, ū), over- and underdots (ṛ, ḥ, ṃ, ṇ, ṣ, ṭ, ḍ) as well as a few others (ś, ñ).

Limits

Orthographic

Possibly the greatest number of combining diacritics *required* to compose a valid character in any Unicode language is 8, for the "well-known grapheme cluster in Tibetan and Ranjana scripts",  , or HAKṢHMALAWARAYAṀ.

It is U+0F67 U+0F90 U+0FB5 U+0FA8 U+0FB3 U+0FBA U+0FBC U+0FBB U+0F82, or: TIBETAN LETTER HA + TIBETAN SUBJOINED LETTER KA + TIBETAN SUBJOINED LETTER SSA + TIBETAN SUBJOINED LETTER MA + TIBETAN SUBJOINED LETTER LA + TIBETAN SUBJOINED LETTER FIXED-FORM WA + TIBETAN SUBJOINED LETTER FIXED-FORM RA + TIBETAN SUBJOINED LETTER FIXED-FORM YA + TIBETAN SIGN NYI ZLA NAA DA.

Unorthographic/ornamental

- Some users have explored the limits of rendering in web browsers and other software by "decorating" words with multiple nonsensical diacritics per

character. The result is called "Zalgo text". The composed bogus characters and words can be copied and pasted normally via the system clipboard.

Chapter 5

Acute Accent

The **acute accent**, ◌́, is a diacritic used in many modern written languages with alphabets based on the Latin, Cyrillic, and Greek scripts.

Uses

History

An early precursor of the acute accent was the apex, used in Latin inscriptions to mark long vowels.

Pitch

Ancient Greek

The **Ancient Greek accent**is believed to have been a melodic or pitch accent.

In Ancient Greek, one of the final three syllables of each word carries an accent. Each syllable contains a vowel with one or two vocalic morae, and one mora in a word is accented; the accented mora is pronounced at a higher pitch than other morae.

The accent cannot come more than three syllables from the end of the word. If the last syllable of a word has a long vowel, or is closed by two consonants, the accent usually cannot come on the antepenultimate syllable; but within those restrictions it is free.

In nouns the accent is largely unpredictable. Mostly the accent either comes as close to the beginning of the word as the rules allow, for example, πόλεμος*pólemos* 'war' (such words are said to have **recessive** accent), or it is placed on the last mora of the word, as in ποταμός*potamós* 'river' (such words are called **oxytone**). But in a few words, such as παρθένος*parthénos* 'maiden', the accent comes between these two extremes.

In verbs the accent is generally predictable and has a grammatical rather than a lexical function, that is, it differentiates different parts of the verb rather than distinguishing one verb from another. Finite parts of the verb usually have recessive accent, but in some tenses participles, infinitives, and imperatives are non-recessive.

In the classical period (5th–4th century BC) word accents were not indicated in writing, but from the 2nd century BC onwards various diacritic marks were invented, including an acute, circumflex, and grave accent, which indicated a high pitch, a falling pitch, and a low or semi-low pitch respectively. The written accents were used only sporadically at first, and did not come into common use until after 600 AD.

The fragments of ancient Greek music that survive, especially the two hymns inscribed on a stone in Delphi in the 2nd century BC, appear to follow the accents of the words very

closely, and can be used to provide evidence for how the accent was pronounced.

Sometime between the 2nd and 4th centuries AD the distinction between acute, grave, and circumflex disappeared and all three accents came to be pronounced as a stress accent, generally heard on the same syllable as the pitch accent in ancient Greek.

Types of accent

The ancient Greek grammarians indicated the word-accent with three diacritic signs: the acute (ά), the circumflex (ᾶ), and the grave (ὰ). The acute was the most commonly used of these; it could be found on any of the last three syllables of a word. Some examples are:

- ἄνθρωποςánthrōpos 'man, person'
- πολίτηςpolítēs 'citizen'
- ἀγαθόςagathós 'good'

The circumflex, which represented a falling tone, is found only on long vowels and diphthongs, and only on the last two syllables of the word:

- σῶμαsôma 'body'
- γῆgê 'earth'

When a circumflex appears on the final syllable of a polysyllabic word, it usually represents a contracted vowel:

- ποιῶpoiô 'I do' (contracted form of ποιέωpoiéō)

The grave is found, as an alternative to an acute, only on the last syllable of a word. When a word such as ἀγαθός*agathós* 'good' with final accent is followed by a pause (that is, whenever it comes at the end of a clause, sentence, or line of verse), or by an enclitic word such as the weak form of ἐστίν*estín* 'is' (see below), the accent is written as an acute:

- ἀνὴρἀγαθός*anḕr agathós* '[a] good man'
- ἀνὴρἀγαθόςἐστιν*anḕr agathós estin* '[he] is [a] good man'

However, when the word does not come before a pause or an enclitic, the acute accent is replaced by a grave:

- ἀγαθὸςἄνθρωπος*agathòs ánthrōpos* 'a good person'

It is generally assumed that when a word was written with a grave it indicates that there was no rise in pitch, or only a small one.

Placing the accent marks

In Greek, if an accent mark is written on a diphthong or vowel written with a digraph such as ει, it is always written above the second vowel of the diphthong, not the first, for example:

- τοῖςναύταις*toîs naútais* 'for the sailors'
- εἷς*heîs* 'one'

When a word such as a proper name starts with a capital vowel letter, the accent and breathing are usually written before the letter. If a name starts with a diphthong, the accent is written

above the second letter. But in Ἅιδης*Hā́idēs* 'Hades', where the diphthong is the equivalent of an alpha with iota subscript (i.e. ᾇ), it is written in front:

- Ἥρα*Hḗra* 'Hera'
- Αἴας*Aías* 'Ajax'
- Ἅιδης*Hā́idēs* 'Hades'

When combined with a rough or smooth breathing, the circumflex goes on top of the breathing, while the acute or grave is written to the right of the breathing, as in the above examples. When an accent is combined with a diaeresis mark, as in νηΐ*nē*, the accent is written on top.

Tonal minimal pairs

Whether the accent on a particular syllable is an acute or circumflex is largely predictable, but there are a few examples where a change from an acute on a long vowel to a circumflex indicates a different meaning, for example

- λύσαι*lúsai* 'he might free' – λῦσαι*lûsai* 'to free'
- οἴκοι*oíkoi* 'at home' – οἶκοι*oîkoi* 'houses'
- φώς*phṓs* 'man' (poetic) – φῶς*phôs* 'light'

There are also examples where the meaning changes if the accent moves to a different syllable:

- μένω*ménō* 'I remain' – μενῶ*menô* 'I will remain'
- πείθω*peíthō* 'I persuade' – πειθώ*peithṓ* 'persuasion'

- ποίησαιpoíēsai 'make!' (middle imperative) – ποιήσαιpoiḗsai 'he might make' – ποιῆσαιpoiêsai 'to make'
- μύριοιmúrioi 'ten thousand' – μυρίοιmuríoi 'countless'
- νόμοςnómos 'law' – νομόςnomós 'place of pasturage'
- ἈθήναιοςAthḗnaios 'Athenaeus' (proper name) – Ἀθηναῖος*Athēnaîos* 'Athenian'

There is also a distinction between unaccented (or grave-accented) and fully accented forms in words such as:

- τιςtis 'someone' – τίς; tís? 'who?'
- πουpou 'somewhere' / 'I suppose' – ποῦ; poû 'where?'
- ἢ ἢ 'or' / 'than' – ἦ ἦ̂ 'in truth' / 'I was' / 'he said'
- ἀλλὰallà 'but' – ἄλλαálla 'others (neuter)'
- ἐστὶ*estì* 'it is' – ἔστι*ésti* 'there is' / 'it exists' / 'it is possible'

History of the accent in Greek writing

The three marks used to indicate accent in ancient Greek, the acute (´), circumflex (˜), and grave (`) are said to have been invented by the scholar Aristophanes of Byzantium, who was head of the famous library of Alexandria in Egypt in the early 2nd century BC. The first papyri with accent marks date from this time also. In the papyri, at first the accents were used only sporadically, specifically for helping readers to pronounce Greek poetry correctly, and the grave accent could be used on

any non-accented syllable. Such accents were useful, since Greek at that time was written without gaps between the words. For example, in one papyrus, the word ὀρὲιχάλκωι*òrèikhálkōi* 'to brass' is written with grave accents on the first two syllables, in case any reader should mistakenly read the first part of the word as ὄρει*órei* 'to a mountain'.

In the following centuries many other grammarians wrote about Greek accentuation. The most famous of these, Aelius Herodianus or Herodian, who lived and taught in Rome in the 2nd century AD, wrote a long treatise in twenty books, 19 of which were devoted to accentuation. Although Herodian's book does not survive in full, an epitome (abridgement) was made of it around AD 400 which still survives. Another important authority was Apollonius Dyscolus, the father of Herodian.

The names of these diacritics in English, and the term ‘accent’, are based on Latin loan-translations of the Greek terms. Latin *accentus* corresponds to Greek προσῳδία*prosōdía* "song sung to instrumental music, pitch variation in voice" (the word from which English prosody comes), *acūtus* to ὀξεῖα*oxeîa* "sharp" or "high-pitched", *gravis* to βαρεῖα*bareîa* "heavy" or "low-pitched", and *circumflexus* to περισπωμένη*perispōménē* "pulled around" or "bent". The Greek terms for the diacritics are nominalized feminine adjectives that originally modified the feminine noun προσῳδία and agreed with it in gender.

Diacritic signs were not used in the classical period (5th–4th century BC). They were gradually introduced from the 2nd century BC onwards, but did not become commonly used in manuscripts until after 600 AD.

Origin of the accent

The ancient Greek accent, at least in nouns, appears to have been inherited to a large extent from the original parent language from which Greek and many other European and Indian languages derive, Proto-Indo-European. This can be seen by comparing the accent of Greek words with the accent of words in the Vedic hymns (the most ancient form of the Sanskrit language of India). Very often these are the same, for example:

- Vedic *pā́t*, Ancient Greek πούς 'foot' (nominative)
- Vedic *pā́dam*, Ancient Greek πόδα 'foot' (accusative)
- Vedic *padás*, Ancient Greek ποδός 'of a foot' (genitive)
- Vedic *padí*, Ancient Greek ποδί 'for a foot' (dative)

There are also other accentual correspondences between Greek and Vedic, for example:

- Vedic yugáṃ, Ancient Greek ζυγόνzugón 'yoke'
- Vedic áśvaḥ, Ancient Greek ἵπποςhíppos 'horse'
- Vedic śatáṃ, Ancient Greek ἑκατόνhekatón 'a hundred'
- Vedic návaḥ, Ancient Greek νέοςnéos 'new'
- Vedic *pitā́*, Ancient Greek πατήρ*patḗr* 'father'

One difference between Greek and Vedic, however, is that in Greek words the accent is always found in one of the last three syllables, whereas in Vedic (and presumably in Proto-Indo-European) it could come anywhere in the word.

The distinction in Greek between circumflex and acute accent appears to be a Greek development, and does not go back to Proto-Indo-European.

Terminology

In all there are exactly five different possibilities for placing an accent. The terms used by the ancient Greek grammarians were:

- Oxytone (ὀξύτονος): acute on the final syllable (e.g. πατήρ 'father')
- Paroxytone (παροξύτονος): acute on the penultimate (e.g. μήτηρ 'mother')
- Proparoxytone (προπαροξύτονος): acute on the antepenultimate (e.g. ἄνθρωπος 'person')
- Perispomenon (περισπώμενος): circumflex on the final (e.g. ὁρῶ 'I see')
- Properispomenon (προπερισπώμενος): circumflex on the penultimate (e.g. σῶμα 'body')

The word barytone (βαρύτονος) refers to any word which has no accent (either acute or circumflex) on the final syllable, that is the 2nd, 3rd and 5th possibilities above.

Pronunciation of the accent

General evidence

It is generally agreed that the ancient Greek accent was primarily one of pitch or melody rather than of stress. Thus in a word like ἄνθρωποςánthrōpos 'man', the first syllable was pronounced on a higher pitch than the others, but not necessarily any louder. As long ago as the 19th century it was surmised that in a word with recessive accent the pitch may have fallen not suddenly but gradually in a sequence high–middle–low, with the final element always short.

The evidence for this comes from various sources. The first is the statements of Greek grammarians, who consistently describe the accent in musical terms, using words such as ὀξύςoxús 'high-pitched' and βαρύςbarús 'low-pitched'.

According to Dionysius of Halicarnassus (1st century BC), the melody of speech is confined to an interval 'of about a 5th'. This statement has been interpreted in different ways, but it is usually supposed that he meant not that it was always a fifth, but that this was the maximum normal difference between high and low syllables. It is thought probable that occasionally, especially at the end of a sentence, the interval was much smaller. Dionysius also describes how a circumflex accent combines high and low pitch on the same syllable, whereas with an acute accent the high and low pitches are in separate syllables.

Another indication that the accent was melodic or tonal is that in the classical period the accents of the words seem to have played no part at all in poetic metres, unlike in languages such as English which have stress-accents. It was not until the 4th century AD that poems began to be written in which the accent played a role (see below).

As can be seen, the accented syllable of a word generally has the highest note within that word, although sometimes the syllables preceding or following the accent are also high.

When the accent is a circumflex, the music often shows a fall from a higher note to a lower one within the syllable itself, exactly as described by Dionysius of Halicarnassus; examples are the words Μουσῶν*Mousôn* 'of the Muses' and εὐμενεῖς*eumeneîs* 'favourable' in the prayer illustrated above. However, sometimes there is no fall within the accented syllable, but the circumflex is set to a single note, as in τερπνῶν*terpnôn* 'delightful' or Λατοῦς*Latoûs* 'of Leto' above.

If the accent is a grave, there is often no rise in pitch, or else only a small one, as in σοφὲ*sophè* above.

In this practice of closely imitating the tones of word accents in the melodies of songs, Ancient Greek resembles many living Asian and African languages that have tonal accents. For this reason, the American scholars A.M. Devine and Laurence Stephens have argued that the rises and falls found in Greek music probably give a reasonably good indication of what happened when the words were spoken.

It seems, however, that the music did not always follow the accent exactly. Dionysius of Halicarnassus gives an example

from the music written by Euripides for his play *Orestes*. In the lines which in our modern editions are written as σῖγα, σῖγα, λεπτὸνἴχνοςἀρβύλας // τίθετε, μὴκτυπεῖτ᾽ (*sîga, sîga, leptòn íkhnos arbúlas // títhete, mḕ ktupeît᾽*) 'Quietly, quietly! Place the tread of your shoe lightly, don't make a noise!', Dionysius reports that in the first three words and the last there was no raised pitch, while in both ἀρβύλαις*arbúlas* 'of the shoe' and τίθετε*títhete* 'place' there was a low note followed by two high ones, despite the accent on the first syllable of τίθετε*títhete*.

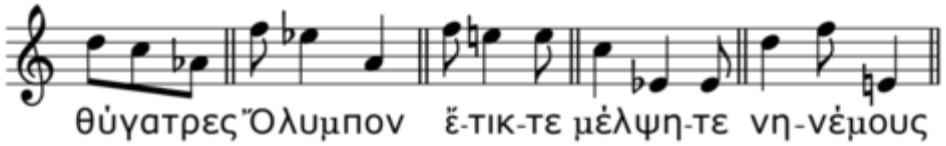
However, although the fragments of earlier music sometimes show a mismatch, the Delphic hymns in particular appear to show a very close relationship between the music and the word accents, with all but three of the 180 analysable words matching.

Some more details of the way in which accents were set to music are given below. Note that in the musical examples the pitch is conventional, dating back to a publication by Friedrich Bellermann in 1840. In performance the pitch would have been at least a minor third lower.

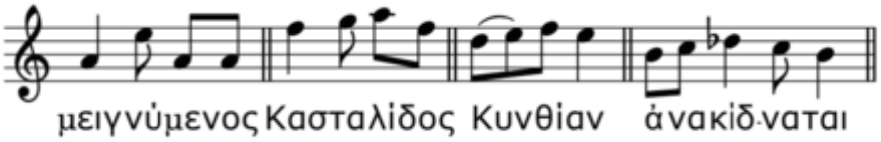
Acute accent

When the signs for the notes in Greek music are transcribed into modern musical notation, it can be seen that an acute accent is generally followed by a fall, sometimes extending over two syllables. Usually the fall is only a slight one, as in θύγατρες*thúgatres* 'daughters', Ὄλυμπον*Ólumpon* 'Olympus' or ἔτικτε*étikte* 'she give birth to' below. Sometimes, however, there

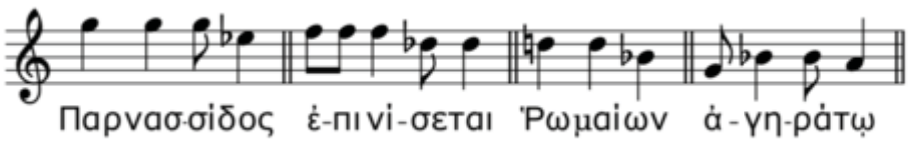
is a sharp drop, as in μέλψητε*mélpsēte* 'you may sing' or νηνέμουςnēnémous 'windless':

- 

Before the accent the rise on average is less than the fall afterwards. There is sometimes a jump up from a lower note, as in the word μειγνύμενος*meignúmenos* 'mingling' from the second hymn; more often there is a gradual rise, as in Κασταλίδος*Kastalídos* 'of Castalia', Κυνθίαν*Kunthían* 'Cynthian', or ἀνακίδναται*anakídnatai* 'spreads upwards':

- 

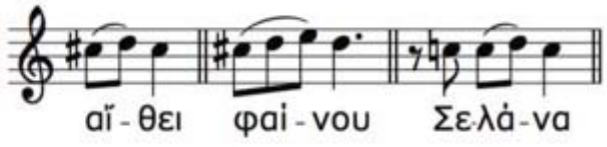
In some cases, however, before the accent instead of a rise there is a 'plateau' of one or two notes the same height as the accent itself, as in Παρνασσίδος*Parnassídos* 'of Parnassus', ἐπινίσεται*epinísetai* 'he visits', Ῥωμαίων*Rhōmaíōn* 'of the Romans', or ἀγηράτῳ*agērátōi* 'ageless' from the Delphic hymns:

- 

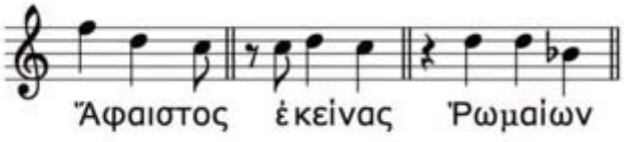
Anticipation of the high tone of an accent in this way is found in other pitch-accent languages, such as some varieties of Japanese, Turkish, or Serbian, where for example the word

papríka 'pepper' can be pronounced *páprika*. It would not be surprising therefore to find that it was a feature of Greek speech also. Devine and Stephens, however, quoting Dionysius's statement that there is only one high tone per word, argue that the norm in Greek words was for unaccented syllables to be low-pitched.

When an acute accent occurs on a long vowel or diphthong, it is generally assumed that the high pitch was on the second mora of the vowel, that is to say, that there was a rising pitch within the syllable. The Greek music sometimes shows exactly this, as with the word αἴθει*aíthei* 'it burns' in the 1st Delphic hymn, or φαίνου*phaínou* 'shine!' in the Seikilos epitaph, or Σελάνα*Selána* 'the Moon' in the *Hymn to the Sun*, in which the syllable with the acute is set to a melism of two or three notes rising gradually.

- 

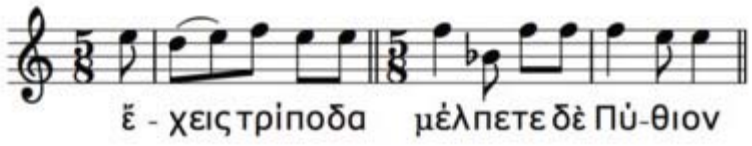
More frequently, however, on an accented long vowel in the music there is no rise in pitch, and the syllable is set to a level note, as in the words Ἅφαιστος*Háphaistos* 'Hephaestus' from the 1st Delphic hymn or ἐκείνας*ekeínas* 'those' or Ῥωμαίων*Rhōmaíōn* 'of the Romans' from the 2nd hymn:

- 

Because this is so common, it is possible that at least sometimes the pitch did not rise on a long vowel with an acute accent but remained level. Another consideration is that although the ancient grammarians regularly describe the circumflex accent as 'two-toned' (δίτονος) or 'compound' (σύνθετος) or 'double' (διπλοῦς), they usually do not make similar remarks about the acute. There are apparently some, however, who mention a 'reversed circumflex', presumably referring to this rising accent.

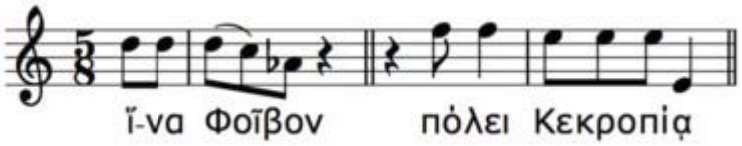
Tonal assimilation

Devine and Stephens note that occasionally at the end of a word, the pitch rises again, as though leading up to or anticipating the accent in the following word. They refer to this as a 'secondary rise'. Examples are ἔχειςτρίποδα*ékheis trípoda* 'you have a tripod' or μέλπετεδὲΠύθιον*mélpete dè Púthion* 'sing the Pythian' in the 2nd Delphic hymn. According to Devine and Stephens, it 'probably reflects a genuine process of pitch assimilation in fluent speech'.



In the great majority of cases in the music, the pitch falls on the syllable immediately following an acute accent. However, there are some exceptions. One situation where this can happen is when two words are joined in a plateau or near-plateau, as in the phrases ἵναΦοῖβον*hína Phoîbon* 'so that

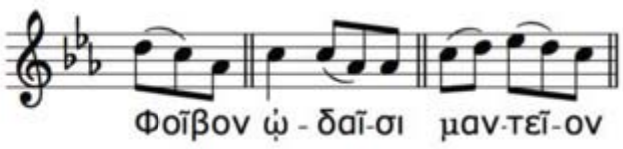
Phoebus' (1st Hymn) and πόλειΚεκροπίᾳ*pólei Kekropíāi* 'in the city of Cecrops' in the 2nd Delphic Hymn:

- 

Tonal assimilation or tone sandhi between neighbouring tones is commonly found in tonal languages. Devine and Stephens, citing a similar phenomenon in the music of the Nigerian language Hausa, comment: 'This is not a mismatch but reflects a feature of phrase intonation in fluent speech.'

Circumflex accent

A circumflex was written only over a long vowel or diphthong. In the music, the circumflex is usually set to a melisma of two notes, the first higher than the second. Thus in the first Delphic Hymn the word Φοῖβον*Phoîbon* 'Phoebus' is set to the same musical notes as θύγατρες*thúgatres* 'daughters' earlier in the same line, except that the first two notes fall within one syllable instead of across two syllables. Just as with the acute accent, a circumflex can be preceded either by a note on the same level, as in ᾠδαῖσι*ōidaîsi* 'with songs', or by a rise, as in μαντεῖον*manteîon* 'oracular':

- 

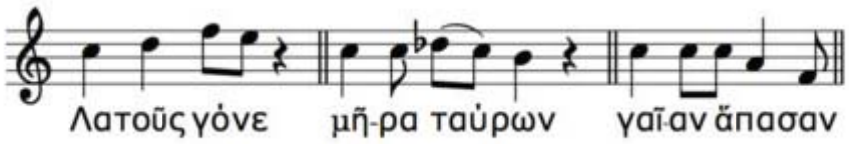
The circumflex therefore appears to have been pronounced in exactly the same way as an acute, except that the fall usually took place within one syllable. This is clear from the description of Dionysius of Halicarnassus (see above), who tells us that a circumflex accent was a blend of high and low pitch in a single syllable, and it is reflected in the word ὀξυβάρεια*oxubáreia* 'high-low' (or 'acute-grave'), which is one of the names given to the circumflex in ancient times. Another description was δίτονος*dítonos* 'two-toned'.

Another piece of evidence for the pronunciation of the circumflex accent is the fact that when two vowels are contracted into one, if the first one has an acute, the result is a circumflex: e.g. ὁρά-ω*horá-ō* 'I see' is contracted to ὁρῶ*horô* with a circumflex, combining the high and low pitches of the previous vowels.

In the majority of examples in the Delphic hymns, the circumflex is set to a melisma of two notes. However, in Mesomedes' hymns, especially the hymn to Nemesis, it is more common for the circumflex to be set to a single note. Devine and Stephens see in this the gradual loss over time of the distinction between acute and circumflex.

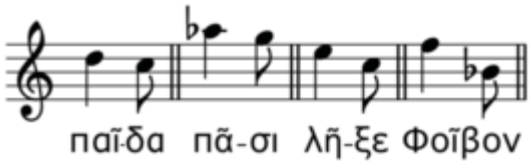
One place where a circumflex can be a single note is in phrases where a noun is joined with a genitive or an adjective. Examples are μῆραταύρων*mêra taúrōn* (1st Delphic Hymn) 'thighs of bulls', Λατοῦςγόνε*Latoûs góne* 'Leto's son' (Mesomedes' Prayer to Calliope and Apollo), γαῖανἅπασαν*gaîan hápasan* 'the whole world' (Mesomedes' Hymn to the Sun). In these phrases, the accent of the second word is higher than or on the same level as that of the first word, and just as with

phrases such as ἵναΦοῖβον*hína Phoîbon* mentioned above, the lack of fall in pitch appears to represent some sort of assimilation or tone sandhi between the two accents:

- 

When a circumflex occurs immediately before a comma, it also regularly has a single note in the music, as in τερπνῶν*terpnôn* 'delightful' in the Mesomedes' *Invocation to Calliope* illustrated above. Other examples are κλυτᾷ*klutâi* 'famous', ἰοῖς*ioîs* 'with arrows' in 2nd Delphic hymn, ζῇς*zêis* 'you live' in the Seikilos epitaph, and θνατῶν*thnatôn*, ἀστιβῆ*astibê* and μετρεῖς*metreîs* in Mesomedes' *Hymn to Nemesis*.

Another place where a circumflex sometimes has a level note in the music is when it occurs in a penultimate syllable of a word, with the fall only coming in the following syllable. Examples are παῖδα*paîda*, πᾶσι*pâsi* (1st Delphic hymn), λῆξε*lêxe*, σῴζεσ*ôize*, and Φοῖβον*Phoîbon* (2nd Delphic hymn), and χεῖρα*kheîra*, πῆχυν*pêkhun* (*Hymn to Nemesis*).

- 

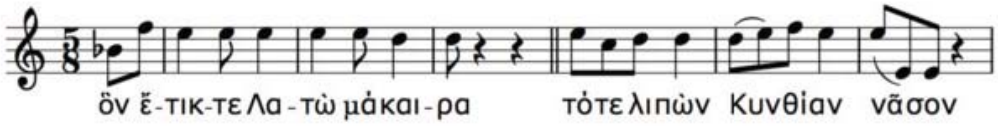
Grave accent

The third accentual mark used in ancient Greek was the grave accent, which is only found on the last syllable of words e.g.

ἀγαθὸςἄνθρωπος*agathòs ánthrōpos* 'a good man'. Scholars are divided about how this was pronounced; whether it meant that the word was completely accentless or whether it meant a sort of intermediate accent is unclear. In some early documents making use of written accents, a grave accent could often be added to any syllable with low pitch, not just the end of the word, e.g. Θὲὸδὼρὸς.

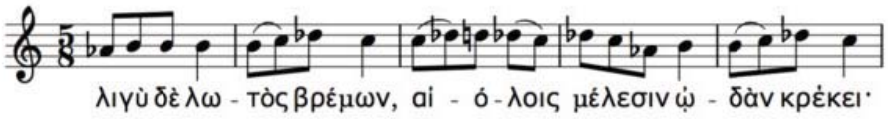
Some scholars, such as the Russian linguist Nikolai Trubetzkoy, have suggested that because there is usually no fall after a grave accent, the rise in pitch which was heard at the end of a clause was phonologically not a true accent, but merely a default phrasal tone, such as is heard in languages like Luganda. Other scholars, however, such as Devine and Stephens, argue that on the contrary the grave accent at the end of a word was a true accent, but that in certain contexts its pitch was suppressed.

In the music, a word with a grave frequently has no accent at all, and is set to a single level note, as in these examples from the 2nd Delphic hymn, ὃνἔτικτεΛατὼμάκαιρα*hòn étikte Latṑ mákaira* 'whom blessed Leto bore' and τότελιπὼνΚυνθίαννᾶσον*tóte lipṑn Kunthían nâson* 'then, leaving the Cynthian island', in which the words Λατὼ*Latṑ* 'Leto' and λιπὼν*lipṑn* 'having left' have no raised syllables:

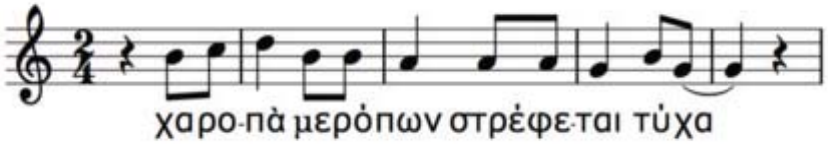
- 

However, occasionally the syllable with the grave can be slightly higher than the rest of the word. This usually occurs

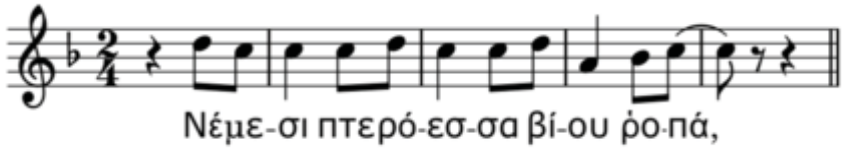
when the word with a grave forms part of a phrase in which the music is in any case rising to an accented word, as in καὶσοφὲμυστοδότα*kaì sophè mustodóta* 'and you, wise initiator into the mysteries' in the Mesomedes prayer illustrated above, or in λιγὺδὲλωτὸςβρέμων, αἰόλοισμέλεσινᾠδὰνκρέκει*ligù dè lōtòs brémōn, aiólois mélesin ōidàn krékei* 'and the pipe, sounding clearly, weaves a song with shimmering melodies' in the 1st Delphic hymn:



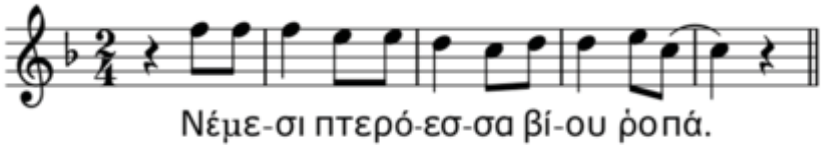
In the Delphic hymns, a grave accent is almost never followed by a note lower than itself. However, in the later music, there are several examples where a grave is followed by a fall in pitch, as in the phrase below, 'the harsh fate of mortals turns' (*Hymn to Nemesis*), where the word χαροπὰ*kharopà* 'harsh, grey-eyed' has a fully developed accent:



When an oxytone word such as ἀγαθός*agathós* 'good' comes before a comma or full stop, the accent is written as an acute. Several examples in the music illustrate this rise in pitch before a comma, for exampleΚαλλιόπειασοφά*Kalliópeia sophá* 'wise Calliope' illustrated above, or in the first line of the Hymn to Nemesis ('Nemesis, winged tilter of the scales of life'):

- 

There are almost no examples in the music of an oxytone word at the end of a sentence except the following, where the same phrase is repeated at the end of a stanza. Here the pitch drops and the accent appears to be retracted to the penultimate syllable:

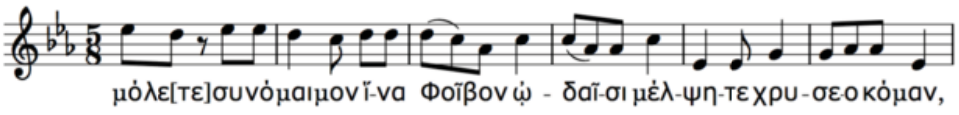
- 

This, however, contradicts the description of the ancient grammarians, according to whom a grave became an acute (implying that there was a rise in pitch) at the end of a sentence just as it does before a comma.

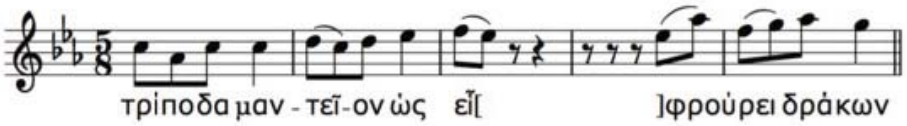
General intonation

Devine and Stephens also note that it is also possible from the Delphic hymns to get some indication of the intonation of Ancient Greek. For example, in most languages there is a tendency for the pitch to gradually become lower as the clause proceeds. This tendency, known as downtrend or downdrift, seems to have been characteristic of Greek too. For example, in the second line of the 1st Delphic Hymn, there is a gradual descent from a high pitch to a low one, followed by a jump up by an octave for the start of the next sentence. The words (*mólete sunómaimon hína Phoîbon ōidaîsi mélpsēte*

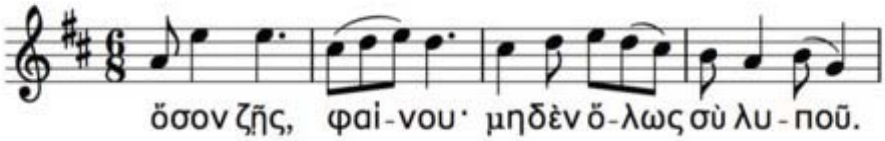
khruseokóman) mean: 'Come, so that you may hymn with songs your brother Phoebus, the Golden-Haired':

- 

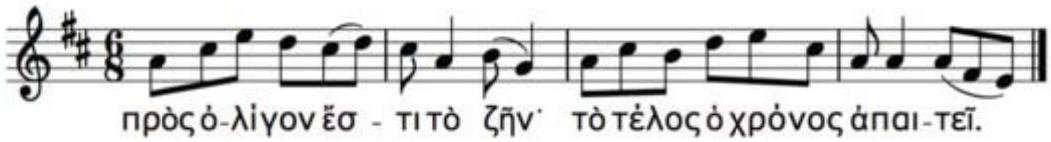
However, not all sentences follow this rule, but some have an upwards trend, as in the clause below from the first Delphic hymn, which when restored reads τρίποδαμαντεῖονὡςεἶλ[εςὃνμέγαςἐ]φρούρειδράκων*trípoda manteîon hōs heîl[es hòn mégas e]phroúrei drákōn* 'how you seized the prophetic tripod which the great snake was guarding'. Here the whole sentence rises up to the emphatic word δράκων*drákōn* 'serpent':

- 

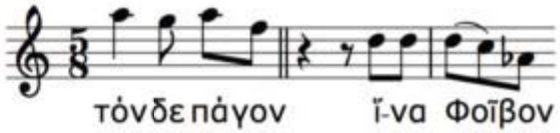
In English before a comma, the voice tends to remain raised, to indicate that the sentence is not finished, and this appears to be true of Greek also. Immediately before a comma, a circumflex accent does not fall but is regularly set to a level note, as in the first line of the Seikilos epitaph, which reads 'As long as you live, shine! Do not grieve at all':

- 

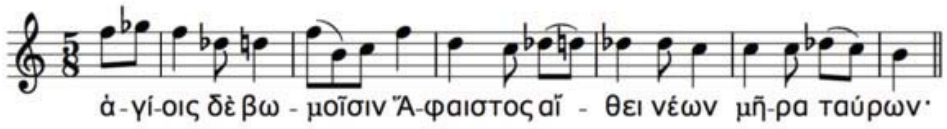
A higher pitch is also used for proper names and for emphatic words, especially in situations where a non-basic word-order indicates emphasis or focus. An example occurs in the second half of the Seikilos epitaph, where the last two lines read 'It is for a short time only that life exists; as for the end, Time demands it'. In the second sentence, where the order is object – subject – verb, the word χρόνος*khrónos* 'time' has the highest pitch, as if emphasised:



Another circumstance in which no downtrend is evident is when a non-lexical word is involved, such as ἵνα*hína* 'so that' or τόνδε*tónde* 'this'. In the music the accent in the word following non-lexical words is usually on the same pitch as the non-lexical accent, not lower than it. Thus there is no downtrend in phrases such as τόνδεπάγον*tónde págon* 'this crag' or ἵναΦοῖβον*hína Phoîbon* 'so that Phoebus', where in each case the second word is more important than the first:

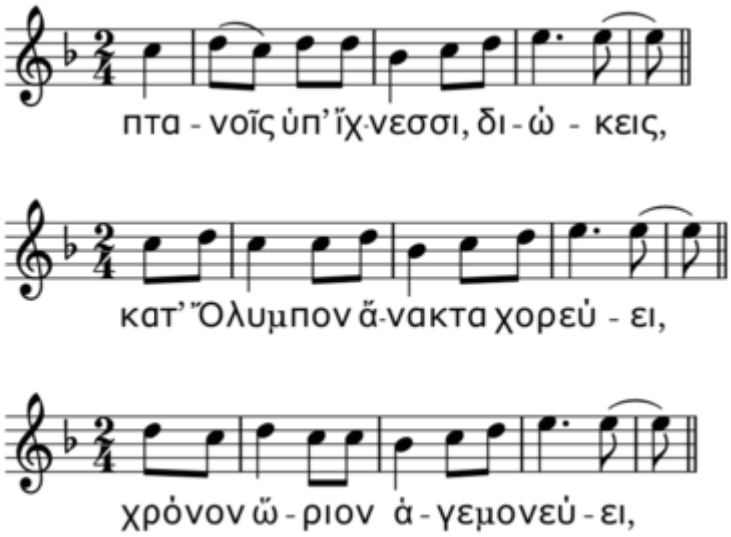


Phrases containing a genitive, such as Λατοῦςγόνε*Latoûs góne* 'Leto's son' quoted above, or μῆραταύρων*mêra taúrōn* 'thighs of bulls' in the illustration below from the first Delphic hymn, also have no downdrift, but in both of these the second word is slightly higher than the first:

- 

Strophe and antistrophe

One problem which has been discussed concerning the relationship between music and word accent is what may have happened in choral music which was written in pairs of corresponding stanzas known as *strophe* and *antistrophe*. Rhythmically these always correspond exactly but the word accents in the antistrophe generally do not match those in the strophe. Since none of the surviving music includes both a strophe and antistrophe, it is not clear whether the same music was written for both stanzas, ignoring the word accents in one or the other, or whether the music was similar but varied slightly to account for the accents. The following lines from Mesomedes' Hymn to the Sun, which are very similar but with slight variations in the first five notes, show how this might have been possible:

- 

Change to modern Greek

In modern Greek the accent is for the most part in the same syllable of the words as it was in ancient Greek, but is one of stress rather than pitch, so that an accented syllable, such as the first syllable in the word ἄνθρωπος, can be pronounced sometimes on a high pitch, and sometimes on a low pitch. It is believed that this change took place around 2nd–4th century AD, at around the same time that the distinction between long and short vowels was also lost. One of the first writers to compose poetry based on a stress accent was the 4th-century Gregory of Nazianzus, who wrote two hymns in which syllable quantities play no part in the metre, but almost every line is accented on the penultimate syllable.

In modern Greek there is no difference in pronunciation between the former acute, grave, and circumflex accents, and in the modern 'monotonic' spelling introduced in Greek schools in 1982 only one accent is used, the acute, while monosyllables are left unaccented.

Rules for the placement of the accent

Law of Limitation

The accent may not come more than three syllables from the end of a word.

If an accent comes on the antepenultimate syllable, it is always an acute, for example:

- θάλασσαthálassa 'sea'
- ἐποίησανepoíēsan 'they did'
- ἄνθρωποςánthrōpos 'person'
- ἄνθρωποιánthrōpoi 'people'
- βούλομαι*boúlomai* 'I want'

Exception: ὧντινων*hôntinōn* 'of what sort of', in which the second part is an enclitic word.

With a few exceptions, the accent can come on the antepenult only if the last syllable of the word is 'light'. The last syllable counts as light if it ends in a short vowel, or if it ends in a short vowel followed by no more than one consonant, or if the word ends in -οι-*oi* or -αι-*ai*, as in the above examples. But for words like the following, which have a heavy final syllable, the accent moves forward to the penultimate:

- ἀνθρώπουanthrṓpou 'of a man'
- ἀνθρώποιςanthrṓpois 'for men'
- ἐβουλόμηνebo*ulómēn* 'I wanted'

The ending -ει-*ei* always counts as long, and in the optative mood, the endings -οι-*oi* or -αι-*ai* also count as long and cause the accent to move forward in the same way:

- ποιήσειpoiḗsei 'he will do'
- ποιήσοιp*oiḗsoi* 'he would do' (future optative)

The accent also cannot come on the antepenultimate syllable when the word ends in -ξ-*x* or -ψ-*ps*, hence the difference in pairs of words such as the following:

- φιλόλογος*philólogos* 'fond of words', but φιλοκόλαξ*philokólax* 'fond of flatterers'

Exceptions, when the accent may remain on the antepenult even when the last vowel is long, are certain words ending in -ων-*ōn* or -ως-*ōs*, for example:

- πόλεως*póleōs* 'of a city', πόλεων*póleōn* 'of cities' (genitive)
- χρυσόκερως*khrusókerōs* 'golden-horned', ῥινόκερως*rhinókerōs* 'rhinoceros'
- ἵλεως*híleōs* 'propitious', Μενέλεως*Menéleōs* 'Menelaus'

σωτῆρα (*sōtêra*) Law

If the accent comes on the penultimate syllable, it must be a circumflex if the last two vowels of the word are long–short. This applies even to words ending in -ξ-*x* or -ψ-*ps*:

- σῶμαsôma 'body'
- δοῦλοςdoûlos 'slave'
- κῆρυξkêrux 'herald'
- λαῖλαψ*laîlaps* 'storm'

This rule is known as the σωτῆρα (*sōtêra*) Law, since in the accusative case the word σωτήρ*sōtḗr* 'saviour' becomes σωτῆρα*sōtêra*.

In most cases, a final -οι-*oi* or -αι-*ai* counts as a short vowel:

- ναῦται*naûtai* 'sailors'
- ποιῆσαι*poiêsai* 'to do'
- δοῦλοι*doûloi* 'slaves'

Otherwise the accent is an acute:

- ναύτης*naútēs* 'sailor'
- κελεύει*keleúei* 'he orders'
- δούλοις*doúlois* 'for slaves (dative)'

Exception 1: Certain compounds made from an ordinary word and an enclitic suffix have an acute even though they have long vowel–short vowel:

- οἵδε*hoíde* 'these', ἥδε*hḗde* 'this (fem.)' (but τῶνδε*tônde* 'of these')
- ὥστε*hṓste* 'that (as a result)', οὔτε*oúte* 'nor'
- εἴθε*eíthe* 'if only'
- οὔτις*oútis* 'no one' (but as a name in the Odyssey, Οὖτις*Oûtis*)

Exception 2: In locative expressions and verbs in the optative mood a final -οι-*oi* or -αι-*ai* counts as a long vowel:

- οἴκοι*oíkoi* 'at home' (cf. οἶκοι*oîkoi* 'houses')
- ποιήσαι*poiḗsai* 'he might do' (aorist optative, = ποιήσειε*poiḗseie*) (cf. ποιῆσαι*poiêsai* 'to do')

Law of Persistence

The third principle of Greek accentuation is that, after taking into account the Law of Limitation and the σωτῆρα (*sōtêra*) Law, the accent in nouns, adjectives, and pronouns remains as far as possible on the same syllable (counting from the beginning of the word) in all the cases, numbers, and genders. For example:

- ζυγόνzugón 'yoke', pl. ζυγάzugá 'yokes'
- στρατιώτηςstratiṓtēs 'soldier', στρατιῶταιstratiôtai 'soldiers'
- πατήρpatḗr, pl. πατέρεςpatéres 'fathers'
- σῶμαsôma, pl. σώματαsṓmata 'bodies'

But an extra syllable or a long ending causes accent shift:

- ὄνομαónoma, pl. ὀνόματαonómata 'names'
- δίκαιοςdíkaios, fem. δικαίᾱdikaíā 'just'
- σῶμαsôma, gen.pl. σωμάτωνsōmátōn 'of bodies'

Exceptions to the Law of Persistence

There are a number of exceptions to the Law of Persistence.

Exception 1: The following words have the accent on a different syllable in the plural:

- ἀνήρanḗr, pl. ἄνδρεςándres 'men'
- θυγάτηρthugátēr, pl. θυγατέρεςthugatéres (poetic θύγατρεςthúgatres) 'daughters'

- μήτηρ*mḗtēr*, pl. μητέρες*mētéres* 'mothers'

The accusative singular and plural has the same accent as the nominative plural given above.

The name Δημήτηρ*Dēmḗtēr* 'Demeter' changes its accent to accusative Δήμητρα*Dḗmētra*, genitive Δήμητρος*Dḗmētros*, dative Δήμητρι*Dḗmētri*.

Exception 2: Certain vocatives (mainly of the 3rd declension) have recessive accent:

- Σωκράτης*Sōkrátēs*, ὦ Σώκρατες *ô Sṓkrates* 'o Socrates'
- πατήρ*patḗr*, ὦ πάτερ *ô páter* 'o father'

Exception 3: All 1st declension nouns, and all 3rd declension neuter nouns ending in -ος-*os*, have a genitive plural ending in -ῶν-*ôn*. This also applies to 1st declension adjectives, but only if the feminine genitive plural is different from the masculine:

- στρατιώτης*stratiṓtēs* 'soldier', gen.pl. στρατιωτῶν*stratiōtôn* 'of soldiers'
- τὸ τεῖχος *tò teîkhos* 'the wall', gen.pl. τῶν τειχῶν *tôn teikhôn* 'of the walls'

Exception 4: Some 3rd declension nouns, including all monosyllables, place the accent on the ending in the genitive and dative singular, dual, and plural. (This also applies to the adjective πᾶς*pâs* 'all' but only in the singular.) Further details are given below.

- πούς*poús* 'foot', acc.sg. πόδα*póda*, gen.sg. ποδός*podós*, dat.sg. ποδί*podí*

Exception 5: Some adjectives, but not all, move the accent to the antepenultimate when neuter:

- βελτίων*beltíōn* 'better', neuter βέλτιον*béltion*
- But: χαρίεις*kharíeis* 'graceful', neuter χαρίεν*kharíen*

Exception 6: The following adjective has an accent on the second syllable in the forms containing -αλ- *-al-*:

- μέγας*mégas*, pl. μεγάλοι*megáloi* 'big'

Oxytone words

Oxytone words, that is, words with an acute on the final syllable, have their own rules.

Change to a grave

Normally in a sentence, whenever an oxytone word is followed by a non-enclitic word, the acute is changed to a grave; but before a pause (such as a comma, colon, full stop, or verse end), it remains an acute:

- ἀνὴρἀγαθός*anḕr agathós* 'a good man'

(Not all editors follow the rule about verse end.)

The acute also remains before an enclitic word such as ἐστί*estí* 'is':

- ἀνὴρἀγαθόςἐστι*anḕr agathós esti* 'he's a good man'

In the words τίς;*tís?* 'who?' and τί; *tí?* 'what? why?', however, the accent always remains acute, even if another word follows:

- τίς οὗτος; *tís hoûtos?* 'who is that?'
- τί ποιεῖς; *tí poieîs?* 'what are you doing?'

Change to a circumflex

When a noun or adjective is used in different cases, a final acute often changes to a circumflex. In the 1st and 2nd declension, oxytone words change the accent to a circumflex in the genitive and dative. This also applies to the dual and plural, and to the definite article:

- ὁ θεός *ho theós* 'the god', acc.sg. τὸν θεόν *tòn theón* – gen. sg. τοῦ θεοῦ *toû theoû* 'of the god', dat.sg. τῷ θεῷ *tôi theôi* 'to the god'

However, oxytone words in the 'Attic' declension keep their acute in the genitive and dative:

- ἐν τῷ νεῴ *en tôi neṓi* 'in the temple'

3rd declension nouns like βασιλεύς *basileús* 'king' change the acute to a circumflex in the vocative and dative singular and nominative plural:

- βασιλεύς *basileús*, voc.sg. βασιλεῦ *basileû*, dat.sg. βασιλεῖ *basileî*, nom.pl. βασιλεῖς *basileîs* or βασιλῆς *basilês*

Adjectives of the type ἀληθής*alēthḗs* 'true' change the acute to a circumflex in all the cases which have a long vowel ending:

- ἀληθής*alēthḗs*, acc.sg. ἀληθῆ*alēthê*, gen.sg. ἀληθοῦ*alēthoûs*, dat.sg. ἀληθεῖ*alētheî*, nom./acc.pl. ἀληθεῖς*alētheîs*, gen.pl. ἀληθῶν*alēthôn*

Adjectives of the type ἡδύς*hēdús* 'pleasant' change the acute to a circumflex in the dative singular and nominative and accusative plural:

- ἡδύς*hēdús*, dat.sg. ἡδεῖ*hēdeî*, nom./acc.pl. ἡδεῖς*hēdeîs*

Accentless words

The following words have no accent, only a breathing:

- the forms of the article beginning with a vowel (ὁ, ἡ, οἱ, αἱ*ho, hē, hoi, hai*)
- the prepositions ἐν*en* 'in', εἰς (ἐς) *eis (es)* 'to, into', ἐξ (ἐκ) *ex (ek)* 'from'
- the conjunction εἰ*ei* 'if'
- the conjunction ὡς*hōs* 'as, that' (also a preposition 'to')
- the negative adverb οὐ (οὐκ, οὐχ) *ou (ouk, oukh)* 'not'.

However, some of these words can have an accent when they are used in emphatic position. ὁ, ἡ, οἱ, αἱ*ho, hē, hoi, hai* are written ὅ, ἥ, οἵ, αἵ when the meaning is 'who, which'; and οὐ*ou* is written οὔ if it ends a sentence.

The definite article

The definite article in the nominative singular and plural masculine and feminine just has a rough breathing, and no accent:

- ὁθεός*ho* theós 'the god'
- οἱθεοί*hoi theoí* 'the gods'

Otherwise the nominative and accusative have an acute accent, which in the context of a sentence, is written as a grave:

- τὸνθεόν*tòn* theón 'the god' (accusative)
- τὰὅπλα*tà hópla* 'the weapons'

The genitive and dative (singular, plural and dual), however, are accented with a circumflex:

- τῆςοἰκίας*tês oikías* 'of the house' (genitive)
- τῷθεῷ*tôi theôi* 'for the god' (dative)
- τοῖςθεοῖς*toîs theoîs* 'for the gods' (dative plural)
- τοῖνθεοῖν*toîn theoîn* 'of/to the two goddesses' (genitive or dative dual)

1st and 2nd declension oxytones, such as θεός*theós*, are accented the same way as the article, with a circumflex in the genitive and dative.

Nouns

1st declension

Types

Those ending in short -α-*a* are all recessive:

- θάλασσα*thálassa* 'sea', Μοῦσα*Moûsa* 'Muse (goddess of music)', βασίλεια*basíleia* 'queen', γέφυρα*géphura* 'bridge', ἀλήθεια*alḗtheia* 'truth', μάχαιρα*mákhaira* 'dagger', γλῶσσα*glôssa* 'tongue, language'

Of those which end in long -α-*a* or -η-*ē*, some have penultimate accent:

- οἰκία*oikía* 'house', χώρα*khṓra* 'country', νίκη*níkē* 'victory', μάχη*mákhē* 'battle', ἡμέρα*hēméra* 'day', τύχη*túkhē* 'chance', ἀνάνκη*anánkē* 'necessity', τέχνη*tékhnē* 'craft', εἰρήνη*eirḗnē* 'peace'

Others are oxytone:

- ἀγορά*agorá* 'market', στρατιά*stratiá* 'army', τιμή*timḗ* 'honour', ἀρχή*arkhḗ* 'empire; beginning', ἐπιστολή*epistolḗ* 'letter', κεφαλή*kephalḗ* 'head', ψυχή*psukhḗ* 'soul', βουλή*boulḗ* 'council'

A very few have a contracted ending with a circumflex on the last syllable:

- γῆ*gê* 'earth, land', Ἀθηνᾶ*Athēnâ* 'Athena', μνᾶ*mnâ* 'mina (coin)'

Masculine 1st declension nouns usually have penultimate accent:

- στρατιώτης*stratiṓtēs* 'soldier', πολίτης*polítēs* 'citizen', νεανίας*neanías* 'young man', ναύτης*naútēs* 'sailor', Πέρσης*Pérsēs* 'Persian', δεσπότης*despótēs* 'master', Ἀλκιβιάδης*Alkibiádēs* 'Alcibiades', Μιλτιάδης*Miltiádēs* 'Miltiades'

A few, especially agent nouns, are oxytone:

- ποιητής*poiētḗs* 'poet', κριτής*kritḗs* 'judge', μαθητής*mathētḗs* 'learner, disciple', ἀθλητής*athlētḗs* 'athlete', αὐλητής*aulētḗs* 'piper'

There are also some with a contracted final syllable:

- Ἑρμῆς*Hermês* 'Hermes', Βορρᾶς*Borrhâs* 'the North Wind'

Accent movement

In proparoxytone words like θάλασσα*thálassa*, with a short final vowel, the accent moves to the penultimate in the accusative plural, and in the genitive and dative singular, dual, and plural, when the final vowel becomes long:

- θάλασσα*thálassa* 'sea', gen. τῆς θαλάσσης*tês thalássēs* 'of the sea'

In words with penultimate accent, the accent is persistent, that is, as far as possible it stays on the same syllable when the noun changes case. But if the last two vowels are long–short, it changes to a circumflex:

- στρατιώτης*stratiṓtēs* 'soldier', nom.pl. οἱστρατιῶται*hoi stratiôtai* 'the soldiers'

In oxytone words, the accent changes to a circumflex in the genitive and dative (also in the plural and dual), just as in the definite article:

- τῆςστρατιᾶς*tês stratiâs* 'of the army', τῇστρατιᾷ*têi stratiâi* 'for the army'

All 1st declension nouns have a circumflex on the final syllable in the genitive plural:

- στρατιωτῶν*stratiōtôn* 'of soldiers', ἡμερῶν*hēmerôn* 'of days'

The vocative of 1st declension nouns usually has the accent on the same syllable as the nominative. But the word δεσπότης*despótēs* 'master' has a vocative accented on the first syllable:

- ὦνεανίαὁ *neanía* 'young man!', ὦποιητάὁ *poiētá* 'o poet'
- ὦδέσποταὁ *déspota* 'master!'

2nd declension

Types

The majority of 2nd declension nouns have recessive accent, but there are a few oxytones, and a very few with an accent in between (neither recessive nor oxytone) or contracted:

- ἄνθρωποςánthrōpos 'man', ἵπποςhíppos 'horse', πόλεμοςpólemos 'war', νῆσοςnêsos 'island', δοῦλοςdoûlos 'slave', λόγοςlógos 'word', θάνατοςthánatos 'death', βίοςbíos 'life', ἥλιοςhḗlios 'sun', χρόνοςkhrónos 'time', τρόποςtrópos 'manner', νόμοςnómos 'law, custom', θόρυβοςthórubos 'noise', κύκλοςkúklos 'circle'
- θεόςtheós 'god', ποταμόςpotamós 'river', ὁδόςhodós 'road', ἀδελφόςadelphós 'brother', ἀριθμόςarithmós 'number', στρατηγόςstratēgós 'general', ὀφθαλμόςophthalmós 'eye', οὐρανόςouranós 'heaven', υἱόςhuiós 'son', τροχόςtrokhós 'wheel'
- παρθένοςparthénos 'maiden', νεανίσκοςneanískos 'youth', ἐχῖνοςekhînos 'hedgehog; sea-urchin'
- νοῦςnoûs 'mind' (contracted from νόος), πλοῦςploûs 'voyage'

Words of the 'Attic' declension ending in -ως-ōs can also be either recessive or oxytone:

- ΜενέλεωςMenéleōs 'Menelaus', ΜίνωςMínōs 'Minos'
- νεώςneṓs 'temple', λεώςleṓs 'people'

Neuter words are mostly recessive, but not all:

- δῶρον*dôron* 'gift', δένδρον*déndron* 'tree', ὅπλα*hópla* 'weapons', στρατόπεδον*stratópedon* 'camp', πλοῖον*ploîon* 'boat', ἔργον*érgon* 'work', τέκνον*téknon* 'child', ζῷον*zôion* 'animal'
- σημεῖον*sēmeîon* 'sign', μαντεῖον*manteîon* 'oracle', διδασκαλεῖον*didaskaleîon* 'school'
- ζυγόν*zugón* 'yoke', ᾠόν*ōión* 'egg', ναυτικόν*nautikón* 'fleet', ἱερόν*hierón* 'temple' (the last two are derived from adjectives)

Words ending in -ιον-*ion* often have antepenultimate accent, especially diminutive words:

- βιβλίον*biblíon* 'book', χωρίον*khōríon* 'place', παιδίον*paidíon* 'baby', πεδίον*pedíon* 'plain'

But some -ιον-*ion* words are recessive, especially those with a short antepenultimate:

- ἱμάτιον*himátion* 'cloak', στάδιον*stádion* 'stade' (600 feet), 'race-course', μειράκιον*meirákion* 'lad'

Accent movement

As with the first declension, the accent on 2nd declension oxytone nouns such as θεός*theós* 'god' changes to a circumflex in the genitive and dative (singular, dual, and plural):

- τοῦθεοῦ*toû theoû* 'of the god', τοῖςθεοῖς*toîs theoîs* 'to the gods'

But those in the Attic declension retain their acute:

- τοῦλεώ*toû leṓ* 'of the people'

Unlike in the first declension, barytone words do not have a circumflex in the genitive plural:

- τῶνἵππων*tôn híppōn* 'of the horses'

3rd declension

Types

3rd declension masculine and feminine nouns can be recessive or oxytone:

- μήτηρ*mḗtēr* 'mother', θυγάτηρ*thugátēr* 'daughter', φύλαξ*phúlax* 'guard', πόλις*pólis* 'city', γέρων*gérōn* 'old man', λέων*léōn* 'lion', δαίμων*daímōn* 'god', τριήρης*triḗrēs* 'trireme (warship)', μάρτυς*mártus* 'witness', μάντις*mántis* 'seer', τάξις*táxis* 'arrangement', Ἕλληνες*Héllēnes* 'Greeks', Πλάτων*Plátōn* 'Plato', Σόλων*Sólōn* 'Solon', Δημοσθένης*Dēmosthénēs*
- πατήρ*patḗr* 'father', ἀνήρ*anḗr* 'man', γυνή*gunḗ* 'woman', βασιλεύς*basileús* 'king', ἱππεύς*hippeús* 'cavalryman', χειμών*kheimṓn* 'storm, winter',

ἐλπίς*elpís* 'hope', Ἑλλάς*Hellás* 'Greece', ἰχθύς*ikhthús* 'fish', ἐλπίς*elpís* 'hope', πατρίς*patrís* 'fatherland', ἀγών*agṓn* 'contest', λιμήν*limḗn* 'harbour', χιών*khiṓn* 'snow', χιτών*khitṓn* 'tunic', ὀδούς*odoús* 'tooth', ἀσπίς*aspís* 'shield', δελφίς*delphís* 'dolphin', Ἀμαζών*Amazṓn* 'Amazon', Ὀδυσσεύς*Odusseús* 'Odysseus', Σαλαμίς*Salamís* 'Salamis', Μαραθών*Marathṓn* 'Marathon'

Certain names resulting from a contraction are perispomenon:

- Ξενοφῶν*Xenophôn*, Περικλῆς*Periklês*, Ποσειδῶν*Poseidôn*, Ἡρακλῆς*Hēraklês*, Σοφοκλῆς*Sophoklês*

Masculine and feminine monosyllables similarly can be recessive (with a circumflex) or oxytone (with an acute):

- παῖς*paîs* 'boy', ναῦς*naûs* 'ship', βοῦς*boûs* 'ox', γραῦς*graûs* 'old woman', ὗς*hûs* 'pig', οἶς*oîs* 'sheep'
- χείρ*kheír* 'hand', πούς*poús* 'foot', νύξ*núx* 'night', Ζεύς*Zeús* 'Zeus', χθών*khthṓn* 'earth', μήν*mḗn* 'month', Πάν*Pán* 'Pan', χήν*khḗn* 'goose', αἴξ*aíx* 'goat'

3rd declension neuter nouns are all recessive, and monosyllables have a circumflex (this includes letters of the alphabet):

- ὄνομα*ónoma* 'name', σῶμα*sôma* 'body', στόμα*stóma* 'mouth', τεῖχος*teîkhos* 'wall', ὄρος*óros* 'mountain', ἔτος*étos* 'year', αἷμα*haîma* 'blood', ὕδωρ*húdōr* 'water', γένος*génos* 'race, kind', χρήματα*khrḗmata* 'money',

πρᾶγμα*prâgma* 'business, affair', πνεῦμα*pneûma* 'spirit, breath', τέλος*télos* 'end'

- πῦρ*pûr* 'fire', φῶς*phôs* 'light', κῆρ*kêr* 'heart' (poetic)
- μῦ*mû*, φῖ*phî*, ὦ*ô* 'omega'

Accent movement

The accent in the nominative plural and in the accusative singular and plural is usually on the same syllable as the nominative singular, unless this would break the three-syllable rule. Thus:

- χειμώνkheimṓn, pl. χειμῶνεςkheimônes 'storms'
- γυνήgunḗ, pl. γυναῖκεςgunaîkes 'women'
- πατήρpatḗr, pl. πατέρεςpatéres 'fathers'
- ναῦςnaûs, pl. νῆεςnêes 'ships'
- σῶμαsôm*a*, pl. σώματα*sṓmata* 'bodies'

But:

- ὄνομα*ónoma*, pl. ὀνόματα*onómata* 'names'

The following are exceptions and have the accent on a different syllable in the plural or the accusative singular:

- ἀνήρ*anḗr*, pl. ἄνδρες*ándres* 'men'
- θυγάτηρ*thugátēr*, pl. θυγατέρες*thugatéres* (poetic θύγατρες*thúgatres*) 'daughters'
- μήτηρ*mḗtēr*, pl. μητέρες*mētéres* 'mothers'
- Δημήτηρ*Dēmḗtēr*, acc. Δήμητρα*Dḗmētra* 'Demeter'

Words ending in -ευς-*eus* are all oxytone, but only in the nominative singular. In all other cases the accent is on the ε*e* or η*ē*:

- βασιλεύς*basileús* 'king', acc.sg. τὸνβασιλέα*tòn basiléa*, gen.sg. τοῦβασιλέως*toû basiléōs*, nom.pl. οἱβασιλῆς*hoi basilês* or οἱβασιλεῖς*hoi basileîs*

In the genitive and dative singular, dual and plural, monosyllables usually move the accent to the final syllable. The genitive plural has a circumflex:

- singular: nom. πούς*poús* 'foot', acc. πόδα*póda* – gen. ποδός*podós*, dat. ποδί*podí*
  dual: nom./acc. πόδε*póde* – gen./dat. ποδοῖν*podoîn*
  plural: nom. πόδες*pódes*, acc. πόδας*pódas* – gen. ποδῶν*podôn*, dat. ποσί*posí*
- singular: νύξ*núx* 'night', νύκτα*núkta* – νυκτός*nuktós*, νυκτί*nuktí*
  plural: νύκτες*núktes*, νύκτας*núktas* – νυκτῶν*nuktôn*, νυξί*nuxí*

The following are irregular in formation, but the accent moves in the same way:

- ναῦς naûs 'ship', ναῦν naûn – νεώς neōs, νηῒ nēî
  plural: νῆες nêes, ναῦς naûs – νεῶν neôn, νηυσί nēusí
- Ζεύς*Zeús* 'Zeus', Δία*Día* – Διός*Diós*, Διΐ*Dií*

γυνή*gunḗ* 'woman' and κύων*kúōn* 'dog' follow the same pattern:

- γυνή*gunḗ* 'woman', γυναῖκα*gunaîka* – γυναικός gunaikós, γυναικί gunaikí
  pl. γυναῖκες gunaîkes, γυναῖκας gunaîkas – γυναικῶν gunaikôn, γυναιξί gunaixí
- κύων kúōn 'dog', κύνα kúna – κυνός kunós, κυνί kuní
  pl. κύνες kúnes, κύνας *kúnas* – κυνῶν *kunôn*, κυσί *kusí*

The words πατήρ *patḗr* 'father', μήτηρ *mḗtēr* 'mother', θυγάτηρ *thugátēr* 'daughter', γαστήρ *gastḗr* 'stomach', ἀνήρ *anḗr* 'man' are similar, but vary in some details:

- πατήρ patḗr 'father', πατέρα patéra – πατρός patrós, πατρί patrí
  pl. πατέρες patéres, πατέρας patéras – πατέρων patérōn, πατράσι patrási
- ἀνήρ anḗr 'man', ἄνδρα ándra – ἀνδρός andrós, ἀνδρί andrí
  pl. ἄνδρες ándres, ἄνδρας ándras – ἀνδρῶν andrôn, ἀνδράσι *andrási*

There are some irregularities. The nouns παῖς *paîs* 'boy' and Τρῶες *Trôes* 'Trojans' follow this pattern except in the genitive dual and plural: παίδων *paídōn*, Τρώων *Trṓōn*, but dative plural παισί *paisí*, Τρωσί *Trōsí*. The adjective πᾶς *pâs* 'all' has a mobile accent but only in the singular. Monosyllabic participles, such as ὤν *ṑn* 'being' have a fixed accent. The interrogative pronoun τίς; τί; *tís? tí?* 'who? what?' also has fixed accent.

Neuter words ending in -ος *-os* have a circumflex in the genitive plural:

- τεῖχος*teîkhos* 'wall', gen.pl. τειχῶν*teikhôn* 'of walls'

Concerning the genitive plural of the word τριήρης*triērēs* 'trireme', there was uncertainty. 'Some people pronounce it barytone, others perispomenon,' wrote one grammarian.

Nouns such as πόλις*pólis* 'city' and ἄστυ*ástu* 'town' with genitive singular -εως-*eōs* 'city' keep their accent on the first syllable in the genitive singular and plural, despite the long vowel ending:

- πόλις*pólis* 'city', gen.sg. πόλεως*póleōs*, gen.pl. πόλεων*póleōn*

The vocative singular of some 3rd declension nouns has a different accent from the nominative. Sometimes a final acute changes to a circumflex:

- ὦ Ζεῦ *Zeû* 'o Zeus', ὦ βασιλεῦ *basileû* 'o king'

Usually the accent becomes recessive:

- πάτερ*páter* 'father!', γύναι*gúnai* 'madam!', ὦ Σώκρατες *Sṓkrates* 'o Socrates', Πόσειδον*Póseidon*, Ἄπολλον*Ápollon*, Περίκλεις*Períkleis*

Adjectives

Types

Adjectives frequently have oxytone accentuation, but there are also barytone ones, and some with a contracted final syllable. Oxytone examples are:

- ἀγαθός agathós 'good', κακός kakós 'bad', καλός kalós 'beautiful', δεινός deinós 'fearsome', Ἑλληνικός Hellēnikós 'Greek', σοφός sophós 'wise', ἰσχυρός iskhurós 'strong', μακρός makrós 'long', αἰσχρός aiskhrós 'shameful', ὑψηλός hupsēlós, μικρός mikrós 'small', πιστός pistós 'faithful', χαλεπός khalepós 'difficult'
- ἀριστερός aristerós 'left-hand', δεξιτερός dexiterós 'right-hand'
- ἡδύς hēdús 'pleasant', ὀξύς oxús 'sharp, high-pitched', βαρύς barús 'heavy, low-pitched', ταχύς takhús 'fast', βραδύς bradús 'slow', βαθύς bathús 'deep', γλυκύς glukús 'sweet'. (The feminine of all of these has -εῖα -eîa.)
- πολύς polús 'much', plural πολλοί polloí 'many'
- ἀληθής alēthḗs 'true', εὐτυχής eutukhḗs 'lucky', δυστυχής dustukhḗs 'unfortunate', ἀσθενής asthenḗs 'weak, sick', ἀσφαλής *asphalḗs* 'safe'

Recessive:

- φίλιος *phílios* 'friendly', πολέμιος *polémios* 'enemy', δίκαιος *díkaios* 'just', πλούσιος *ploúsios* 'rich',

ἄξιος*áxios* 'worthy', Λακεδαιμόνιος*Lakedaimónios* 'Spartan', ῥᾴδιος*rhā́idios* 'easy'

- μῶρος*môros* 'foolish', ἄδικος*ádikos* 'unjust', νέος*néos* 'new, young', μόνος*mónos* 'alone', χρήσιμος*khrḗsimos* 'useful', λίθινος*líthinos* 'made of stone', ξύλινος*xúlinos* 'wooden'
- ἄλλος*állos* 'other', ἕκαστος*hékastos* 'each'
- ὑμέτερος*humḗteros* 'your', ἡμέτερος*hēmḗteros* 'our'
- ἵλεως*hílεōs* 'propitious'
- εὐμένης*eumḗnēs* 'kindly', δυσώδης*dusṓdēs* 'bad-smelling', εὐδαίμων*eudaímōn* 'happy'. (For other compound adjectives, see below.)
- πᾶς, πᾶσα, πᾶν*pâs, pâsa, pân* 'all', plural πάντες*pántes*

Paroxytone:

- ὀλίγος*olígos* 'little', ἐναντίος*enantíos* 'opposite', πλησίος*plēsíos* 'near'
- μέγας*mégas* 'great, big', fem. μεγάλη*megálē*, plural μεγάλοι*megáloi*

Properispomenon:

- Ἀθηναῖος*Athēnaîos* 'Athenian', ἀνδρεῖος*andreîos* 'brave'
- ἑτοῖμος/ἕτοιμος*hetoîmos/hétoimos* 'ready', ἐρῆμος/ἔρημος*erêmos/érēmos* 'deserted'
- τοιοῦτος*toioûtos* 'such', τοσοῦτος*tosoûtos* 'so great'

Perispomenon:

- χρυσοῦς*khrusoûs* 'golden', χαλκοῦς*khalkoûs* 'bronze'

Comparative and superlative adjectives all have recessive accent:

- σοφώτεροςsophṓteros 'wiser', σοφώτατοςsophṓtatos 'very wise'
- μείζωνmeízōn 'greater', μέγιστος*mégistos* 'very great'

Adjectives ending in -ής-*ḗs* have a circumflex in most of the endings, since these are contracted:

- ἀληθής*alēthḗs* 'true', masculine plural ἀληθεῖς*alētheîs*

μῶρος*môros* 'foolish' is oxytone in the New Testament:

- πέντεδὲἐξαὐτῶνἦσανμωραί*pénte dè ex autôn êsan mōraí* 'and five of them were foolish' (Matthew 25.2)

Personal names derived from adjectives are usually recessive, even if the adjective is not:

- Ἀθήναιοςathḗnaios 'Athenaeus', from Ἀθηναῖοςathēnaîos 'Athenian'
- ΓλαῦκοςGl*aûkos*, from γλαυκός*glaukós* 'grey-eyed'

Accent movement

Unlike in modern Greek, which has fixed accent in adjectives, an antepenultimate accent moves forward when the last vowel is long:

- φίλιος*phílios* 'friendly (masc.)', φιλία*philíā* 'friendly (fem.)', fem.pl. φίλιαι*phíliai*

The genitive plural of feminine adjectives is accented -ῶν-*ôn*, but only in those adjectives where the masculine and feminine forms of the genitive plural are different:

- πᾶς*pâs* 'all', gen.pl. πάντων*pántōn* 'of all (masc.)', πασῶν*pasôn* 'of all (fem.)'

But:

- δίκαιος*díkaois* 'just', gen.pl. δικαίων*dikaíōn* (both genders)

In a barytone adjective, in the neuter, when the last vowel becomes short, the accent usually recedes:

- βελτίων*beltíōn* 'better', neuter βέλτιον*béltion*

However, when the final -ν-*n* was formerly *-ντ-*nt*, the accent does not recede (this includes neuter participles):

- χαρίεις*kharíeis* 'graceful', neuter χαρίεν*kharíen*
- ποιήσας*poiḗsas* 'having done', neuter ποιῆσαν*poiêsan*

The adjective μέγας*mégas* 'great' shifts its accent to the penultimate in forms of the word that contain *lambda* (λ*l*):

- μέγας*mégas* 'great', plural μεγάλοι*megáloi*

The masculine πᾶς*pâs* 'all' and neuter πᾶν*pân* have their accent on the ending in genitive and dative, but only in the singular:

- πᾶς*pâs* 'all', gen.sg. παντός*pantós*, dat.sg. παντί*pantí* (but gen.pl. πάντων*pántōn*, dat.pl. πᾶσι*pâsi*)

The participle ὤν*ṓn* 'being', genitive ὄντος*óntos*, has fixed accent.

Elided vowels

When the last vowel of an oxytone adjective is elided, an acute (not a circumflex) appears on the penultimate syllable instead:

- δείν' ἐποίειδεín' epoíei 'he was doing dreadful things' (for δεινά)
- πόλλ' ἀγαθάpóll' *agathá* 'many good things' (for πολλά)

This rule also applies to verbs and nouns:

- λάβ' ὦξένε*láb' ô xéne* 'take (the cup), o stranger' (for λαβέ)

But it does not apply to minor words such as prepositions or ἀλλά*allá* 'but':

- πόλλ' οἶδ' ἀλώπηξ, ἀλλ' ἐχῖνος ἓν μέγα*póll' oîd' alṓpēx, all' ekhînos hèn méga*
  'the fox knows many things, but the hedgehog one big thing' (Archilochus)

The retracted accent was always an acute. The story was told of an actor who, in a performance of Euripides' play *Orestes*, instead of pronouncing γαλήν' ὁρῶ*galḗn' horô* 'I see a calm sea', accidentally said γαλῆν' ὁρῶ*galên horô* 'I see a weasel', provoking laughter in the audience and mockery the following year in Aristophanes' *Frogs*.

Compound nouns and adjectives

Ordinary compounds, that is, those which are not of the type 'object+verb', usually have recessive accent:

- ἱπποπόταμοςhippopótamos 'hippopotamus' ('horse of the river')
- ΤιμόθεοςTimótheos 'Timothy' ('honouring God')
- σύμμαχοςsúmmakhos 'ally' ('fighting alongside')
- φιλόσοφοςphilósophos 'philosopher' ('loving wisdom')
- ἡμίονοςh*ēmíonos* 'mule' ('half-donkey')

But there are some which are oxytone:

- ἀρχιερεύςarkhiereús 'high priest'
- ὑποκριτήςh*upokritḗs* 'actor, hypocrite'

Compounds of the type 'object–verb', if the penultimate syllable is long or heavy, are usually oxytone:

- στρατηγός*stratēgós* 'general' ('army-leader')
- γεωργός*geōrgós* 'farmer' ('land-worker')
- σιτοποιός*sitopoiós* 'bread-maker'

But 1st declension nouns tend to be recessive even when the penultimate is long:

- βιβλιοπώληςb*ibliopṓlēs* 'book-seller'
- συκοφάντηςs*ukophántēs* 'informer' (lit. 'fig-revealer')

Compounds of the type 'object+verb' when the penultimate syllable is short are usually paroxytone:

- βουκόλος*boukólos* 'cowherd'
- δορυφόρος*doruphóros* 'spear-bearer'
- δισκοβόλος*diskobólos* 'discus-thrower'
- ἡμεροσκόπος*hēmeroskópos* 'look-out man' (lit. 'day-watcher')

But the following, formed from ἔχω*ékhō* 'I hold', are recessive:

- αἰγίοχος*aigíokhos* 'who holds the aegis'
- κληροῦχος*klēroûkhos* 'holder of an allotment (of land)'

Adverbs

Adverbs formed from barytone adjectives are accented on the penultimate, as are those formed from adjectives ending in -ύς-*ús*; but those formed from other oxytone adjectives are perispomenon:

- ἀνδρεῖος*andreîos* 'brave', ἀνδρείως*andreíōs* 'bravely'
- δίκαιος*díkaios* 'just', δικαίως*dikaíōs* 'justly'
- ἡδύς*hēdús*, 'pleasant', ἡδέως*hēdéōs* 'with pleasure'
- καλός*kalós*, 'beautiful', καλῶς*kalôs* 'beautifully'
- ἀληθής*alēthḗs*, 'true', ἀληθῶς*alēthôs* 'truly'

Adverbs ending in -κις-*kis* have penultimate accent:

- πολλάκις*pollákis* 'often'

Numbers

The first three numbers have mobile accent in the genitive and dative:

- εἷς*heîs* 'one (m.)', acc. ἕνα*héna*, gen. ἑνός*henós* 'of one', dat. ἑνί*henί* 'to or for one'
- μία*mía* 'one (f.)', acc. μίαν*mían*, gen. μιᾶς*miâs*, dat. μιᾷ*miâi*
- δύο*dúo* 'two', gen/dat. δυοῖν*duoîn*
- τρεῖς*treîs* 'three', gen. τριῶν*triôn*, dat. τρισί*trisí*

Despite the circumflex in εἷς*heîs*, the negative οὐδείς*oudeís* 'no one (m.)' has an acute. It also has mobile accent in the genitive and dative:

- οὐδείς*oudeís* 'no one (m.)', acc. οὐδένα*oudéna*, gen. οὐδενός*oudenós* 'of no one', dat. οὐδενί*oudení* 'to no one'

The remaining numbers to twelve are:

- τέσσαρες*téssares* 'four', πέντε*pénte* 'five', ἕξ*héx* 'six', ἑπτά*eptá* 'seven', ὀκτώ*oktṓ* 'eight', ἐννέα*ennéa* 'nine', δέκα*déka* 'ten', ἕνδεκα*héndeka* 'eleven' δώδεκα*dṓdeka* 'twelve'

Also commonly found are:

- εἴκοσι*eíkosi* 'twenty', τριάκοντα*triákonta* 'thirty', ἑκατόν*hekatón* 'a hundred', χίλιοι*khílioi* 'a thousand'.

Ordinals all have recessive accent, except those ending in -στός-*stós*:

- πρῶτος*prṓtos* 'first', δεύτερος*deúteros* 'second', τρίτος*trítos* 'third' etc., but εἰκοστός*eikostós* 'twentieth'

Pronouns

The personal pronouns are the following:

- ἐγώ*egṓ* 'I', σύ*sú* 'you (sg.)', ἕ*hé* 'him(self)'
- νώ*nṓi* 'we two', σφώ*sphṓ* 'you two'
- ἡμεῖς*hēmeîs* 'we', ὑμεῖς*humeîs* 'you (pl.)', σφεῖς*spheîs* 'they'

The genitive and dative of all these personal pronouns has a circumflex, except for the datives ἐμοί*emoí*, σοί*soí*, and σφίσι*sphísi*:

- ἐμοῦ*emoû* 'of me', ὑμῖν*humîn* 'for you (pl.)', οἷ*hoî* 'to him(self)'
- ἐμοί*emoí* 'for me', σοί*soí* 'for you', and σφίσι*sphísi* 'for them(selves)'

The oblique cases of ἐγώ*egṓ*, σύ*sú* 'you (sg.)', ἕ*hé*, and σφεῖς*spheîs* can also be used enclitically when they are unemphatic (see below under Enclitics), in which case they are written without accents. When enclitic, ἐμέ*emé*, ἐμοῦ*emoû*, and ἐμοί*emoí* are shortened to με*me*, μου*mou*, and μοι*moi*:

- ἔξεστί σοι*éxestí soi* 'it is possible for you'

- εἰπέμοιeipé moi 'tell me'
- νόμοςγὰρἦνοὗτόςσφισι*nómos gàr ên hoûtós sphisi* 'for this apparently was their custom' (Xenophon)

The accented form is usually used after a preposition:

- ἔπεμψέμεΚῦροςπρὸςσέ*épempsé* me Kûros pròs sé 'Cyrus sent me to you'
- πρὸςἐμέ*pròs emé* (sometimes πρόςμε*prós me*) 'to me'

The pronouns αὐτός*autós* 'he himself', ἑαυτόν*heautón* 'himself (reflexive)', and ὅς*hós* 'who, which' change the accent to a circumflex in the genitive and dative:

- αὐτόν*autón* 'him', αὐτοῦ*autoû* 'of him, his', αὐτῷ*autôi* 'to him', αὐτοῖς*autoîs* 'to them', etc.

Pronouns compounded with -δε-*de* 'this' and -τις-*tis*are accented as if the second part was an enclitic word. Thus the accent of οἵδε*hoíde* does not change to a circumflex even though the vowels are long–short:

- οἵδε*hoíde* 'these', ὧντινων*hôntinōn* 'of which things'

The demonstratives οὗτος*hoûtos* 'this' and ἐκεῖνος*ekeînos* 'that' are both accented on the penultimate syllable. Butοὑτοσί*houtosí* 'this man here' is oxytone.

When τίς*tís* means 'who?' is it always accented, even when not before a pause. When it means 'someone' or 'a certain', it is enclitic (see below under Enclitics):

- πρόςτινα*prós tina* 'to someone'

- πρὸςτίνα; *pròs tína?* 'to whom?'

The accent on τίς*tís* is fixed and does not move to the ending in the genitive or dative.

Prepositions

ἐν*en* 'in', εἰς (ἐς) *eis (es)* 'to, into', and ἐκ (ἐξ) *ek (ex)* 'from, out of' have no accent, only a breathing.

- ἐναὐτῷ*en autôi* 'in him'

Most other prepositions have an acute on the final when quoted in isolation (e.g. ἀπό*apó* 'from', but in the context of a sentence this becomes a grave. When elided this accent does not retract and it is presumed that they were usually pronounced accentlessly:

- πρὸςαὐτόνpròs autón 'to him'
- ἀπ᾽αὐτοῦ*ap᾽autoû* 'from him'

When a preposition follows its noun, it is accented on the first syllable (except for ἀμφί*amphí* 'around' and ἀντί*antí* 'instead of'):

- τίνοςπέρι; *tínos péri?* 'about what?'

The following prepositions were always accented on the first syllable in every context:

- ἄνευ*áneu* 'without', μέχρι*mékhri* 'until, as far as'

Interrogative words

Interrogative words are almost all accented recessively. In accordance with the principle that in a monosyllable the equivalent of a recessive accent is a circumflex, a circumflex is used on a long-vowel monosyllable:

- πότε; póte? 'when?', πόθεν; póthen? 'where from?', πότερον... ἢ...; póteron... ḕ...? 'A... or B?',ποῖος; poîos? 'what kind of?', πόσος; pósos? 'how much?', πόσοι; pósoi? 'how many?'
- ἆρα...; âra...?, ἦ...; ê...? 'is it the case that...?'
- ποῦ; poû? 'where?', ποῖ; poî? 'where to?', πῇ; pêi? 'which way?'

Two exceptions, with paroxytone accent, are the following:

- πηλίκος; *pēlíkos?* 'how big?', 'how old?', ποσάκις; *posákis?* 'how often?'

The words τίς; *tís?*andτί; *tí?*always keep their acute accent even when followed by another word. Unlike other monosyllables, they do not move the accent to the ending in the genitive or dative:

- τίς; *tís?* 'who? which?', τί; *tí?* 'what?', 'why?', τίνες; *tínes?* 'which people?', τίνος; *tínos?* 'of what? whose?', τίνι; *tíni?* 'to whom?', τίνοςπέρι; *tínos péri?* 'about what?'

Some of these words, when accentless or accented on the final, have an indefinite meaning:

- τις*tis* 'someone', τινὲς*tinès* 'some people', ποτε*pote* 'once upon a time', etc.

When used in indirect questions, interrogative words are usually prefixed by ὁ- *ho-* or ὅς- *hós-*. The accentuation differs. The following are accented on the second syllable:

- ə πότε*hopóte* 'when', ὁπόθενhopóthen 'from where', ὁπόσοςhopósos 'how great', ὁπότεροςhopóteros 'which of the two'

But the following are accented on the first:

- ὅπου*hópou* 'where', ὅποι*hópoi* 'to where', ὅστις*hóstis* 'who'

Enclitics

Types of enclitic

Enclitics are words which have no accent themselves, but place an accent on the word they follow. Examples in Greek are the following:

(a) The connective τε*te* 'also', 'and':

- Ἕλληνέςτεκαὶβάρβαροι*Héllēnés te kaì bárbaroi* 'both Greeks and foreigners'

(b) The emphatic particles:

- γε*ge* 'at any rate', περ*per* 'just, although', τοι*toi* 'in fact',
- (Mostly in Homer:) κε/κεν*ke/ken* 'it may be', νυ/νυν*nu/nun* 'now', ῥα*rha* 'then', θην*thēn* 'in truth':

The pronouns ἐγώ*egṓ* 'I' and ἐμοί*emoí* 'to me' can combine with γε*ge* to make a single word accented on the first syllable:

- ἔγωγε*égōge* 'I at any rate', ἔμοιγε*émoige* 'for me at any rate'

(c) Indefinite adverbs:

- ποτε*pote* 'once', πως*pōs* 'somehow', που*pou* 'I suppose, somewhere', ποθι*pothi* (Homeric for που), ποθεν*pothen* 'from somewhere', πῃ*pēi* 'in some way', πω*pō* 'yet'

(d) Indefinite pronouns:

- τις*tis* 'someone', 'a certain', τι*ti* 'something', τινες*tines* 'certain people'

But τινές*tinés* can also sometimes begin a sentence, in which case it is non-enclitic and has an accent on the final.

(e) The present tense (except for the 2nd person singular) of εἰμί*eimí* 'I am' and φημί*phēmí* 'I say':

- ἐγώ εἰμι *egṓ* eimi 'I am'
- ὡς αὐτὸς φησι *hōs autós phēsi* 'as he himself says'

These verbs can also have non-enclitic forms which are used, for example, to begin a sentence or after an elision. The verb

ἐστὶ*estì* 'is' has an emphatic form ἔστι*ésti*. Judging from parallel forms in Sanskrit it is possible that originally when non-enclitic the other persons also were accented on the first syllable: *εἶμι*eîmi*, *φῆμι*phêmi* etc.; but the usual convention, among most modern editors as well as the ancient Greek grammarians, is to write εἰμὶ*eimì* and φημὶ*phēmì* even at the beginning of a sentence.

When negative, ἔστι*ésti*is customarily written with its strong form, but φησί*phēsí* is enclitic:

- οὐκἔστιouk ésti 'he is not'
- οὔφησι*oú phēsi* 'he says ... not'

The strong form ἔστι*ésti* is also written after εἰ*ei* 'if', ὡς*hōs* 'since', ἀλλ᾽*all᾽*'but',τοῦτ᾽*toût᾽* 'this', according to Herodian.

(f) Certain personal pronouns in oblique cases when non-emphatic:

- με*me* 'me', μου*mou*, μοι*moi*,
- σε*se* 'you (sg)', σου*sou*, σοι*soi*
- ἑ*he* 'him(self)', οὑ*hou*, οἱ*hoi*,
- νιν/μιν*nin/min* 'him' (poetic)
- σφας*sphas* 'them(selves)', σφων*sphōn*, σφισι*sphisi*

In classical writers, ἑ*he* 'him' and σφας*sphas* 'them' tend to be used in indirect speech referring to the speaker:

- ἐκέλευσεδραμόντατὸνπαῖδαπεριμεῖναἱἑκελεῦσαι*ekéleuse dramónta tòn paîda perimeînaí he keleûsai*

'he ordered the slave-boy to run and ask the man to wait for him' (Plato)

Some of these pronouns also have non-enclitic forms which are accented. The non-enclitic form of με, μου, μοι*me, mou, moi* 'me', 'of me', 'to me' is ἐμέ, ἐμοῦ, ἐμοί*emé, emoû, emoí*. The accented forms are used at the beginning of a sentence and (usually) after prepositions:

- σὲκαλῶsè kalô 'I'm calling you'
- ἐνσοίε*n soí* 'in you'

Enclitic rules

When an enclitic follows a proparoxytone or a properispomenon word, the main word has two accents:

- ἝλληνέςτινεςHéllēnés tines 'certain Greeks'
- δοῦλόςἐστι*doûlós esti* 'he's a slave'

When it follows an oxytone word or an accentless word, there is an acute on the final syllable:

- εἰπέμοιeipé moi 'tell me'
- εἴτιςeí tis 'if anyone'

When it follows perispomenon or paroxytone word, there is no additional accent, and a monosyllabic enclitic remains accentless:

- ὁρῶσεhorô se 'I see you'
- λέγεμοιlé*ge moi* 'tell me'

A two-syllable enclitic has no accent after a perispomenon:

- ἀγαθοῦτινος*agathoû tinos* 'of some good thing'
- τοξοτῶντινων*toxotôn tinōn* 'of some archers'

But a two-syllabled enclitic has one after a paroxytone word (otherwise the accent would come more than three syllables from the end of the combined word). After a paroxytone τινῶν*tinôn* has a circumflex:

- ἄλλοιτινέςálloi tinés 'certain others'
- ὅπλωντινῶν*hóplōn tinôn* 'of some weapons'

A word ending in ξ*x* or ψ*ps* behaves as if it was paroxytone and does not take an additional accent:

- κῆρυξἐστίν*kêrux estín* 'he is a herald'

A two-syllable enclitic is also accented after an elision:

- πολλοὶδ' εἰσίν*polloì d' eisín* 'there are many'

When two or three enclitics come in a row, according to Apollonius and Herodian, each passes its accent to the preceding word (although some modern editors have queried this):

- ἦνύσέπουδέοςἴσχει*ḗ nú sé pou déos ískhei* 'or perhaps fear is holding you back'

It appears that with certain long-voweled enclitics, such as που, πως, πῃ, πω*pou, pōs, pēi, pō*, Herodian recommended that they should be left unaccented when another enclitic followed.

However, most modern editors ignore this second rule, and print εἴπούτις*eí poú tis* 'if anyone anywhere' rather than εἴπουτις*eí pou tis*.

Verbs

In verbs, the accent is grammatical rather than lexical; that is to say, it distinguishes different parts of the verb rather than one verb from another. In the indicative mood it is usually recessive, but in other parts of the verb it is often non-recessive.

Except for the nominative singular of certain participles (e.g., masculine λαβών*labṓn*, neuter λαβόν*labón* 'after taking'), a few imperatives such as (εἰπέ*eipé* 'say', and the irregular present tenses φημί*phēmí* 'I say' and εἰμί*eimí* 'I am', no parts of the verb are oxytone.

Indicative

In the indicative of most verbs, other than contracting verbs, the accent is **recessive**, meaning it moves as far back towards the beginning of the word as allowed by the length of the last vowel. Thus, verbs of three or more syllables often have an acute accent on the penult or antepenult, depending on whether the last vowel is long or short (with final -αι-*ai* counted as short):

- δίδωμι*dídōmi* 'I give'
- λαμβάνω*lambánō* 'I take'
- κελεύει*keléuei* 'he orders'

- ἐκέλευσε*ekéleuse* 'he ordered'
- βούλομαι*boúlomai* 'I want'

Monosyllabic verbs, such as βῆ*bê* 'he went' (poetic) and εἶ*eî* 'you are', because they are recessive, have a circumflex. An exception is φῄς*phḗis* or φής*phḗs* 'you say'.

A few 3rd person plurals have a contracted ending (the other persons are recessive):

- ἀφιᾶσι*aphiâsi* 'they send off'
- ἱστᾶσι*histâsi* 'they stand (transitive)'
- τεθνᾶσι*tethnâsi* 'they have died'
- ἑστᾶσι*hestâsi* 'they are standing (intransitive)'

When a verb is preceded by an augment, the accent goes no further back than the augment itself:

- ἐξῆν*exên* 'it was possible'
- εἰσῆλθον*eisêlthon* 'they entered'

Contracting verbs

Contracting verbs are underlyingly recessive, that is, the accent is in the same place it had been before the vowels contracted. When an acute and a non-accented vowel merge, the result is a circumflex. In practice therefore, several parts of contracting verbs are non-recessive:

- ποιῶ*poiô* 'I do' (earlier ποιέω)
- ἐποίουν*epoíoun* 'I was doing' (earlier ἐποίεον)

- ποιοῦσι*poioûsi* 'they do' (earlier ποιέουσι)

Contracting futures such as ἀγγελῶ*angelô* 'I will announce' and ἐρῶ*erô* 'I will say' are accented like ποιῶ*poiô*.

Imperative

The accent is recessive in the imperative of most verbs:

- λέγε*lége* 'say!'
- σταύρωσον*staúrōson* 'crucify!'
- μέμνησο*mémnēso* 'remember!'
- φάγε*pháge* 'eat!'
- δότε*dóte* 'give (pl.)!'
- ə πιθι*ápithi* 'go away (sg.)!'
- διάβηθι*diábēthi* 'go across (sg.)!'
- φάθι*pháthi* 'say!'

In compounded monosyllabic verbs, however, the imperative is paroxytone:

- ἀπόδος*apódos* 'give back!'
- περίθες*períthes* 'place round!'

The strong aorist imperative active (2nd person singular only) of the following five verbs (provided they are not prefixed) is oxytone:

- εἰπέ*eipé* 'say', ἐλθέ*elthé* 'come', εὑρέ*heuré* 'find', ἰδέ*idé* 'see', λαβέ*labé* 'take!' (the last two in Attic only)

However, if plural or prefixed, these imperatives are recessive:

- εἶπατε*eípete* 'say (pl.)!', ἔλθατε*élthete*, etc.
- εἴσελθε*eíselthe* 'come in!'

The strong aorist imperative middle of all verbs (2nd person singular only) is perispomenon:

- ἑλοῦ*heloû* 'choose!'
- γενοῦ*genoû* 'become!'

But the following is usually printed with an acute:

- ἰδού*idoú* 'behold!'

As with the active imperative, the plurals always have a recessive accent:

- ἴδεσθε*ídesthe* 'see!'

Subjunctive

The subjunctive of regular thematic verbs in the present tense or the weak or strong aorist tense is recessive, except for the aorist passive:

- λέγῃ*légēi* 'he may say'
- λέγωσι*légōsi* 'they may say'
- λύσῃ*lúsēi* 'he may free'
- λάβῃ*lábēi* 'he may take'

It is also recessive in the verb εἶμι*eîmi* 'I go' and verbs ending in -υμι-*umi*:

- ἀπίῃapíēi 'he may go away'
- ἀποδεικνύῃ*apodeiknúēi* 'he may point out'

But in the aorist passive, in the compounded aorist active of βαίνω*baínō* 'I go', and in all tenses of other athematic verbs, it is non-recessive:

- λυθῶluthô 'I may be freed'
- φανῶphanô 'I may appear'
- διαβῇdiabêi 'he may go across'
- διδῶσιdidôsi 'they may give',
- ἑστῶhestô 'I may stand'
- παραδῶparadô 'I may hand over'
- ἐξῇexêi 'it may be possible'

Optative

The optative similarly is recessive in regular verbs in the same tenses. The optative endings -οι-*oi* and -αι-*ai* count as long vowels for the purpose of accentuation:

- λύσαι*lúsai* 'he might free'
- λάβοι*láboi* 'he might take'

But in the aorist passive, in the compounded aorist active of βαίνω*baínō* 'I go', and in all tenses of athematic verbs (other than εἶμι*eîmi* 'I go' and verbs ending in -υμι-*umi*), it is non-recessive:

- λυθεῖενlutheîen 'they might be freed'
- φανεῖενphaneîen 'they might appear'
- διαβαῖενdiabaîen 'they might go across'
- διδοῖενdidoîen 'they might give'
- ἑσταῖενhestaîen 'they might stand'
- παραδοῖεν*paradoîen* 'they might hand over'

But ἀπίοι*apíoi* 'he might go away' is accented recessively like a regular verb.

Infinitive

The present and future infinitive of regular thematic verbs is recessive:

- λέγειν*légein* 'to say'
- λύσειν*lúsein* 'to be going to free'
- βούλεσθαι*boúlesthai* 'to want'
- ἔσεσθαι*ésesthai* 'to be going to be'

But all other infinitives are non-recessive, for example the weak aorist active:

- κωλῦσαι*kōlûsai* 'to prevent'
- κολάσαι*kolásai* 'to punish'

Strong aorist active and middle:

- λαβεῖνlabeîn 'to take'
- γενέσθαιgenésthai 'to become'
- ἀφικέσθαι*aphikésthai* 'to arrive'

Weak and strong aorist passive:

- λυθῆναιluthênai 'to be freed'
- φανῆναιph*anênai* 'to appear'

The aorist active of βαίνω*baínō* 'I go' when compounded:

- διαβῆναι*diabênai* 'to go across'

The present and aorist infinitives of all athematic verbs:

- διδόναιdidónai 'to give'
- ἰέναιiénai 'to go'
- ἐξεῖναιexeînai 'to be possible'
- προδοῦναιprodoûnai 'to betray'

But the Homeric ἔμμεναι*émmenai* 'to be' and δόμεναι*dómenai* 'to give' are recessive.

The perfect active, middle, and passive:

- λελυκέναι*lelukénai* 'to have freed'
- λελύσθαι*lelústhai* 'to have been freed'

Participles

The present, future and weak aorist participles of regular thematic verbs are recessive:

- λέγων*légōn* 'saying'
- βουλόμενος*boulómenos* 'wanting'
- λύσων*lúsōn* 'going to free'

- ἀκούσαςakoúsas 'having heard'

But all other participles are non-recessive. These include the strong aorist active:

- λαβώνlabṓn, masc. pl. λαβόντεςlabóntes, fem. sg. λαβοῦσαlaboûsa 'after taking'

The weak and strong aorist passive:

- λυθείςlutheís, masc. pl. λυθέντεςluthéntes, fem.sg. λυθεῖσαlutheîsa 'after being freed'
- φανείςphaneís, masc. pl. φανέντεςphanéntes, fem.sg. φανεῖσαphaneîsa 'after appearing'

The compounded aorist active of βαίνωbaínō 'I go':

- διαβάςdiabás, διαβάντεςdiabántes, fem.sg. διαβᾶσαdiabâsa 'after going across'

The present and aorist participles of athematic verbs:

- διδούςdidoús 'giving', masc.pl. διδόντεςdidóntes, fem.sg. διδοῦσαdidoûsa
- ἰώνiṓn, masc.pl. ἰόντεςióntes, fem.sg. ἰοῦσαioûsa 'going'
- παραδούςparadoús, masc.pl. παραδόντεςparadóntes, fem.sg. παραδοῦσαparadoûsa 'after handing over'
- ἐξόνexón (neuter) 'it being possible'

The perfect active, middle, and passive:

- λελυκώς*lelukṓs*, masc. pl. λελυκότες*lelukótes*, fem.sg. λελυκυῖα*lelukuîa* 'having freed'
- λελυμένος*leluménos* 'having been freed'

'I am' and 'I say'

Two athematic verbs, εἰμί*eimí* 'I am' and φημί*phēmí* 'I say', are exceptional in that in the present indicative they are usually enclitic. When this happens they put an accent on the word before them and lose their own accent:

- αἴτιός εἰμι*aítiós* eimi 'I am responsible'
- οὔφησι οὐ phēsi 'he says ... not'

But both verbs can also begin a sentence, or follow a comma, or an elision, in which case they are not enclitic. In this case the accent is usually on the final syllable (e.g. εἰμί*eimí*, φημί*phēmí*). When it follows an elision, ἐστίν*estín*is also accented on the final:

- τίποτ' ἐστίν; *tí pot' estín?* 'what (ever) is it?'

However, the 3rd person singular ἐστί*estí* also has a strong form, ἔστι*ésti*, which is used 'when the word expresses existence or possibility (i.e. when it is translatable with expressions such as 'exists', 'there is', or 'it is possible').' This form is used among other places in the phrase οὐκ ἔστι*ouk ésti* 'it is not' and at the beginning of sentences, such as:

- ἔστινθάλασσα·τίςδένινκατασβέσει; *éstin thálassa; tís dé nin katasbései?* 'The sea exists; and who shall quench it?'

The 2nd person singular εἶ*eî* 'you are' and φῄς*phḗis* 'you say' are not enclitic.

The future of the verb 'to be' has its accent on the verb itself even when prefixed:

- ἀπέσται*apéstai* 'he will be away'

Verbal adjectives

The verbal adjectives ending in -τέος-*téos* and -τέον-*téon* are always paroxytone:

- κολαστέοςἐστί*kolastéos estí* 'he needs to be punished'
- κολαστέοντοὺςἀδίκους*kolastéon toùs adíkous* 'it is necessary to punish wrong-doers'

The adjective ending in -τος-*tos* is usually oxytone, especially when it refers to something which is capable of happening:

- κλυτός*klutós* 'famous (able to be heard about)'
- διαλυτός*dialutós* 'capable of being taken apart'
- ποιητός*poiētós* 'made, adopted'

Accent shift laws

Comparison with Sanskrit as well as the statements of grammarians shows that the accent in some Greek words has shifted from its position in Proto-Indo-European.

Wheeler's Law

Wheeler's Law, suggested in 1885, refers to a process whereby words with a dactylic ending (– u u) (counting endings such as *-on*, *-os*, *-oi* as short), if they were oxytone in Proto-Indo-European, became paroxytone in Greek. It is also known as the "law of dactylic retraction".

This law is used to explain the paroxytone accent in words such as the following:

- Adjectives such as ποικίλος*poikílos* 'multicoloured', ἐναντίος*enantíos* 'opposite', πλησίος*plēsíos* 'near'
- Names such as Αἰσχύλος*Aiskhúlos* 'Aeschylus'
- Perfect passive and middle participles such as δεδεγμένος*dedegménos* 'having received'
- Paroxytone compound words with active meaning such as ἀνδροκτόνος*androktónos* 'man-slaying', βουκόλος*boukólos* 'cowherd'
- Dative plurals such as πατράσι*patrási* 'fathers', ἀνδράσι*andrási* 'men'

Similar words and endings in Sanskrit are regularly accented on the final syllable, and active compounds which do not have

a dactylic rhythm often have final accent, e.g. ψυχοπομπός*psukhopompós* 'soul-escorting'.

There are numerous exceptions to Wheeler's Law, especially words ending in -ικός-*ikós* or -ικόν-*ikón* (for example, ναυτικόν*nautikón* 'fleet'), which are always oxytone. There are also participles such as δεδομένος*dedoménos* or feminine δεδομένη*dedoménē* 'given', which have penultimate accent despite not being dactylic. These exceptions are usually explained as being due to analogical processes.

Bartoli's Law

Bartoli's Law (pronunciation /'bartoli/), proposed in 1930, aims to explain how some oxytone words ending in the rhythm (u –) (short–long) have become proparoxytone. Another name is the "law of iambic retraction". Examples are:

- θυγάτηρthugátēr 'daughter', presumed to have come from an earlier *θυγατήρ*thugatḗr (compare Vedic duhitá:)
- δεσπότης*despótēs* 'master', presumed to have come from an earlier *δεσποτής**despotḗs*

The existence of such a law has been called into question, however, and it is argued that most or all of the words proposed as examples have other explanations.

Vendryes's Law

Vendryes's Law (pronunciation /vɑ̃'dʁi/), proposed in 1945, describes how words of the rhythm (u – u), which had penultimate accent in other dialects, came to be pronounced proparoxytone in Attic (that is, the dialect of Athens). This change appears to have taken place about 400 BC, and was known to the Greek grammarians who wrote on accentuation. One ancient commentator on Aristophanes wrote:τροπαῖον*tropaîon* ('trophy') should be read as properispomenon in Aristophanes and Thucydides, but as proparoxytone τρόπαιον*trópaion* in later poets.'

The law affected words like the following:

- τρόπαιον*trópaion*, ἕταιρος*hétairos* 'companion', ἕτοιμος*hétoimos* 'ready', ὅμοιος*hómoios* 'like', ἔρημος*érēmos* 'deserted', βέβαιος*bébaios* 'firm', which came from an earlier τροπαῖον, ἑταῖρος, ἑτοῖμος, ὁμοῖος, ἐρῆμος, βεβαῖος
- ἔγωγε*égōge* 'I at any rate', ἔμοιγε*émoige* 'to me at any rate', which came from an earlier ἐγώγε, ἐμοίγε

The accent shift described by Vendryes's Law seems to have affected mainly adjectives. Verbs such as ἀπῆλθον*apêlthon* 'I went away' and participles such as λαβοῦσα*laboûsa* 'having taken' were unaffected.

Dialect variations

The ancient grammarians were aware that there were sometimes differences between their own accentuation and that of other dialects, for example that of the Homeric poems, which they could presumably learn from the traditional sung recitation.

Attic

Some peculiarities of Attic, the dialect of Athens, have been noted above under Vendryes's Law.

Aeolic

The Aeolic pronunciation, exemplified in the dialect of the 7th-century BC poets Sappho and Alcaeus from the island of Lesbos, differed in that every major word (but not prepositions or conjunctions) was pronounced recessively, thus:

- Ζεῦς*Zeûs*, σόφος*sóphos*, κάλος*kálos*, ἔμοι*émoi*, ὄρανος*óranos*, Ἄτρευς*Átreus*, Ἀχίλλευς*Akhílleus*, Σάπφω*Sápphō* for Ζεύς, σοφός, καλός, ἐμοί, οὐρανός, Ἀτρεύς, Ἀχιλλεύς, Σαπφώ

But Ἀλκαῖος*Alkaîos* 'Alcaeus' was apparently pronounced Ἀλκάος*Alkáos* in Lesbian.

The Boeotian dialect, although from the same dialect group as Lesbian, did not have this recessive accentuation, and appears not to have differed accentually from common (*koine*) Greek.

The grammarians give no details of the Thessalian dialect (another variety of Aeolic) but it has been suggested that the dropping of certain vowels in words on inscriptions indicates that it had a stress accent at the beginning of each word.

Doric

The Doric dialect also had certain peculiarities. One was that (some) properispomenon words were pronounced paroxytone. The examples given are 3rd declension nominative plural:

- παίδεςpaídes 'boys', γυναίκεςgunaíkes, αἴγεςaíges 'goats' (for παῖδεςpaîdes, γυναῖκεςgunaîkes, αἶγεςaîges)

On the other hand, it is reported that the 1st and 2nd declension accusative plural in Doric had a short vowel (-*ăs*, -*ŏs*), leading to accentuations such as:

- τῖμαςtîmas 'honours', πᾶσαςpâsas 'all' (for τίμαςtímas, πάσαςpásas)

Another characteristic of Doric was that the endings -οι-*oi* and perhaps -αι-*ai*, and in verbs 3rd pl. -ον-*on* and -αν-*an* (derived from an earlier *-*ont* and *-*ant*) counted as long, leading to a paroxytone accent in:

- φιλοσόφοι*philosóphoi* 'philosophers', καλουμένοι*kalouménoi* 'called', ἐδώκαν*edṓkan* 'they gave', ἐλέγον*elégon* 'they said'

Doric speakers also apparently pronounced a circumflex on certain genitive plurals, which were paroxytone in other dialects:

- παιδῶν*paidôn* 'of boys', Τρωῶν*Trōôn* 'of Trojans', παντῶν*pantôn* 'of all', ἀλλῶν*allôn* 'of others'

In Doric the future was also accented non-recessively in all verbs:

- λεξῶ*lexô* 'I will say', ποιησῶ*poiēsô* 'I will do'

Stress

The acute accent marks the stressed vowel of a word in several languages:

- Blackfoot uses acute accents to show the place of stress in a word: soyópokistsi "leaves".
- Bulgarian: stress, which is variable in Bulgarian, is not usually indicated in Bulgarian except in dictionaries and sometimes in homonyms that are distinguished only by stress. However, Bulgarian usually uses the grave accent to mark the vowel in a stressed syllable, unlike Russian, which uses the acute accent.
- Catalan uses it in stressed vowels: *é*, *í*, *ó*, *ú*.

- Dutch uses it to mark stress (*vóórkomen* – *voorkómen*, meaning *occur* and *prevent* respectively) or a more closed vowel (*hé* – *hè*, equivalent to English *hey* and *heh*) if it is not clear from context. Sometimes, it is simply used for disambiguation, as in *één* – *een*, meaning "one" and "a(n)".
- Galician
- Hopi has acute to mark a higher tone.
- Italian The accent is used to indicate the stress in a word, or whether the vowel is "open" or "wide", or "closed", or "narrow". For example, *pèsca*[ˈpɛska] "peach" ("open" or "wide" vowel, as in "pen") and *pésca*[ˈpeska] "fishing" ("closed" or "narrow" vowel, as in "pain").
- Lakota. For example, *kákhi* "in that direction" but *kakhí* "take something to someone back there".
- Leonese uses it for marking stress or disambiguation.
- Modern Greek marks the stressed vowel of every polysyllabic word: ά (*á*), έ (*é*), ή (*í*), ί (*í*), ό (*ó*), ύ (*í*), ώ (*ó*).
- Navajo where the acute marks a higher tone.
- Norwegian, Swedish and Danish use the acute accent to indicate that a terminal syllable with the *e* is stressed and is often omitted if it does not change the meaning: *armen* (first syllable stressed) means "the arm" while *armé(e)n* means "the army"; *ide* (first syllable stressed) means "bear's den" while *idé* means "idea". Also stress-related are the different spellings of the words en/én and et/ét (the indefinite article and the word "one" in Danish and Norwegian).

In Norwegian, however, the neuter word "one" is spelled ett. Then, the acute points out that there is one and only one of the object, which derives from the obsolete spelling(s) een and eet. Some loanwords, mainly from French, are also written with the acute accent, such as Norwegian and Swedish *kafé* and Danish *café* (also *cafe*).

- Occitan
- Portuguese: *á*, *é*, *í*, *ó*, *ú*. It may also indicate height (see below).
- Russian. Stress is irregular in Russian, and in reference and teaching materials (dictionaries and books for children or foreigners), stress is indicated by an acute accent above the stressed vowel. The acute accent can be used both in the Cyrillic and sometimes in the romanised text.
- Spanish marks stressed syllables in polysyllabic words that deviate from the standardized stress patterns. In monosyllabic words, it is used to distinguish homophones, e.g.: *el* (the) and *él* (he).
- Ukrainian: marks the stress, but in regular typography is only used when it can help to distinguish between homographs: *за́мок* (castle) vs. *замо́к* (lock). Commonly used in dictionaries and some children books.
- Welsh: word stress usually falls on the penultimate syllable, but one way of indicating stress on a final (short) vowel is by the use of the acute accent. In the Welsh orthography, it can be on any vowel: *á*, *é*, *í*, *ó*, *ú*, *ẃ*, or *ý*. Examples: *casáu*[kaˈsaɨ, kaˈsai] "to hate", *sigarét*[sɪgaˈrɛt] "cigarette", *ymbarél*[əmbaˈrɛl] "umbrella".

Height

The acute accent marks the height of some stressed vowels in various Romance languages.

- To mark high vowels:
- Bislama. The acute is used only on *é*, but only in one of the two orthographies. It distinguishes *é*[e] from *e*[ɛ]. The orthography after 1995 (which has no diacritics), does not distinguish these sounds.
- Catalan. The acute marks the quality of the vowels *é*[e] (as opposed to *è*[ɛ]), and *ó*[o] (as opposed to *ò*[ɔ]).
- French. The acute is used on *é*. It is known as *accent aigu*, in contrast to the *accent grave* which is the accent sloped the other way. It distinguishes *é*[e] from *è*[ɛ], *ê*[ɛ], and *e*[ə]. Unlike in other Romance languages, the accent marks do not imply stress in French.
- Italian. The acute accent (sometimes called *accento chiuso*, "closed accent" in Italian) is compulsory only in words of more than one syllable stressed on their final vowel (and a few other words). Words ending in stressed -o are never marked with an acute accent (*ó*), but with a grave accent (*ò*). Therefore, only *é* and *è* are normally contrasted, typically in words ending in *-ché*, such as *perché* ("why/because"); in the conjugated copula*è* ("is"); in ambiguous monosyllables such as *né* ('neither') *vs.ne* ('of it') and *sé* ('itself') *vs.se* ('if'); and some verb forms, *e.g.poté* ("he/she/it could" (past tense)). The symbol *ó* can be used in the body of a word for disambiguation, for

instance between *bótte* ("barrel") and *bòtte* ("beating"), though this is not mandatory: in fact standard Italian keyboards lack a dedicated *ó* key.

- Occitan. The acute marks the quality of the vowels *é*[e] (as opposed to *è*[ɛ]), *ó*[u] (as opposed to *ò*[ɔ]) and *á*[ɔ/e] (as opposed to *à*[a]).
- Scottish Gaelic (a Celtic rather than Romance language) uses/used a system in which *é*[eː] is contrasted with *è*[ɛː] and *ó*[oː] with *ò*[ɔː]. Both the grave and acute indicate length; *é*/*è* and *ó*/*ò*are thus contrasted with *e*[ɛ/e] and *o*[ɔ/o/ɤ] respectively. Besides, *á* appears in the words *á*[a], *ám*[ãũm] and *ás*[as] in order to distinguish them from *a*[ə], *am*[əm] and *as*[əs] respectively. The other vowels (*i* and *u*) only appear either without an accent or with a grave. Since the 1980s the SQA (which sets school standards and thus the *de facto* standard language) and most publishers have abandoned the acute accent, using grave accents in all situations (analogous to the use of the acute in Irish). However, universities, some publishers and many speakers continue to use acute accents.
- To mark low vowels:
- Portuguese. The vowels *á*/a/, *é*/ɛ/ and *ó*/ɔ/ are stressed low vowels, in opposition to *â*/ɐ/, *ê*/e/ and *ô*/o/ which are stressed high vowels. However, the accent is only used in words whose stressed syllable is in an unpredictable location within the word: where the location of the stressed syllable is predictable, no accent is used, and the height of the

stressed vowel cannot then usually be determined solely from the word's spelling.

Length

Long vowels

- Arabic and Persian: *á, í, ú* were used in western transliteration of Islamic language texts from the 18th to early 20th centuries. Representing the long vowels, they are typically transcribed with a macron today except in Bahá'í orthography.
- Classical Latin (the apex)
- Czech: *á, é, í, ó, ú, ý* are the long versions of *a, e, i, o, u, y*. The accent is known as *čárka*. To indicate a long *u* in the middle or at the end of a word, a *kroužek* (ring)is used instead, to form *ů*.
- Hungarian: *í, ó, ú* are the long equivalents of the vowels *i, o, u*. The*ő, ű* (see double acute accent) are the long equivalents of *ö, ü*. Both types of accents are known as *hosszú ékezet* (*hosszú* means long). The letters *á* and *é* are two long vowels but they are also distinct in quality, rather than being the long equivalents of *a* and*e* (see below in Letter extension).
- Irish: *á, é, í, ó, ú* are the long equivalents of the vowels *a, e, i, o, u*. The accent is known as a *síneadh fada*/ˌʃiːnʲəˈfadˠə/(length accent), usually abbreviated to *fada*. The fada can affect pronunciation or meaning; for instance, *Seán* is "John" in Irish but *sean* means "old".

- Old Norse: *á, é, í, ó, ú, ý* are the long versions of *a, e, i, o, u, y*. Sometimes, ⟨ǿ⟩ is used as the long version of ⟨ø⟩, but ⟨œ⟩ is used more often. Sometimes, the short-lived Old Icelandic long ⟨ǫ⟩ (also written ⟨ö⟩) is written using an acute-accented form, ⟨ǫ́⟩, or a version with a macron, ⟨ǭ⟩, but usually it is not distinguished from ⟨á⟩ from which it is derived by u-mutation.
- Slovak: the acute accent is called*dĺžeň* in Slovak. In addition to the long vowels *á, é, í, ó, ú* and *ý*, dĺžeňis used to mark two syllabic consonants*ŕ* and *ĺ*, which are the long counterparts of syllabic *r* and *l*.

Short vowels

- Ligurian: in the official orthography, *é*is used for short [e], and *ó* is used for short [u].

Palatalization

A graphically similar, but not identical, mark is indicative of a palatalized sound in several languages.

In Polish, such a mark is known as a *kreska* (English: stroke) and is an integral part of several letters: four consonants and one vowel. When appearing in consonants, it indicates palatalization, similar to the use of the *háček* in Czech and other Slavic languages (e.g. *sześć*[ˈʂɛɕt͡ɕ] "six"). However, in contrast to the *háček* which is usually used for postalveolar consonants, the *kreska* denotes alveolo-palatal consonants. In

traditional Polish typography, the *kreska* is more nearly vertical than the acute accent, and placed slightly right of center. A similar rule applies to the Belarusian Latin alphabet *Łacinka*. However, for computer use, Unicode conflates the codepoints for these letters with those of the accented Latin letters of similar appearance.

In Serbo-Croatian, as in Polish, the letter ⟨ć⟩is used to represent a palatalized ⟨t⟩.

In the romanization of Macedonian, ⟨ǵ⟩ and ⟨ḱ⟩ represent the Cyrillic letters ⟨ѓ⟩ (Gje) and ⟨ќ⟩ (Kje), which stand for palatal or alveolo-palatal consonants, though ⟨gj⟩ and ⟨kj⟩ (or ⟨đ⟩ and ⟨ć⟩) are more commonly used for this purpose. The same two letters are used to transcribe the postulated Proto-Indo-Europeanphonemes/gʲ/ and /kʲ/.

Sorbian uses the acute for palatalization as in Polish: ⟨ć dźń⟩. Lower Sorbian also uses ⟨ŕśź⟩, and Lower Sorbian previously used ⟨ḿṕẃ⟩ and ⟨b́ f́⟩, also written as ⟨b' f'⟩; these are now spelt as ⟨mj pj wj⟩ and ⟨bj fj⟩.

Tone

In the Quốc Ngữ system for Vietnamese, the Yale romanization for Cantonese, the Pinyinromanization for Mandarin Chinese, and the Bopomofo semi-syllabary, the acute accent indicates a rising tone. In Mandarin, the alternative to the acute accent is the number 2 after the syllable: lái = lai2. In Cantonese Yale, the acute accent is either tone 2, or tone 5 if the vowel(s) are followed by 'h' (if the number form is used, 'h' is omitted): má = ma2, máh = ma5.

In African languages and Athabaskan languages, it frequently marks a high tone, e.g., Yoruba*apá* 'arm', Nobiin*fénti* 'sweet date', Ekoti*kaláwa* 'boat', Navajo*t'áá* 'just'.

The acute accent is used in Serbo-Croatian dictionaries and linguistic publications to indicate a high-rising accent. It is not used in everyday writing.

Disambiguation

The acute accent is used to disambiguate certain words which would otherwise be homographs in the following languages:

- Catalan. Examples: *són* "they are" vs. *son* "tiredness", *més* "more" vs. *mes* "month".
- Danish. Examples: *én* "one" vs. *en* "a/an"; *fór* "went" vs. *for* "for"; *véd* "know(s)" vs. *ved* "by"; *gør* "bark(s)" vs. *gør* "do(es)"; *dør* "die(s)" vs. *dør* "door"; *allé* "alley" vs. *alle* "everybody". Furthermore, it is also used for the imperative form of verbs ending in *-ere*, which lose their final *e* and might be mistaken for plurals of a noun (which most often end in *-er*): *analysér* is the imperative form of *at analysere* "to analyse", *analyser* is "analyses", plural of the noun *analyse* "analysis". Using an acute accent is always optional, never required.
- Dutch. Examples: *één* "one" vs. *een* "a/an"; *vóór* "before" vs. *voor* "for"; *vóórkomen* "to exist/to happen" vs. *voorkómen* "to prevent/to avoid". Using an acute accent is mostly optional.
- Modern Greek. Although all polysyllabic words have an acute accent on the stressed syllable, in

monosyllabic words the presence or absence of an accent may disambiguate. The most common case is η, the feminine definite article ("the"), versus ή, meaning "or". Other cases include που ("who"/"which") versus πού ("where") and πως ("that", as in "he told me *that*...") versus πώς ("how").

- Norwegian. It is used to indicate stress on a vowel otherwise not expected to have stress. Most words are stressed on the first syllable and diacritical marks are rarely used. Although incorrect, it is frequently used to mark the imperative form of verbs ending in *-ere* as it is in Danish: *kontrollér* is the imperative form of "to control", *kontroller* is the noun "controls". The simple past of the verb *å fare*, "to travel", can optionally be written *fór*, to distinguish it from *for* (preposition "for" as in English), *fôr* "feed" *n.*/"lining", or *fòr* (only in Nynorsk) "narrow ditch, trail by plow" (all the diacritics in these examples are optional.)
- Portuguese. Examples: *avô* "grandfather" vs. *avó* "grandmother", *nós* "subject pronoun *we*" vs. *nos* "oblique case".
- Russian. Acute accents (technically, stress marks) are used in dictionaries to indicate the stressed syllable. They may also be optionally used to disambiguate both between minimal pairs, such as за́мок (read as zámak, means "castle") and замо́к (read as zamók, means "lock"), and between question words and relative pronouns such as что ("what", stressed, or "that", unstressed), similarly to Spanish. This is rare, however, as usually meaning is determined by context and no stress mark is written.

The same rules apply to Ukrainian, Rusyn, Belarusian and Bulgarian.

- Spanish. Covers various question word / relative pronoun pairs where the first is stressed and the second is a clitic, such as *cómo* (interrogative "how") and *como* (non-interrogative "how", comparative "like", "I eat"), differentiates *qué* (what) from *que* (that), *dónde* and *donde* "where", and some other words such as *tú* "you" and *tu* "your," *té* "tea" and *te* "you" (direct/indirect object), *él* "he/him" and *el* ("the", masculine), *sólo* "only" (as in "solamente") and *solo* "alone". This usage of the acute accent is called*tilde diacrítica*.

Emphasis

- In Danish, the acute accent can also be used for emphasis, especially on the word *der* (there), as in *Der kan ikke være mange mennesker dér*, meaning "There can't be many people *there*" or *Dér skal vi hen* meaning "*That's* where we're going".
- In Dutch, the acute accent can also be used to emphasize an individual word within a sentence. For example, *Dit is ónze auto, niet die van jullie*, "This is *our* car, not yours." In this example, *ónze* is merely an emphasized form of *onze*. Also in family names like Piét, Piél, Plusjé, Hofsté.
- In the Armenian script emphasis on a word is marked by an acute accent above the word's stressed vowel; it is traditionally grouped with the Armenian

question and exclamation marks which are also diacritics applied to the stressed vowel.

Letter extension

- • InFaroese, the acute accent is used on five of the vowels (a, i, o, u and y), but these letters, á, í, ó, ú and ý are considered separate letters with separate pronunciations.
- á: long [ɔa], short [ɔ] and before [a]: [õ]
- í/ý: long [ʊiː], short [ʊi]
- ó: long [ɔu], [ɛu] or [œu], short: [œ], except Suðuroy: [ɔ]
- When ó is followed by the skerping -gv, it is pronounced [ɛ], except in Suðuroy where it is [ɔ]
- ú: long [ʉu], short [ʏ]
- When ú is followed by the skerping -gv, it is pronounced [ɪ]
- • In Hungarian, the acute accent marks a difference in quality on two vowels, apart from vowel length:
- The (short) vowel *a* is open back rounded (ɒ), but *á* is open front unrounded (a) (and long).
- Similarly, the (short) vowel *e* is open-mid front unrounded (ɛ), while (long) *é* is close-mid front unrounded (e).
- Despite this difference, in most of the cases, these two pairs are arranged as equal in collation, just like the other pairs (see above) that only differ in length.
- In Icelandic the acute accent is used on all 6 of the vowels (a, e, i, o, u and y), and, like in Faroese, these are considered separate letters.

- á: [au(ː)]
- é: long [jeɛː], short [jɛ]
- í/ý: [i(ː)]
- ó: [ou(ː)]
- ú: [u(ː)]
- All can be either short or long, but note that the pronunciation of *é* is not the same short and long.
- Etymologically, vowels with an acute accent in these languages correspond to their Old Norse counterparts, which were long vowels but in many cases have become diphthongs. The only exception is é, which in Faroese has become æ.
- In Kashubian, Polish, and Sorbian, the acute on "ó", historically used to indicate a lengthening of "o" [ɔ], now indicates higher pronunciation, [o] and [u], respectively.
- In Turkmen, the letter *ý* is a consonant: [j].

Other uses

- In some Basque texts predating Standard Basque, the letters ⟨r⟩ and ⟨l⟩ carry acute accents (an invention by Sabino Arana), which are otherwise indicated by double letters. In such cases, ⟨ŕ⟩ is used to represent ⟨rr⟩ (a trilled ⟨r⟩, this spelling is used even at the end of a syllable, to differentiate from -⟨r⟩-, an alveolar tap – in Basque /r/ in word-final positions is always trilled) and ⟨Í⟩ for ⟨ll⟩ (a palatalized /l/).
- In transliterating texts written in Cuneiform, an acute accent over the vowel indicates that the

original sign is the second representing that value in the canonical lists.Thus*su* is used to transliterate the first sign with the phonetic value /su/, while *sú* transliterates the second sign with the value /su/.

- In Emilian-Romagnol, *é ó* denote both length and height. In Romagnol they represent [e: , o:], while in Emilian they represent [e, o].
- In Indonesian dictionaries, ⟨é⟩is used to represent /e/, while ⟨e⟩ is used to represent /ə/.
- In Northern Sámi, an acute accent was placed over the corresponding Latin letter to represent the letters peculiar to this language (*Áá, Čč, Đđ, Ŋŋ,* Šš, *Ŧŧ, Žž*) when typing when there was no way of entering these letters correctly otherwise.
- Many Norwegian words of French origin retain an acute accent, such as *allé*, *kafé*, *idé*, *komité*. Popular usage can be sketchy and often neglects the accent, or results in the grave accent erroneously being used in its place. Likewise, in Swedish, the acute accent is used only for the letter ⟨e⟩, mostly in words of French origin and in some names. It is used both to indicate a change in vowel quantity as well as quality and that the stress should be on this, normally unstressed, syllable. Examples include *café* ("café") and *resumé* ("résumé", noun). There are two pairs of homographs that are differentiated only by the accent: *armé* ("army") versus *arme* ("poor; pitiful", masculine gender) and *idé* ("idea") versus *ide* ("winter quarters").
- ⟨Ǵǵ⟩ and ⟨Źź⟩are used in Pashto in the Latin alphabet, equivalent to ږ and ځ, respectively.

English

As with other diacritical marks, a number of (usually French) loanwords are sometimes spelled in English with an acute accent as used in the original language: these include *attaché*, *blasé*, *canapé*, *cliché*, *communiqué*, *café*, *décor*, *déjà vu*, *détente*, *élite*, *entrée*, *exposé*, *mêlée*, *fiancé*, *fiancée*, *papier-mâché*, *passé*, *pâté*, *piqué*, *plié*, *repoussé*, *résumé*, *risqué*, *sauté*, *roué*, *séance*, *naïveté*, *toupée* and *touché*. Retention of the accent is common only in the French ending *é* or *ée*, as in these examples, where its absence would tend to suggest a different pronunciation. Thus the French word *résumé* is commonly seen in English as *resumé*, with only one accent (but also with both or none).

Acute accents are sometimes added to loanwords where a final *e* is not silent, for example, *maté* from Spanish *mate*, the Maldivian capital *Malé*,*saké* from Japanese *sake*, and *Pokémon* from the Japanese compound for *pocket monster*, the last three from languages which do not use the Roman alphabet, and where transcriptions do not normally use acute accents.

For foreign terms used in English that have not been assimilated into English or are not in general English usage, italics are generally used with the appropriate accents: for example, *coup d'état*, *pièce de résistance*, *crème brûlée* and *ancien régime*.

The acute accent is sometimes (though rarely) used for poetic purposes:

- It can mark stress on an unusual syllable: for example, *caléndar* to indicate [kəˈlɛn.dɚ] (rather than the standard [ˈkæl.ən.dɚ]).
- It can disambiguate stress where the distinction is metrically important: for example, *rébel* (as opposed to *rebél*), or *áll trádes*, to show that the phrase is pronounced as a spondee, rather than the more natural iamb.
- It can indicate the sounding of an ordinarily silent letter: for example, *pickéd* to indicate the pronunciation [ˈpɪkɪd], rather than standard [pɪkt] (the grave accent is more common for this last purpose).

The layout of some European PC keyboards, combined with problematic keyboard-driver semantics, causes some users to use an acute accent or a grave accent instead of an apostrophe when typing in English (e.g. typing John`s or John´s instead of John's).

Typographic form

Western typographic and calligraphic traditions generally design the acute accent as going from top to bottom. French even has the definition of acute is the accent *"qui va de droite à gauche"* (English: "which goes from right to left"), meaning that it descends from top right to lower left.

In Polish, *kreska* is instead used which usually has a different shape and style compared to other Western languages. It features a more vertical steep form and is moved more to the

right side of center line than acute. As Unicode did not differentiate the *kreska* from acute, letters from Western font and Polish font had to share the same set of characters which make designing the conflicting character (i.e. *o acute*, ⟨ó⟩) more troublesome. OpenType tried to solve this problem by giving language-sensitive glyph substitution to designers so that the font will automatically switch between Western ⟨ó⟩ and Polish ⟨ó⟩ based on language settings. New fonts are sensitive to this issue and their design for the diacritics tends toward a more "universal design" so that there will be less need for localization, for example Roboto and Noto typefaces.

Pinyin uses the acute accent to mark the second tone (rising or high-rising tone), which indicate a tone rising from low to high, causing the writing stroke of acute accent to go from lower left to top right. This contradicts the Western typographic tradition which makes designing the acute accent in Chinese fonts a problem. Designers approach this problem in 3 ways: either keep the original Western form of going top right (thicker) to bottom left (thinner) (e.g. Arial/Times New Roman), flip the stroke to go from bottom left (thicker) to top right (thinner) (e.g. Adobe HeiTi Std/SimSun), or just make the accents without stroke variation (e.g. SimHei).

Technical notes

The ISO-8859-1 and Windows-1252 character encodings include the letters *á*, *é*, *í*, *ó*, *ú*, *ý*, and their respective capital forms. Dozens more letters with the acute accent are available in Unicode.

Microsoft Windows

On Windows computers, letters with acute accents can be created by holding down the alt key and typing in a three-number code on the number pad to the right of the keyboard before releasing the Alt key. Before the appearance of Spanish keyboards, Spanish speakers had to learn these codes if they wanted to be able to write acute accents, though some preferred using the Microsoft Word spell checker to add the accent for them. Some young computer users got in the habit of not writing accented letters at all. The codes (which come from the IBM PC encoding) are:

- 160 for á
- 130 for é
- 161 for í
- 162 for ó
- 163 for ú

On some non-US keyboard layouts (e.g. Hiberno-English), these letters can also be made by holding Ctrl+Alt (or Alt Gr) and the desired letter.

Microsoft Office

To input an accented letter in a Microsoft Office software (Word, Powerpoint, Excel, Access, etc.), hold the Ctrl key, press the apostrophe (') key once, release the Ctrl key, and then press the desired letter.

macOS

On macOS computers, an acute accent is placed on a vowel by pressing ⌥ Option+e and then the vowel, which can also be capitalised; for example, á is formed by pressing ⌥ Option+e and then a, and Á is formed by pressing ⌥ Option+e and then ⇧ Shift+a.

Keyboards

Because keyboards have only a limited number of keys, English keyboards do not have keys for accented characters. The concept of dead key, a key that modified the meaning of the next key press, was developed to overcome this problem. This acute accent key was already present on typewriters where it typed the accent without moving the carriage, so a normal letter could be written on the same place.

Internet

Some sites, such as Wikipedia or the Alta Vista automatic translator, allow inserting such symbols by clicking on a link in a box.