

10. Sentence stress and intonation

Before you study this chapter, check whether you are familiar with the following terms: adjective, adverb, conjunction, content word, demonstrative pronoun, function word, interrogative pronoun, noun, pitch, stress (primary/secondary), strong syllable, suprasegmental, verb, weak syllable, Wh-question, Yes/No question

This chapter is concerned with some suprasegmental processes of English which are often grouped under the umbrella term of intonation. In the first part of the chapter we will be discussing the position of sentence stress while the second part of the chapter will discuss intonation, the melody of sentences. We have already seen the principles of assigning different degrees of word stress in Chapters 8 and 9. Let us now continue with a description of how the same thing works at sentence level.

If we want to show stress (and later intonation) at sentence level, we will have to do things a little bit differently from what we have been doing when transcribing the stressed syllables of isolated words. There are several principles to be kept in mind:

- In isolation, every word has a primary stressed syllable (although the stress of monosyllabic words is not indicated). In a sentence, many words will have no stressed syllable at all, i.e., they occur in their weak forms, e.g., *can* is realized as /kən/ instead of /kæn/. (Cf. Chapter 7.)
- In isolation, the stress of monosyllabic words is not shown. However, if they receive sentence stress it is always indicated, e.g., *This is the car that I bought* /'ðɪs ɪz ðə 'kɑ: ðæt ə 'bɔ:t/. The words *this*, *car*,

bought are stressed in the sentence as indicated by the stress marks although they are all monosyllabic words.

To be able to cope with the assignment of sentence stress and, on the basis of that, intonation, we have to clarify a few important basic notions. One of the distinctions we have to make is between **lexical/content words** and **grammatical/function words**. The former include the four basic categories, nouns, verbs, adjectives and adverbs – including adverbial particles like *up* – while the latter contain the rest of the categories, prepositions, pronouns, auxiliaries, conjunctions. Also, some minor categories can be compared to one of these two groups: demonstrative and interrogative pronouns, e.g., *this*, *that* and *what*, *where* respectively, are stressed like content words.

In the case of word stress we identified different degrees of stress in Chapters 8-9, we may do so in sentences, too, and just like in words, in sentences it is also the last stress that is the strongest. That is, the strongest stress of a sentence falls on the last stressed syllable, which is called the **tonic** – sometimes also called **accent**, **nucleus** or **sentence stress**, indicated by underlining in this chapter. The tonic will have a special role in describing intonation as intonation is nothing else but a falling or rising melody starting on the tonic.

With the help of the tonic we may define some further concepts relevant for our discussion: speech is divided into so-called **tone-units** – or **tone groups** or **intonation phrases** –, which are parts of connected speech ending in a tonic. That is, a tone-unit starts after a tonic and ends in a tonic. Tone-units are normally realized by clauses as in the first three examples or by longer phrases as in the second three examples below. The boundaries of tone-units are usually indicated by vertical lines.

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|She 'wanted to 'face the 'problems on 'Tuesday.|

|He 'felt un'easy| but the 'others were en'joying them'selves.|

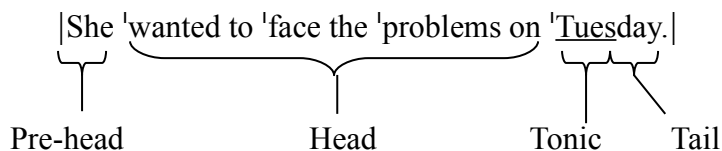
|I 'didn't really 'want to 'come| but 'here I 'am.|

!'No 'way!|

|At 'five o'clock.|

!'No|, 'only at the 'meeting.|

Besides the tonic, the tone-unit has the following parts: **tail** – the unstressed syllables following the tonic, e.g., *-day* in the first example above –, the **pre-head** – the unstressed syllables before the first stress, e.g., *she* in the first example –, and the **head** – starting with the first stressed syllable and ending with the last unstressed syllable before the tonic, e.g., *wanted to face the problems on* in the first example above:



The tone unit may also be divided into other kinds of constituents which play a very important role in determining the rhythm of the sentence. These units of rhythm are called **feet** (cf. Chapter 7), the same name that is used for rhythmic units in literature to determine the rhythm of poems. As it was mentioned in Chapter 7, a foot is the sequence of a stressed syllable and all the unstressed syllables following it up to the next stress. The sentence above may be divided into feet the following way:

She | 'wanted to | 'face the | 'problems on | 'Tuesday.
foot₀ | *foot₁* | *foot₂* | *foot₃* | *foot₄*

It is clear that the first foot, *foot₀* is an incomplete one as it only contains unstressed syllables – if there is a pre-head, it is always an incomplete foot.

Recall from Chapter 7 that the special characteristic property of English rhythm is that it is stress-timed. It means that the stressed syllables follow each other at intervals of about the same length, which sounds like a pulsating rhythm. This means that in the sentence above the time elapsing between the stressed syllables 'wan- ... 'face ... 'prob ... 'Tues is approximately equal although there might be different numbers of unstressed syllables between them. Since this rhythmic sequence of pulses is very different from Hungarian, it is something to be practised a lot to get used to pronouncing (sometimes many) weak syllables between the stressed ones.

When connecting words into a sentence it often happens that there will be a sequence of three stressed syllables with zero or just one unstressed syllable between them. In such cases the rhythm becomes jerky, staccato-like. To avoid such stress clusters the middle one of the three stresses is deleted and the syllable is pronounced as unstressed, a process called **Rhythmic Stress Deletion** – this deletion of stress is indicated with a superscript zero in the examples:

'good 'old 'days → 'good ⁰old 'days

'very 'brave 'soldier → 'very ⁰brave 'soldier

'cover the 'big 'news → 'cover the ⁰big 'news

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In cases when a word with two stresses is followed by a word stressed on the initial syllable it would result in three stressed syllables in a row. As a result, rhythmic stress deletion will delete the stress in the middle. This way the stress pattern of the first word has been changed as the primary stress has shifted to the left from the last syllable, a process called **Rhythmic Stress-Shift**:

the ,best 'man 'asked /,best'mæn/ → the 'best⁰man 'asked /'bestmən/
a ,stone 'deaf 'guy /,stəʊn'def/ → a 'stone⁰deaf 'guy /'stəʊndɪf/
a ,dark 'brown 'hat /,dɑ:k'braʊn/ → a 'dark⁰brown 'hat /'dɑ:kbraʊn/

As is clear from the above, this may affect finally-stressed compounds and longer words ending in two stressed syllables in a way that they will have two slightly different stress patterns depending on whether the next word starts with a stressed or unstressed syllable. Before words starting with an unstressed syllable nothing happens, but before words starting with a stressed one the final primary stress of the first word shifts one to the left.

In the following we take a look at the two major types of **tonic placement**. The first type of tonic placement is the neutral, unmarked or default type: it does not express emphasis or contrast. This is called **neutral tonic placement** or **neutral tonicity**. The neutral tonic is normally placed on the last content word but in some exceptional cases it may fall on an earlier content word or on a function word.

Tonic on last content word

|'Everyone was 'there|

|We 'didn't 'want to 'talk about the 'details.|

|He was 'finally ad'mitted to uni'versity.|

Tonic on an earlier content word (the skipped last content word italicized)

|He 'bought a 'new 'mountain bike.| No tonic on 2nd part of initially stressed compound.

|It was 'nice, I *think*.| No tonic on afterthoughts, appended remarks.

|We'll just 'stay here.| No tonic on common adverbs.

!'That's what the 'book says.| No tonic on "obvious predicates".

Tonic on a function-word

!'No, you 'can't.| Tonic on an auxiliary if no other stressable word.

!'Where are you 'from?| Tonic on Prep in short sentences without main verb.

!'This is 'mine| Tonic on possessive pronoun.

In the second major type of tonic placement the speaker wishes to emphasize some part of the utterance, contrast a part of it with something or focus on some new information, which may be achieved by placing the tonic at a different place from where it would normally appear. The following two sentences demonstrate that while the first sentence with neutral tonic placement on the last content word does not emphasize or contrast any part of the sentence, the second sentence with so-called **dislocated tonic** does.

!'Jim was 'there.|

!'Jim was 'there. |

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As the underlining indicates, *there* has the tonic in the first sentence while *Jim* has the tonic in the second. Accordingly, the first sentence has a neutral interpretation, while the second sentence emphasizes that it was Jim who was there, not somebody else. Let us now take a look at what might be the reasons for having a dislocated tonic in a sentence.

Contrast

In many cases the tonic is placed on an earlier content word to express contrast between what has been said and the word/expression bearing the tonic. The two most common cases are when either it is a particular lexical item, a certain word that we want to contrast with another one, e.g., a name with another name, or negative polarity with positive polarity, i.e., negation with assertion. If a word is contrasted, it is indicated in capital letters.

I 'gave 'JACK that 'book on 'history 'yesterday.	... and not somebody else.
We 'visited a lot of MU'SEUMS in 'London.	... and not night-clubs.
I 'HAVE 'seen the 'film 'earlier.	... contrary to what you think/claim.
I 'DID 'pass the 'test.	... although that's not what you think.

New information

If the end of the sentence contains information the speaker thinks is known by the listener as old information, then the words describing this old information will be de-stressed and stress (and the tonic) will be shifted leftwards to some earlier word considered to carry new information. It most typically happens in answering questions repeating some words from the question – the old information skipped by tonic assignment is italicized.

Is the book interesting?	It is ¹ <u>VERY</u> <i>interesting</i> .
Do you want to have lunch?	But I ¹ already ¹ <u>HAD</u> <i>lunch</i> .
I'm from Hungary.	Oh, my ¹ <u>FI</u> ¹ <u>ANCÉE</u> is <i>Hun</i> ¹ <i>garian</i> , ¹ too.

So far we have seen which part of a sentence carries the strongest stress – the tonic –, how it relates to the rest of the clause – the tail, the head and the pre-head –, how the head plays a role in determining the rhythm of the clause by being divided into feet, and, finally, how tonic assignment may be performed in neutral cases and in dislocated cases when the speaker wishes to emphasize or contrast some part of the sentence. Now we turn to how these units relate to intonation, the melody and the melody change of a sentence.

The intonation or melody of a sentence is the voice-height, or **pitch**. On the one hand, pitch depends on what kind of intonation is used in the pronunciation of a particular sentence. On the other hand, there are also non-linguistic factors that influence pitch: age – children have a higher pitch than adults –, sex – men normally have a lower pitch than women –, and the emotional state of the speaker – excited speakers tend to have a higher pitch than someone in a neutral mood. Every speaker has a limit to how high or how low a pitch they may produce; these two are the upper and lower limits of one's **pitch range**. This pitch range is different for each speaker but it does not influence the understandability of their speech: it is not the absolute but the relative pitch height that matters.

Pitch differences do not only occur between speakers but also between languages. Hungarian, for instance, is said to have a much narrower pitch range in general than that of English; that is, the highest pitch of an average native English speaker is higher than that of an average native Hungarian speaker, while the lowest pitch of an English speaker is generally

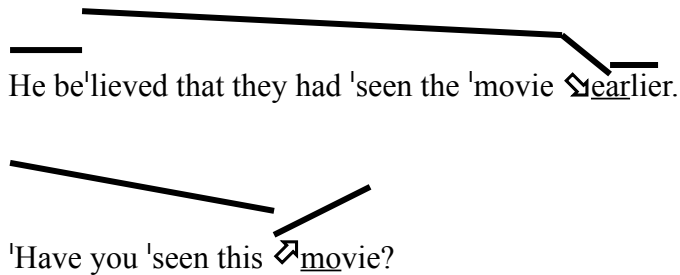
lower than that of a Hungarian speaker. This is even noticed by the untrained ear. For instance, Hungarian speakers often report that they find English speech too emotional, excited and affected; English speakers, on the other hand, find the speech of the average Hungarian – whether this average Hungarian speaks English or Hungarian – too flat, monotonous or boring.

Intonation is the way the pitch changes in the tone-unit. Recall that the last stressed syllable of the tone-unit, the tonic always has pitch change, that is, the speakers' voice will either rise or fall on the tonic syllable. This change associated with the tonic syllable is referred to as the **tone**¹. The melody of the tone is always continued in the tail of the tone-unit; the tail will never contain another change in pitch. If we do not only consider the pitch change realized on the tonic syllable, but rather the pitch changes occurring throughout the whole tone-unit, we may talk about the **tune** or **intonation pattern** of the sentence. In the following we briefly describe the characteristic properties of the parts of the tone-unit followed by a discussion of the tones and the typical meanings or functions associated with them. The reader, however, has to be aware that this relationship is not a one-to-one relationship, so the same communicative function is not always expressed by the same tone and the same tone does not always express the same meaning.

The melody of the pre-head of the tone-unit – if there is one – normally starts at a relatively low pitch which normally jumps high up on the first stressed syllable, i.e., on the beginning of the head. The pitch usually gradually falls throughout the head, which is called **downdrift**. Since it is not the pitch change realized on the tonic, it does not count as falling intonation, it is just a natural consequence of the fact that speakers are normally running out of air and this way the velocity of the outflowing air is dropping, which results in a lower pitch. The part of the tone-unit after the tonic, the tail – if

¹ Note that this usage of *tone* is slightly different from *tone* in tone languages (cf. the beginning of Chapter 8).

there is one – is normally a simple continuation of the pitch change of the tonic: if the pitch rises on the tonic, it will slowly, gradually rise on the tail, too. If it falls on the tonic, then it will fall on the tail, too. This is demonstrated by the graphic representations below. The arrow before the tonic syllable indicates the pitch change on the tonic.



Let us now take a look at the four types of tone and the different functions associated with them:







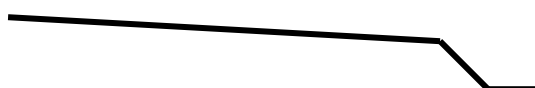

Type of tone	Name of tone	Tone contour	Function, meaning
Falling	Fall		neutral, definiteness, finality
Rising	Low rise		indifference, encouragement
	High rise		Yes/No questions, inquiry
	Fall-rise		old information, implication

The falling tone

The falling tone is the most common, neutral tone used in English. It suggests that speakers are simply conveying information. As a result, it is most often used in plain statements, real, serious commands – as it expresses finality and definiteness –, in exclamations – expressing that the speakers are sure of



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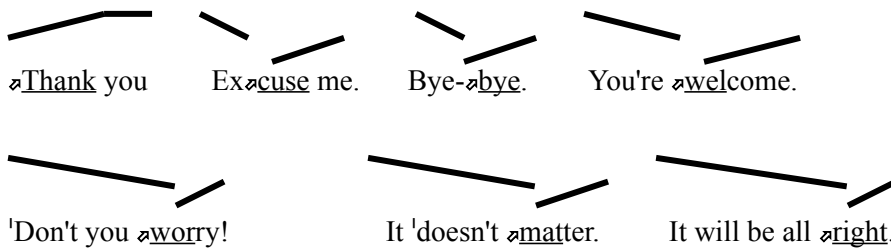
what they are saying –, and in Wh-questions, i.e., questions starting with a question word (*who, what, where, why, how, etc.*).

 I 'think we 'haven't <u>met</u> .	 'This is the 'house where I <u>grew</u> up.
 'Leave all the 'books on the <u>desk</u> !	 'Put the 'gun on the <u>ground</u> !
 'What a 'truly 'beautiful <u>day</u> !	 'How 'absolutely 'fabulous an i <u>dea</u> !
 'How did you 'know he was my <u>brother</u> ?	 'What are you <u>working</u> on?

The low rising tone

The low rising tone is the most difficult for Hungarian learners of English as in Hungarian it is only used in certain types of questions while in English it is never used in this sentence type. Instead, it is always used to respond to something that somebody said. Often it expresses indifference – an "I-don't-care attitude" –, it is used in apologies, greetings and when saying thanks, and also in cases of expressing encouragement.

(How was the film?)	 It was all <u>right</u> . (Not too bad, not too good.)
(Where shall we go tonight?)	 'We may 'go to the <u>cinema</u> . (I don't care.)



The high rising tone


The high rising tone is either a high rise on the tonic, if there is no tail, or it is accomplished on the tonic and the tail, if there is one. If there is no tail, i.e., the whole high rise is realized on the tonic syllable, then Hungarian speakers tend to have serious problems with the height: the high rise produced by a Hungarian speaker is simply not high enough for an English speaker; instead, it will sound as a low rise, and will consequently express indifference or boredom.

In English, if there is a tail, then the high rise continues from the tonic throughout the tail and is evenly distributed over the syllables of the tonic and the tail. This is also a serious difficulty, if not greater, for Hungarians as such tonic+tail combinations may not be pronounced with a steady high rise in Hungarian as the language does not permit a rise on consecutive syllables within the same tone unit.


In Hungarian there is only a real rise if there is no tail. If there is a tail, then depending on the number of its syllables, one of the following things will happen: if the tail consists of just one syllable, it will be a rise-fall; if the tail has two syllables, the first will rise, the second will fall; finally, if the tail has more than two syllables, the second last will rise, the last one will fall. All in all, whenever there is a tail in such Hungarian sentences, it will have a rise-fall and not a steady rise as it does in English.

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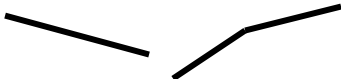
The high rise is most often used in Yes/No questions, which do not start with a question word. If something is said with a high rising intonation, it is always a real question.




Have you 'ever been to ↗England?



Did you 'do your ↗homework?



'Was it your ↗grandmother?

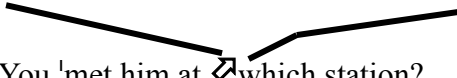


'Is 'Johnny 'coming to the ↗party?

The high rise is also found in echo-questions, which repeat what a speaker has previously said.



Where?




You 'met him at ↗which station?

The fall-rise tone

The fall-rise is a combination of a fall from high or mid tone to low followed by a low rise, i.e., a rise from low to mid. It is one of the tones that makes English speech sound too theatrical or affected for the Hungarian ear but it is not as difficult to learn to do correctly as the high rise or the low rise.

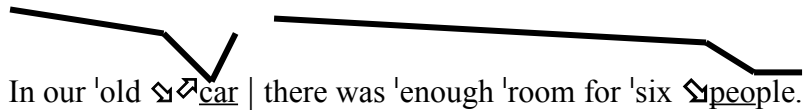
A fall-rise may be used for several purposes: on the one hand, it may indicate that the speaker is not telling everything, but a part of the message is only implied, the listener has to find it out from the context.



I've 'never 'seen your ↘↗flat.

(Invite me to see it.)

It may also occur in a sentence made up of two tone-units, the first expressing old information serving as background for the new information in the second part of the sentence. The new information is pronounced with a falling tone.



In this chapter we have taken a look at two very important suprasegmental aspects of English pronunciation: the stress patterns of sentences, especially tone placement on the one hand, and the basic types of intonation and their differences from Hungarian intonation on the other.