
Theoretical Phonetics

— Lecture 8 —
Sentence Stress and Rhythm

OUTLINE

1. Sentence Stress
 2. Speech Rhythm
 3. Rhythmic group
 4. Functions of rhythm
-

WHAT IS SENTENCE STRESS?

Remember that **word stress** (syllable stress) is the „beat“ on one or more syllables within a word;

Sentence stress is the „beat“ on certain words within a sentence.

Sentence stress is the music of spoken English. In other words, **sentence stress** can be described as the „**rhythm**“ of spoken language

Like word stress , **sentence stress** can help you to understand spoken English, even rapid spoken English.

WHY IS “STRESS” IMPORTANT?

It adds rhythm when you
speak

If you stress all the words in an utterance, you may sound unpleasant or even cause misunderstanding, because:

1. You are giving too much information;
2. English native speakers usually stress all words only when they are impatient or angry;



Sentence Stress

The special prominence of accented words is achieved through the greater force of utterance and changes in the direction of voice pitch, constituting the nuclear tone.

Difference between stress and accent IS BASED ON

the dominant perceptual component is **loudness**

the dominant perceptual component is **PITCH**

Degrees of stress in an utterance correlate with the pitch range system.

Nuclear stress is the strongest, because it carries the **most important information**.

Non-nuclear stresses are subdivided into *full and partial*.

Full stress occurs only in the **head** of an intonation group, **partial stress** occurs in the **pre-head and tail**

According to the way they function, words in a language are normally classified into two types:

- a). **Content words**, are the key words of a sentence. They are the important words that carry the meaning or sense.
- b). **Structure words**, are not very important words. They are small, simple words that make the sentence correct grammatically. They give the sentence its correct form or structure.

If you remove the structure words from a sentence, you will probably still understand the sentence.

If you remove the content words from a sentence, you will **not** understand the sentence. The sentence has no sense or meaning.

SENTENCE STRESS Rules

Imagine that you receive this message



SELL

CAR

GONE

FRANCE

- This sentence is not complete.
- It is not "grammatically correct".
- But you probably understand it.
- These 4 words communicate very well.

THIS SENTENCE MAY PROBABLY HAVE A MEANING

*Somebody wants you to **sell** their **car** for them because they have **gone** to **France**.*

We can add a few words:

SELL my **CAR** I've **GONE** to **FRANCE**

NO NEW INFORMATION JUST GRAMMATICALLY CORRECT

We can add MORE words:

But the information is basically the same:

content words

Will you **SELL** my **CAR** because I've **GONE** to **FRANCE.**

structure words

SO the 4 **key words** (sell, car, gone, France) are accentuated or **stressed**.

WHY IS IT IMPORTANT?

It adds "MUSIC" to the language. It is the **rhythm** of the English language. It changes the speed at which we speak (and listen to) the language.

The time between each stressed word is the same.



In our sentence, there is **1 syllable** between SELL and CAR and **3 syllables** between CAR and GONE.

But the **time** (t) between SELL and CAR and between CAR and GONE is the same.

We maintain a constant beat on the stressed words.

To do this, we say "my" more **slowly**, and "because I've" more **quickly**.

We change the speed of the small structure words so that the rhythm of the key content words stays the same.

The basic rules of sentence stress are:

1. **content words** are **stressed**
2. **structure words/ function words** are **unstressed**
3. the **time between stressed words** is always the **same**

CONTENT WORDS

Words Carrying the Meaning or Sense:	Examples:
Main Verbs	<i>buy, give, take, eat, employ</i>
Nouns	<i>chair, book, music, Mary</i>
Adjectives	<i>red, big, interesting, beautiful</i>
Adverbs	<i>quickly, loudly, never, always, now</i>
Negative Auxiliaries	<i>don't, can't, won't, shouldn't</i>
Possessive Pronouns	<i>mine, yours, her, his, ours, theirs</i>
Interrogatives	<i>what, who, why, where, when, how</i>

STRUCTURE WORDS

Words for Correct Grammar:	Examples:
Personal & Relative Pronouns	<i>I, you, we, he, whom, which</i>
Prepositions	<i>on, at, into, in</i>
Articles	<i>the, an, a</i>
Conjunctions	<i>and, but, because, or</i>
Auxiliary Verbs	<i>do, can, have to, must</i>
Possessive Adjectives	<i>my, your, her, his, our, their, its</i>
Expletive "THERE"	<i>there</i>

EXCEPTIONS!!!!

The rules above are for what is called "**neutral**" or normal stress.

But sometimes we can stress a word that would normally be only a structure word, for example to correct information. Look at the following dialogue:

"They've been to Mongolia, haven't they?"

"No, **THEY** haven't, but **WE** have."

Note also that when "be" is used as a main verb, it is usually unstressed—even though as a main verb it is also a content word.

Content words are stressed

Kids play ball.

The **kids play ball.**

The **kids are playing ball.**

The **kids are playing with the ball.**

The **kids have been playing with the ball.**

Just for fun, let's see what happens if we (incorrectly!) stress the function words and reduce the content words.

Partner 1

- "We'll arrive at the airport on Saturday at 9:46 PM. We'll meet you outside the baggage area. Don't forget to bring the car seat.

Partner 2

- "We'll arrive at the airport on Saturday at 9:46 PM. We'll meet you outside the baggage area. Don't forget to bring the car seat.

Three types of sentence-stress:

1. normal (or syntactical) sentence-stress
2. logical sentence-stress
3. emphatic sentence-stress

Normal Stress

Normal stress affects content words which convey the necessary information to the listener, eg: *We have **plenty** of **time**.*

Normal sentence-stress is used to arrange words into sentences or intonation groups phonetically.

If \Mary /comes | → let me \know. → If she /comes | → let me \know.

Logical sentence stress

The position of the last sentence-stress determines the place of the nucleus of the communicative centre. **By shifting** the position of the last stress we can change the place of the nucleus of the communicative centre,

eg: Nelly '**spoke** to him yesterday.

Nelly 'spoke to him yesterday.

Nelly 'spoke to **him** yesterday.

Logically different messages are expressed in the given sentences. Each shifting of the stress modifies the meaning of the sentence.

Most human utterances express not only the speaker's thoughts, but also his feelings and attitudes to reality and to the contents of the sentence. Both normal and logical stresses can be unemphatic or emphatic.

Emphatic sentence stress

Tina gave the book to \ANN

I said that **MAX** gave the book to Ann.

HE gave her the book.

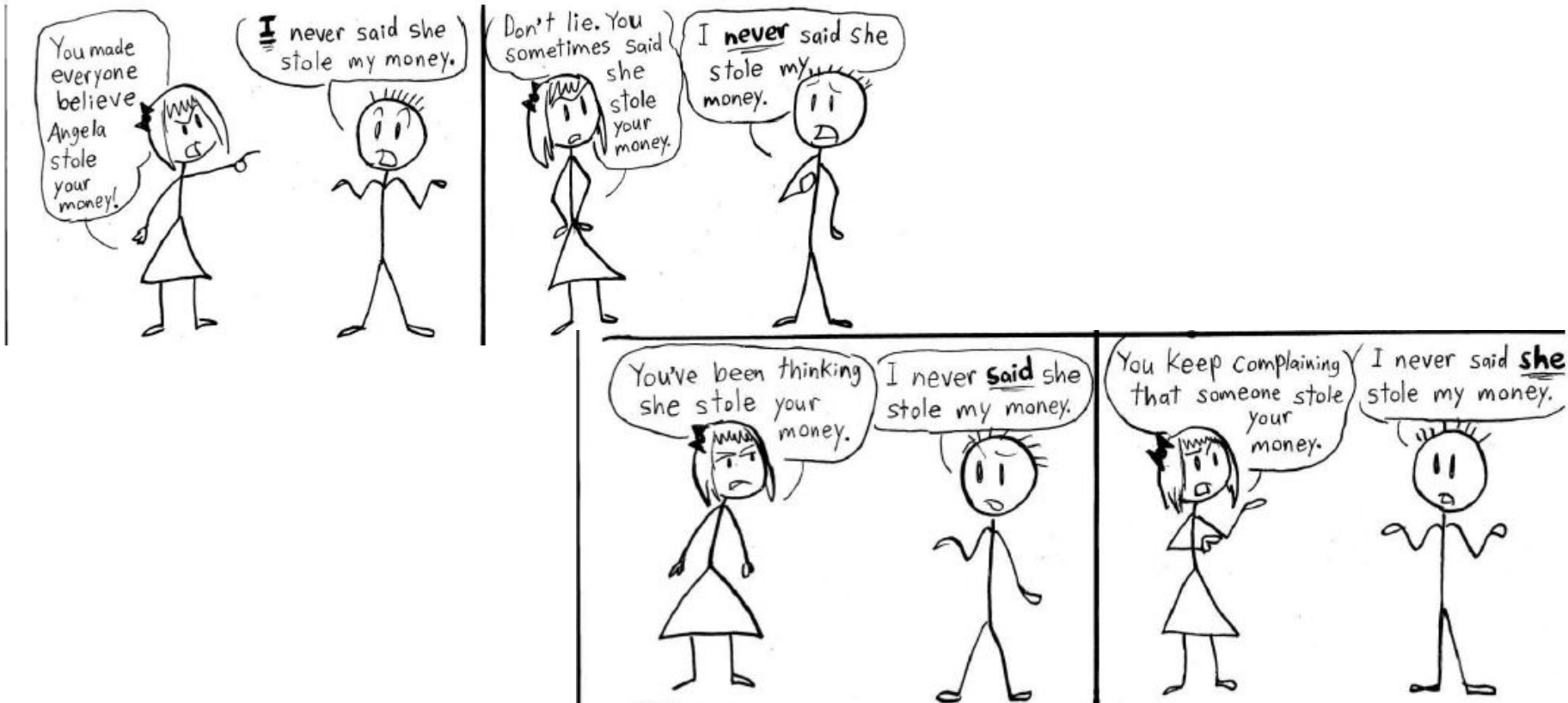
- Emphatic stress increases the effort of expression
- It may strengthen the stressed word making it still more prominent.
- Emphatic stress manifests itself mainly on the High Fall or the Rise-Fall of the nuclear syllable.
- Emphatic stress is a powerful expressive means.
- It is the highest degree of logical and emotional prominence of words in a phrase.

Sentence Stress Illustrated:

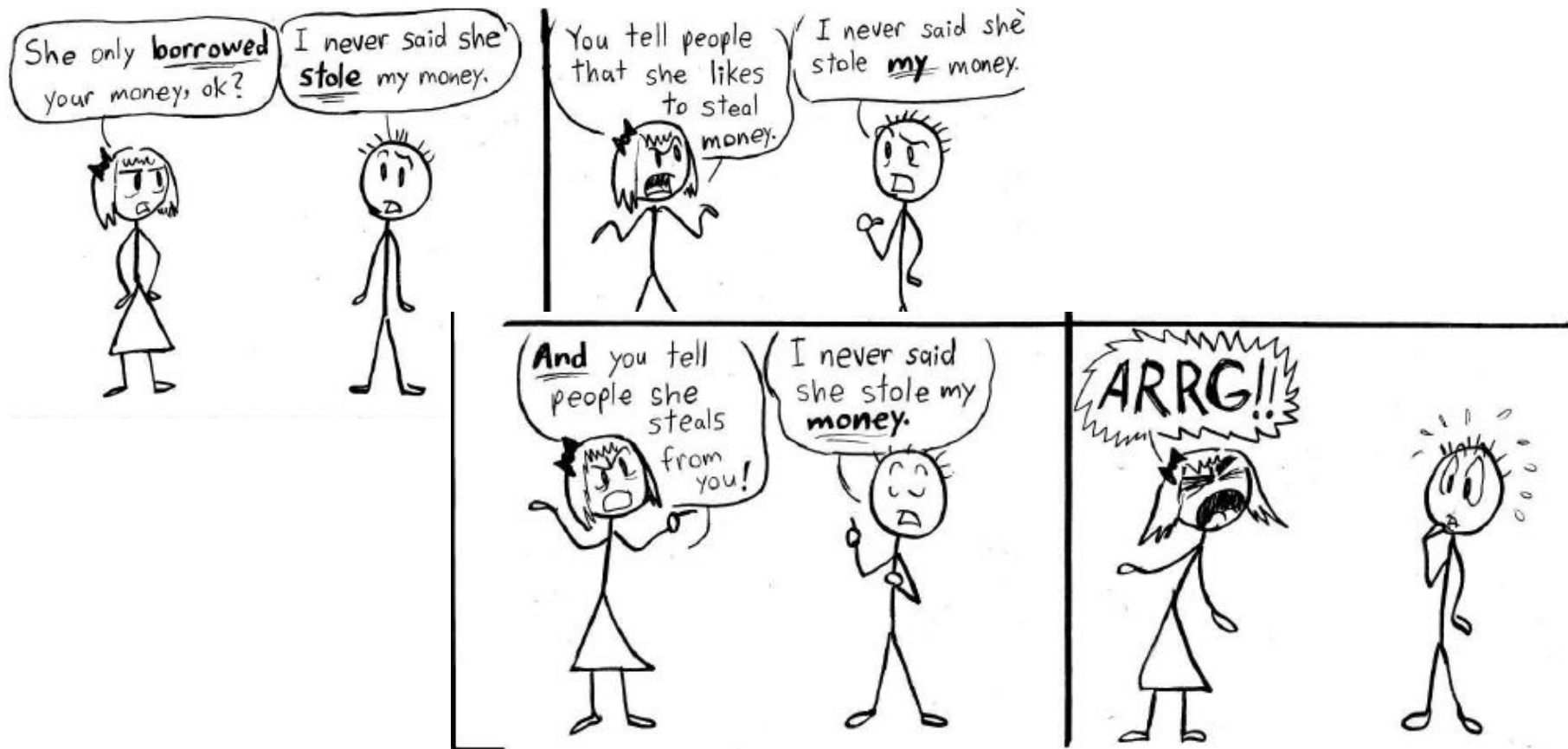
Sentences	Meaning
1. <i>I don't think she would write it.</i>	I don't think that, but someone else does.
2. <i>I DON'T think she will listen to him.</i>	It is not true that I think that.
3. <i>I don't THINK she will listen to him.</i>	I don't think that, I know that. Or: I don't think that, but I could be wrong.
4. <i>I don't think SHE will listen to him.</i>	I think that someone other than her will listen to him.
5. <i>I don't think she WILL listen to him.</i>	I think that she is will not be willing or agreeable to listening to him.
6. <i>I don't think she will LISTEN to him.</i>	Instead of listening, she might talk to him.
7. <i>I don't think she will listen to HIM.</i>	I think that she will listen to someone else than him

Sentence Stress Used at Its Best: 1 sentence, 7 different meanings!

By David Kecine. www.wordstress.info



Sentence Stress Used at Its Best: 1 sentence, 7 different meanings!



Sentence-level Stress

- A conversation in a coffee shop:

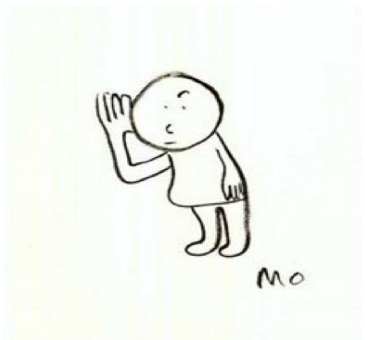
These sentences have different meanings.

Can you guess what the problem is in each case?

- 1. I asked for **two** large coffees to go.
(Problem: The server gave me only one.)
- 2. I asked for two **large** coffees to go.
- 3. I asked for two large **coffees** to go.
- 4. I asked for two large coffees **to go**.

SYLLABLE-TIMED VS. STRESS-TIMED

- Many languages are “syllable-timed”-- every syllable gets more or less the same stress or emphasis.
- ed u ca ti on
- pa pa



- BUT NOT ENGLISH. . .
- English is a “stress-timed” language.
- The rhythm is based only on stressed words and syllables, not all syllables. In other words, the “beat” is based on which words/syllables are stressed.
- A stressed syllable gets much more time than an unstressed one. And unstressed syllables are reduced.
- ed u CA tion
- PA pa

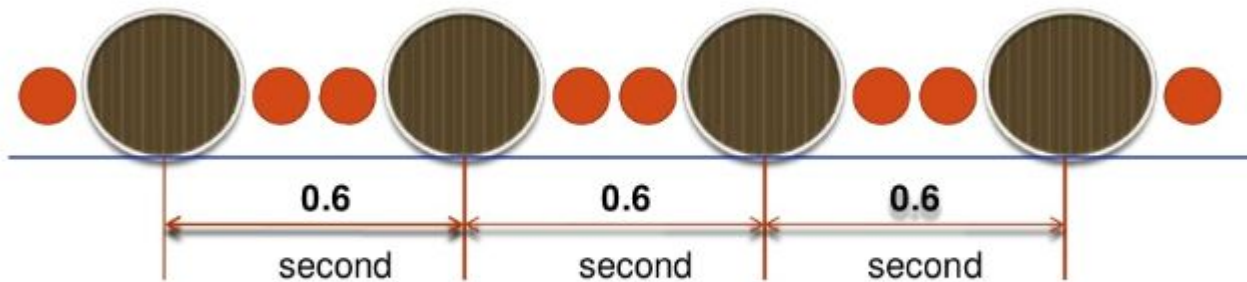
ENGLISH AS A STRESSED-TIME LANGUAGE

- English is a stress-timed language, which has absolute patterns of rhythm. In other words, **approximately every 0.6 seconds a stressed syllable must occur.**

This syllables may follow the variety of patterns that affect the length of the stressed and unstressed syllables, but **the length of time required to pronounce the various sentences is the same.**

PATTERNS OF ENGLISH AS STRESSED-TIMED LANGUAGE

- a. English, typically, has a predetermined rhythm, and the syllables seem to scramble to accommodate this beat. The rhythm requires a major stressed syllable every 0.6 seconds, and there are normally one or two unstressed syllables near each major syllable:



The Rhythm of a Typical English Sentence

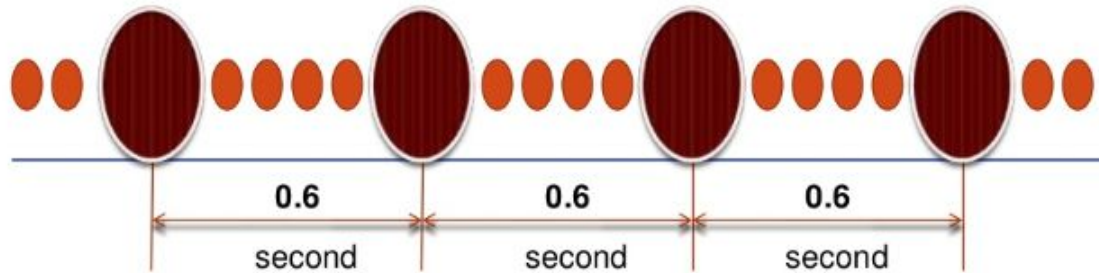
Example:

The beautiful lady has talked to my brother.

[ðə 'bju:tɪfl 'leɪdi hæz 'tɔ:kɪ tə maɪ 'brʌðə(r)]

PATTERNS OF ENGLISH AS STRESSED-TIMED LANGUAGE

- b. The rhythm is maintained (kept in existence) by the stress syllables. If there are several unstressed syllables around the stressed syllables, its duration is shortened, and the unstressed syllables must be glided over very rapidly:



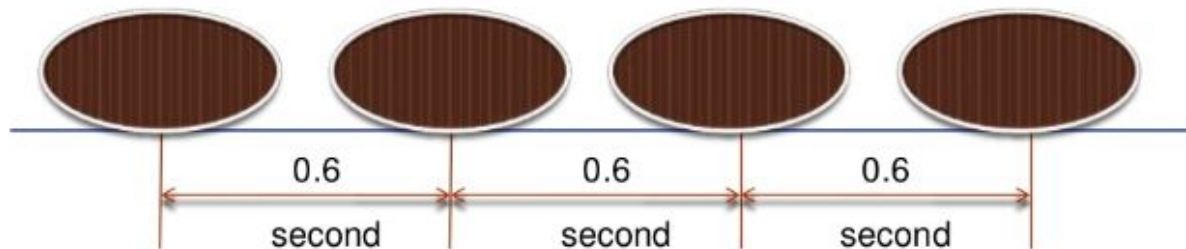
The Rhythm with Several Unstressed Syllables

Example:

Children should not be allowed to play alone near a congested street

[ˈtʃɪldrən ʃəd nɒt bi əˈlaʊd tə pleɪ ələʊn ˈnɪə(r) ə kɒndʒɛstɪd ˈstri:t]

- c. If there are no unstressed syllables nearby, the stressed syllables are naturally lengthened in order to fill the spaces of 0.6 second intervals:



The Rhythm with No Unstressed Syllables

Example:

Go to bed now!

[ˈgəʊ ˈtuː ˈbed ˈnaʊ]

RHYTHMIC GROUP AS THE BASIC UNIT OF RHYTHM

It's a speech segment containing a stressed syllable and unstressed syllables attached to it.

The stressed syllable is the **nucleus** of the group. There are as many rhythmic units in an utterance as there are stressed syllables in it. The smallest rhythmic unit is a rhythmic group, which contains a stressed syllable with preceding or /and following unstressed syllables attached to it

The unstressed syllables are **clitics**

The unstressed syllables preceding the stressed with which they are grouped are called **PROCLITICS**, those following the stressed syllable are called -
ENCLITICS

He rose without a word | searched for Tom Evance's card,| handed it to her

{he} rose is a proclitic



handed {it} is an enclitic



{to} is a proclitic to the word {her}

{without a} is a proclitic to {word}

RHYTHMIC GROUP AS THE BASIC UNIT OF RHYTHM

There are **two alternative views** among phoneticians concerning the grouping of stressed and unstressed syllables.

According to the **first point of view** the grouping is based on the **semantic principle**: the unstressed syllables tend to be drawn either to the stressed syllable of the same word or to the lexical unit with which they are semantically connected:

EXAMPLE

They decided | to go | to the country | for the weekend.

RHYTHMIC GROUP AS THE BASIC UNIT OF RHYTHM

According to the other point of view the unstressed syllables tend to join the **preceding stressed syllable**.

This theory is called **enclitic**. According to the enclitic principle the same phrase will be divided into rhythmic groups in the following way:

EXAMPLE

They decided to | go to the | country for the | weekend.

Summary

The enclitic tendency is considered to be more **typical of English**, though experimental data show that the type of division into rhythmic groups depends on *the tempo and style of speech*.

The **enclitic** tendency is observed in **rapid colloquial speech**, while in **careful slow, more explicit formal speech** the **semantic tendency** prevails.

Functions of rhythm

- **to organise** the segments of speech: smaller units are organised into smaller one
- **integration and delimitation**: integration of the text and its parts and marking the boundaries between parts of the text
- **aesthetic** : rhythmically organized speech is easily perceived produces a certain emotional effect on human beings.
- **pragmatic**: makes discourse expressive and thus increase its pragmatic potential (public speaking)

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