The tip of the tongue phenomenon with elderly

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As early as in Dickens

'The name of those fabulos animals who used to sing on the water, has quite escaped me.'

Mr. George Chuzzlewit suggested 'Swans'.

'No,' said he, 'Not swans. Very like swans, too. Thank you.'

George…propounded 'Oysters'.

'No,' said he 'not oysters. But by no means unlike oysters; a very excellent idea, thank you my dear sir, very much. Wait! Sirens, of course.'

(Charles Dickens: *Martin Chuzzlewit*)

Introduction
The process of the mental retrieval

determination of the concept

lemma level
(lexical selection)
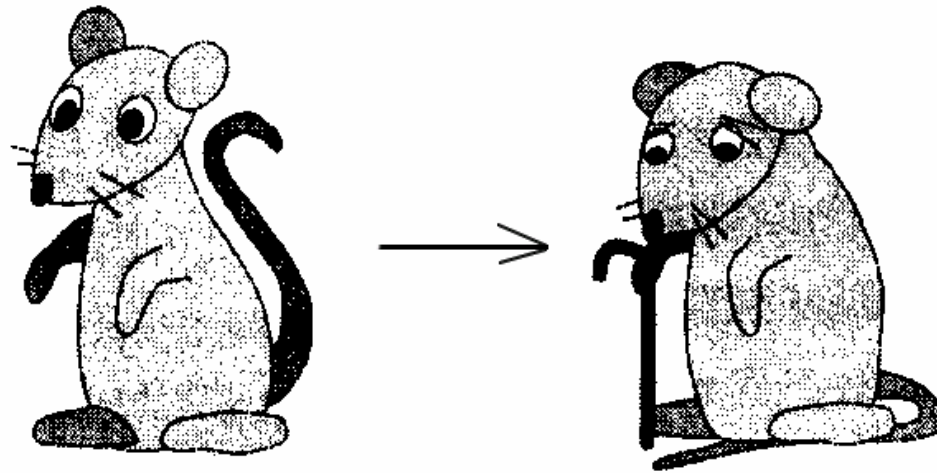
mental lexicon

lexeme level
(phonological encoding)

Introduction
The tip of the tongue phenomenon

Introduction
Biological changes with elderly

Method and material

❖50 definitions of words

(nouns, verbs, adjectives, names of famous persons)

*with Indians: the pulled off head-skin of the enemy as a triumphal badge (***scalp***)*

he's an Actor of the Nation, he played a role in „Szomszédok" and the leading role in the serial called the „Tenkes kapitánya"

(Ferenc Zenthe)

❖10 elderly persons (average age: 73, 66-84 years)

❖control group: 10 young persons (average age: 27, 23-37 years)

Hypotheses

❖ Old subjects will be able to activate less words than the young ones.

❖ Subjects will use different ways to find the target words.

❖ The word finding errors are caused mostly by phonetic similarity rather than by semantic one.

❖ The tip of the tongue phenomenon will be more frequent with the old speakers than with the young ones.

❖ Reaction times will be longer with elderly.

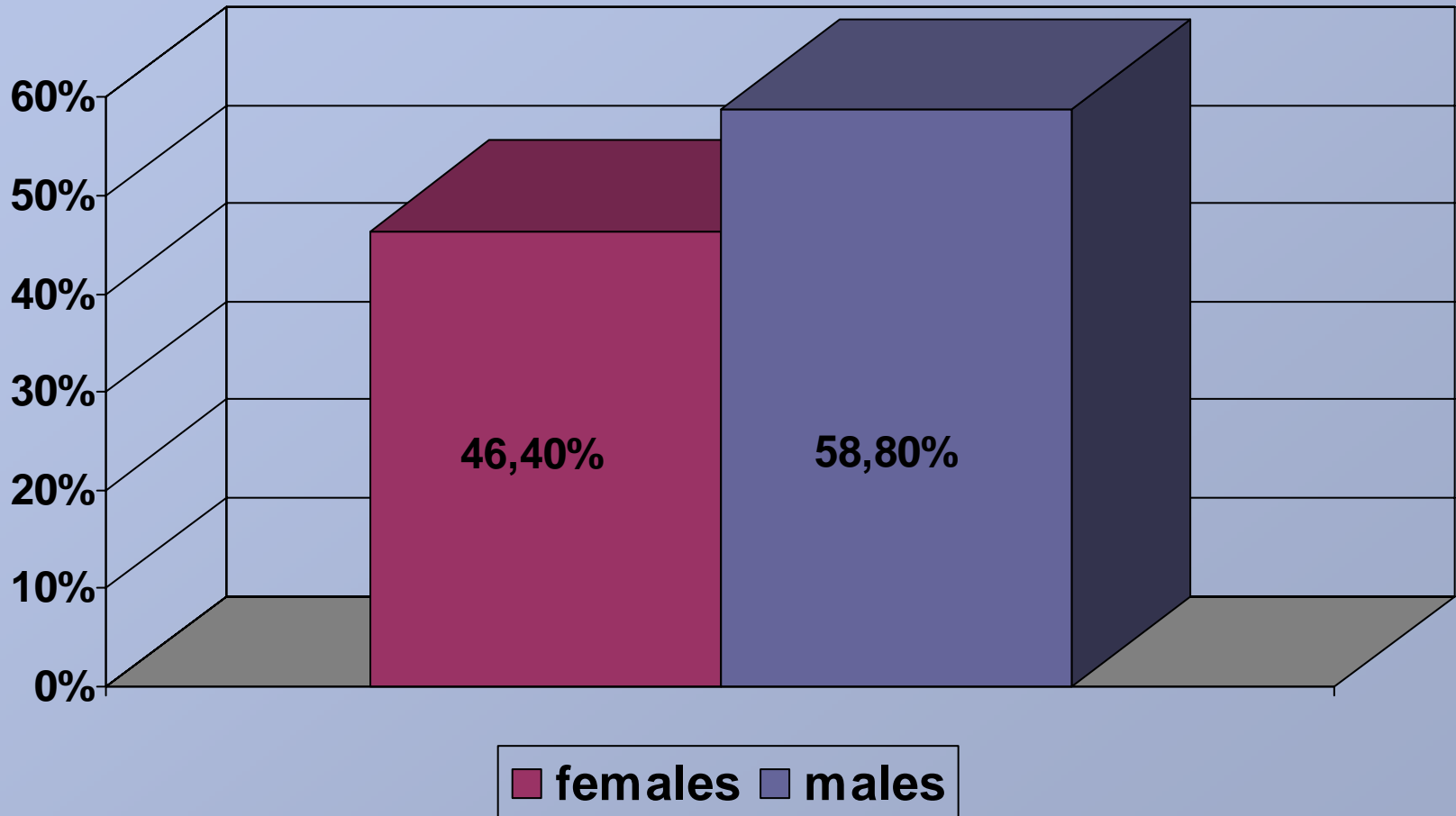❖ Activating nouns will take all subjects shorter time than activating verbs.
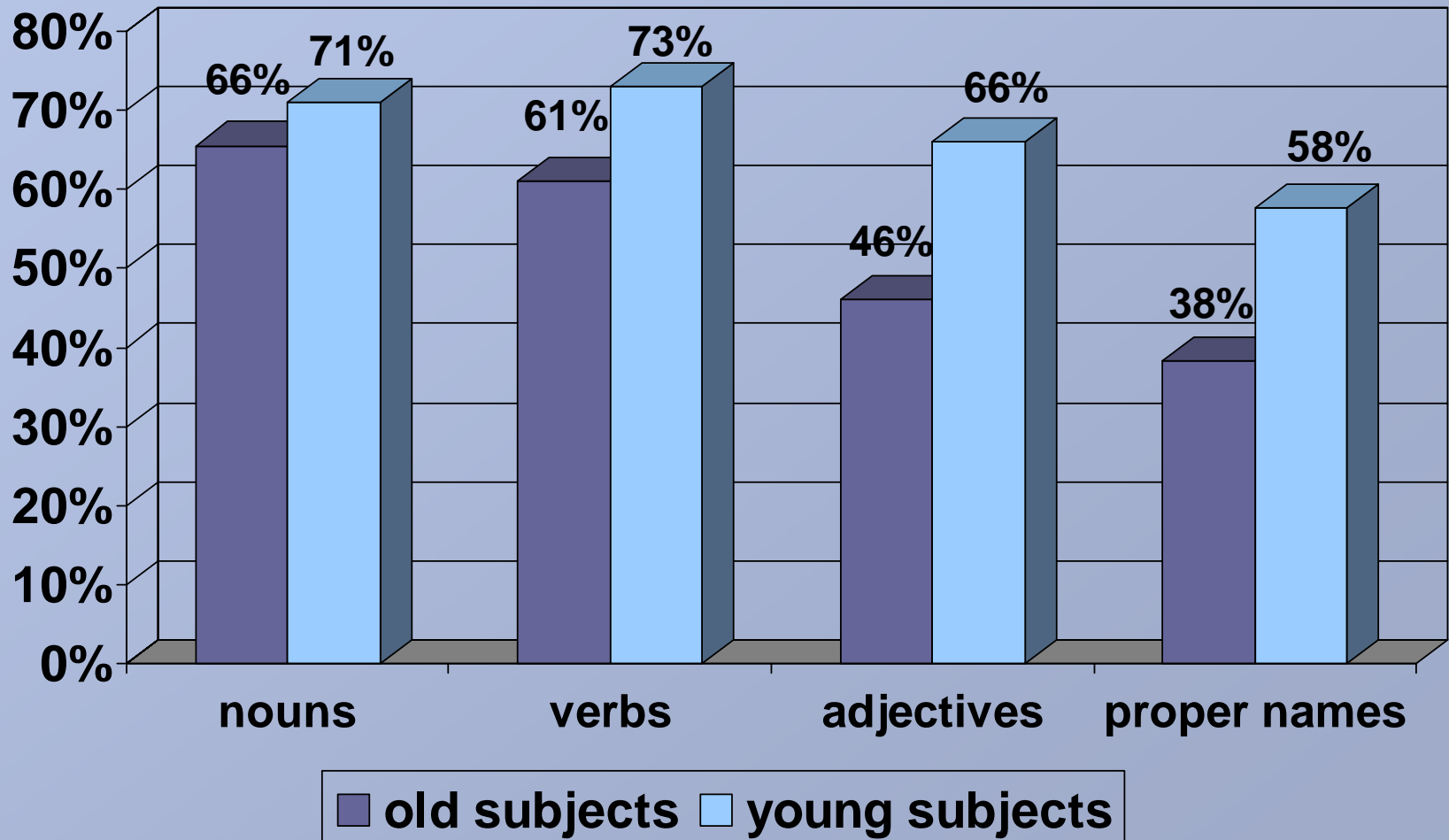
Results
Successful activations of the two groups
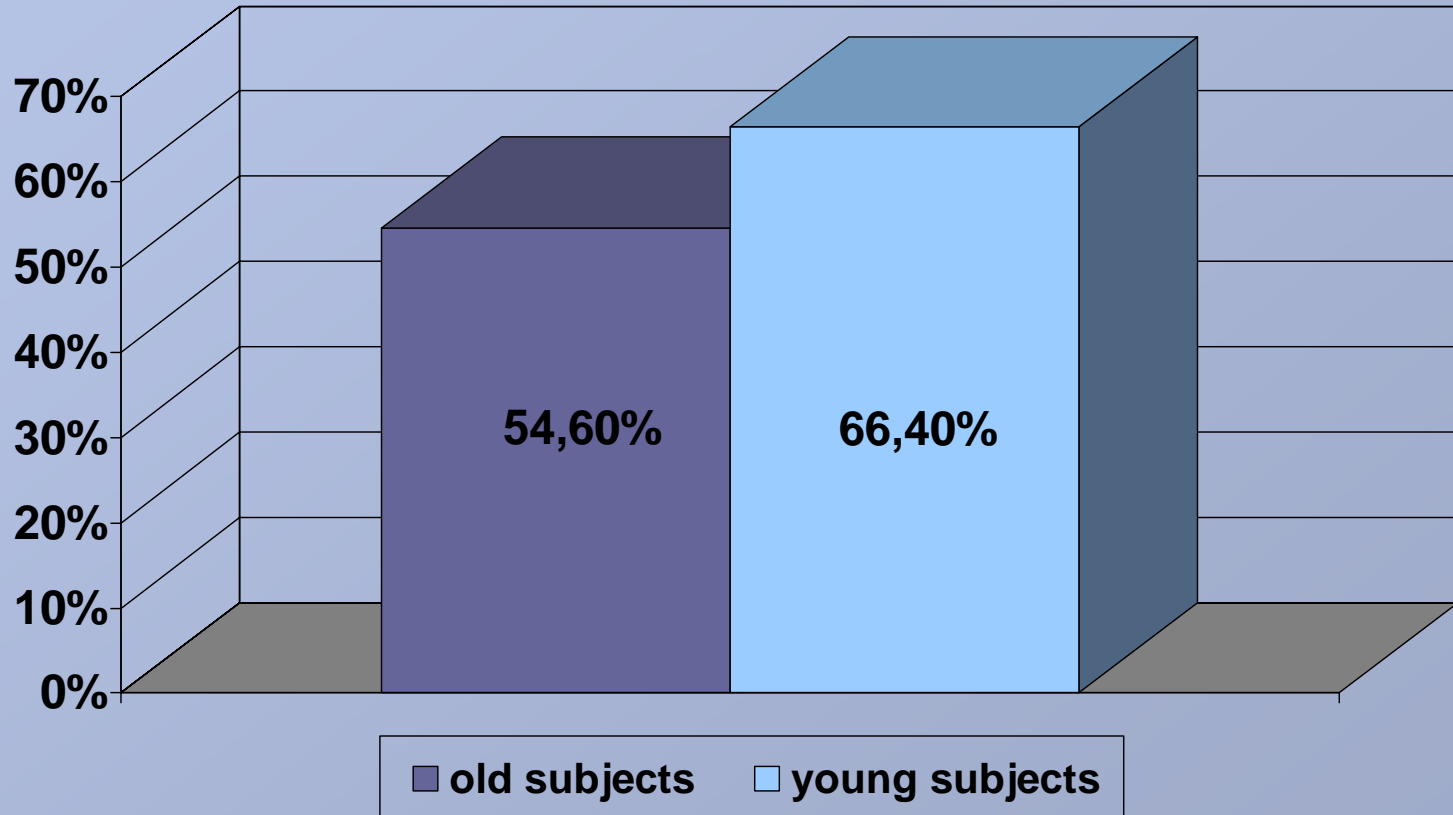
Results
Successful activations of the old subjects
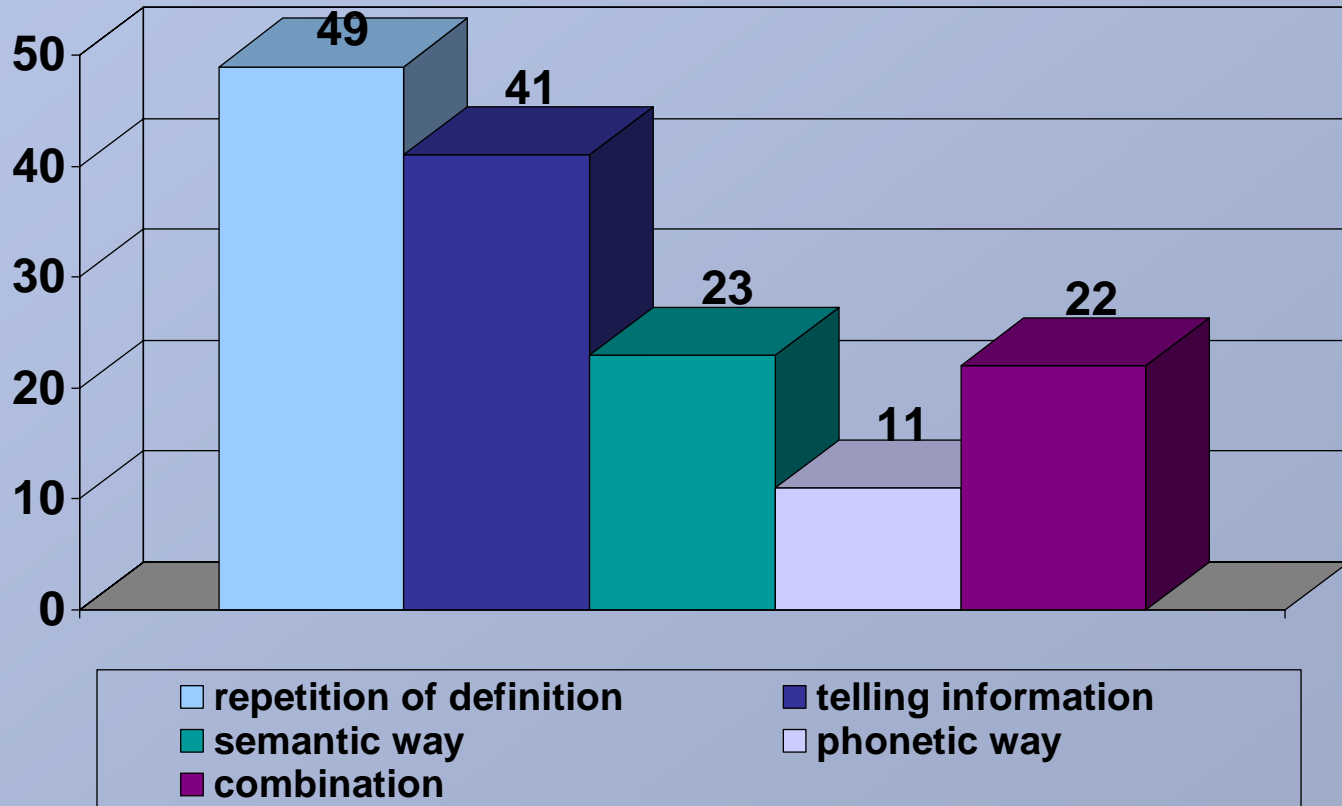

46,40%   58,80%

■ females ■ males

Results
Successful activations of word classes

Results
Ways of searching in the mental lexicon

Results
Occurrences of word finding errors in the elderly group

❖average 3.7 errors per persons
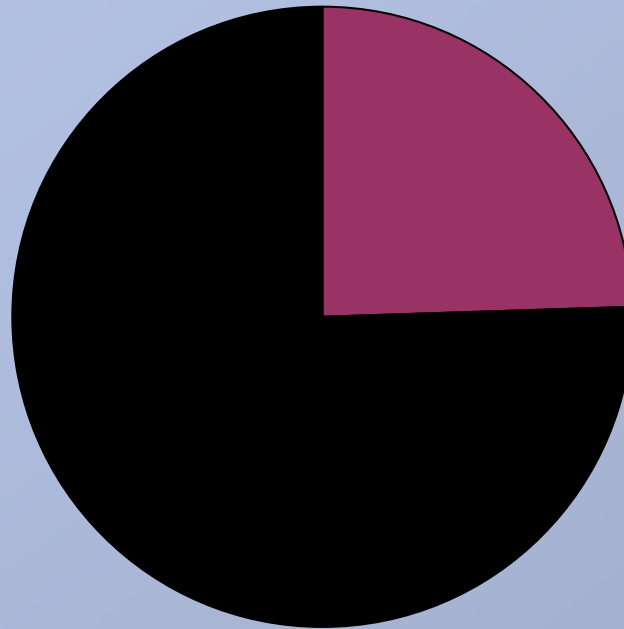
❖range: 1-8 errors

Nem drog, hanem…(doppingol)

Not drugs, but… (dope)

Nem horoszkóp, nem sztetoszkóp…(kaleidoszkóp)

Not horoscope, not stethoscope…(kaleidoscope)

Results
Types of word finding errors

■ phonetic ■ semantic

Results
The tip of the tongue phenomenon

❖Average with elderly: 2.1 per persons (0-5)

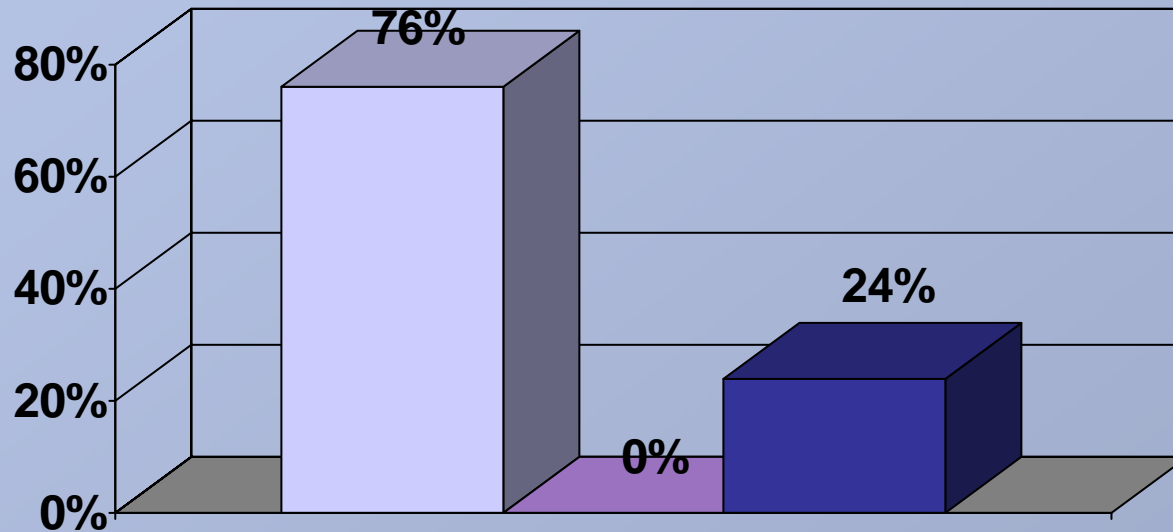❖Average with young: 0.7 per persons (0-2)

asz... aszt... asztro... lógia

(as…ast…astro…logy)

kaleiszkóp... doszkóp... kaleidoszkóp
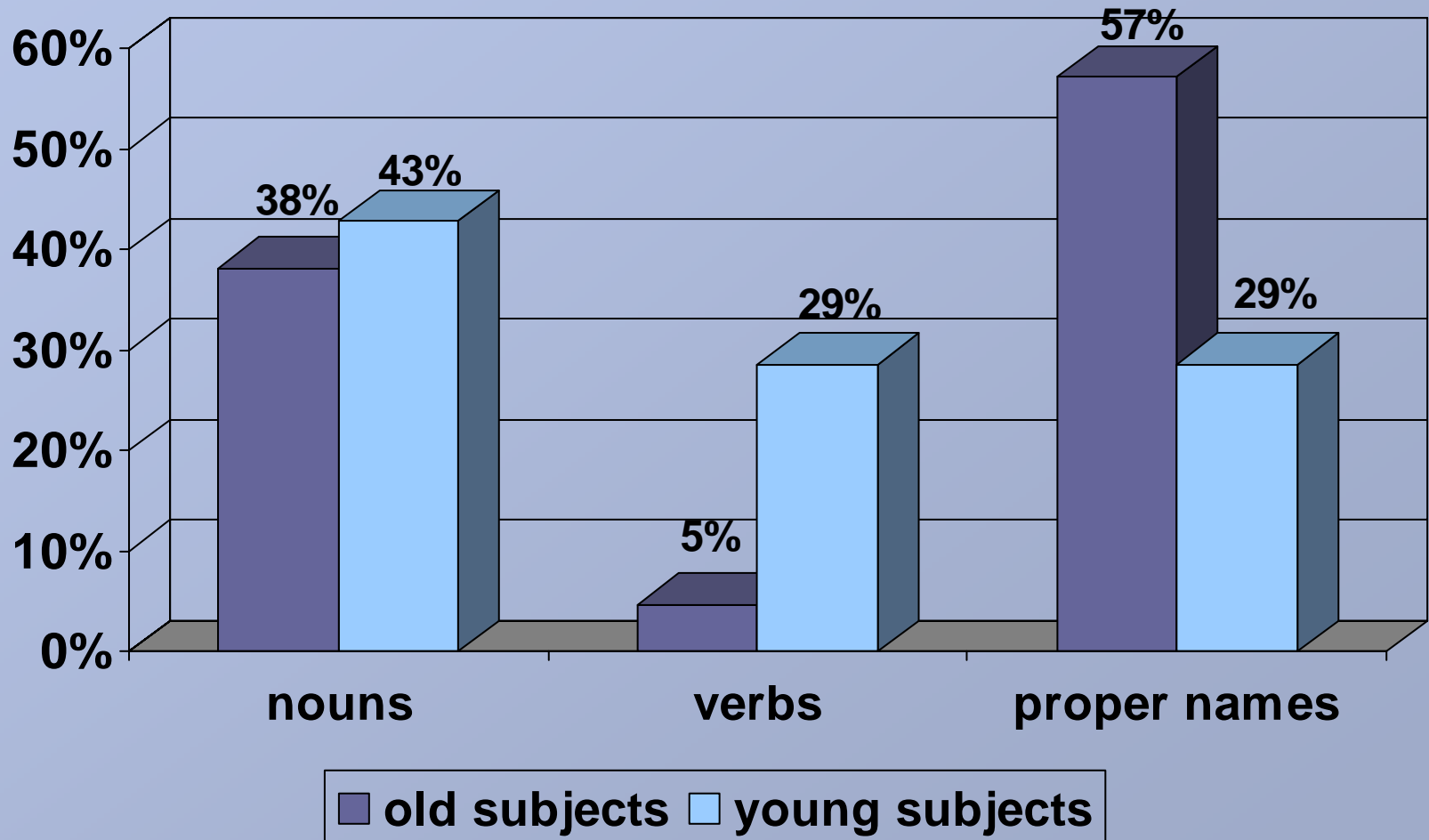
(kaleiscope… doscope…kaleidoscope)

Results
TOT: The successfully activated segments of the words

Results
Occurrences of TOT according to word classes

(Bar chart showing occurrences of TOT by word class)

- **nouns**: old subjects 38%, young subjects 43%
- **verbs**: old subjects 5%, young subjects 29%
- **proper names**: old subjects 57%, young subjects 29%

Legend: ☐ old subjects ☐ young subjects

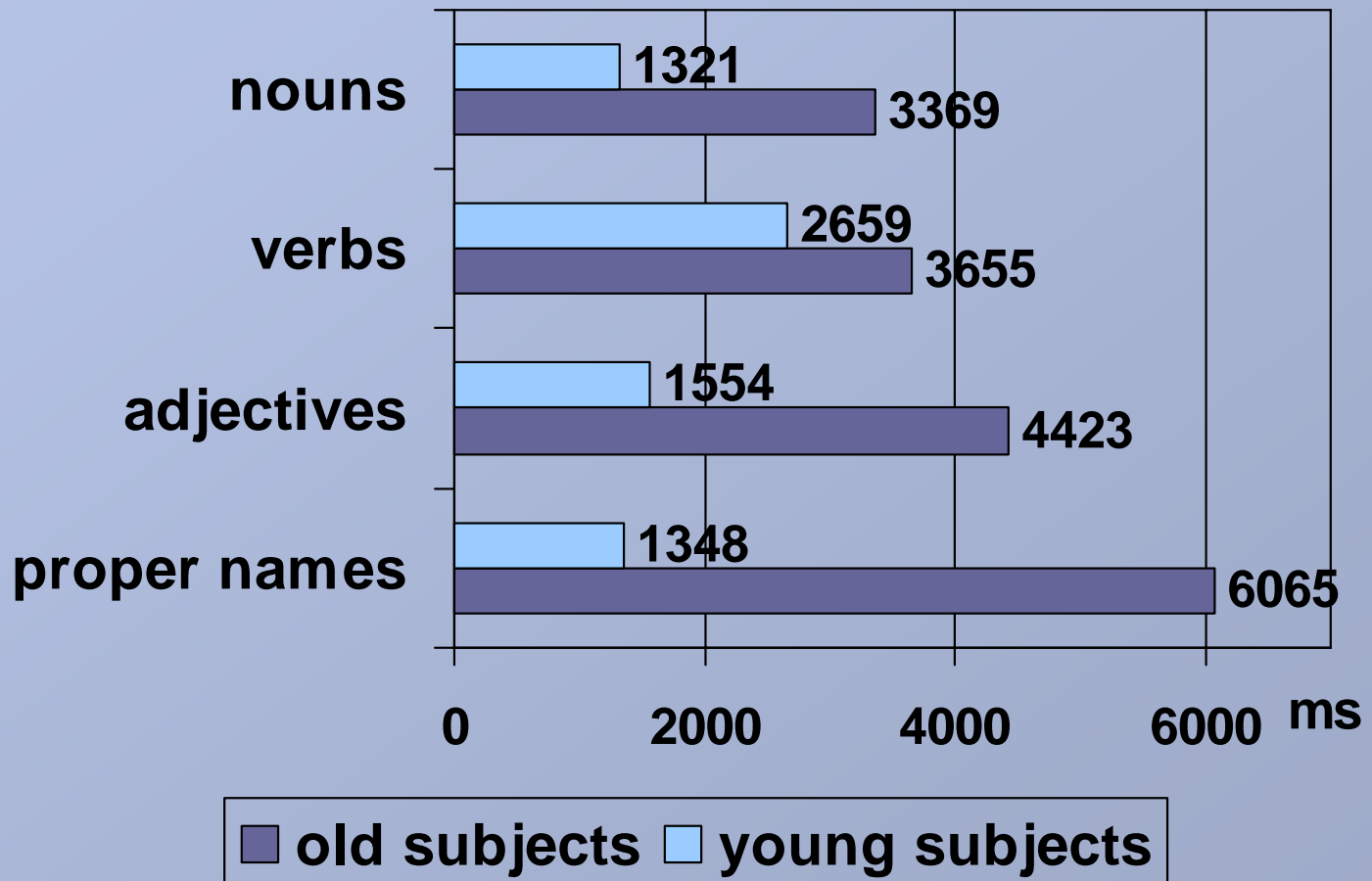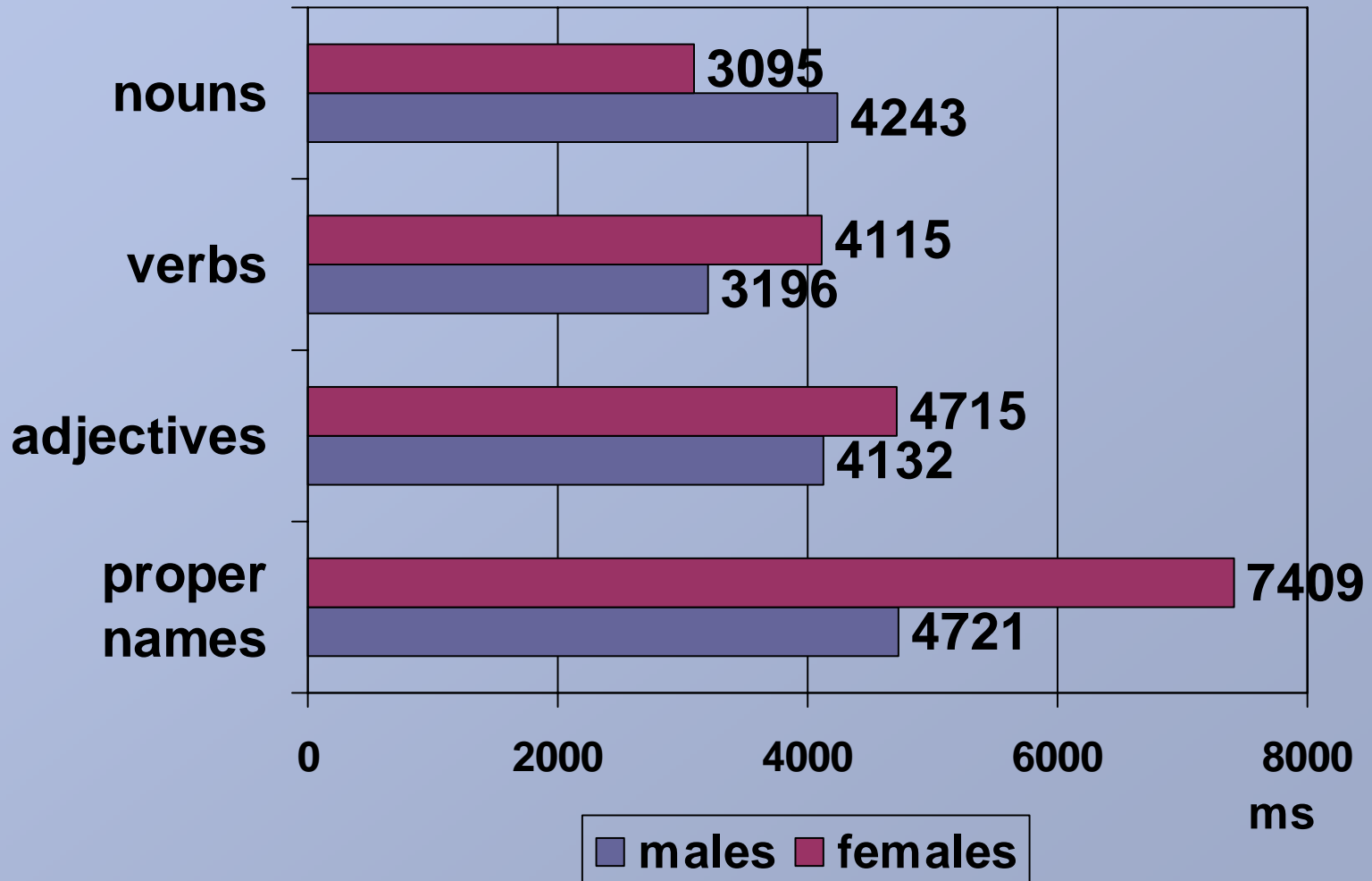# Results
Reaction times of the two groups
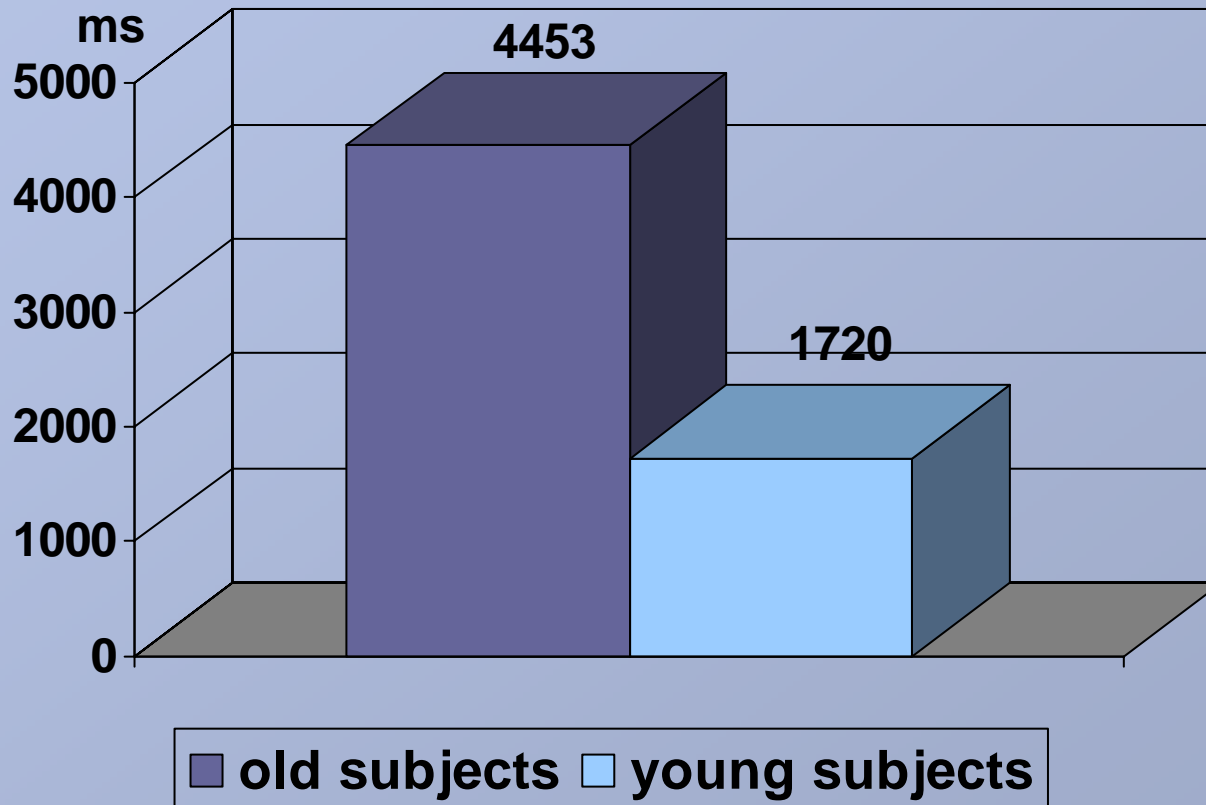
Results
Reaction times according to word classes

Results
Reaction times of old males and old females

	males	females
nouns	4243	3095
verbs	3196	4115
adjectives	4132	4715
proper names	4721	7409

Conclusions

❖ Biological changes of the elderly and changes in the lexical retrieval:

less successful activations

more word finding errors and more frequent TOT

longer reaction times

differences between accessing word classes

❖ Various ways to solve the problems in the lexical processes

❖ Differences between the sexes

Open questions

❖ How do silent pauses depend on problems in the lexical retrieval? Are they longer in case of word finding errors or in case of the tip of the tongue phenomenon?

❖ Are there any differences between the sexes in the function of the lexical processes, independent of age?

❖ Which factor has the greatest effect on the lexical retrieval: age, qualification, number of active working years, etc.?

Thank you for your attention!

Megjelent: Selected papers of 8th Summer School of Psycholinguistics, Lengyel, Zsolt–Navracsics, Judit (eds.), Veszprém, 2005.