

APPROACHES TO LANGUAGE

Lecture 7:

Adult language:
planning and production



Overview

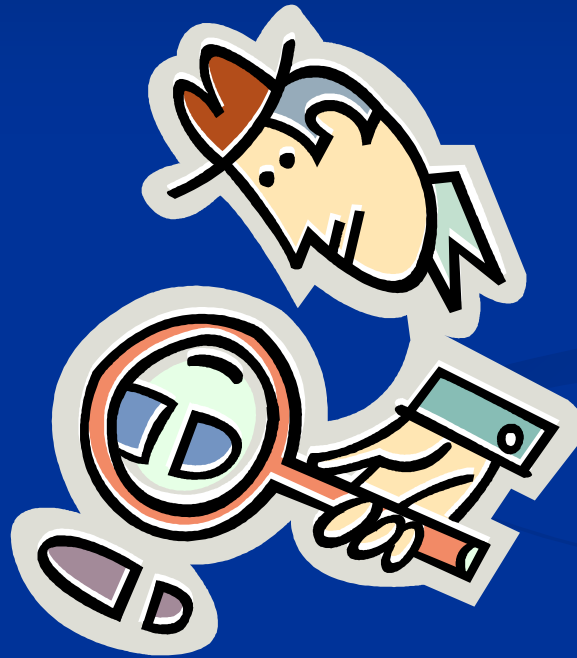
- Language planning – formulating a message
- Language production – articulating the message
- Methods used to study this.



Harley (2001: 349)

“There has been less research on language production than on language comprehension...The investigation of production is perceived to be more difficult than the investigation of comprehension.”

Evidence?



Indirect Naturalistic Evidence

- **Pauses in spontaneous speech** – identify points at which pauses occur – may give clues as to the planning of syntactic structure
- **Speech errors:**
 - ‘typical’ subjects – slips of the tongue (e.g. wee-freel – rather than free wheel)/ ‘TOT’
 - ‘atypical’ subjects – aphasic data e.g. ‘Name David’ rather than ‘My name is David’

Pausing

Naturally displayed evidence

-verbal

+ verbal

- phonation

+ phonation

(Breath pause) (5%) Filled pause (33-50%)

Silent pause

(er, um, uh etc.)

Hesitation phenomena

What pauses tell us:

(Aitchison 2008:236)

Not like this:

Plan	Utter	Plan	Utter
Clause A	Clause A	Clause B	Clause B

More like this:

Plan clause A	Plan clause B
Utter clause A	Utter clause B

Pause/fluency cycles

Carroll, D. (1999). *Psychology of Language*. 3rd edition.
Pacific Grove, CA: Brooks/Cole

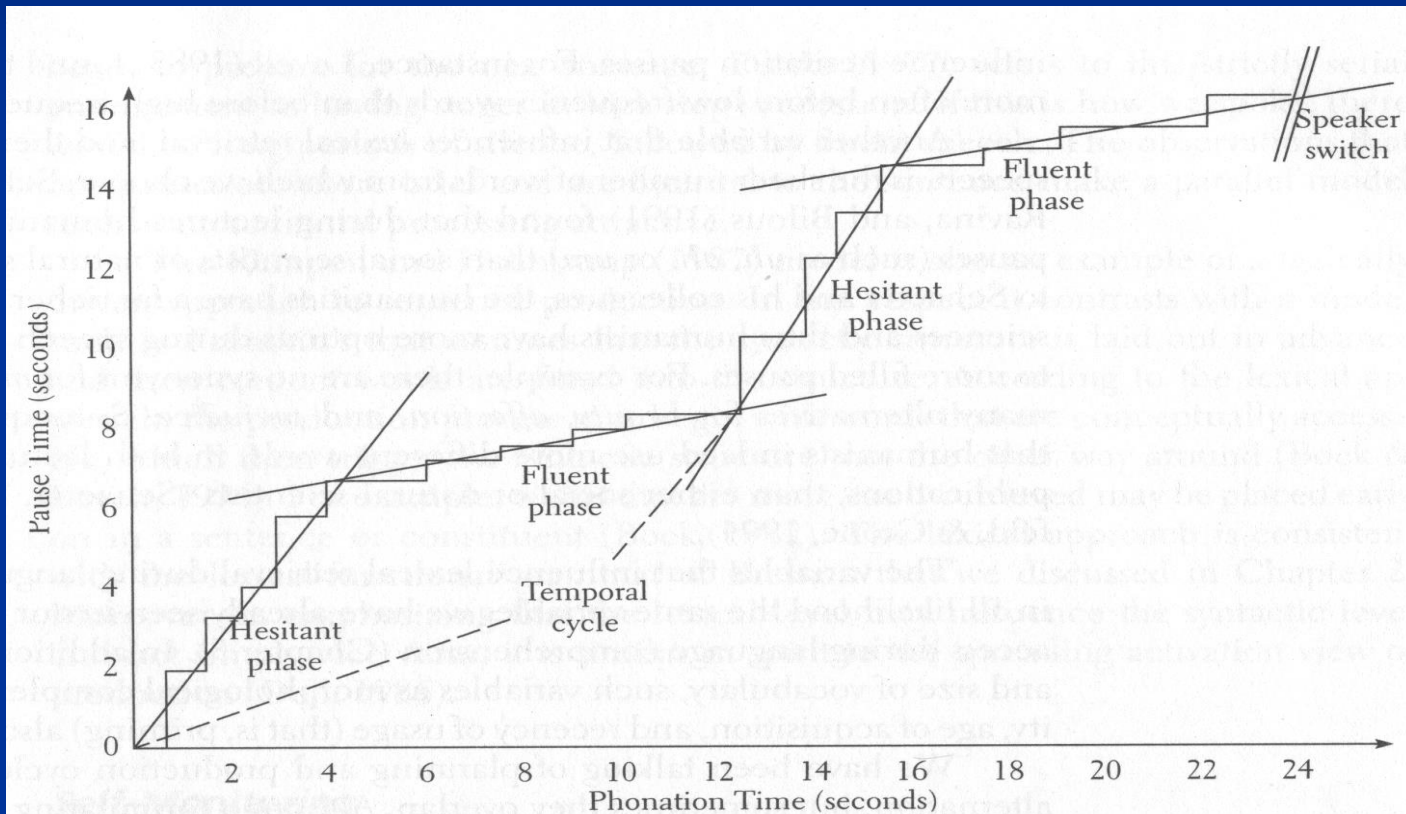
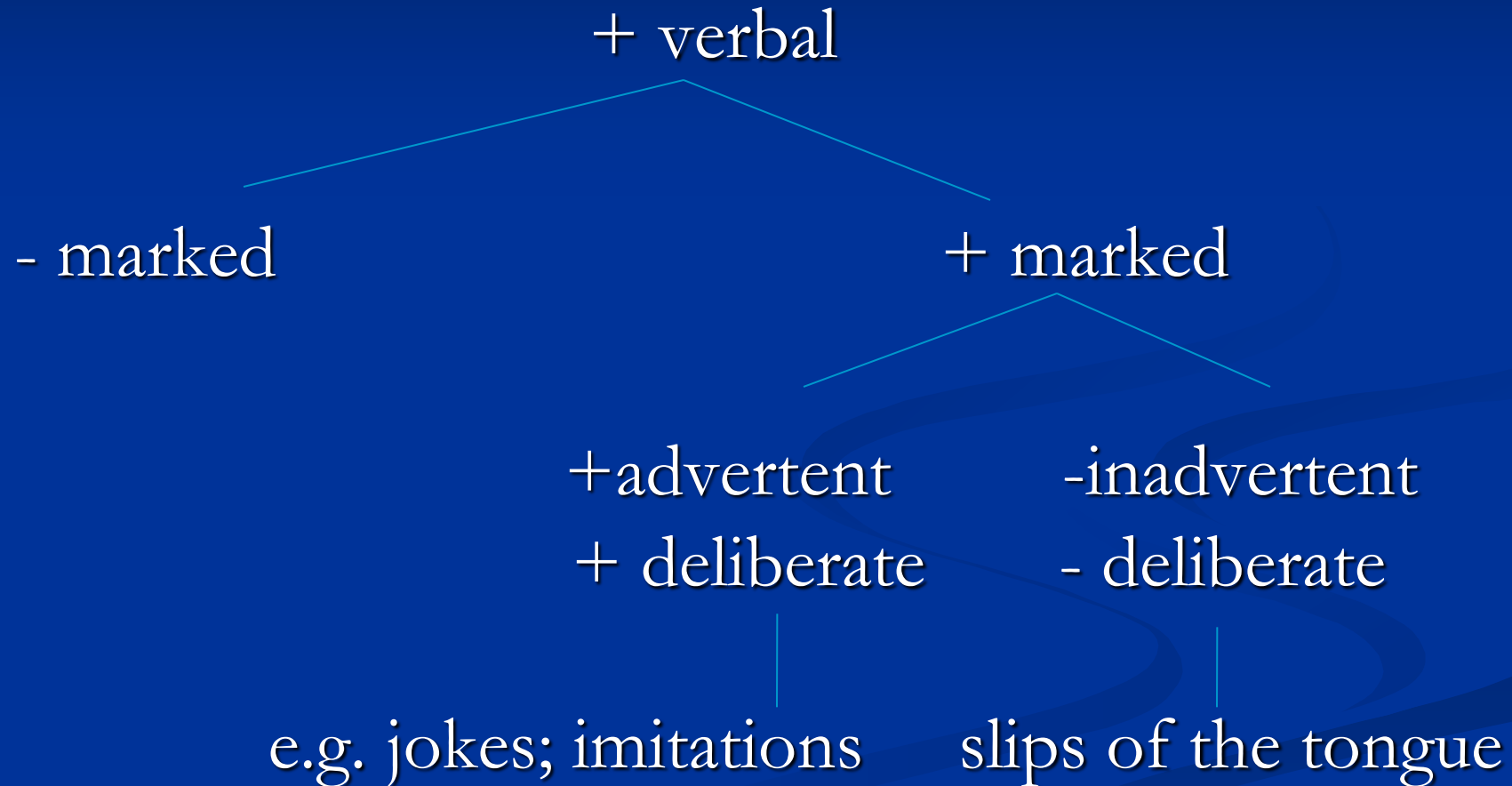


Figure 8-1. Sequential patterns within a sample of spontaneous speech. (Based on *Talk: An Analysis of Speech and Non-Verbal Behavior in Conversation*, by G. Beattie, Open University Press, 1983.)

Speech Errors: Slips of the Tongue



Types of slips

1. Wrong **selection** of item,
e.g. How are we getting to the **chair**? (Did you mean Church?)
2. Correct choice of word/item but the word/item has been incorrectly **assembled**:
The **indection** was in his arm (“injection”)



Selection Errors

1. **Semantic errors** (meaning errors)
e.g. Are we going to the party **yesterday**? I mean tomorrow.
2. **Malapropisms** (similar sound errors)
e.g. **Nubile** 'phone
3. **Both meaning + sound errors:**
e.g. 'You keep new born chicks in an **incinerator**'
(Aitchison:243)
4. **Blends (part of one word+ part of another word)**
e.g. splinters/blisters → splisters, edited/annotated → editated
(Fromkin et al, pg. 457)

Assemblage Errors: affect sounds, syllables & words

1. Transpositions (/exchanges) -

e.g.

Sounds ('spoonerisms'): You have **t**asted the whole **w**orm (You have wasted the whole term).

Syllables: I am run**ly** quick**ing**
(I am running quickly)

Words: I can see the **argument** of the **logic**
(I can see the logic of the argument)

2. Anticipations (sound anticipations = common assemblage error): e.g.

- This is a **cl**lobal crisis ('global' crisis)
- I'd like you to **book** the review ('I mean I'd like you to review the book');

* sometimes difficult to determine if transposition or anticipation

3. Repetitions (perseverations):

e.g. I went to the book the book store

He **left** at **heft**half past eight

Common selection & assemblage errors

- **Selection errors** = semantic errors + malapropisms
- **Assemblage errors** = transpositions + anticipations
- Linguistic units most effected = words + phonemes

Classification of error according to linguistic unit - review:

■ Single sound Errors

Anticipation:

- of a sound that comes later

e.g. The Golly Green Giant

Exchange/ transposition:

- of two initial sounds

e.g. don't forget the costal
pode

■ Cluster Errors

Exchange/ transposition:

e.g. trying floops
(“flying troops”)

Word Errors:

Exchange/transposition

e.g. As you reap, Sarah, so you will sow

Shift

e.g. I don't know what you could else do

Substitution

e.g. Put it in the oven at low speed

Transposition/exchange+ stranding

e.g. ‘you’ll have to square it facely’

Blend

e.g. ‘would you prefer meef?’

Phrases/Complex Errors

■ *Blend*

‘I’ve thought about this a lot deal’

■ *Complex – a combination of errors*

‘Are you sending to try me a massage?’

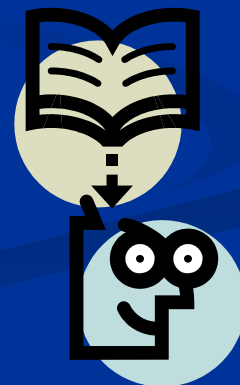
- Are you trying to send me a message?
 - exchange (try & send)
 - strand (‘-ing’)
 - substitution (message/massage)



- Speech errors tend to occur in predictable ways
- Known as the **lawful nature of speech errors**
- E.g., sound exchanges do not violate English phonology
 - “spable toon” is likely for “table spoon”
 - “sable tpoon” is not

What can we learn from these errors?

1. Decipher the units of planning – the size of linguistic material prepared in advance of utterance;
2. Process of word selection;
3. Suggest how words & syntax are planned & assembled.



I Unit of Planning

- Appears to be a ‘tone group’ = a phonemic clause (short utterance consisting of a single intonation contour),

e.g. What’s your name?;
I ate fish.

- Each tone group is planned & executed as a whole.

Evidence

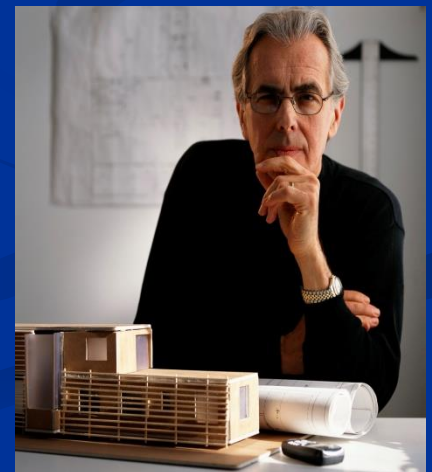
- (i) **slips of the tongue** occur within a single tone unit, e.g. We'll get a 'plane...a train to town'
- (ii) **word selection** – 'tip of the tongue' experiment and phenomena:
 - semantically* – words of similar meaning are associated in our mental lexicon (consequences = e.g. malapropisms);
 - phonetically* – seem to activate similar sounding words before narrowing down our selection.

Mechanism of word selection

1. Begin with an idea of a word & then find the phonetic form.
2. ‘Spreading activation’ – similar words would be activated – this would spread from word to word e.g. trying to say ‘blue’ might activate all other colours + words beginning with ‘bl’ ‘black’ ‘blame’ etc.
Speaker has to select word + suppress words not targetted – sometimes this goes wrong!

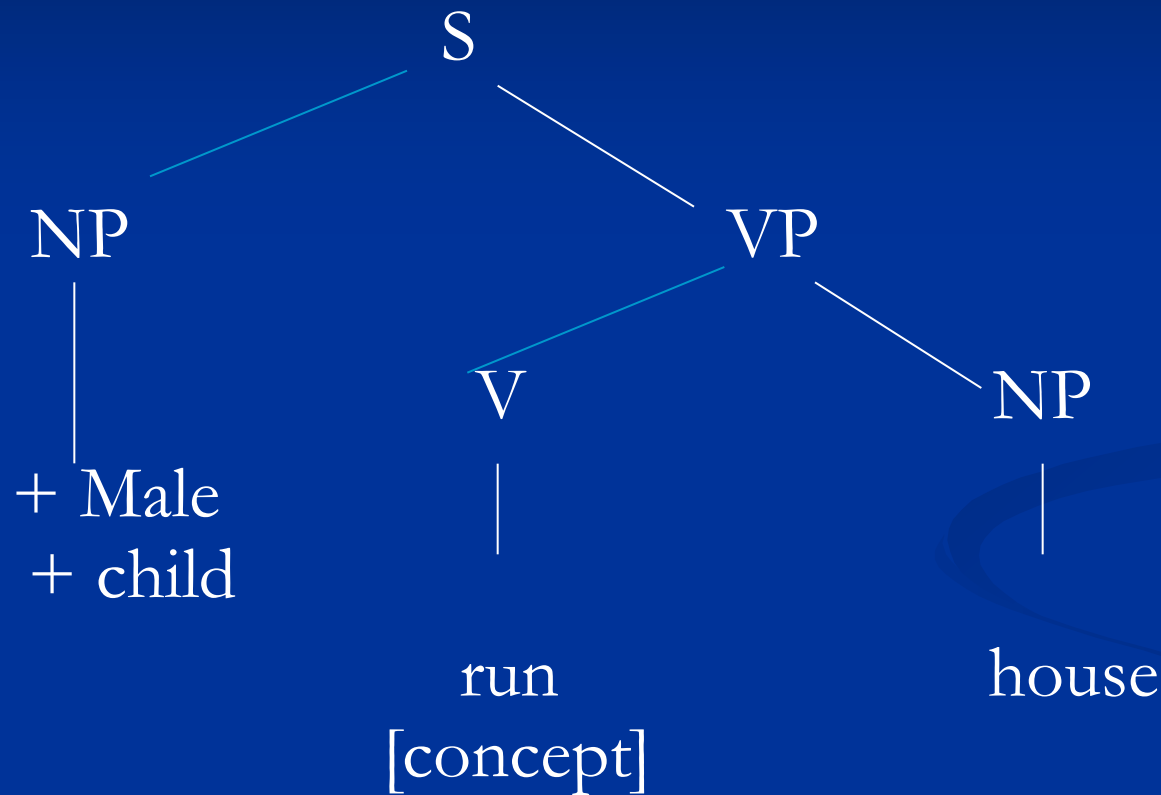
II Planning & Assemblage

1. Outline planning – choosing key words/concepts; syntactic frames; intonation pattern
2. Detailed planning – fitting it all together



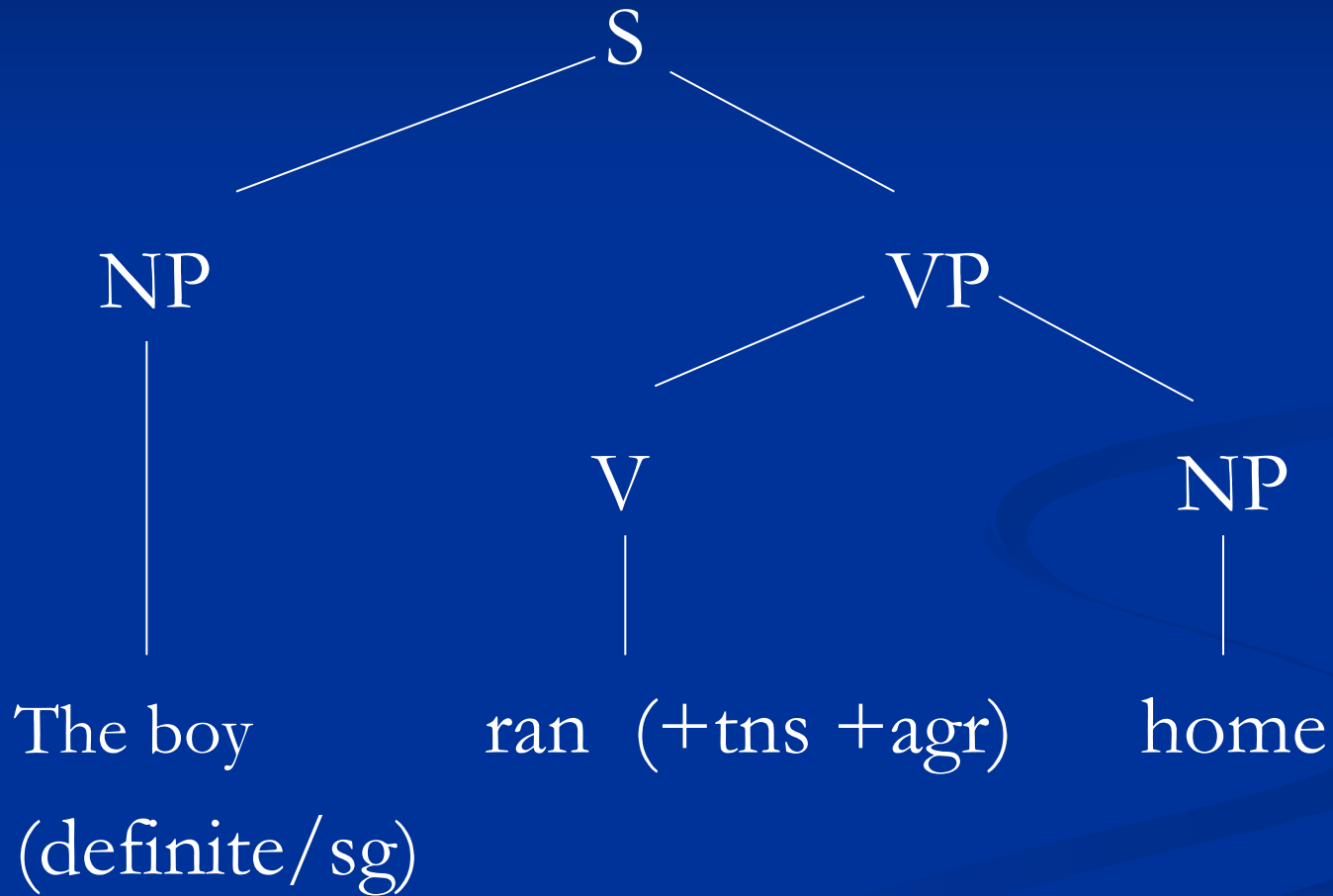
Outline planning:

key words/concepts, syntax & tone group are established



Lemma selected = word class; meaning

Detailed planning



Summary

- It is very difficult to access speaker's brains to work out how language is produced.
- Indirect naturalistic data (pauses and speech errors) and experiments (e.g. TOT) provide a window to the complexity of language planning and production.
- Observations and experiments have helped psycholinguistics to determine: the units of planning (the size of linguistic material prepared in advance of speaking) and how phonemes, words & syntax are planned & assembled.

ACTIVITY



What might we learn?

1. Stage 1: meaning of overall utterance is generated
2. Stage 2: syntactic structure assigned with slots for words
3. Stage 3: generation of intonation contour; stress assigned to word slots
4. Stage 4: content words are fitted to the outline
5. Stage 5: affixes & function words are added
6. Stage 6: specification of phonetic segments is made

Evidence for serial model of speech production

- **Independence of planning units** – speech errors usually occur at 1 level of planning & rest of utterance remains intact.
- **Accommodation** – speech errors accommodate to their environment, e.g.
morphemes which vary in phonological environments change when they occur in a new environment,
e.g. she runs out fast [z]
she run outs fast [s]
- = morphological structure is assigned BEFORE phonetic structure in the planning of an utterance

Post-class reading & references

- Fromkin, Rodman & Hyams, Chapter 9
- Trask, Chapter 7 (v. little)
- Yule, Chapter 13 (v. little)
- Bloomer et al, Chapter 11
- Crystal encyclopaedia, section 45 (v. little)
- Aitchison's *The Articulate Mammal*, Chapter 11
- Steinberg, D. & Sciarini, D. (2006) *An Introduction to Psycholinguistics*. Edinburgh: Pearson Longman.

Concepts Introduced

- Assemblage errors
- Fluency cycles
- Pauses
- Tone group
- Selection errors
- Slips of the tongue
- Spreading activation
- Typical/atypical subjects