

Mental Lexicon Why would a teacher care?

Language Pedagogy and Language Education. Audio Visual Means of Teaching.

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Experimental Practices and Linguistic Material

Experimental techniques in psycholinguistics

What do native and non-native speakers do?

Same or different / Discrimination task (ABX/AXB) Grammaticality judgement task (GJT) Acceptability task (AJT) How do they do it?

Self-paced reading experiment Eye-tracking experiment EEG- experiment

Linguistic Material

Contrastive sounds ([b] and [v], are non-contrastive for Spanish) Word minimal pairs (*lock-rock*)

Phonologically similar words (marker-марка [marka] – stamp, Rus.)

- Difference in morphological features

have in have eaten between German and English

- Different word orders

SOV (45%) vs. SVO (34%) vs. VSO (9%) vs. OSV (0.5%)

Where to put adverbs of frequency (often)

How to make a question (where have you have been?)

- Null subject vs. obligatory subject

- Ambiguous sentences

Questions to discuss

Q1: What is Lexicon, Register and Mental Lexicon?

Q2: To retrieve a new word: monolinguals vs. bilinguals?

Q3: Is there a special lexical storage in the human brain?

Q4: How are non-native words learnt?

Q5: Can one forget the words of her native language?



Q1: What is Mental Lexicon?



A phonological detour: how is this information relevant?



Perception results (d/t): why is it relevant?





- Before the age of L2 months infants discriminate speech sounds in non-native languages (Werker & Tees 1984).
- Adult balanced bilinguals are insensitive to some contrasts of their non-dominant language (Sebastian-Galles 2005).

• After the age of 12 months the sounds of the non-native language are perceived through the system of native sounds (the Perceptual Assimilation Model, PAM, Best 1995).

• Bilinguals will keep trying to obtain the contrasts between L1 and L2 sounds that exist in the common phonological space (the Speech Learning Model, SLM, Flege 1995).

Let's practice

- how does non-contrastive categories in L1 influence word learning in L2?
- what compensatory strategies will pupils use to figure out the word?
- how can the teacher help learning the right word?



Q2: how to retrieve a word?

Please, look at the marker?









Q2: how to retrieve a word?

Пожалуйста, посмотрите на мозг?













Q3: Is there a lexical storage in the human brain?

- Lexical task given in the L1 and the L2 activate the same brain areas (Chee, Tan, and Theil 1999).
 - Typological similarity of the languages does not make a difference.
 - The level of L2 proficiency does not make a difference:
 - wider areas of brain are activated if participants are at lower levels of L2 proficiency ;
 - same brain areas as in native speakers get activated when the participants are of higher levels of L2 proficiency.
- The search for a word occurs across all the languages available to the speaker.
- The entire mental lexicon gets activated across the phonological and the semantic domains.
- It is impossible to "deactivate" one of the languages in the brain completely.



- Perceptual assimilation of sounds influences word perception and word learning (*lock-rock*) (Goto 1971, Dupoux et al 1997, Pallier et al 2001, Pater, 2003).
- Phonological contrasts create a sub-group of minimal pairs *(pen pan)*, which is difficult to process and, therefore, to acquire (see Lardiere 2009 for the discussion of feature salience).
- Similar things are more difficult to learn: bilingual kids (6 & 8 mths, Bosch et al 2013) need more time to learn words that are minimal pairs with native language words, like <u>lock and</u> <u>rock (but across languages)</u>. Word-pairs like <u>Consulate-Consulado</u> would be difficult in production even for adults.
- Kids have difficulties learning similar sounding words when they are presented by a bilingual (17 mths, Fennel & Byers-Heinlein 2014).
- To retrieve a word: phonology and semantics of lexical items are activated across both languages of a bilingual. (Marian & Spivey 2003; Marian, Spivey & Hirsch 2003, among others).



- Open discussion:
 - what is attrition (lexical attrition)?
 - how to keep up with neologisms?

- For next lecture?
 - do you think words are stored in the mental lexicon as full forms?
 - can words undergo a derivation process? If yes, how?