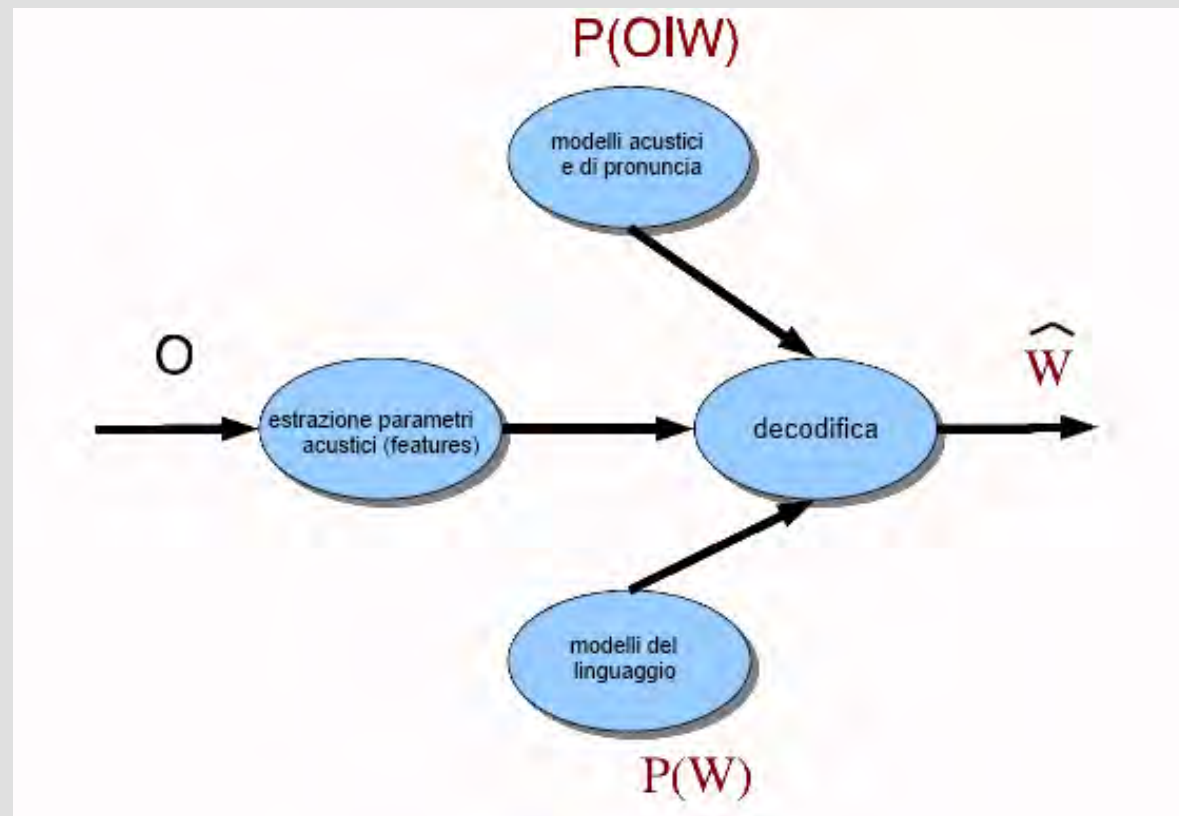


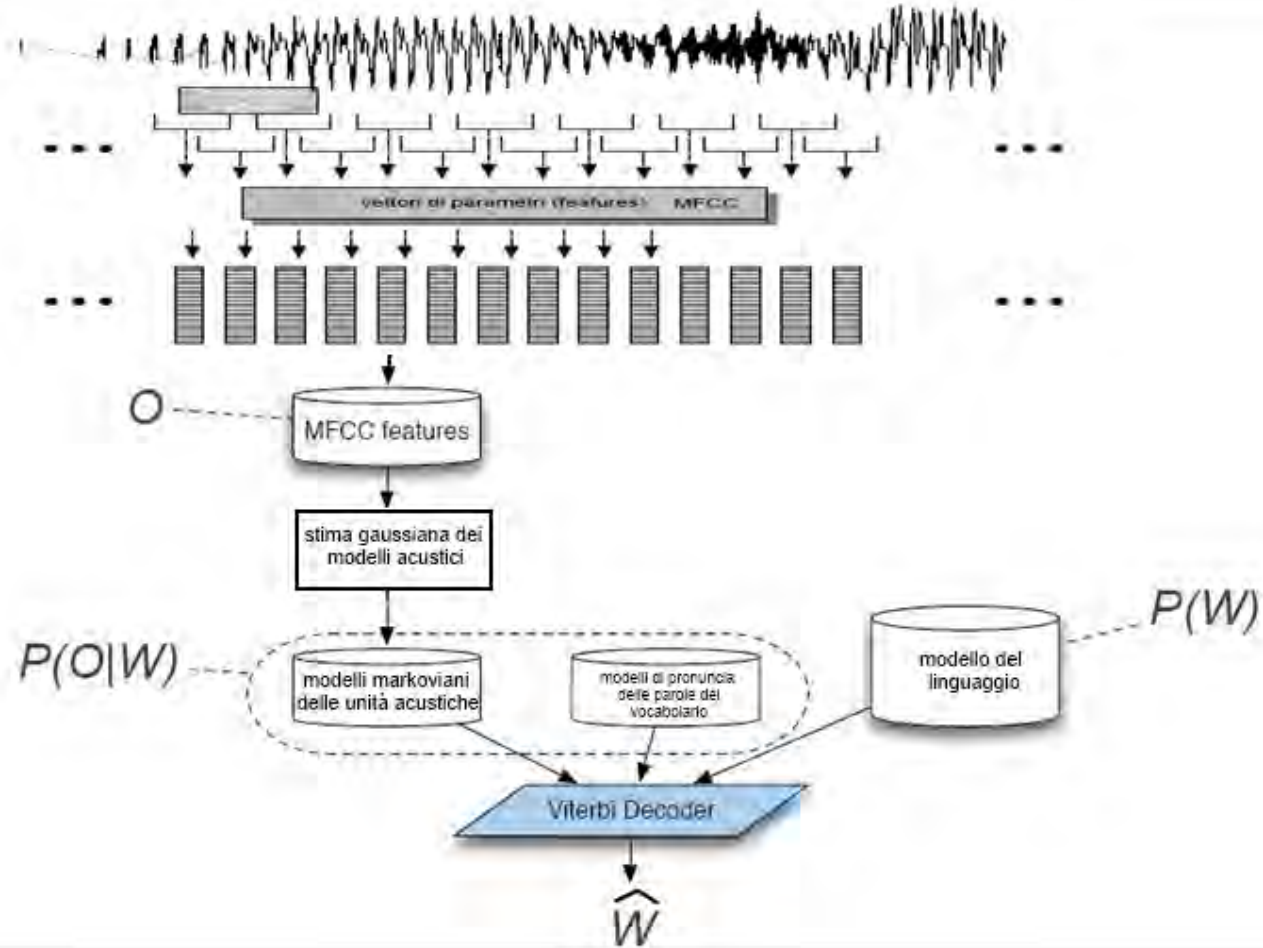


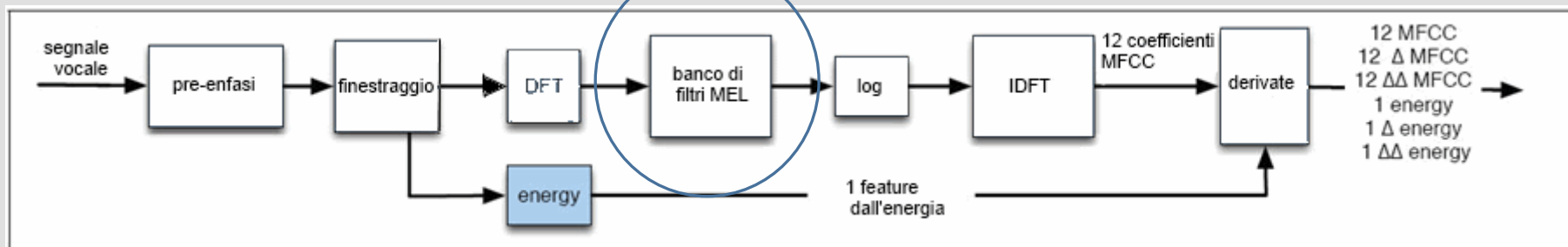
Dati Modelli e Teorie nelle Speech Sciences

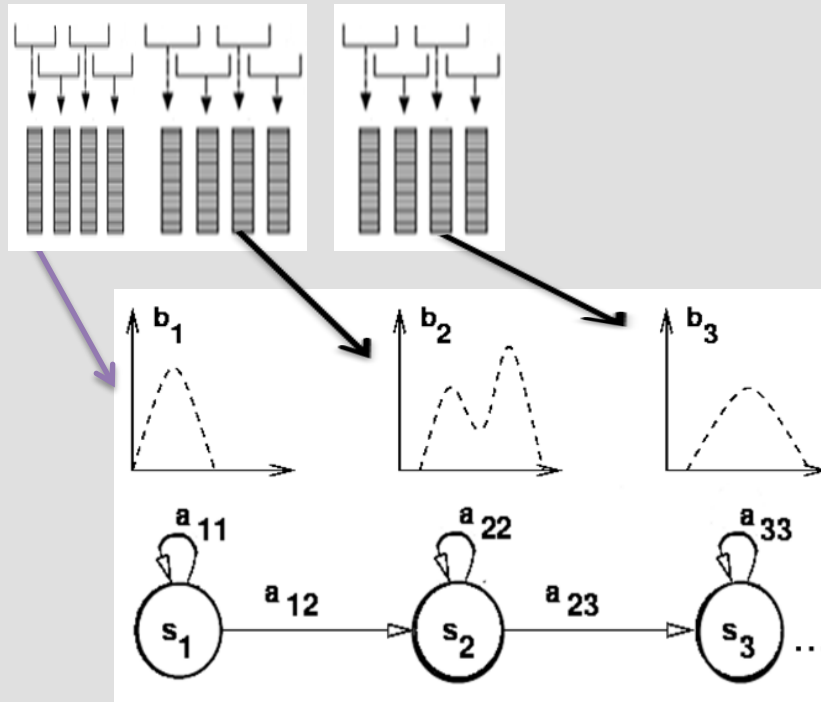
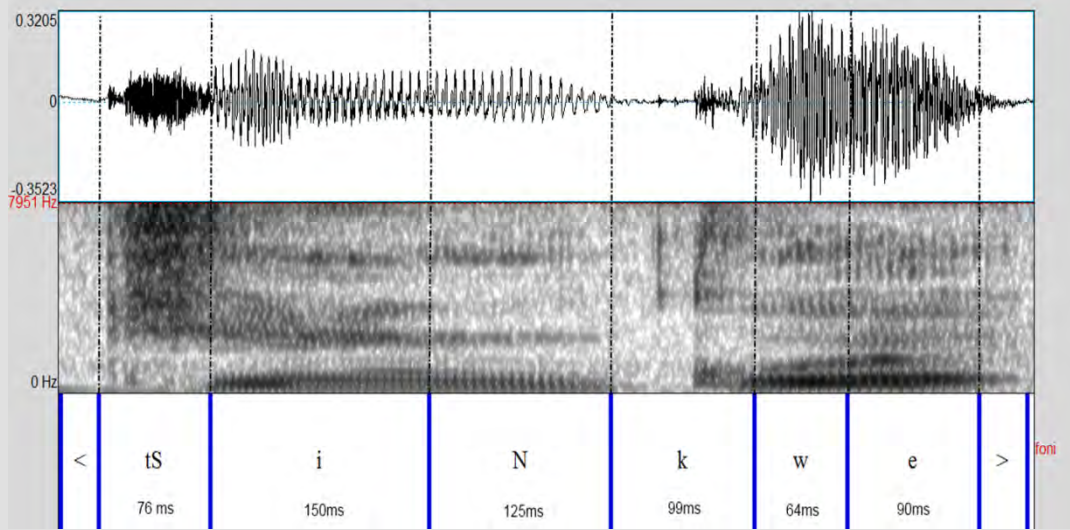
Franco Cutugno – LUSI-Lab @ Federico II Napoli

$$\hat{W} = \underset{W \in L}{\operatorname{argmax}} P(O | W) \cdot P(W)$$

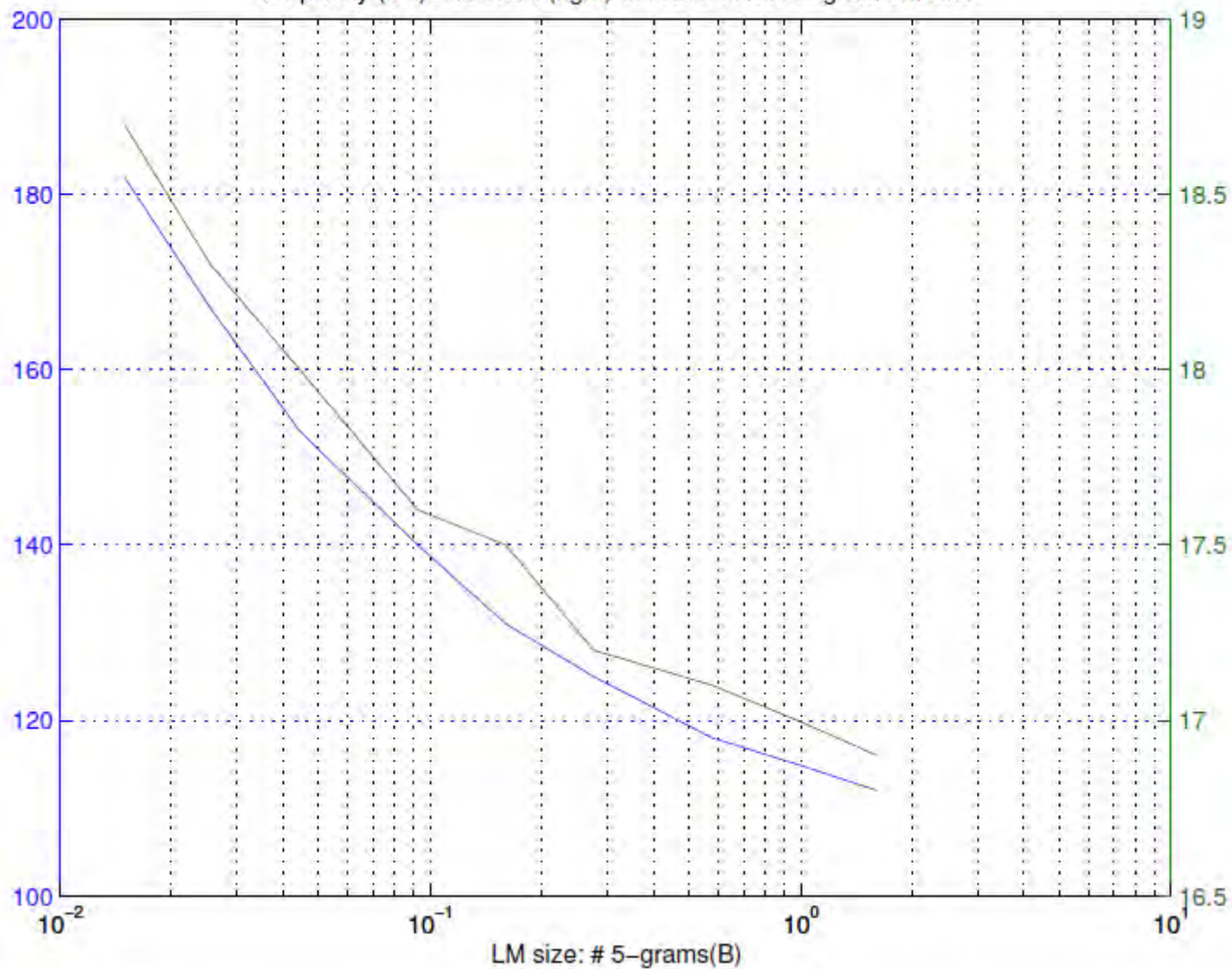


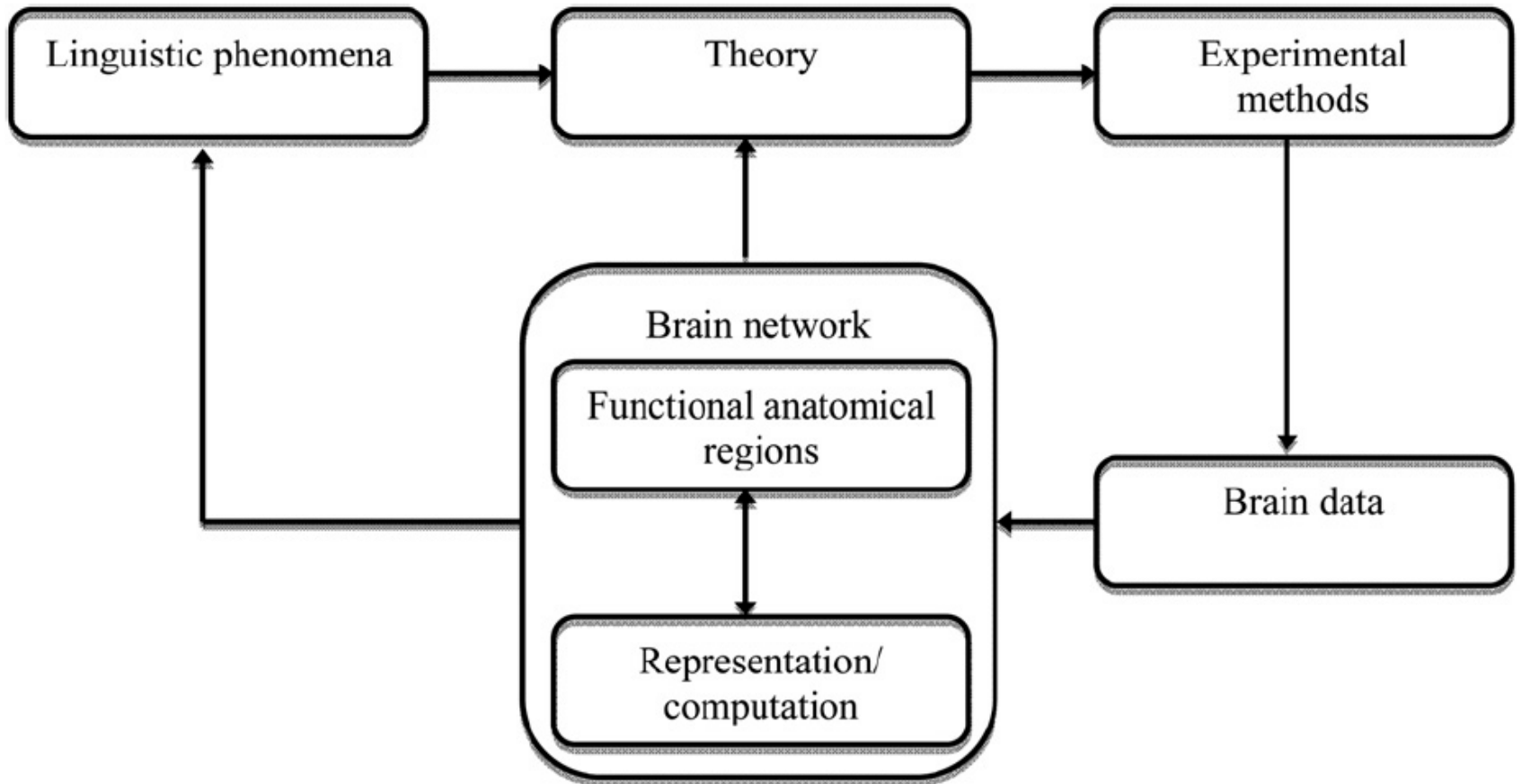






Perplexity (left) and WER (right) as a function of 5-gram LM size



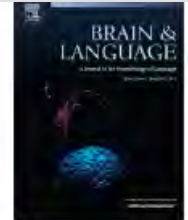




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Word-specific repetition effects revealed by MEG and the implications for lexical access

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ABSTRACT

This magnetoencephalography (MEG) study investigated the early stages of lexical access in reading, with the goal of establishing when initial contact with lexical information takes place. We identified two candidate evoked responses that could reflect this processing stage: the occipitotemporal N170/M170 and the frontocentral P2. Using a repetition priming paradigm in which long and variable lags were used to reduce the predictability of each repetition, we found that (i) repetition of words, but not pseudowords, evoked a differential bilateral frontal response in the 150–250 ms window, (ii) a differential repetition N400m effect was observed between words and pseudowords. We argue that this frontal response, an MEG correlate of the P2 identified in ERP studies, reflects early access to long-term memory representations, which we tentatively characterize as being modality-specific.

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Language categorization by adults is based on sensitivity to durational cues, not rhythm class

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ABSTRACT

Studies of listeners' ability to distinguish languages when segmental information is eliminated have been taken as evidence for categorical rhythmic distinctions between language groups ("rhythm classes"). Furthermore, it has been suggested that sensitivity to rhythm class is present at birth and that infants must establish the rhythm class of their native language as a precursor to language acquisition. We tested the hypothesis that adult listeners' ability to distinguish between languages is better predicted by differences in specific durational cues than by putative rhythm classes. We examined the categorization of language pairs using utterances in which only durational characteristics were preserved. We found that English listeners could distinguish between not only English and Spanish (from different rhythm classes), but also between different accents of British English. Furthermore, patterns of categorization between and within languages highlighted the contribution of speech rate, durational contrast and utterance-final lengthening.

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