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Chunking for larger and smaller units of meaning. What do listeners do?

Abstracts:

As listeners chunk up a stream of speech, they come up with segments that are well within the range of predictions from linguistic (Sinclair & Mauranen 2006; Mauranen 2016) and memory-based (Cowan 2001; Miller 1956) models: most chunks are short, 2-4 words, and only rarely come up to 9 words (Vetchinnikova & Mauranen 2017). A closer look at chunk boundaries that listeners experimentally mark reveals that some boundaries attract more inter-listener agreement than others, i.e. are 'stronger'. Assuming that chunking helps make sense of language, this presentation explores linguistic correlates of chunks that participants have intuitively identified in authentic speech using a tablet-based (Vetchinnikova, Mauranen & Mikusová 2017) method.

Different levels of processing are suggested by

1) Varying boundary strength: shorter chunks tend to be less strong
2) Linear Unit Grammar: ‘complete’ elements tend to be longer than ‘incomplete’
3) Prosody: prosodic units are the shortest chunks

It is argued that as listeners attend primarily to meaning, shorter and incomplete elements contribute to evolving larger units of meaning, thus enabling processing to proceed in short segments while also making sense of larger wholes.

References:


Miller, G. (1956). The Magical Number Seven, Plus or Minus Two: Some Limits on our Capacity for Processing Information. Psychological Review 63, 81–97.

