

**SITUATED LANGUAGE
PROCESSING:
THE INTERPLAY OF
LANGUAGE AND VISUAL
WORKING MEMORY**

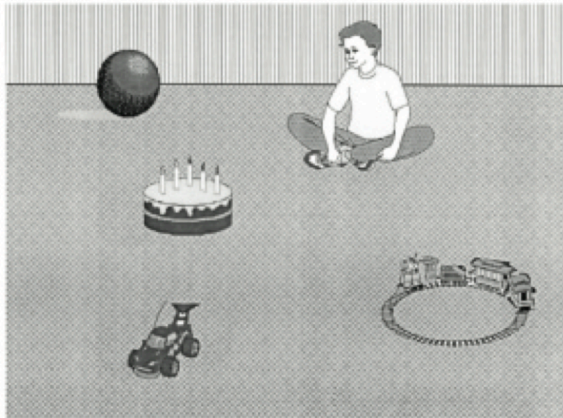
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SITUATED LANGUAGE PROCESSING

- Language is not processed in isolation, but integrated with other sources of information (e.g. visual information) incrementally
- Visual information can be used
 - to resolve syntactic ambiguities
 - to anticipate words that were not yet mentioned:



The boy will eat the...
The boy will move the...

When hearing „eat“ people look
at the cake



INTERPLAY OF LANGUAGE AND VISUAL INFORMATION

How much information can we use?

- Usually more than 5 possible objects are present - do people make use of visual information in more complex scenes?
- Sometimes relevant objects are not in view anylonger - can we retrieve them from working memory then?
- Does the use of visual information depend on its accessibility in visual working memory?

How does language influence visual working memory?



VISUAL WORKING MEMORY EXPERIMENT



Der Mann raucht
vermutlich die
Pfeife.

The man smokes
probably the pipe

- Do people still anticipate the pipe?
- Does it matter whether they saw it early or late?



RESULTS: ANTICIPATORY EYE-MOVEMENTS

