

# Second Language Acquisition

## **Session 5: Psychological Perspectives on SLA**

Sommersemester 2021

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Mondays 16.00 – 18.00

## Outline of the session

- Language and the brain
- Information processing
- Multidimensional model
- Application to teaching
- More theories
- Usage-based approaches

## Language and the brain

- Broca's area: language production
- Wernicke's area: language processing
- both situated in the left hemisphere
- many more parts involved in language activities
- Neural plasticity decreases with age  
→ Critical Period Hypothesis

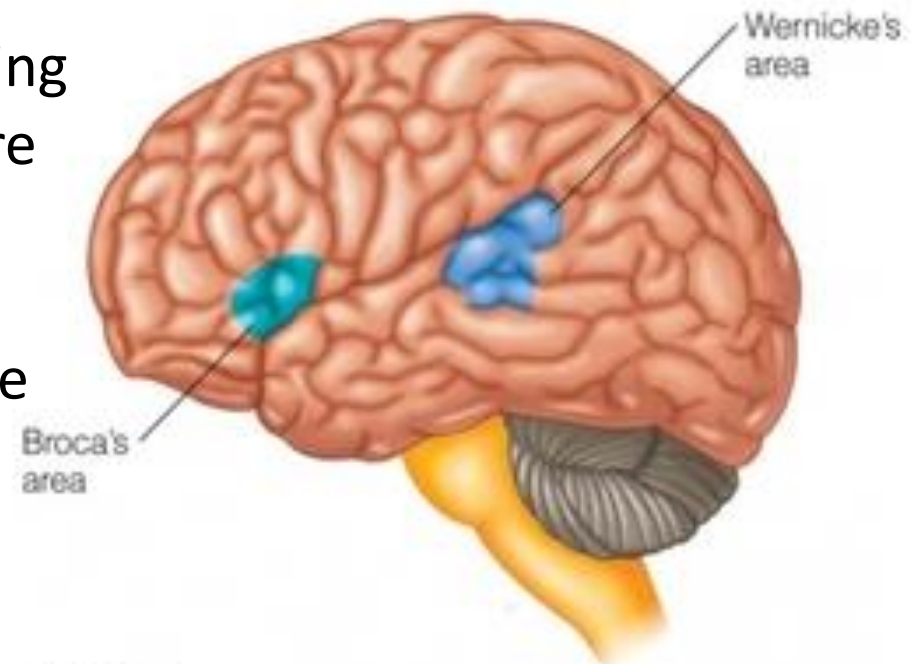


Figure 1. Image of the brain showing wernicke's and broca's areas.

Taken from : <https://esl4america.weebly.com/bilingualism-and-the-brain.html>

## Information processing

- scholars associated: McLoughlin (1987,1990)
- reaction against behaviourism
- human mind is a processor
- cognition is representation (knowledge) and access (process)
- automatic vs controlled processes =  
procedural vs declarative knowledge
- Automatization= moving from controlled to automatic processes  
due to practice

## Information processing

- Language acquisition similar to acquisition of other complex skills
- Learners achieve automatic processing, esp. lower order skills to free up cognitive capacity
- Restructuring, reorganising of mental representation makes for a more efficient representation → faster retrieval
- More efficient representation, larger capacity for processing  
→ higher proficiency
- Input → intake → processing

## Information processing

- **A- Coding Phase** is the stage of receiving external information, or the sensory input from the outside world through sensory receptors and converted to work on certain representations.
- **B- Storing Phase** is the stage of making some decisions about how important this information and how it is needed. So that after they are processed and converted into a certain mental representations, important information is retained and stored in the memory.
- **C- Retrieving Phase** is the stage of identifying the cognitive representations and retrieval when needed to take advantage of them in dealing with situations and stimuli to determine the appropriate behavior patterns.

(Alhussini (no date))

## Multidimensional model

- Three claims (Saville Troike & Barto 2017: 81):
  - Languages acquire certain grammatical structures in a developmental sequence.
  - Developmental sequences reflect how learners overcome processing limitations.
  - Language instructions which targets developmental features will be successful only if learners have already mastered the processing operations which are associated with the previous stage of acquisition.
- Hierarchy:
  - Canonical Order Strategy
  - Initialization/Finalization Strategy
  - Subordinate Clause Strategy

## Application to teaching

- In your breakout group, discuss the concrete teaching approaches using information processing and multidimensional model. In other words, discuss how this theoretical input affects your teaching.



## More Theories...

- How do the competition model, connectionist approaches and complexity theory relate to your teaching?
- Discuss in breakout groups

## Usage-based approaches

- Constructions
- Associative learning theory
- Rational cognitive processing
- Exemplar-based learning
- Emergent relations and patterns

## Usage-based approaches

- Break down the five main characteristics of usage-based approaches and apply them to teaching. Is this approach useful for language teaching?

## Reading+ task for next week (17th May)

- Read Saville Troike & Barto (2017), pages 87-100
- Find more material/resources on your specific individual difference (ID)
- Make some notes on your ID and think about the role these play in your future classrooms
- Meet with your group and prepare a short presentation (10 minutes) for next week
- Prepare questions for the other topics/groups

## References

- Alhussini, Ruby (no date). The Application of Information Processing Theory in Teaching English as a Second Language. Virginia Tech. [https://ruba-identityportfolio.weebly.com/uploads/3/8/5/9/38593555/the\\_application\\_paper\\_1\\_.pdf](https://ruba-identityportfolio.weebly.com/uploads/3/8/5/9/38593555/the_application_paper_1_.pdf)
- Ellis, N. C. & Wulff, S. (2015). Usage-based approaches to SLA. In: VanPatten, B. & Williams, J. (eds). *Theories in second language acquisition: an introduction*. Routledge.
- Saville-Troike, M., & Barto, K. (2017). *Introducing Second Language Acquisition* (3<sup>rd</sup> edition). Cambridge University Press.