

**LEKTION 11: Sprog & Hjerne**

Litteratur:

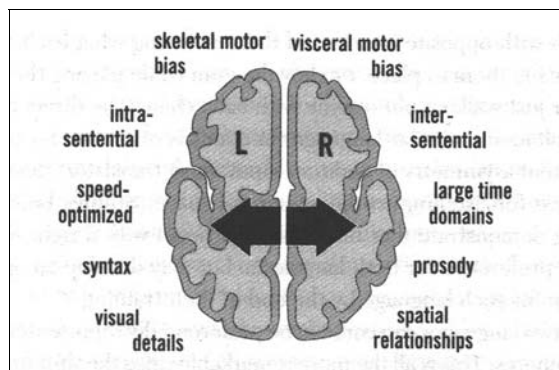
Pinker (1994) *The Language Instinct*, kapitel 10: Language Organs and Grammar Genes.**Lateralisering**De centrale aspekter af sprogevn er **lokaliseret** i venstre hjernehalvdel.

- Bedøvelse af venstre hjernehalvdel (the Wada-test) → 'sprogløshed'. (jf. Bishop 1988, Calvin & Ojemann 1994: kap. 3)
- Skade i venstre hjernehalvdel → afasi.

Paradis (1998): Studier af tosprogede afatikere:

- Venstre: Implicit sproglig viden.
- Højre: involveret i de pragmatiske aspekter af sprogbrug.
- Hos både et- og flersprogede ligger sproget i sprogområdet omkring den venstre perisylviske region.

Deacon (1997):



Bishop (1988)

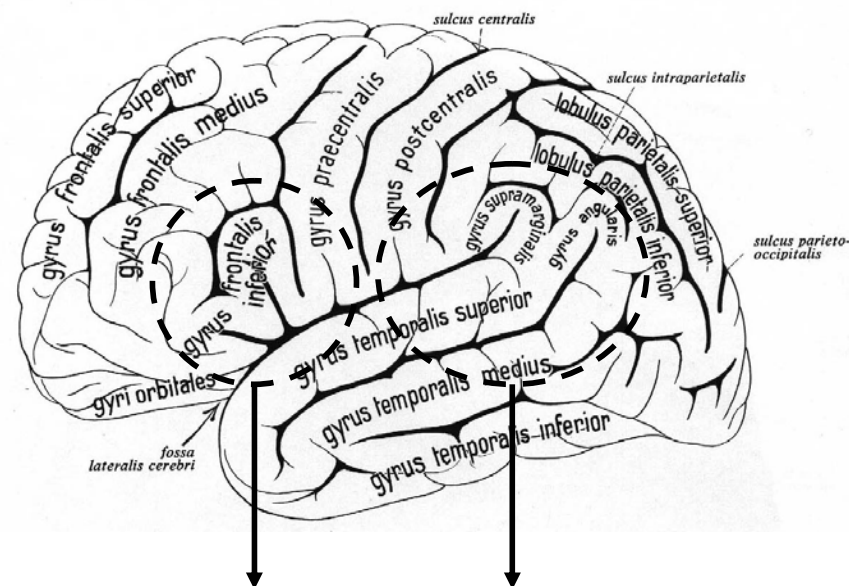
- Skade i højre hemisfære-homologen til "sprogområdet" medfører **aprosodi** – manglende intonation (herunder følelsesmæssig intonation).

Corballis (1991):

- Venstre: Generativitet (generativ analytisk cognition; kategorier, komponenter, struktur).
- Højre: Holistisk kognition.

Grodzinsky (2000):

- *Thus, the evidence is that this side of the brain [i.e. the right side] has an important role in communication but makes no syntactic contribution to language use.*

**Sprogområdet:**Pinker (1994) The perisylvian region = **the language area**

Pinker (1999):

**Rules**Regelmæssig bøjning.  
Agrammatism**Words**Uregelmæssig bøjning.  
Anomia, *naming disorders*

Deacon (1997)

**Syntagmatiske relationer****Paradigmatiske relationer**

Damasio (1992):

**Brocas afasi (BA 44,45)****Wernickes afasi (BA post. 22)****Global afasi****Global afasi****Transkortikalsk motorisk afasi**

(BA 9, 44, 45, 46)

\* flydende  
+ forståelse  
+ repetition**Transkortikalsk sensorisk afasi**

(BA 21, 22, 37, 39, 40)

+ flydende  
\* forståelse  
+ repetition**Conduction aphasia**

(i) supramarginal gyrus BA 40 eller

(ii) primær auditor. BA 41 &amp; 42)

+ parafasi (ordombytning)  
\* "naming"  
+ flydende  
+ forståelse  
\* repetition**Pure Anomia (angular gyrus)**



## Referencer

- Bishop, Dorothy (1988) Language development after focal brain damage, in Bishop, Dorothy & Kay Mogford (eds.) *Language development in exceptional circumstances*, Hove: Psychology Press Ltd., s. 203-219.
- Calvin, William H. & George A. Ojemann (1994) *Conversations with Neil's Brain*, Reading MA: Addison-Wesley.
- Corballis, Michael C. (1991) *The Lopsided Ape. Evolution of the Generative Mind*, Oxford: Oxford University Press.
- Damasio, Antonio R. (1992) Aphasia. *The New England Journal of Medicine* 326, 8, 531-539
- Deacon, Terrence (1997) *The Symbolic Species. The Co-evolution of Language and the Human Brain*. London: Penguin Books.
- Grodzinsky, Yosef (2000) The neurology of syntax: language use without Broca's area. *Behavioral and Brain Sciences* 23 (1): 1-71.
- Hendler, Talma, Itamar Kahn, Dafna Ben-Bashat & Yosef Grodzinsky (in press) The Neural Reality of Transformations: Evidence from fMRI. *Psychological Science*
- Paradis, Michel (1998) Language and Communication in Multilinguals, in Stemmer, B. & H.A. Whitaker (Eds.) *Handbook of Neurolinguistics*, New York: Academic Press.
- Pinker, Steven (1994) *The Language Instinct*, London: Penguin.
- Pinker, Steven (1999) *Words and Rules. The Ingredients of Language*, New York: Basic Books.
- Stromswold, Karin, David Caplan, Nathaniel Alpert, and Scott Rauch (1996) Localization of syntactic comprehension by positron emission tomography. *Brain and Language* 52, 452-473.