

F12

Cognitive Systems

2020 edition

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PSI 3560 – COGNITIVE SYSTEMS

class XX

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TOPIC TITLE

Life and the emergence of cognition, developmental aspects of cognition

Session F12

Summary

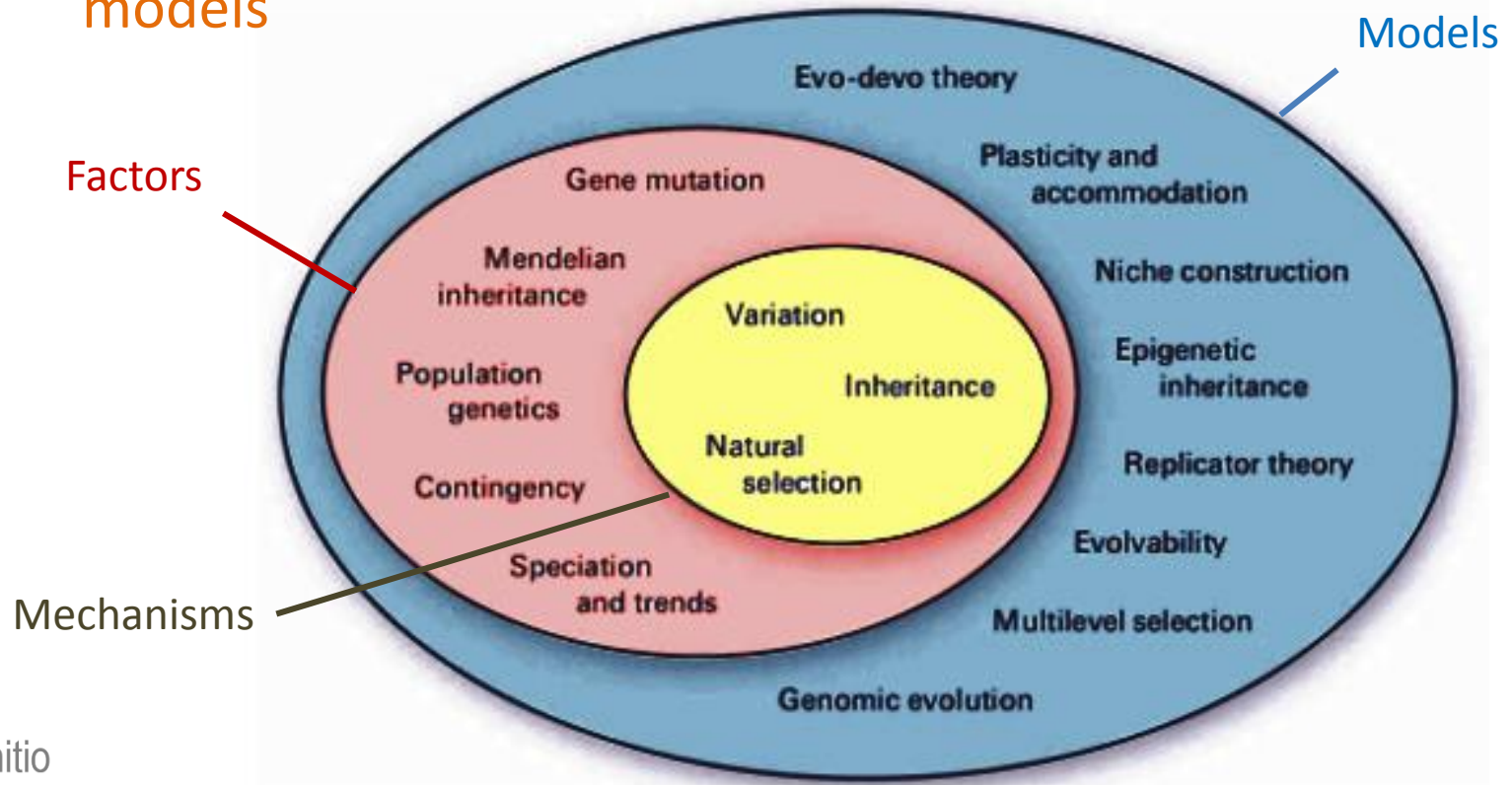
- Second session (9:20 – 11:00)
- **Evo-Devo**
 - Evolution of cognition
 - Evolutionary questions
 - Difficulties
 - Methods

Evolution and Cognition

- The arise of cognition

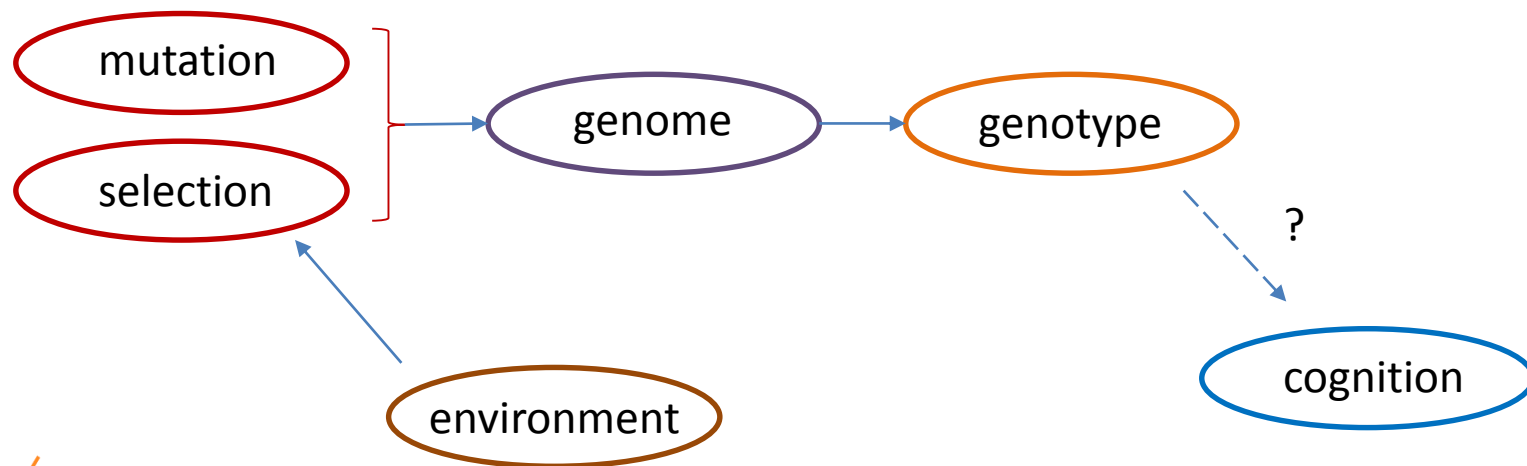
- Evolutionary issues

- Mechanisms operating under several factors following models



Evolution and Cognition

- The arise of cognition
 - Evolutionary questions
 - How did cognition begin (among species)
 - Evolution operates on the genome
 - » Which genetic aspects encode cognition ?



Evolution and Cognition

- The arise of cognition

- Evolutionary questions

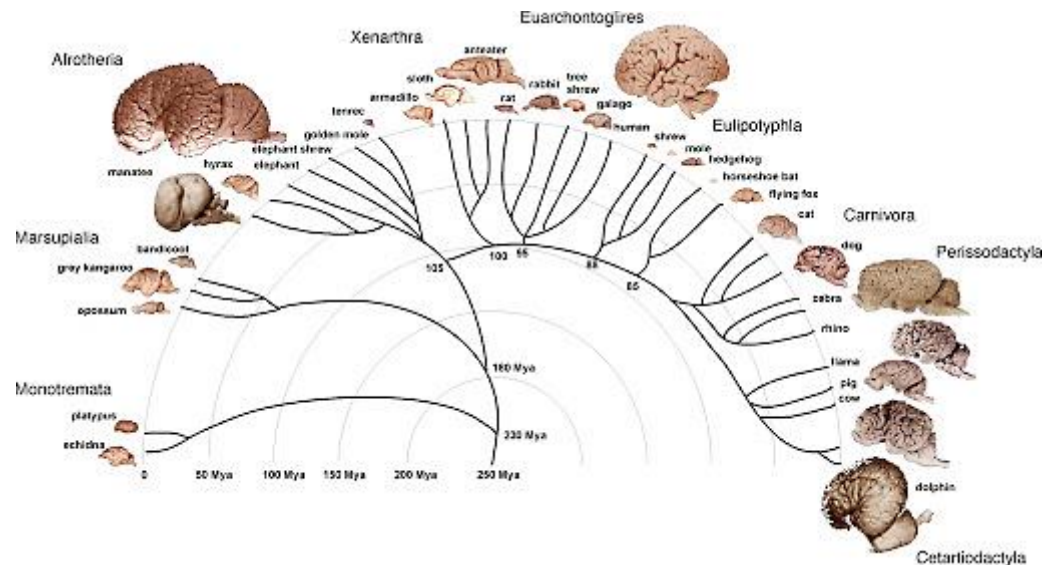
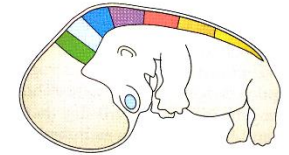
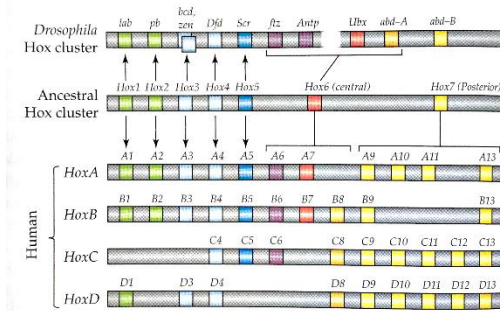
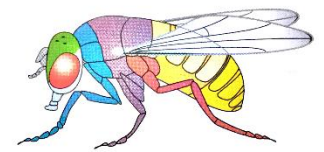
- How did cognition begin (among species)

- Which currently existing animals have cognition ?

- What past animals had cognition ?

- How cognition appeared during the evolutionary process ?

- How the results of evolution of cognition are expressed in our genes ?



Evolutionary aspects of cognition

- Difficulties
 - No paleontological / archeological traces
 - No clear specification of what to look for
- Methods
 - Comparative anatomy / physiology across current species
 - Tracing evolutionary paths of species
 - Tracking features across paths
 - Cross-correlation with genetic expression

This is all for today.

See you next week !