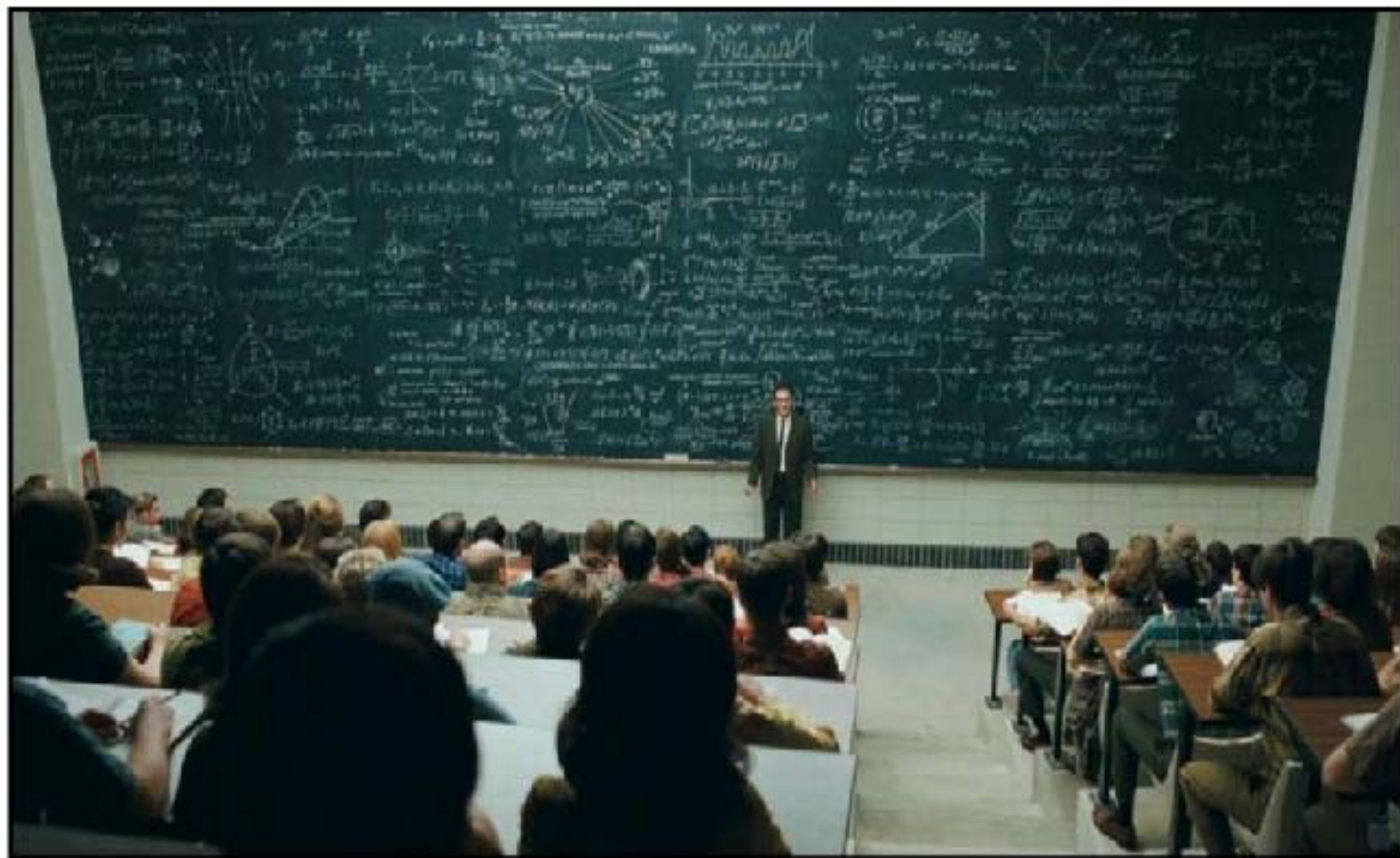


# Peeter Mehisto



# KEY FOCI

1. complexities of bilingual education in broad brushstrokes
2. cognitive benefits of bilingualism

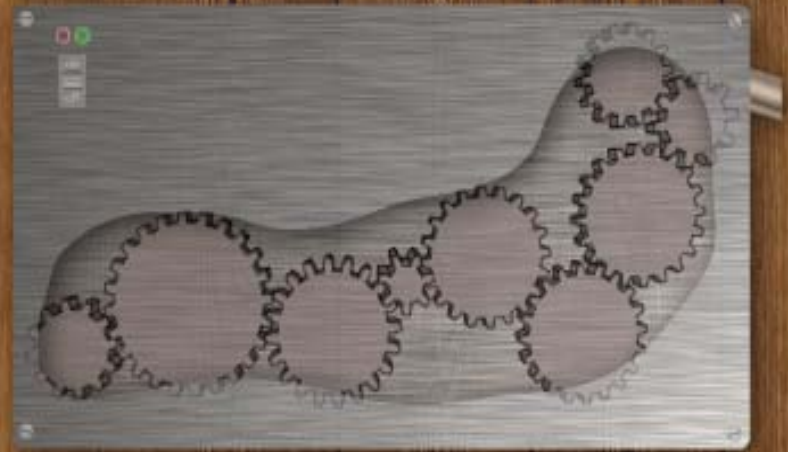


# COMPLEXITY



# Driving Forces

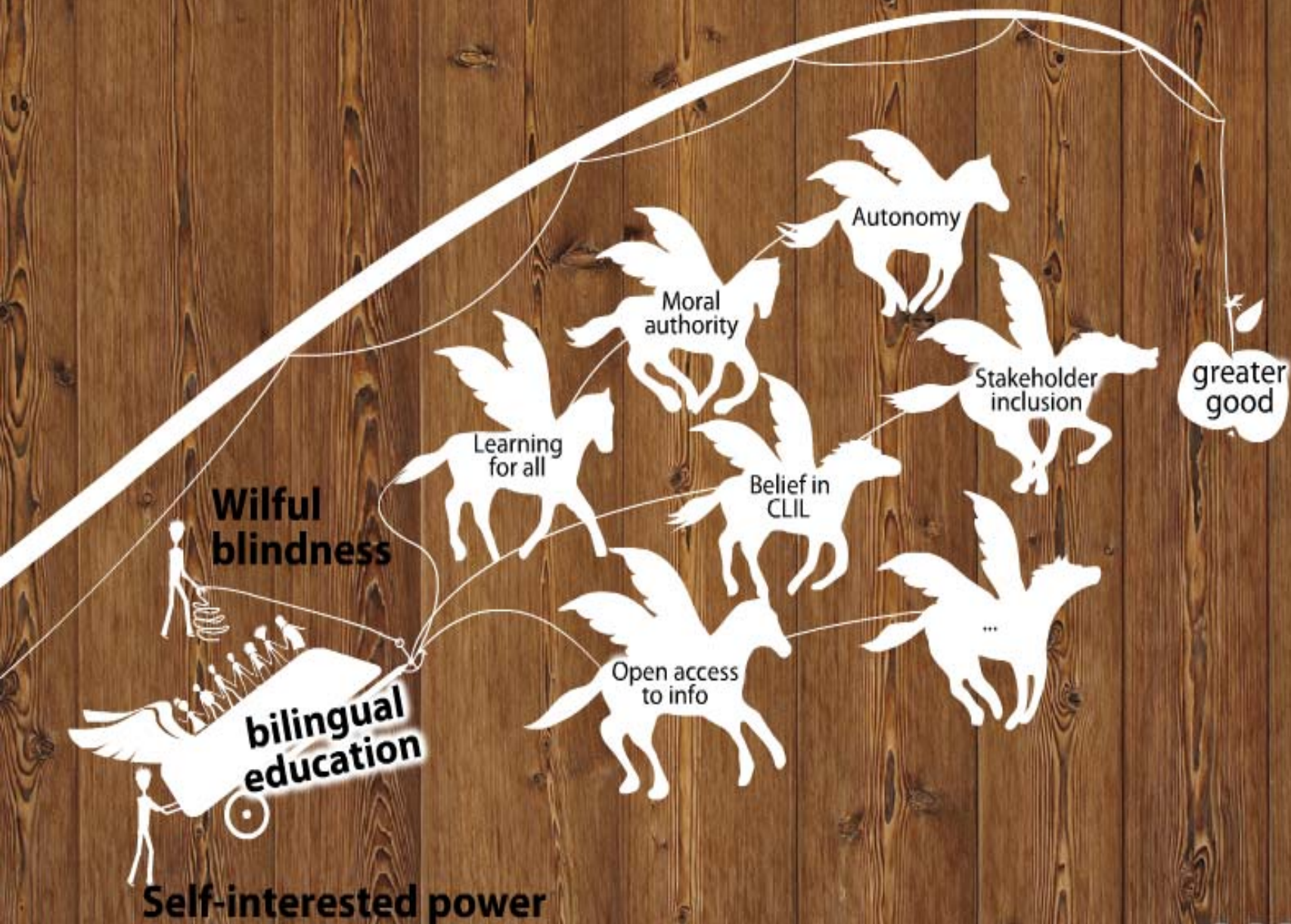
# Mechanisms



Counterweights

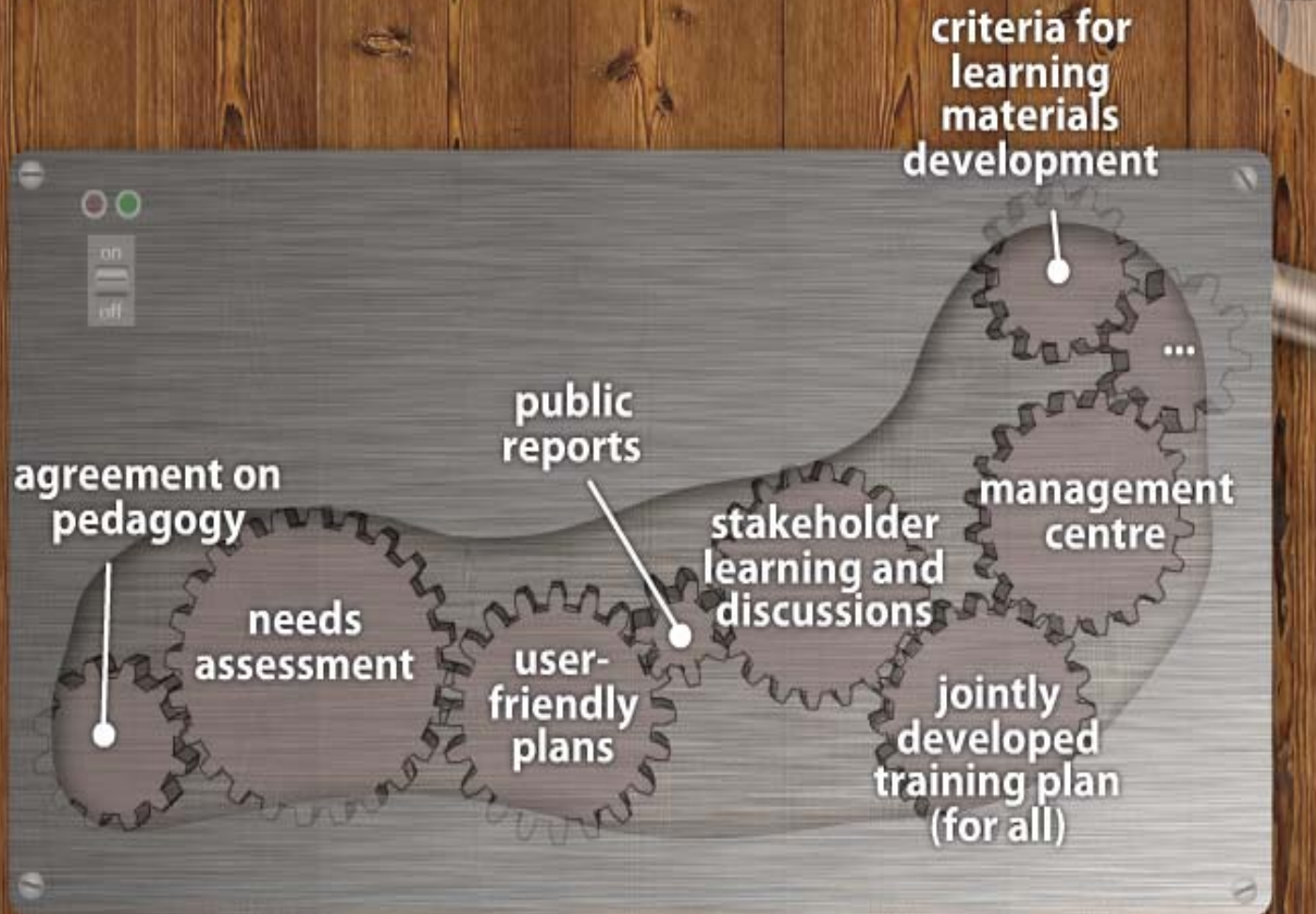
Counterweights

# Driving Forces



# Mechanisms

QUALITY  
BILINGUAL  
EDUCATION



**driving forces**  
+  
**mechanisms**  
+  
**counterweights**



# Criteria A

## Functioning systems for:

- programme management
- teacher PD
- manager PD
- learning materials development
- PR
- research
- management body
- parent satisfaction
- student achievement in long-term...

# Criteria B

short-term student  
achievement

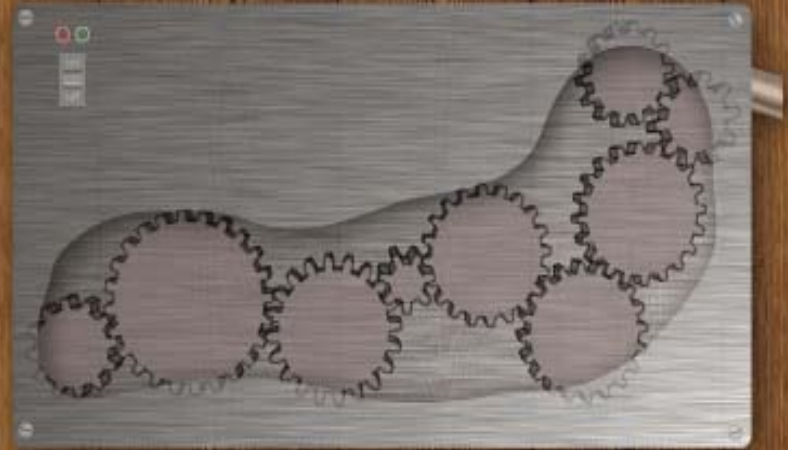
# Counterweights

good pedagogy ... high-stakes exams  
emergent issues ... following plans  
teamwork ... leadership



# Driving Forces

# Mechanisms



Counterweights

Counterweights



# The Cognitive Benefits of Bilingualism

# A Literature Review

Multilingualism and Creativity:  
Towards an Evidence-base

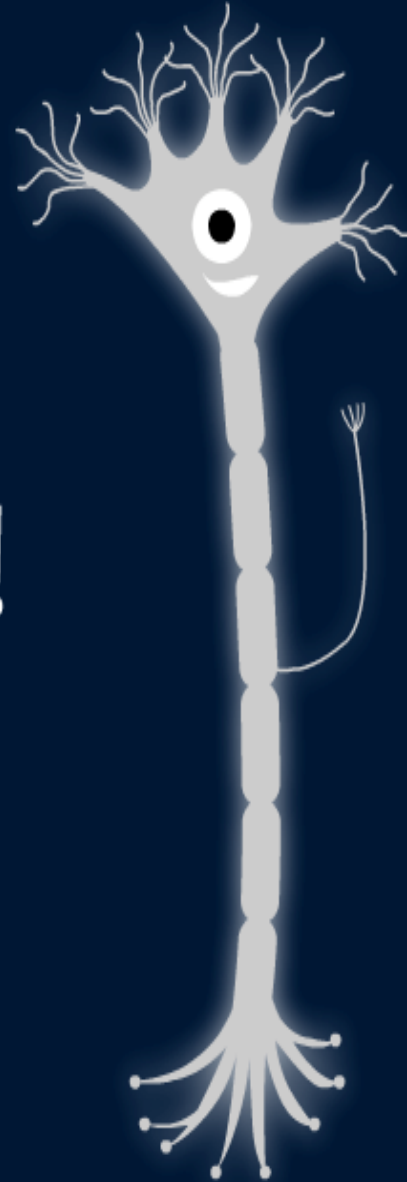
2009

David Marsh  
Hugo Baetens Beardsmore  
Keis de Bot  
Peeter Mehisto  
Dieter Wolff

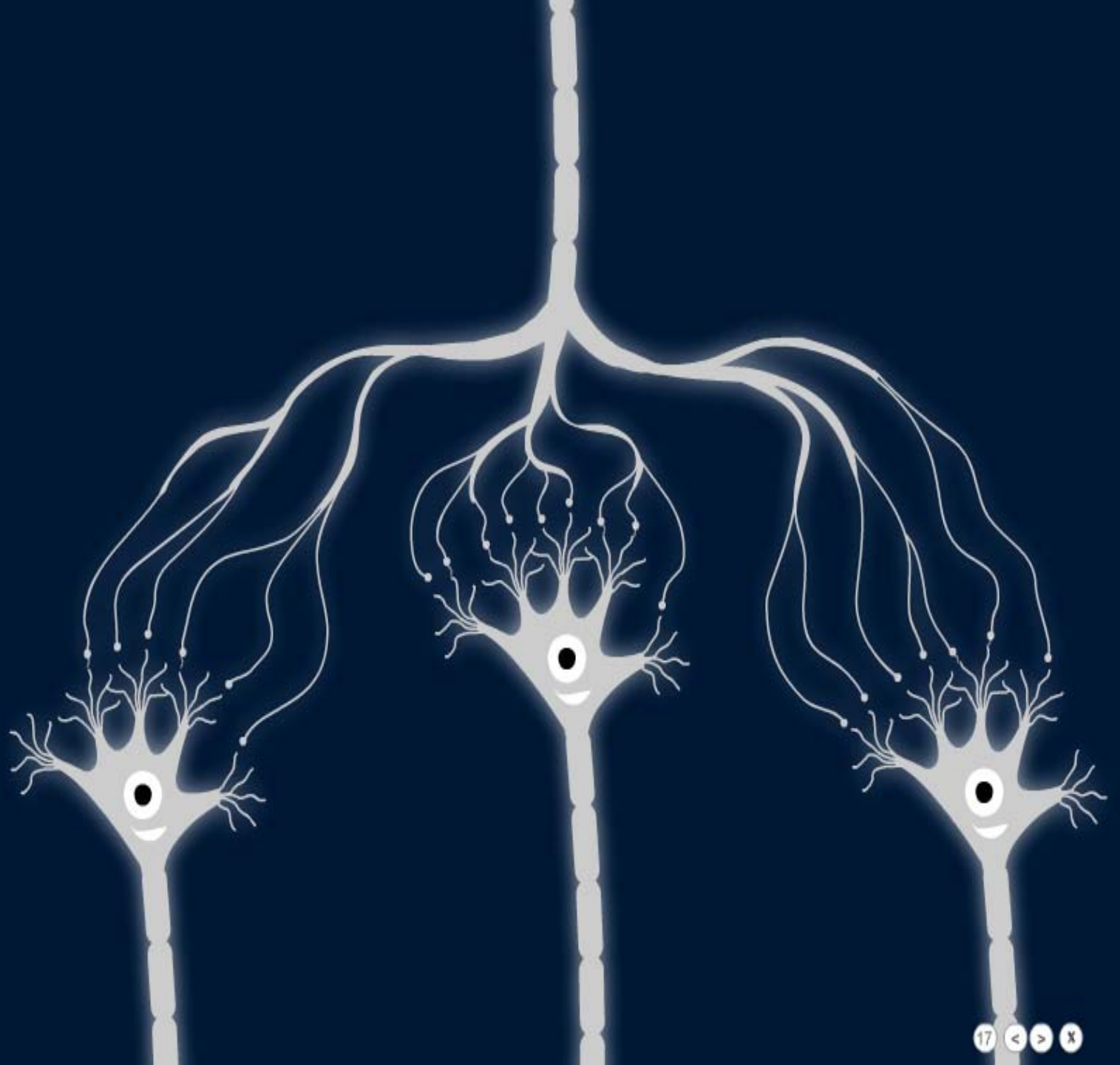
# The Brain:

- part of central nervous system
- primary receiver, organiser and distributor of information for the body.

A Neuron!









Learning is a process by which the brain makes neuronal connections that:

- a) act as information processing circuits and
- b) provide information storage.

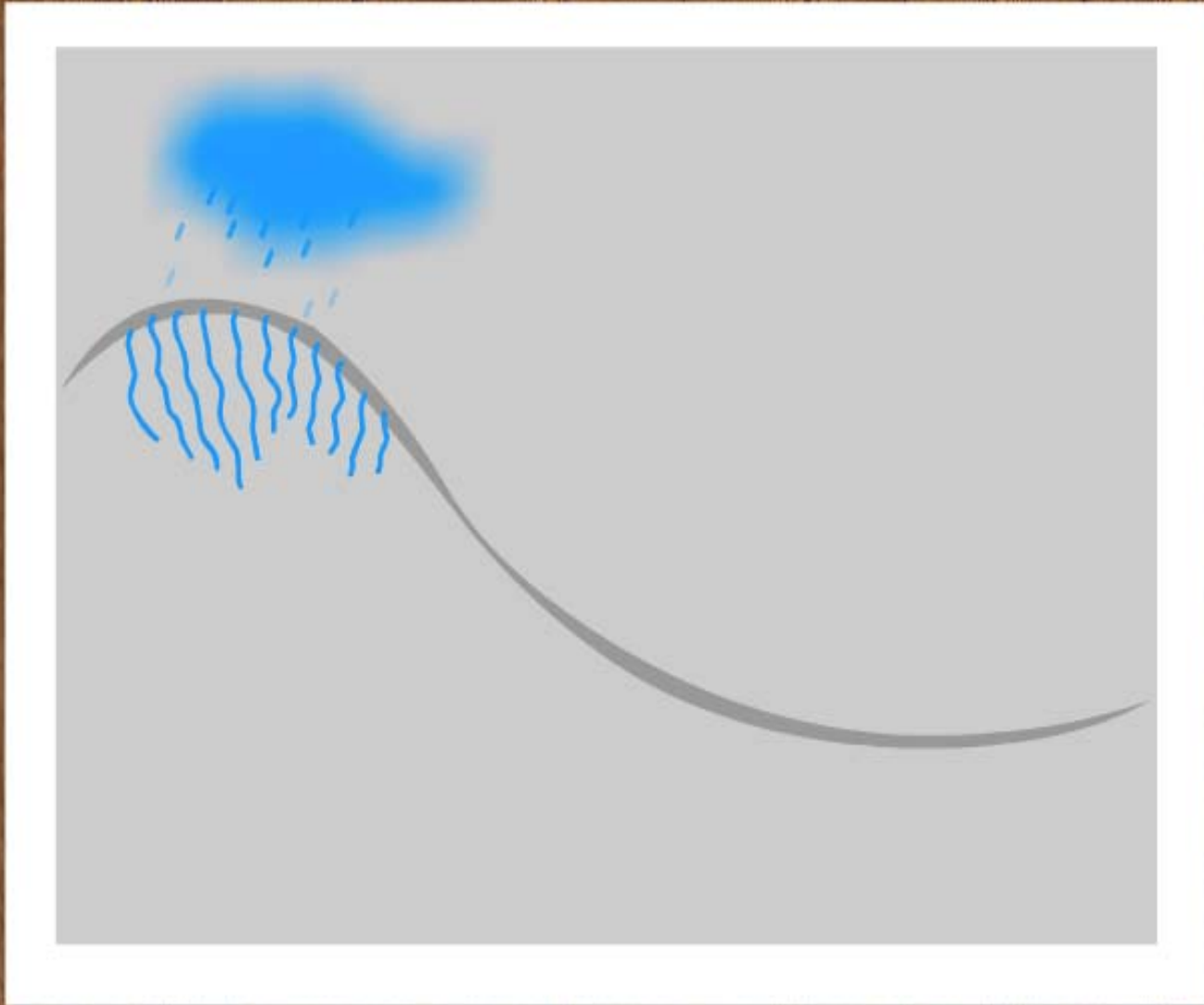
Koizumi (2003)

Neurons that fire together wire together.  
(Hebb, 1949)



Neurons that fire apart wire apart.  
Neurons out of sync fail to link.

# How thinking is formed & restricted!



# The Problem-solving Mind



# Enhanced Executive Function

## **Multilinguals:**

- have **enhanced control** over their thought processes
- can better **ignore distracting** and **irrelevant** stimuli.

# The Flexible Mind





# The **Flexible** Mind

- like a muscle
- seeing the world from different perspectives
- more avenues for thought
- $1 + 1 = \text{more than } 2$   
(multi-competence)

# The Interpersonal Mind



# The **Interpersonal** Mind

- contextual **sensitivity**
- highly developed **interactional competence** in communication
- helps to **nurture interpersonal communication** awareness and skills
- **potential for greater creativity** through social communication

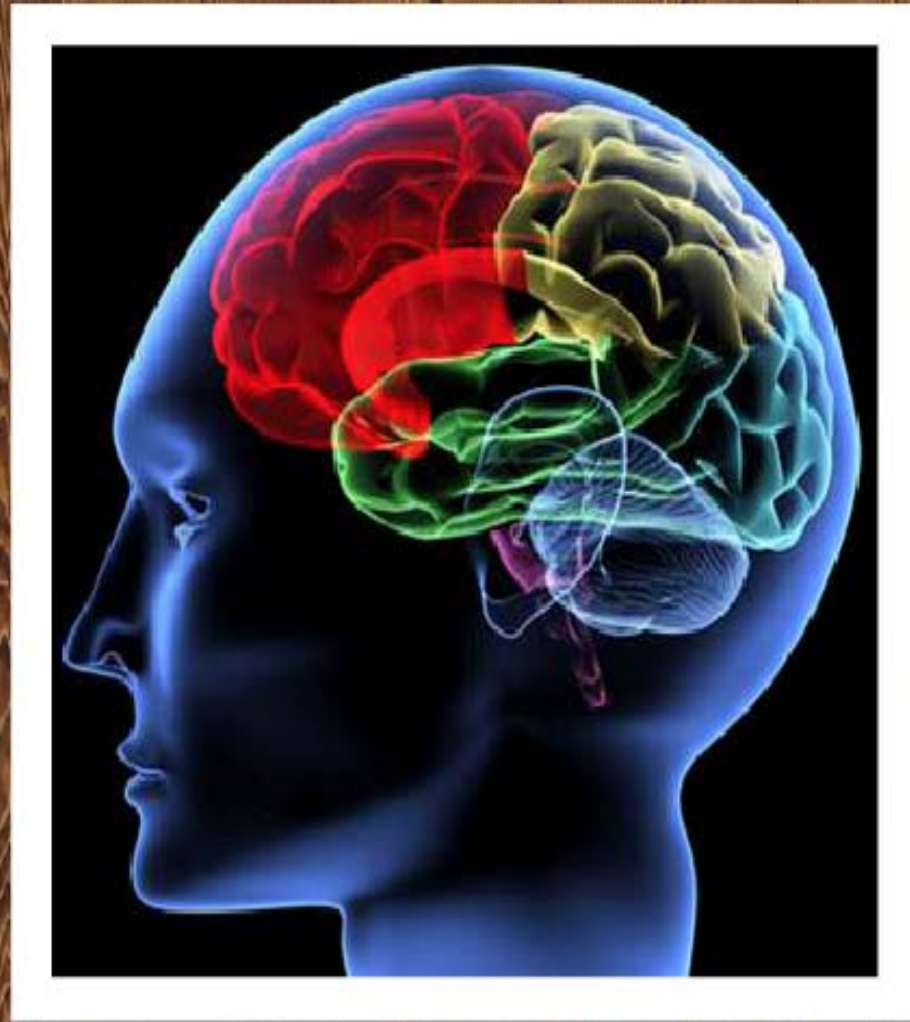
# The Metalinguistic Mind



# The **Metalinguistic** Mind

- awareness of language as a **tool** for **thinking** and **communication**
- greater understanding of how language is used to **achieve specific goals**

# The Learning Mind



# The **Learning** Mind

- improved episodic (what, when, where) memory
- improved semantic (how) memory
- memory central to learning process

# The Ageing Mind





# The Ageing Mind

- 3.9 years of additional mental acuity
- improved executive function and memory may slow down rate of decline

*Thank you!*

**Peeter Mehisto**  
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