

## Quantum Concept-Dynamics (Q-CD)

The Standard Model for Creativity

Pablo Garcia Tello, CERN-IdeaSquare



There are many  
definitions of creativity so  
please allow me to share  
my own.



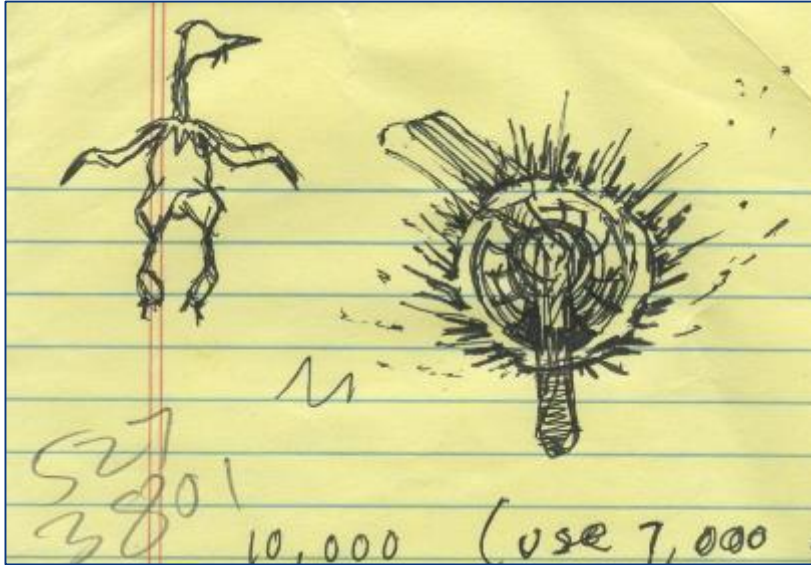


CREATIVITY  
IS  
SOMETHING...



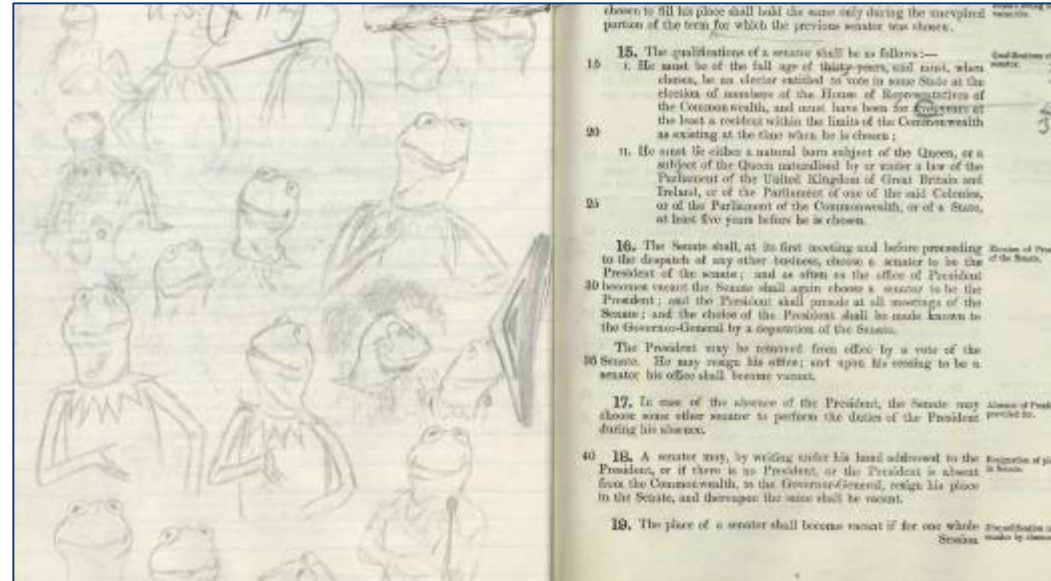
...THAT WE  
CANNOT AVOID  
AS A SPECIE.

We can find it even in the more adverse places...



Doodles during financial planning meetings...

Doodles during parliamentary sessions...



IdeaS

We are  
evolutionary wired  
for creativity





**40,000 years ago somebody did this...**

**Why?**

**What did it mean?**

**We don't fully know yet,  
but we are trying to understand it.**

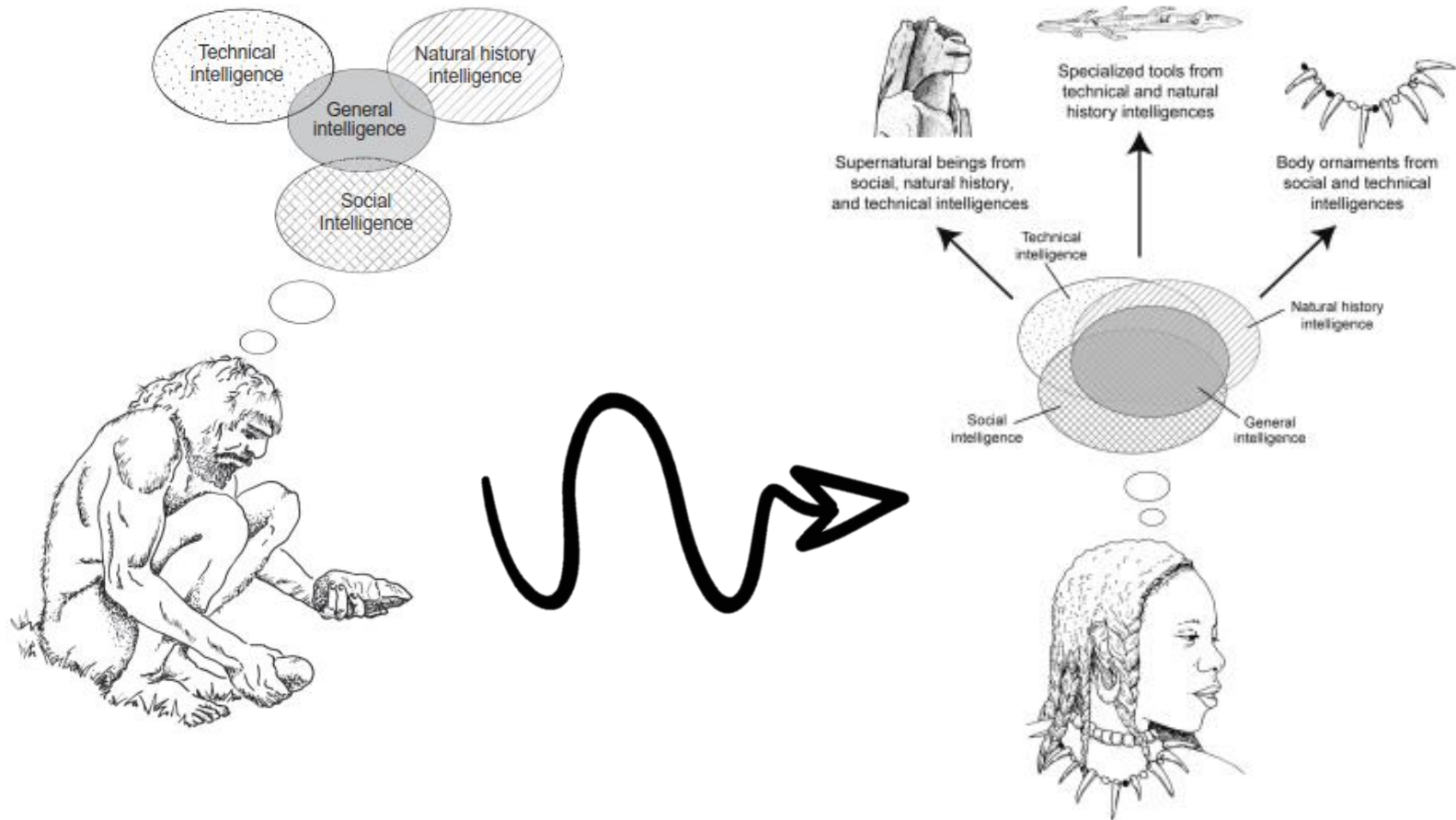




Idea<sup>s</sup>



# Probably earlier than 40,000 years ago we became *Homo Interpretans*

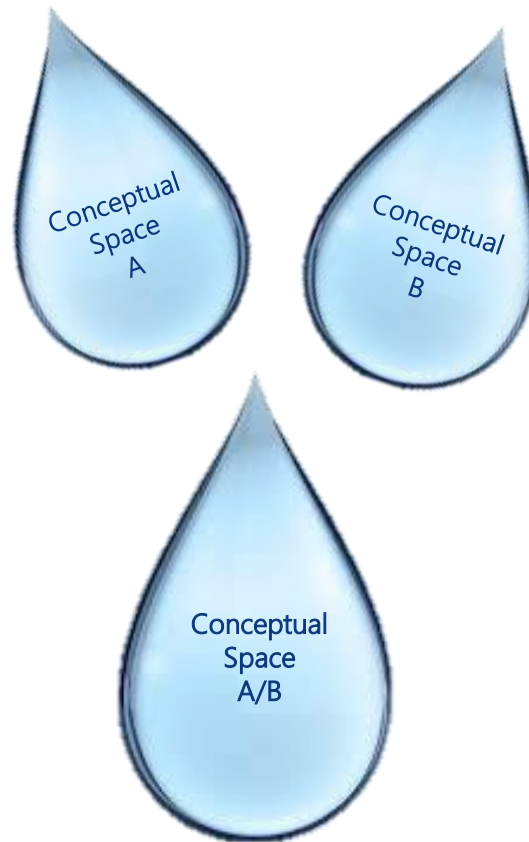


Mithen, S. J. 1996: *The Prehistory of the Mind: A Search for the Origin of Art, Science and Religion*. London: Thames and Hudson.

# How do we create?



# Interactions Between Conceptual Spaces



Fauconnier, G., & Turner, M. (2002). *The Way We Think: Conceptual Blending and the Mind's Hidden Complexities*. New York: Basic Books.

Boden, M. A. (1991). *The creative mind: Myths & mechanisms*. New York, NY, US: Basic Books.



# Some Examples



Your claims are **undefensible**.

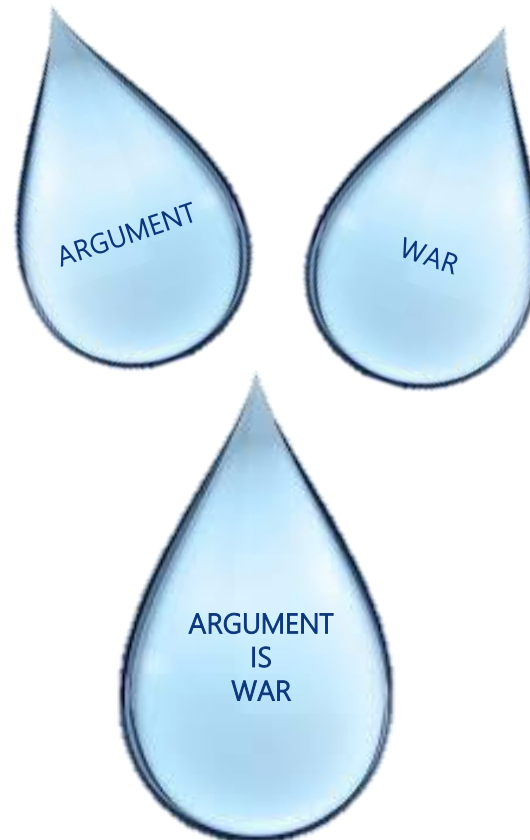
He **attacked** every **weak point** in my argument. His criticisms were **right on target**.

I **demolished** his argument.

I've never **won** an argument with him.

You disagree? Okay, **shoot!**

If you use that **strategy**, he'll **wipe you out**. He **shot down** all of my arguments.



I don't have the time to **give you**.  
How do you **spend** your time these days? That flat tire **costed** me an hour.  
I've **invested** a lot of time in her.  
I don't have enough time **to spare** for that.  
You need to **budget** your time.  
He's living on **borrowed** time.





# Storm form "Summer (Vivaldi)"

Antonio Vivaldi

Presto.  $\text{♩} = 160$

Violin

5

Vln.

7

Vln.

11

Vln.

14

Vln.

17

Vln.

20

Vln.

23

Vln.

26

Vln.

29

Vln.

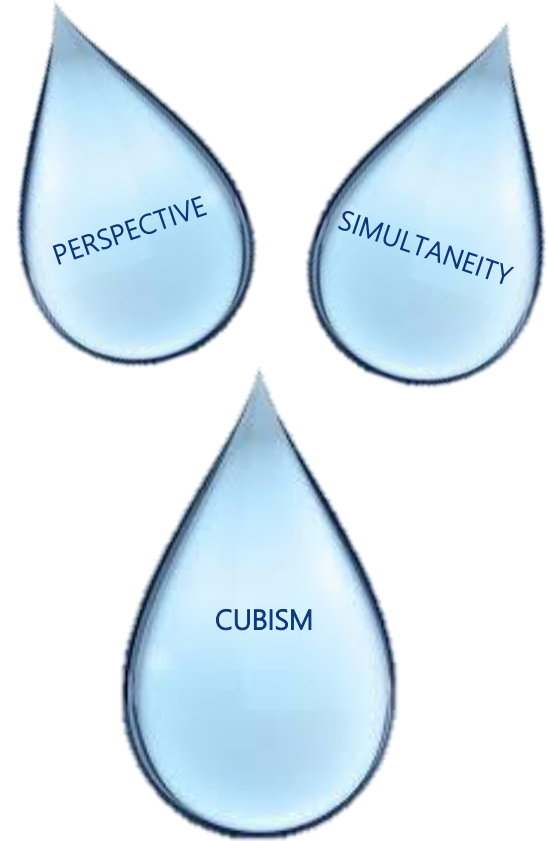
Copyright © 2015 JMRB Music Store.







Pablo Picasso

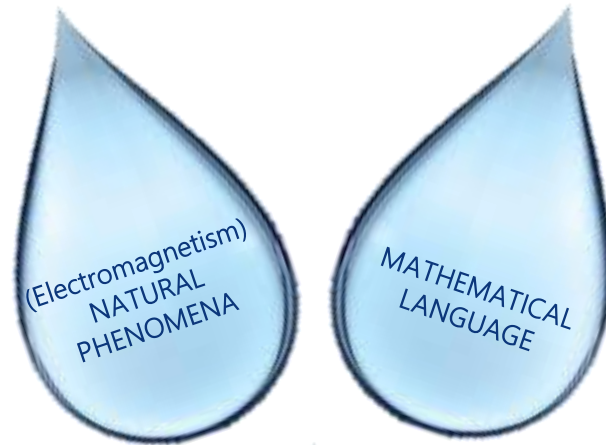


$$\nabla \cdot \mathbf{E} = \frac{\rho}{\epsilon_0}$$

$$\nabla \cdot \mathbf{B} = 0$$

$$\nabla \times \mathbf{E} = -\frac{\partial \mathbf{B}}{\partial t}$$

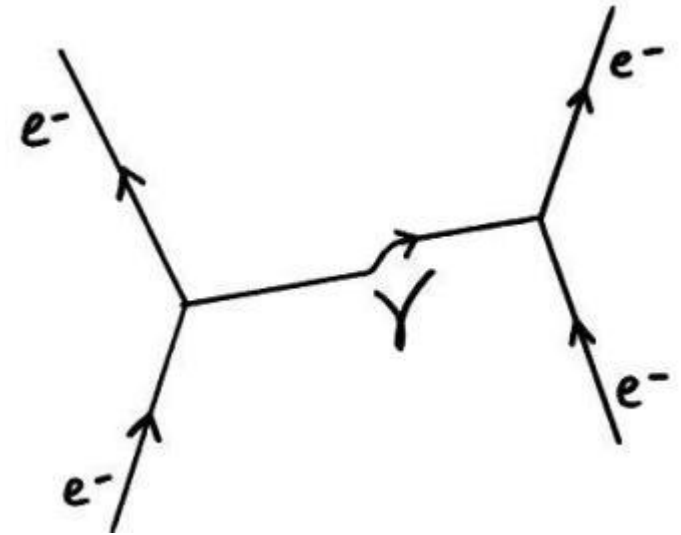
$$\nabla \times \mathbf{B} = \mu_0 \mathbf{j} + \frac{1}{c^2} \frac{\partial \mathbf{E}}{\partial t}$$



Also an interpretation of Nature

## Elementary Particles

quarks	$u$ up	$c$ charm	$t$ top	force carriers
	$d$ down	$s$ strange	$b$ bottom	
	$\nu_e$ electron neutrino	$\nu_\mu$ muon neutrino	$\nu_\tau$ tau neutrino	
leptons	$e$ electron	$\mu$ muon	$\tau$ tau	
	$\gamma$ photon	$g$ gluon	$Z$ Z boson	
			$W$ W boson	



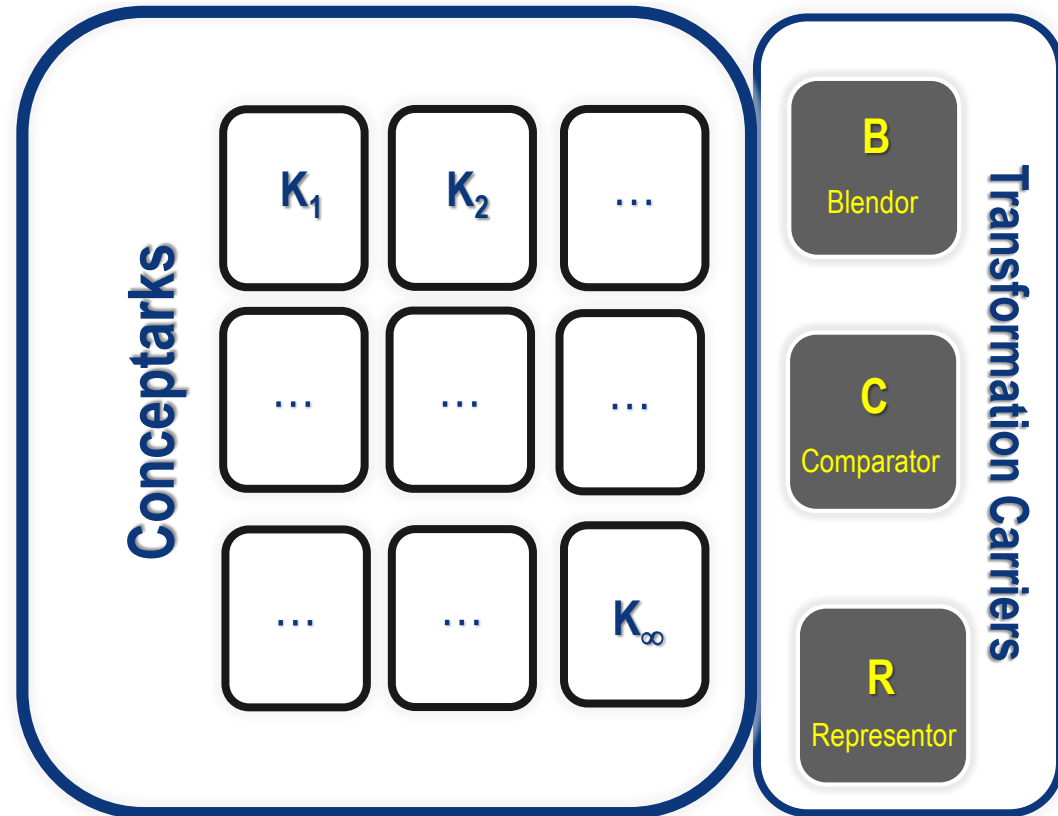
Let's continue interpreting and create the  
Standard Model for Creativity



## Elementary Particles

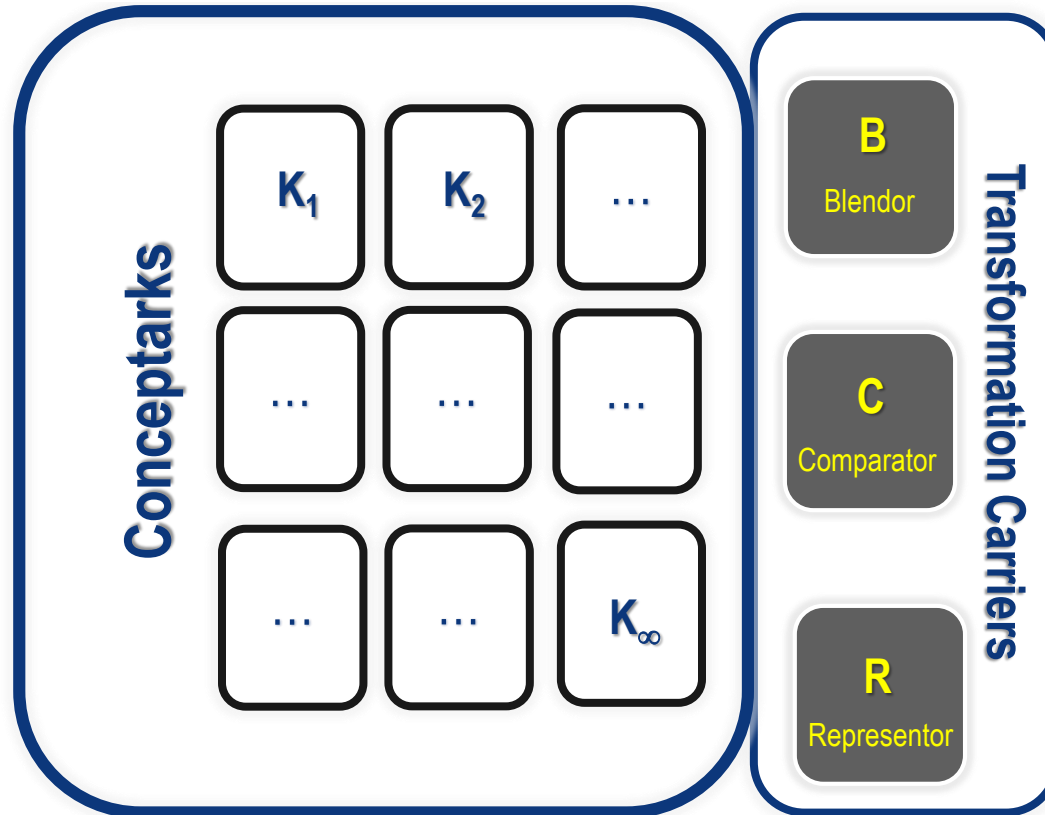
quarks	$u$ up	$c$ charm	$t$ top	force carriers	$\gamma$ photon
	$d$ down	$s$ strange	$b$ bottom		$g$ gluon
	$\nu_e$ electron neutrino	$\nu_\mu$ muon neutrino	$\nu_\tau$ tau neutrino		$Z$ Z boson
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## Elementary Meaning Particles

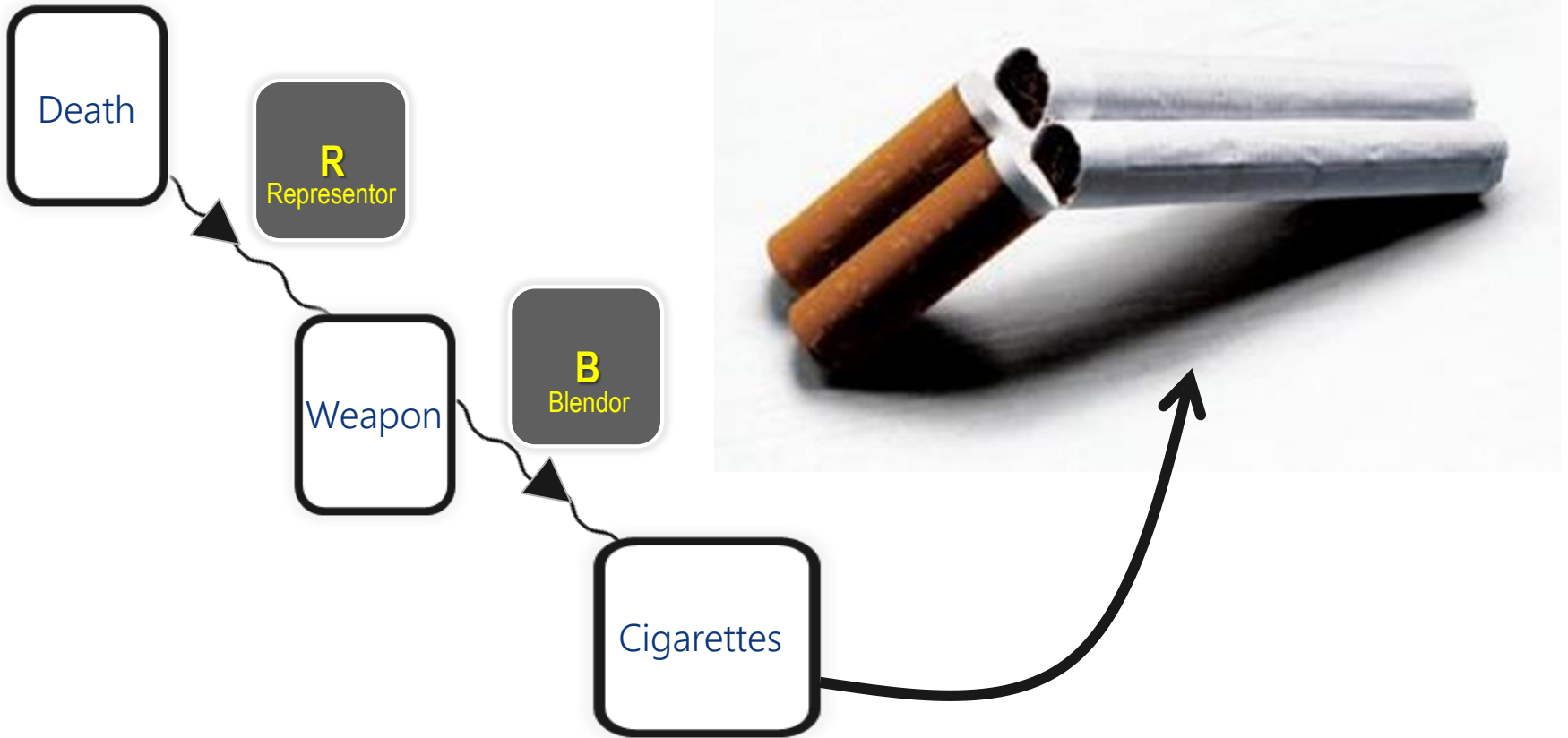


# Standard Model for Creativity

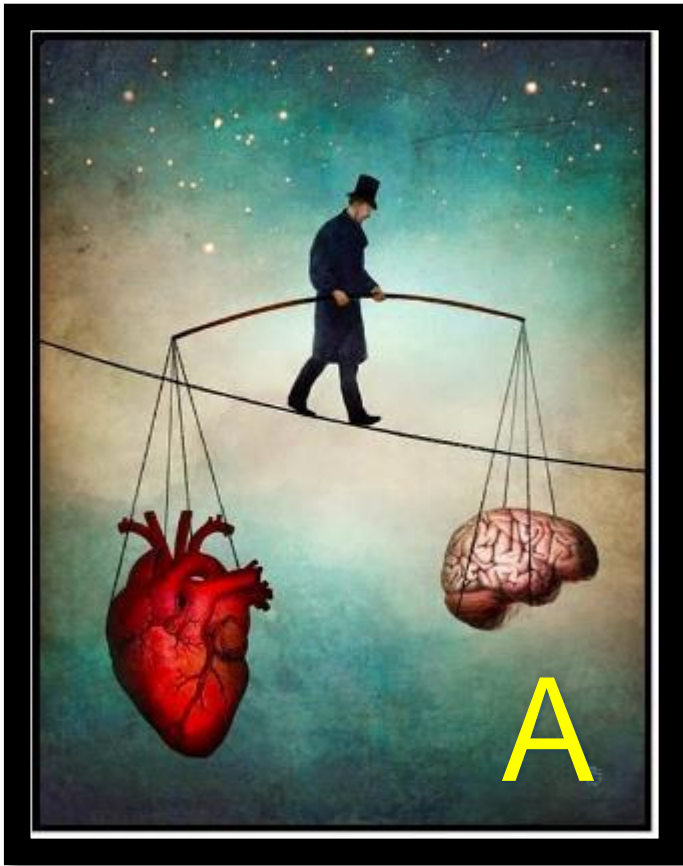
## Elementary Meaning Particles



# Example



# Your challenge (Part 1)



Analyse, draw and discuss the Q-CD diagram of the two images





# Your challenge (Part 2)

Using the Q-CD method, create and draw different signals for a society of the year 3500 expressing:

1. It is forbidden to use your tele-transporter in this building.
2. No transmission of thoughts in this area.
3. Watch out! White hole doors might close unexpectedly.
4. Be aware of space-time warps within the next 50 light years.
5. Only robotic pets vaccinated against software viruses allowed in this area.
6. It is strictly forbidden to go back in time within this building.



# Thanks!!!

## THE LIGHTS AND SHADOWS OF THE CREATIVE PROCESS

