

HoGent

BEDRIJF EN ORGANISATIE

Creative Thinking

Jens Buysse

Inhoud

1 What is creative thinking

- 2 Attitudes towards Creative Thinking
- **3** Creative techniques

4 Conclusions & lessons learned

What is creative thinking



What is thinking?



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Intro └─What is creative thinking

└─What is thinking?



What is thinking?

Descartes tries to give a definition of "thought" in principle I.9. By "thought" he tells us, he means to refer to anything marked by awareness or consciousness. This does not just include reasoning or other such intellectual activities but also imagining, sensing, willing, believing, doubting, hoping, dreading, and all other mental operations.

What is thinking?



-What is thinking?



Your brain is made of approximately 100 billion nerve cells, called neurons. Neurons have the amazing ability to gather and transmit electrochemical signals (up to several feet or a few meters) and send messages to each other. Dendrites or nerve endings. These small, branchlike projections of the cell make connections to other cells and allow the neuron to talk with other cells or perceive the environment. Dendrites can be located on one or both ends of a cell.

What is thinking?

Is $\underline{\mathsf{this}}$ an example of thinking?

Excercise

Take a sheet of paper and draw an alien

Most of the studenst will have drawn a default alien with arms and legs and eyes. But why not a blob, or a dot, or just a line ${\sf S}$

What is creative thinking?



What is creative thinking?



What is creative thinking?

- Experience is the sum of patterns.
- Patterns which we have created througout or life
- Creative thinking is trying to break these patterns which we are so accustomed to.



Excercise

 There is blood on the ceiling. There has been no muder of killing or accident. Nobody has played a trick on me. Can you suggest an explanation.



A mosquito bit me, landed on the ceiling and and I swatted it.

Excercise

There is a flash of light and a man dies. The man is not killed by any other person and he does not die of an illness like a heart attack . . . It is not suicide. Can you suggest an explanation? The man is a lion tamer, posing for a photo with the lion. Somebody took a picture and the lion reacted badly, so he gets mauled

Excercise

 An ordinary American Citizen with no passport on him visits over thirthy oreign countries in one day. He is welcomed in each country and leaves each one of his own accord?

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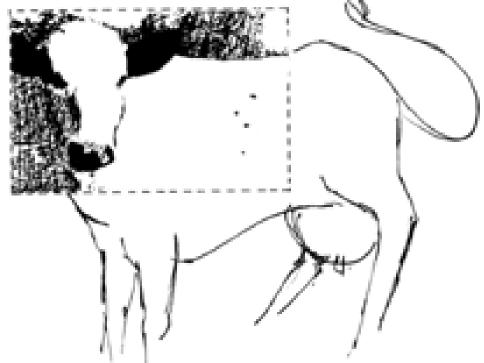
Excercise

He is a mail courier who delivers packages to different foreign embassies in the embassies. The land of an embassy belongs to the country of the embassy, not the united states.

Attitudes towards Creative Thinking

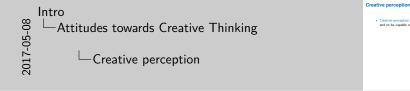






Creative perception

 Creative perception is to recognize your own dominant view and to be capable of finding alternative perceptions



Bikes were used during the war as a light source and not only a mode of transport

Creative perception

 Creative perception is to recognize your own dominant view and to be capable of finding alternative perceptions

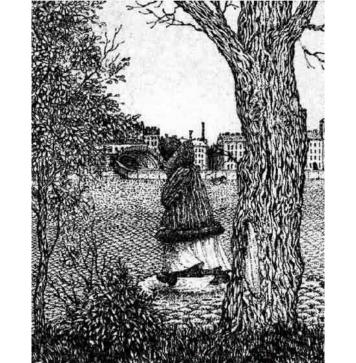




Couling perspire is to magazia your own dearmant view and to be capable of finding alternative perspiration.

Creative perception

Bikes were used during the war as a light source and not only a mode of transport







Postpone judgement

- We judge by different levels
 - Unconsciously: just do not listen
 - You are listening, but you decide if you pay attention
 - You are careful but you do not use the information

Unconsciously: just do not listenn

Postpone judgement



Postpone judgement: exercise

Think of something that you like very much. TV program, favorite chips ... Now you have to think of as many bad things as possible - no matter how weird. Try turning these things into something positive now.

Association

 In association, different things are linked to each other in mind.



Association

 In association, different things are linked to each other in mind.





Association

 In association, different things are linked to each other in mind.

Lemon





Associations

One popular answer to why fire trucks are red goes something like this:

Because they have eight wheels and four people on them, and four plus eight makes twelve, and there are twelve inches in a foot, and one foot is a ruler, and Queen Elizabeth was a ruler, and Queen Elizabeth was also a ship, and the ship sailed the seas, and there were fish in the seas, and fish have fins, and the Finns fought the Russians, and the Russians are red, and fire trucks are always Russian" around, so that's why fire trucks are red!"

Association exercises

- Normal association
- Association starting with pencil and ending with Jupiter
- Same as above but try to invent a story with the words found
- •

Continue when you are facing difficulties \rightarrow then it becomes interesting!

AEIFU

Questions is which letter does not fit the series. Of course there are multiple solutions, the more you look at the letters.

Diverge

Once you have an idea or a solution, it's important that you thoroughly understand and diverge the solution. For example, use association.









Creative techniques

The creative proces

- Start and prepare
- 2 Expiration phase (diverge)
- 3 Reconcile (converge)

Start & preparation

- Make a question or query in 1 sentence.
- Do not formulate broadly and maintain concrete focus
- The problem holder must be in the formulation
- Start the question with "How" or "Create"
- Overformulate the question

Direct analog

Find an analog: an object / animal $/ \dots$ that satisfies 1 of the following properties.

- As far as possible from the context of problem statement.
- Inspiring

Examples are: Countries (China), Animals (Squid) \dots Write down characteristics of it and use it as a starting point to solve our problem.

Analog: superhero

- Find a superhero that interests you:
- uExamples are: zorro, superman . . .
- How would this superhero solve it?
- Find answers in concrete solutions.

Personal analogy

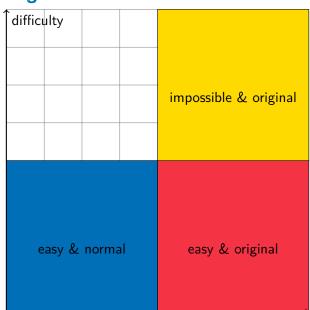
- 1 Choose an important object from the question statement.
- 2 Describe how you would feel if you were that object in that context. How would you react? How would you solve it?
- 3 Solve solution in concrete solutions.



Alphabet brainstorm

- Choose for each letter of the alphabet a possible solution ...
 - Α ...
 - В ...
 - C ...
- Make possible solution in concrete solutions

Converge

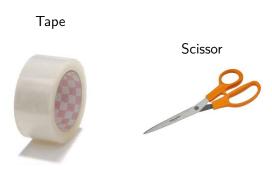


Converge & Combine

Tape



Converge & Combine



Converge & Combine



Combine yellow and red ideas

Birthday party in the forest + A theme party + Magic game = We celebrate Mum's birthday in the forest with a magic theme!

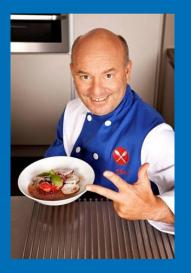
Combine yellow and red ideas

Everyone takes a strange object + Everybody takes something to sit up on

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Everyone takes something to sit up that is not a chair

Conclusions & lessons learned



Conclusions & lessons learned

Creative thinking is the art of breaking patterns

- Skills and attitudes
- Creative perception
- Deferral of judgment
- Associate
- Diverge

The creative process consists of three phases

- Starting phase
- 2 Diverge
- 3 Converge

Results in COCD \rightarrow Combine fun ideas!