



Metacognitive Training (MCT)

MCT 2 A – Jumping to Conclusions I

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- Sometimes, we come to a conclusion without 100% proof.



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 - making a hasty decision (risk: poor decision)
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- Sometimes, we come to a conclusion without 100% proof.
- A happy medium should be found between:
 - making a hasty decision (risk: poor decision)
 and
 - being overly accurate (disadvantage: takes too much time).



Inferences without 100% proof

Event	Explanation	justified?
Smoke is coming out of a window.	fire?	??? — What would you do?
A man is babbling.	drunk?	???



Inferences without 100% proof

Event	Explanation	justified?
Smoke is coming out of a window.	fire?	probably – saying: "No smoke without a fire!"Call the fire department: negligence may be worse than a false alarm.
A man is babbling.	drunk?	???



Inferences without 100% proof

Event	Explanation	justified?
Smoke is coming out of a window.	fire?	probably – saying: "No smoke without a fire!"Call the fire department: negligence may be worse than a false alarm.
A man is babbling.	drunk?	could be – but there are a number of other explanations (e.g. dementia, stroke). If you don't consider other explanations, you may insult him (e.g. showing disgust).



domain	example
politics	· · · · · · · · · · · · · · · · · · ·
medicine	???



domain	example
politics	People often jump to conclusions when they hear in the media about a crime. Depending on their political stance, they can be quick to attribute certain motives to the attacker. Example: The perpetrator and victim are members of a different race or religion. Many people believe that racism or extremism is the main motive behind the crime. Sometimes, these allegations do turn out to be true. In the public discussion, however, such assumptions are often made too quickly and alternative views are rarely considered.
medicine	???



domain	example
politics	People often jump to conclusions when they hear in the media about a crime. Depending on their political stance, they can be quick to attribute certain motives to the attacker. Example: The perpetrator and victim are members of a different race or religion. Many people believe that racism or extremism is the main motive behind the crime. Sometimes, these allegations do turn out to be true. In the public discussion, however, such assumptions are often made too quickly and alternative views are rarely considered.
medicine	Single symptom → diagnosis? A single seizure is sometimes mistaken as epilepsy (seizures can also occur after alcohol withdrawal and high fever). On the other hand, some diagnoses are overlooked because an in depth diagnostic evaluation is not carried out (e.g. cancer).



Urban legends –

(for an alternative exercise, see end of presentation)

Legend	For & Against	"Evidence"
Paul McCartney (Beatles) died in 1966 in an accident and was replaced by a double.	For: ??? Against: ???	



Urban legends –

Legend	For & Against	"Evidence"
Paul McCartney (Beatles) died in 1966 in an accident and was replaced by a double	 For: allegedly over 70 hidden clues, some on the "Abbey Road-Cover" (on the right): Paul is barefoot and deathly pale. Paul is left-handed, but is holding his cigarette with his right hand! Licence plate "LMW" (see arrow): "Linda McCartney Weeping". Also, his bass playing is said to have changed since 1966. Against: ??? 	



Urban legends –

Legend	For & Against	"Evidence"
Paul McCartney (Beatles) died in 1966 in an accident and was replaced by a double	 For: allegedly over 70 hidden clues, some on the "Abbey Road-Cover" (on the right): Paul is barefoot and deathly pale. Paul is left-handed, but is holding his cigarette with his right hand! Licence plate "LMW" (see arrow): "Linda McCartney Weeping". Also, his bass playing is said to have changed since 1966. Against: Same appearance and voice. Evidence seems made up, LMW could mean anything. Origin: legend emerged in 1969 from a well directed newspaper hoax. 	

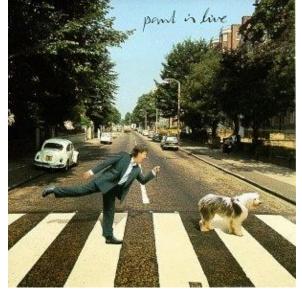


Urban legends –

Was Paul McCartney replaced by a double?







McCartney's humorous response to the rumors relating to his death: a solo album with the title "Paul is live". Note, the cover is similar to the Abbey road cover shown before.

No!





555



How did this urban legend and other conspiracy theories arise?

- They are often more exciting than reality!
- They are based on statements that are difficult to check or prove (e.g. that the bass playing style of Paul McCartney had changed).
- They conceal alternative explanations (e.g. that LMW can mean anything).
- Legends are sometimes based on facts that are taken out of context. The significance of these details is also largely exaggerated (McCartney really is left-handed, however, that does not exclude the possibility of holding a cigarette in his right hand, e.g. because the photographer asked him to).



How did this urban legend and other conspiracy theories arise?

- There are numerous examples in history where minorities and outcasts were falsely blamed for uncontrollable, catastrophic events. For example, in medieval times a poor harvest was often blamed on witchcraft or religious minorities.
- These simple explanations reduced tension and fear and provided the illusion of control.



Why are we doing this?

• Studies show that many people with psychosis (but not all!) make decisions on the basis of little information.



Why are we doing this?

- Studies show that many people with psychosis (but not all!) make decisions on the basis
 of little information.
- This style of decision making can easily lead to errors.
 Therefore, it is better to use a decision- making style that takes into account all available information.



Metacognitive Training 2 - Jumping to Conclusions I 22

How jumping to conclusion promotes misinterpretations during psychosis – examples

Event	Explanation during psychosis	Other explanations
You hear a crackling noise on the phone line.	The CIA is eavesdropping on you.	Wire damage; typical sounds of a distant call; dead spot during cell phone call.
Radio plays "Toxic" by Britney Spears.	Secret sign for an upcoming toxic chemical attack.	Radio station specializes in pop music.
White dust on the kitchen table, wasn't there before.	An attempt to poison you with anthrax has been made; the police planted drugs to frame you.	Someone has just been baking; no one has dusted for a while.

Can anyone contribute a short personal experience?





Task (1)

In the following you will see a series of pictures. It starts with only one detail of the picture.

Then, another detail is added. This continues until the whole picture is revealed.

• Your task is to identify the object.



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In the following you will see a series of pictures. It starts with only one detail of the picture.

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- Try to avoid hasty as well as prolonged decision-making.



Task (1)

In the following you will see a series of pictures. It starts with only one detail of the picture.

Then, another detail is added. This continues until the whole picture is revealed.

- Your task is to identify the object.
- Try to avoid hasty as well as prolonged decision-making.
- Discuss evidence for and against each alternative.



Picture 1

Several alternative interpretations are provided.

Please discuss with the group how likely you find each option and whether you feel confident enough to make a decision.



- smiling face
- bowl
- boat
- sled
- rocking chair
- elephant's head



How confident are you?



What might be presented in this picture?

- smiling face
- bowl
- boat
- sled
- rocking chair
- elephant's head



How confident are you?



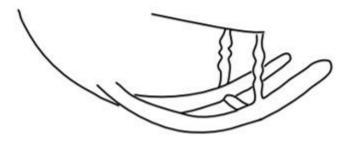
- smiling face
- bowl
- boat
- sled
- rocking chair
- elephant's head



How confident are you?



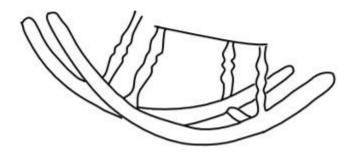
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- elephant's head



How confident are you?



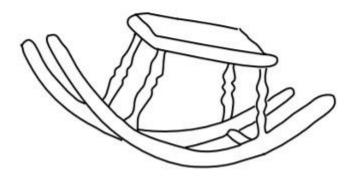
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How confident are you?



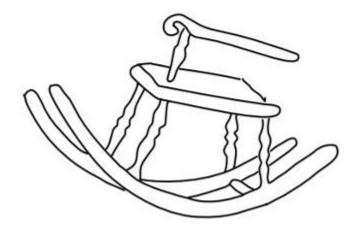
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How confident are you?



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How confident are you?



- smiling face
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How confident are you?





Picture 2

Here, no response alternatives are provided. You have to come up with your own ideas about the picture. Feel free to offer several alternatives. Please discuss your evaluations with the group.





How confident are you?

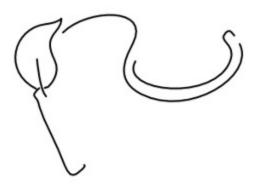






How confident are you?



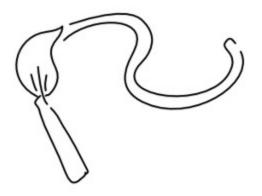


How confident are you?



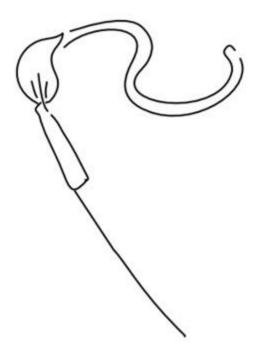
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What might be presented in this picture?



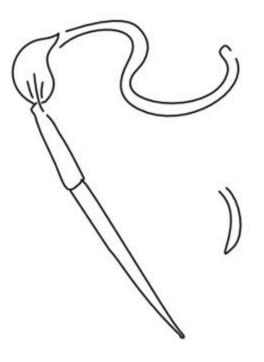
How confident are you?





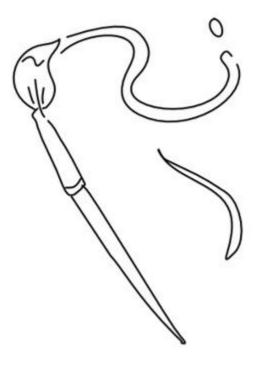
How confident are you?





How confident are you?





How confident are you?



44

What might be presented in this picture?



How confident are you?



Picture 3





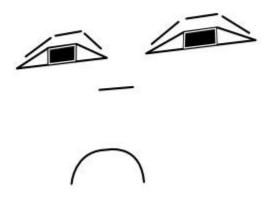
How confident are you?





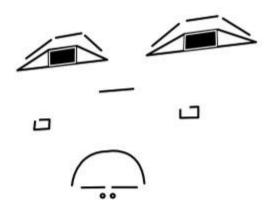
How confident are you?





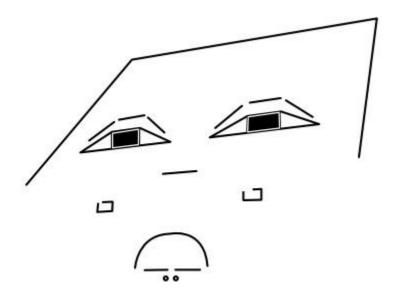
How confident are you?





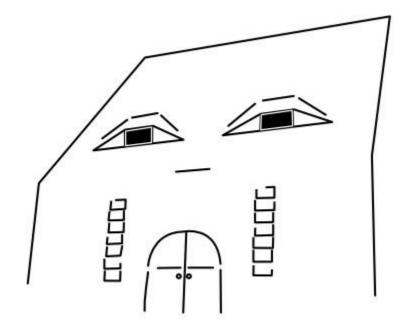
How confident are you?





How confident are you?





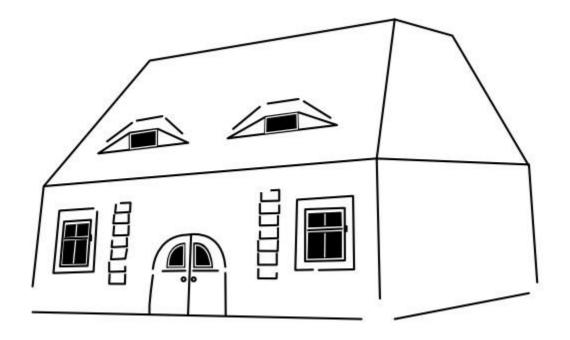
How confident are you?





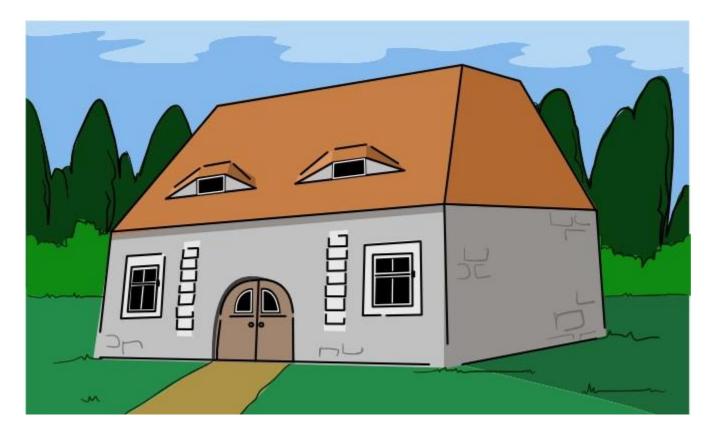
How confident are you?





How confident are you?





How confident are you?





Picture 4



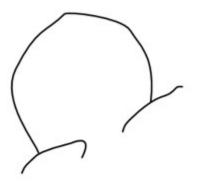
Metacognitive Training 2 - Jumping to Conclusions I

What might be presented in this picture?



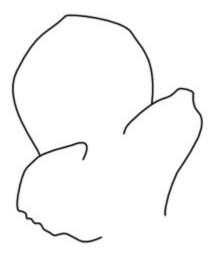
How confident are you?





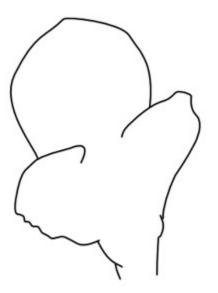
How confident are you?





How confident are you?

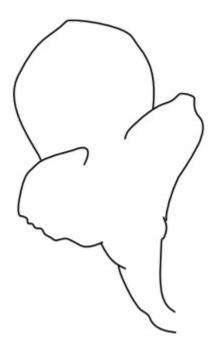




How confident are you?





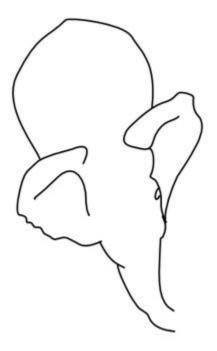


How confident are you?



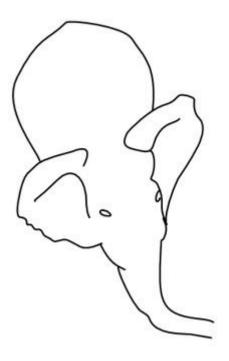
Metacognitive Training 2 - Jumping to Conclusions I

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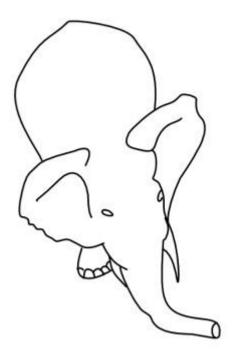
How confident are you?





How confident are you?

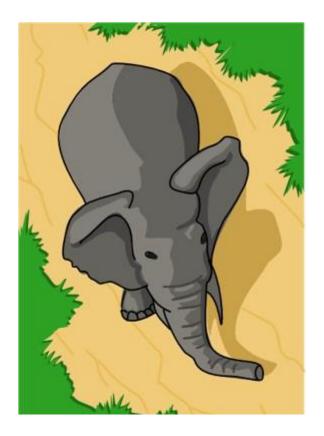




How confident are you?







How confident are you?



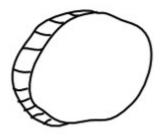






How confident are you?





How confident are you?





How confident are you?





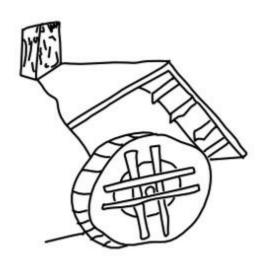
How confident are you?





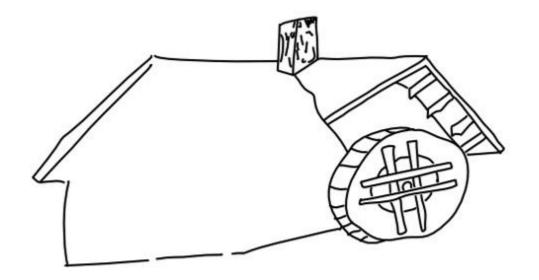
How confident are you?





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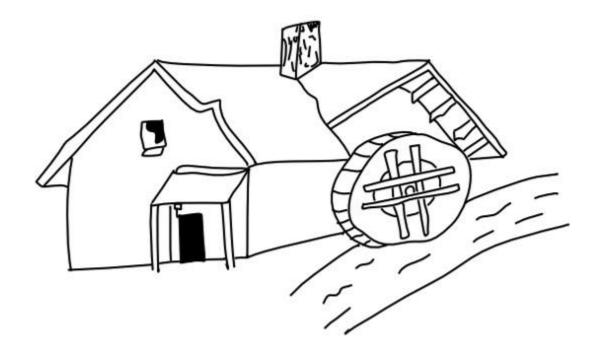


How confident are you?



ping to Conclusions I 73

What might be presented in this picture?



How confident are you?



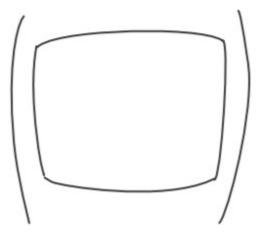


How confident are you?



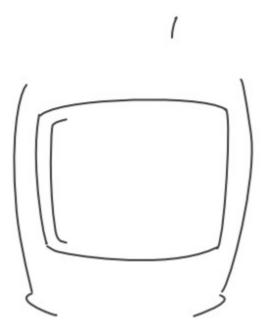
Picture 6





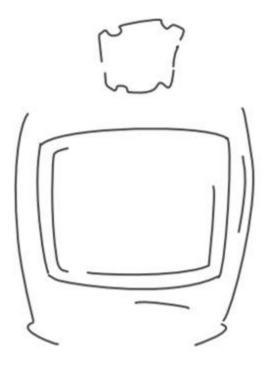
How confident are you?





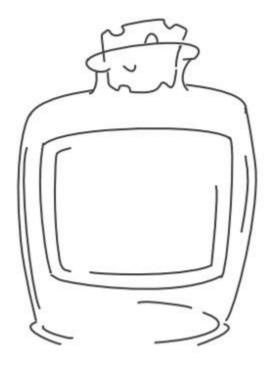
How confident are you?





How confident are you?



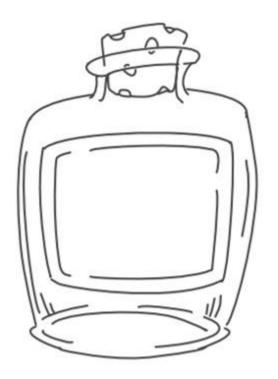


How confident are you?



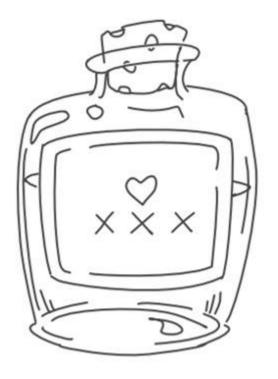
Metacognitive Training 2 - Jumping to Conclusions I 80

What might be presented in this picture?



How confident are you?





How confident are you?





How confident are you?



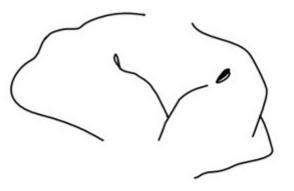
Picture 7





How confident are you?

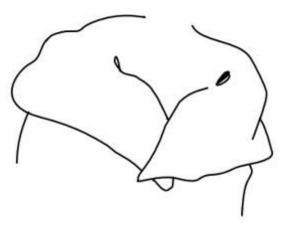




How confident are you?







How confident are you?





How confident are you?

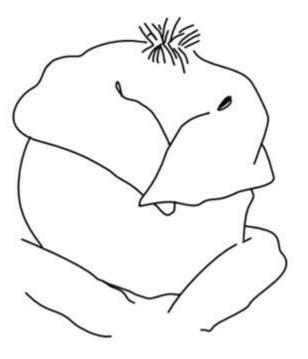






How confident are you?





How confident are you?





How confident are you?





How confident are you?





How confident are you?



Optional: Videoclip

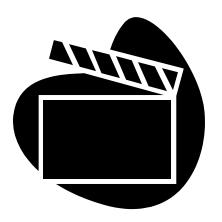
Video clip presentations that address today's topic are available at the following web site:

http://www.uke.de/mct_videos

After the video, you may discuss how it is related to today's topic.

[for trainers:

Some movie clips contain language that may not be appropriate for all audiences and across all cultures. Please carefully pre-screen videos before showing]











- saw
- old bridge
- hedgehog
- tuft of grass
- dragon
- fence
- mountain landscape
- porcupine
- ear



How confident are you?





- saw
- old bridge
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- tuft of grass
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- fence
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- porcupine
- ear



How confident are you?



nclusions I 97

What might be presented in this picture?

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How confident are you?



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How confident are you?



Picture 9





How confident are you?





How confident are you?





How confident are you?



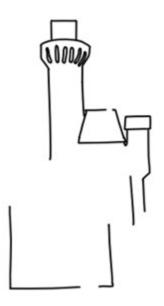
ping to Conclusions I 107

What might be presented in this picture?



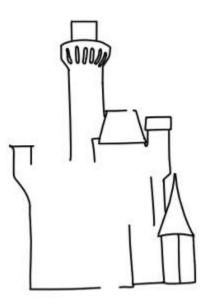
How confident are you?





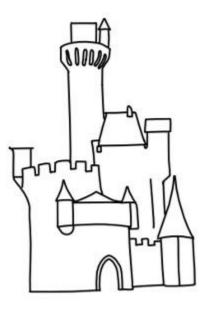
How confident are you?





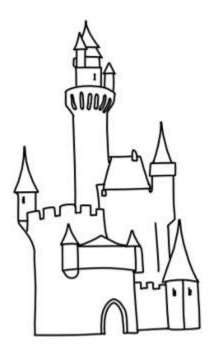
How confident are you?





How confident are you?





How confident are you?





How confident are you?



Picture 10





- rope
- anchor
- necklace with pendant
- snake
- parrot
- spaghetti
- bean stalk
- flower
- highway



How confident are you?





- rope
- anchor
- necklace with pendant
- snake
- parrot
- spaghetti
- bean stalk
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- highway



How confident are you?





- rope
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How confident are you?





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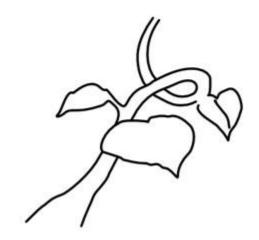


How confident are you?





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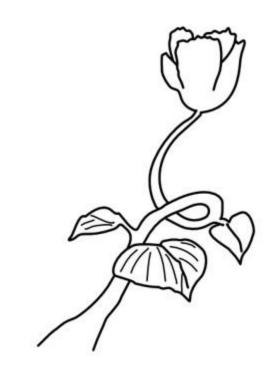


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How confident are you?

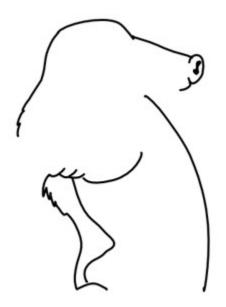






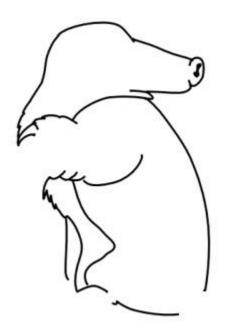
How confident are you?





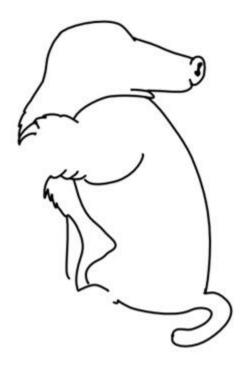
How confident are you?





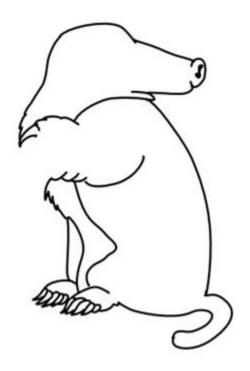
How confident are you?





How confident are you?





How confident are you?





How confident are you?





How confident are you?





How confident are you?



Picture 12





- seal
- man in winter clothes
- flower
- river scenery
- mermaid
- octopus
- harp
- mussel
- fish



How confident are you?





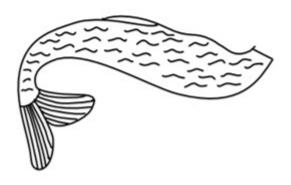
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How confident are you?



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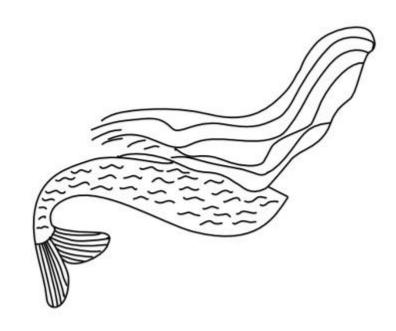


How confident are you?





- seal
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- fish

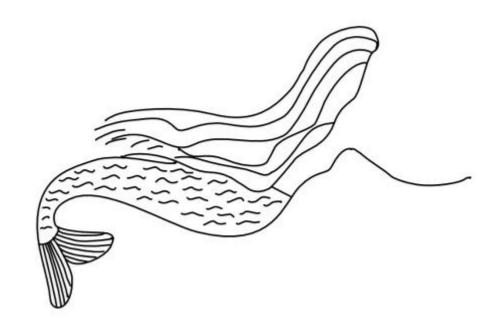


How confident are you?





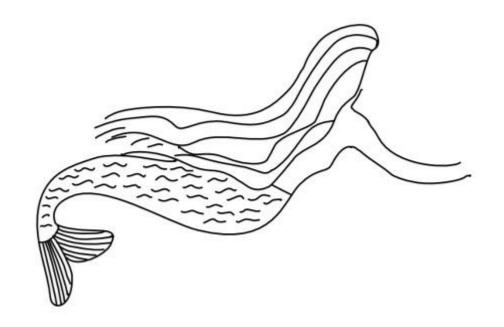
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- man in winter clothes
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- river scenery
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How confident are you?



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- mussel
- fish

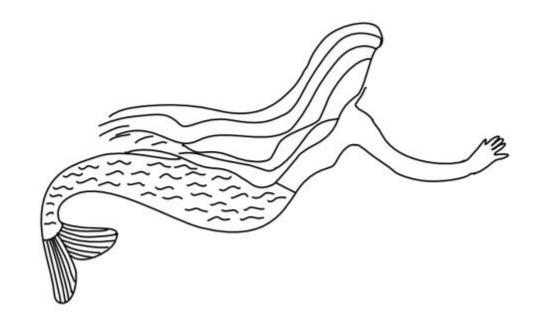


How confident are you?





- seal
- man in winter clothes
- flower
- river scenery
- mermaid
- octopus
- harp
- mussel
- fish

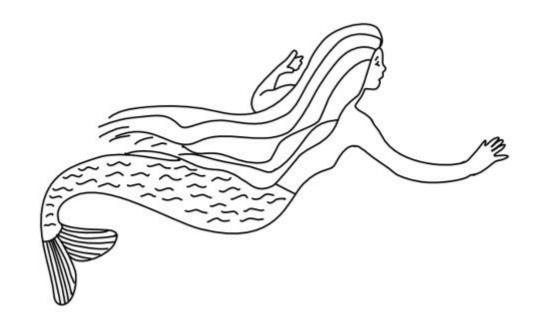


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How confident are you?



Task 2:



What do you see?





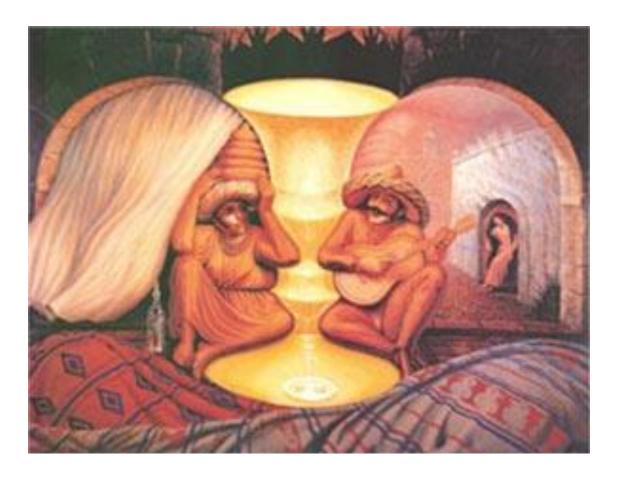
What do you see now?



Old couple, goblet or ...?

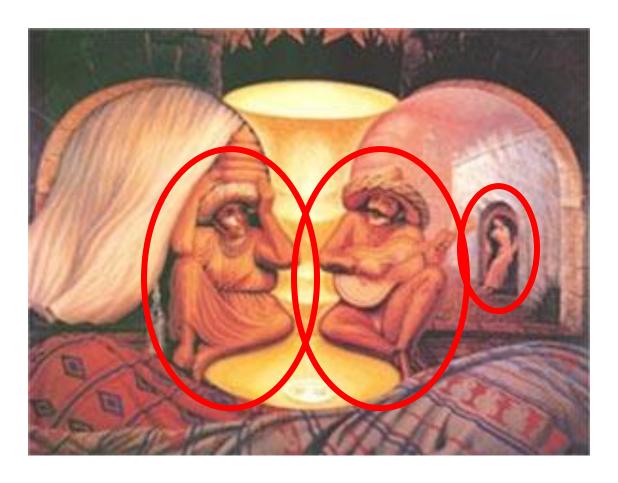


What do you see?





What do you see?





Metacognitive Training 2 - Jumping to Conclusions I 148

Hasty decisions do not always lead to errors but sometimes tell only half the story!





Try to discover all the details/figures in the following pictures!











Old woman, young woman, man with mustache?



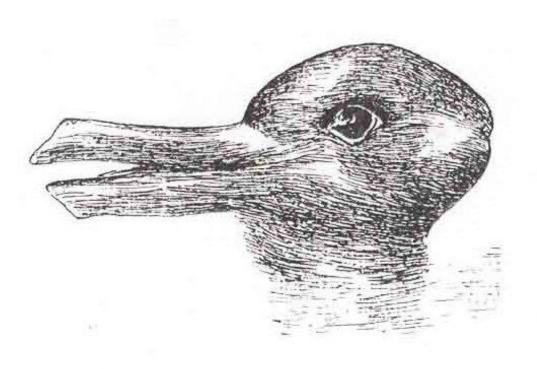




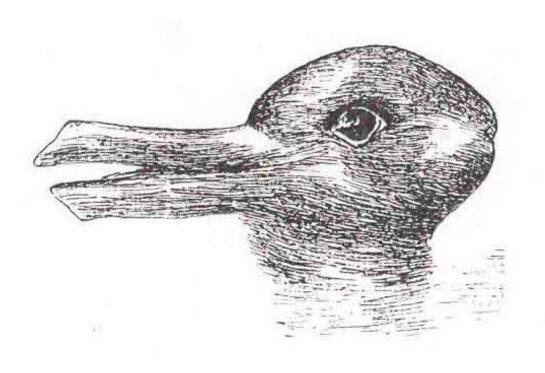


Old man or rider?







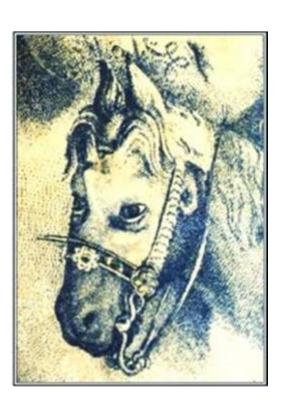


Duck or rabbit?



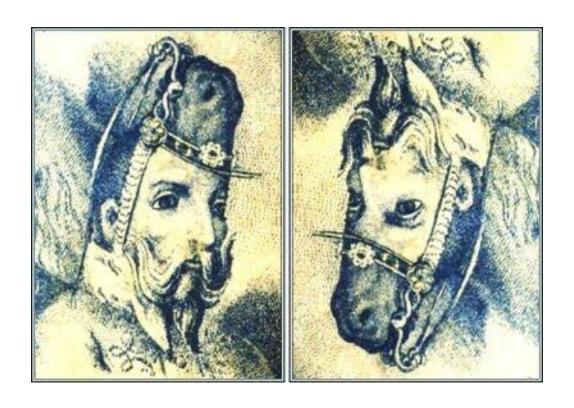






What would you see if you turned the picture upside down?



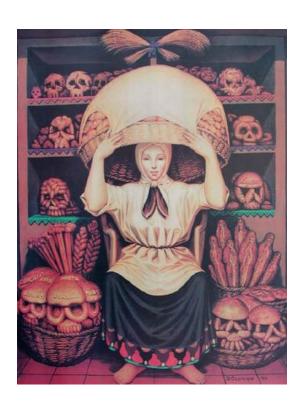


Horse or rider?









Skull or bakery?



What do you see?

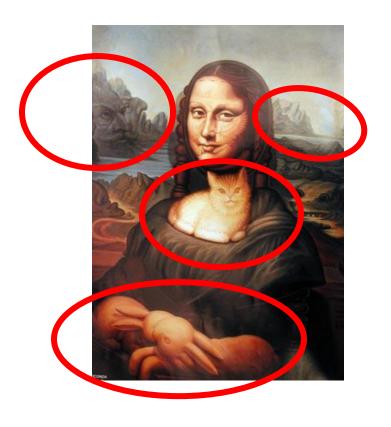




Try to discover all details!











Learning objectives:

The last slides demonstrate that quick decisions can lead to mistakes and often only "half the truth" is recognized.



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- Therefore look for as much information as possible and exchange views with others, especially if decisions are crucial or have dramatic implications (e.g. feeling that your neighbor is chasing after you → don't attack the assumedenemies!).



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- For events of minor importance, we may as well decide quickly (e.g. choosing a yogurt brand or sort of cake, picking lottery numbers).
- To err is human be prepared for the possibility that you are wrong.
- Base important decisions on solid facts. Mere guesses are "bad advisers." Always consider the consequences of a wrong judgment.





What does this have to do with psychosis?

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Example: While attending a public social event, Carl claims to be the next King of Germany.

Background: Carl found a figure of a king with a crown in a surprise egg.

But: He has no royal blood, the monarchy was abolished in Germany long ago; but above all: The content of the surprise egg can't be considered conclusive evidence!



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But: He has no royal blood, the monarchy was abolished in Germany long ago; but above all: The content of the surprise egg can't be considered conclusive evidence!

Many pieces of information should be considered. Discuss a variety of explanations and opinions with people you trust.



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Thank you for your attention!

for trainers:

Please hand out worksheets. Introduce our app COGITO (download free of charge).



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Alan Light	flickr	Paul McCartney	CC	The older Paul McCartney/ Älterer Paul McCartney
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Legend	Conspiracy theorists	"Evidence"
Allegedly the moon landing in 1969 never took place and was merely a fake.	Arguments Pro?	



Legend	Conspiracy theorists	"Evidence"
Allegedly the moon landing in 1969 never took place and was merely a fake.	 Alleged motives of the USA: "Technological victory" in space travel competition with the Soviet Union, which had successfully launched a satellite into space earlier Distraction from the Vietnam-War NASA itself faked the moon landing for fear of governmental budget cutback 	



Legend	For and Against	"Evidence"
Allegedly the moon landing in 1969 never took place and was merely a fake.	For: ???	



Legend	For and Against	"Evidence"
Allegedly the moon landing in 1969 never took place and was merely a fake.	 "Waving flag": impossible because there is no atmosphere/weather on the moon Pictures of starless sky and varying shadows indicate a film studio production Astronaut Armstrong's radio message: He responds too quickly to president Nixon's last sentence. Radio signals need more time to be transmitted to earth than it took Armstrong to answer 	



Legend	For and Against	"Evidence"
Allegedly the moon landing in 1969 never took place and was merely a fake.	Against: ???	



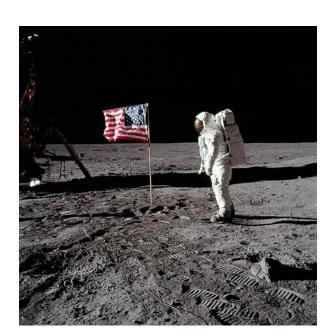
Legend For and Against "Evidence"	
Allegedly the moon landing in 1969 never took place and was merely a fake. 1. The waving of the flag was caused by ramming the pole into the moon's surface and a supporting mounted crossbar 2. Night photographies cannot capture weak light sources due to exposure times → no stars 3. The varying shadows were caused by the uneven moon surface 4. The interview had been edited in order to cover the original time delay between Nixon's and Armstrong's dialog	



Urban legends –

Was the moon landing faked by the US Government?

No!



Director Roland Emmerich (Independence Day): "The moon landing (...) was just too good. Such a thing was impossible to stage in the 1960s. Even with today's equipment this would pose problems."

Source: German television station ZDF: "Vorsicht Verschwörung" (Beware conspiracy)





How did this urban legend and other conspiracy theories arise?

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How did this urban legend and other conspiracy theories arise?

- They are often more compelling than reality.
- They are based on facts that are hard to check and people believe them easily (e.g., waving flag suggests that pictures were taken on earth).
- They conceal alternative explanations (e.g., the starless sky can be explained by the technical limitations of night photography).
- Urban legends take facts out of context and push them to the limit.