



Metacognitive Training (MCT)

MCT 2 A – Jumping to Conclusions I

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Jumping to Conclusions

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 - and*



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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

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Smoke is coming out of a window.	fire?	<p>probably – saying: “No smoke without a fire!”</p> <p>Call the fire department: negligence may be worse than a false alarm.</p>
A man is babbling.	drunk?	???



Inferences without 100% proof

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



Jumping to conclusions “in action”

domain	example
politics	???
medicine	???



Jumping to conclusions “in action”

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politics	<p>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.</p> <p>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.</p> <p>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.</p>
medicine	???



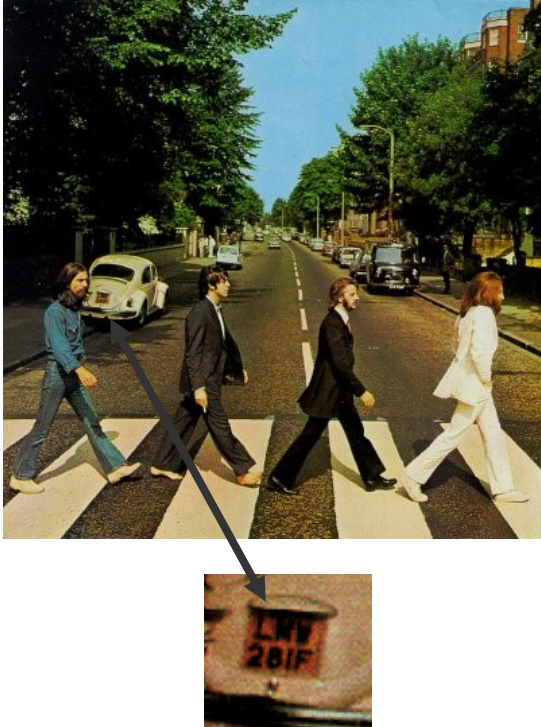
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politics	<p>People often jump to conclusions when they hear in the media about a crime. Depending on their political stance, they can be quick to attribute certain motives to the attacker.</p> <p>Example: The perpetrator and victim are members of a different race or religion. Many people believe that racism or extremism is the main motive behind the crime.</p> <p>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.</p>
medicine	<p>Single symptom → diagnosis?</p> <p>A single seizure is sometimes mistaken as epilepsy (seizures can also occur after alcohol withdrawal and high fever).</p> <p>On the other hand, some diagnoses are overlooked because an in depth diagnostic evaluation is not carried out (e.g. cancer).</p>



Jumping to conclusions “in action”

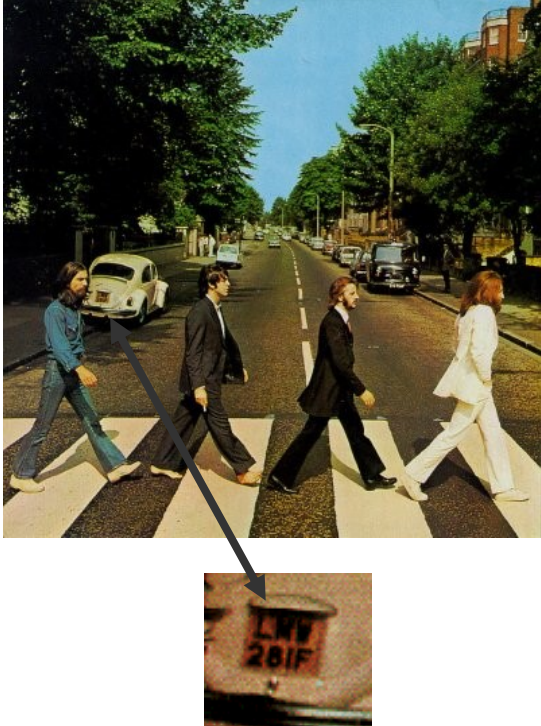
– Urban legends –
(for an alternative exercise, see end of presentation)

Legend	For & Against	“Evidence”
<p>Paul McCartney (Beatles) died in 1966 in an accident and was replaced by a double.</p>	<p>For: ???</p> <p>Against: ???</p>	



Jumping to conclusions “in action”

– Urban legends –

Legend	For & Against	“Evidence”
<p>Paul McCartney (Beatles) died in 1966 in an accident and was replaced by a double</p>	<p>For: allegedly over 70 hidden clues, some on the “Abbey Road-Cover” (on the right):</p> <ul style="list-style-type: none"> • 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. <p>Against: ???</p>	



Jumping to conclusions “in action”

– Urban legends –

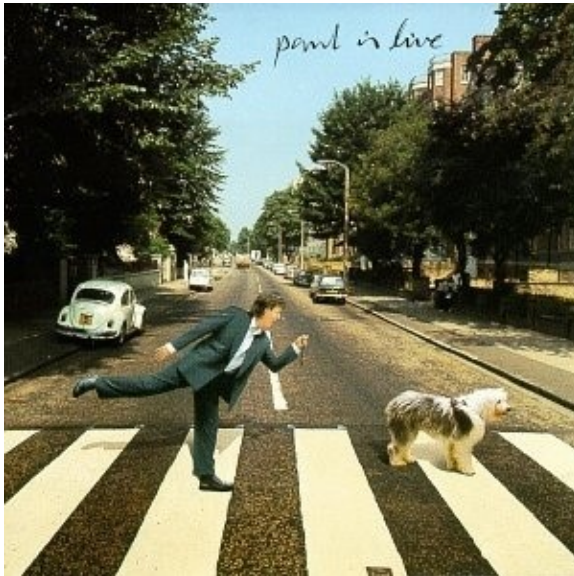
Legend	For & Against	“Evidence”
<p>Paul McCartney (Beatles) died in 1966 in an accident and was replaced by a double</p>	<p>For: allegedly over 70 hidden clues, some on the “Abbey Road-Cover” (on the right):</p> <ul style="list-style-type: none"> • Paul is barefoot and deathly pale. • Paul is left-handed, 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. <p>Against:</p> <ul style="list-style-type: none"> • Same appearance and voice. • Evidence seems made up, LMW could mean anything. • Origin: legend emerged in 1969 from a well directed newspaper hoax. 	<p>The image shows the iconic Abbey Road cover of The Beatles. A black arrow points from the text 'Licence plate "LMW" (see arrow): "Linda McCartney Weeping"' in the 'For' section to a close-up inset of a license plate that reads 'LMW 281F'.</p>



Jumping to conclusions “in action”

– 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!



How did this urban legend and other conspiracy theories arise?

???



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.



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



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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.



What might be presented in this picture?

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



How confident are you?

Do you want to make a decision yet?



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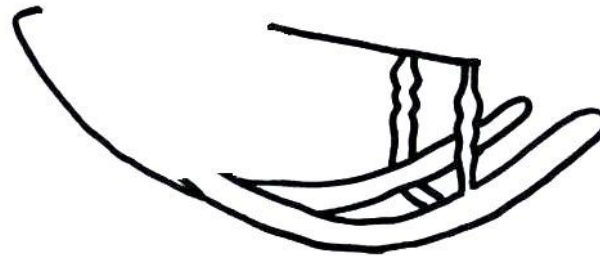
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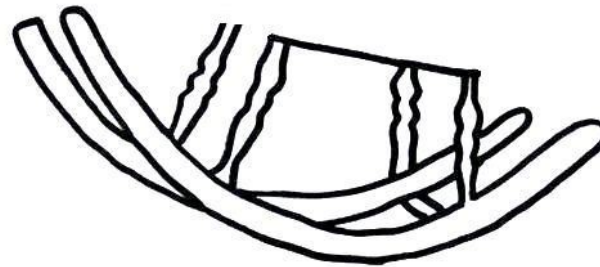
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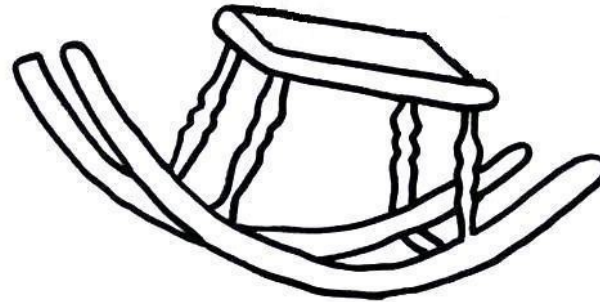
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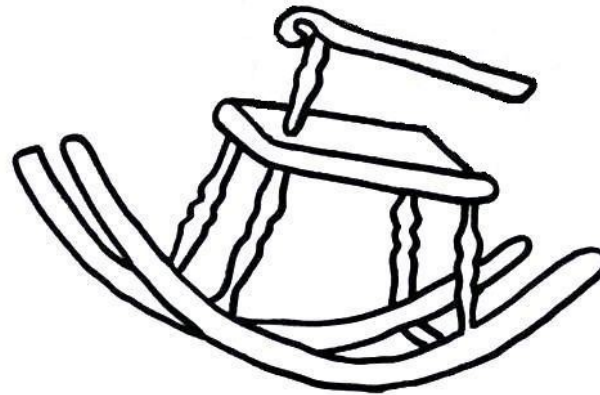
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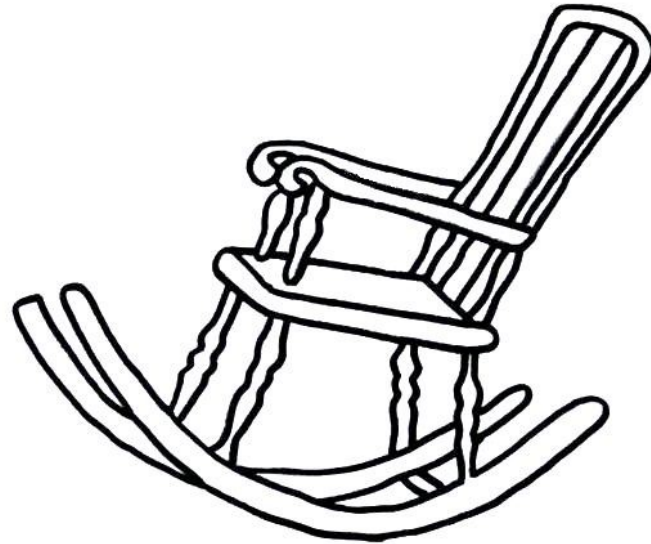
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Picture 2

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.



What might be presented in this picture?

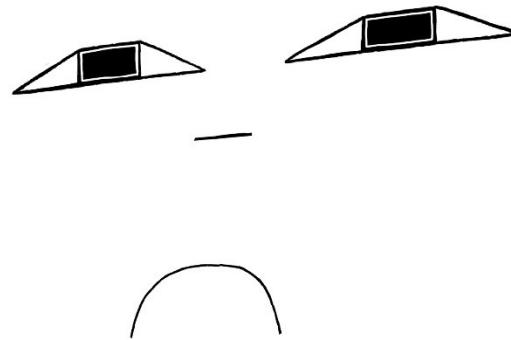


How confident are you?

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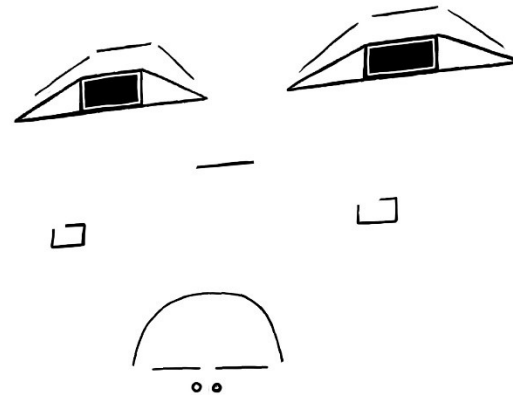


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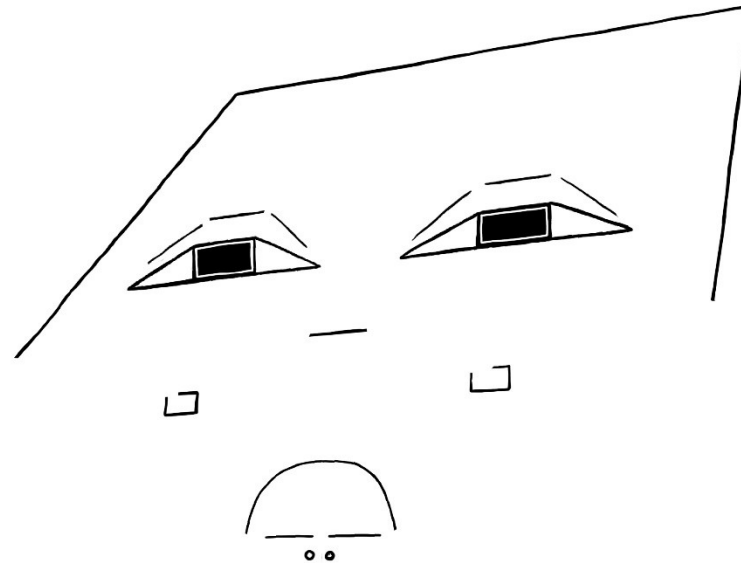


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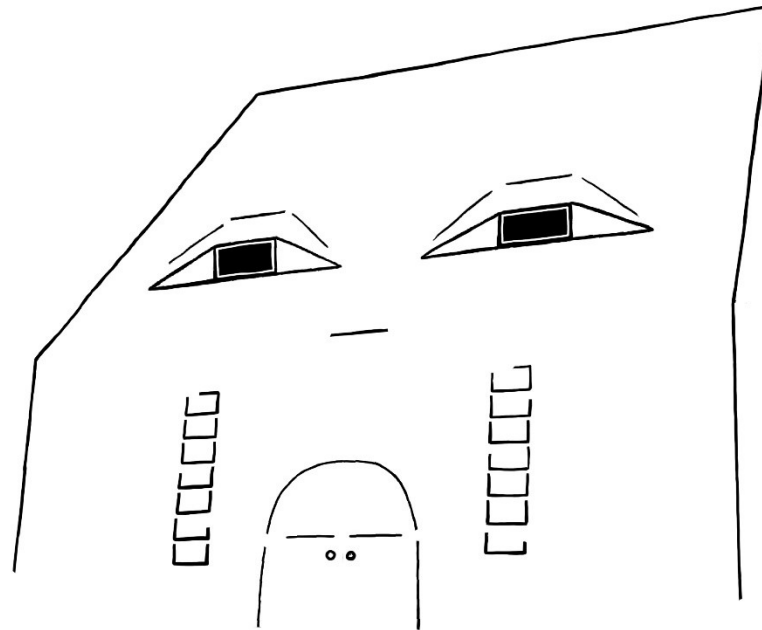


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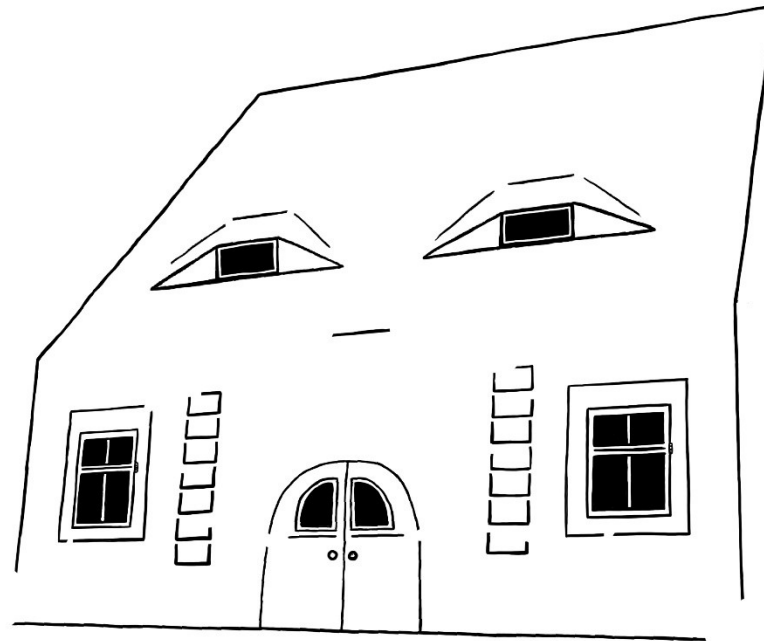


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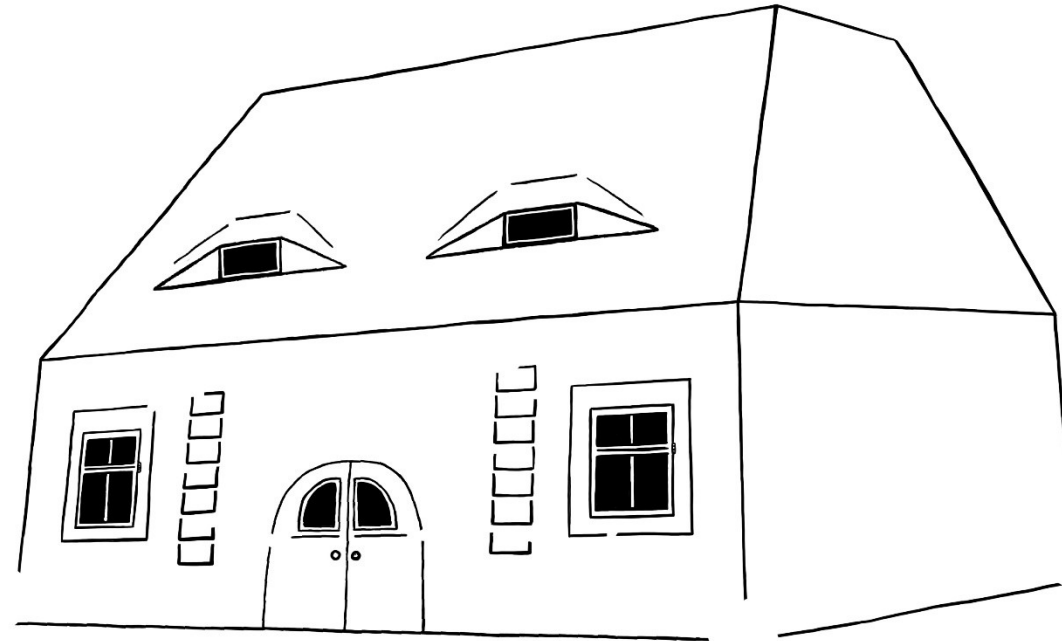


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Picture 3



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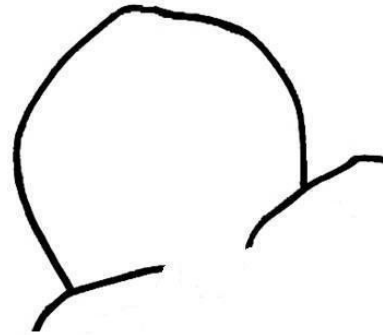


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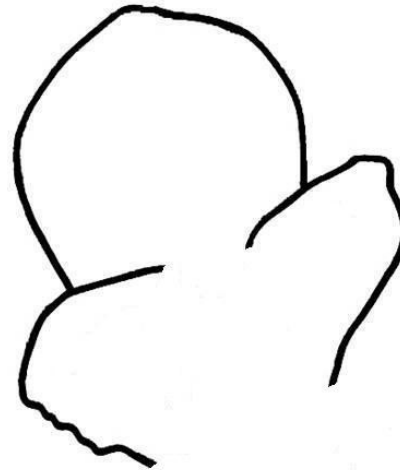


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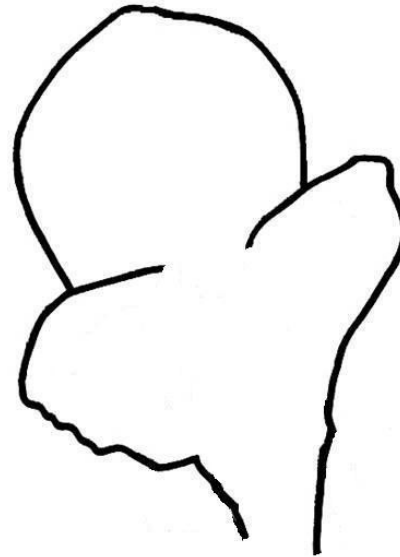


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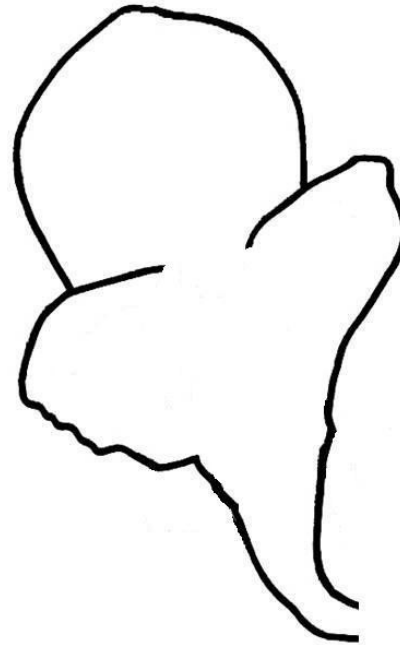


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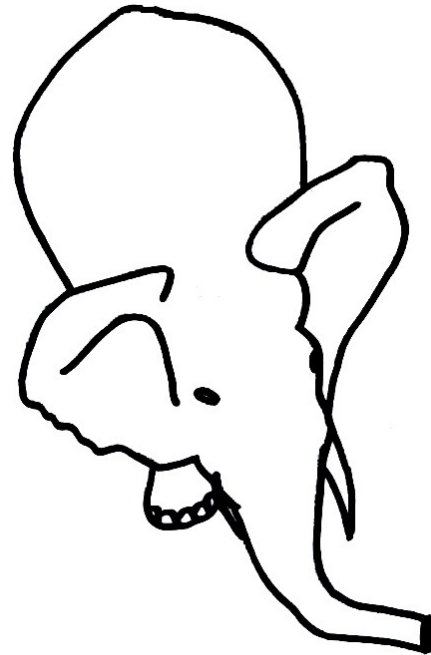


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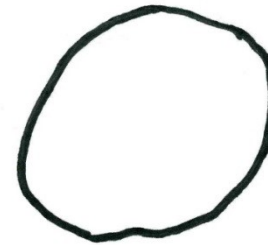
Do you want to make a decision yet?



Picture 4



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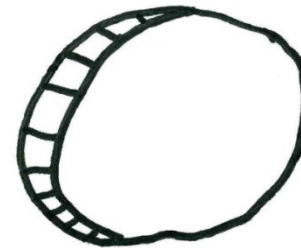


How confident are you?

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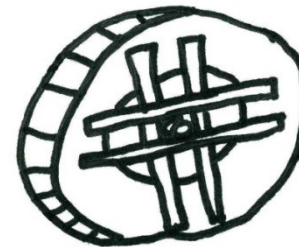


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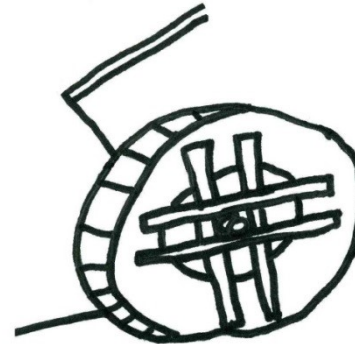


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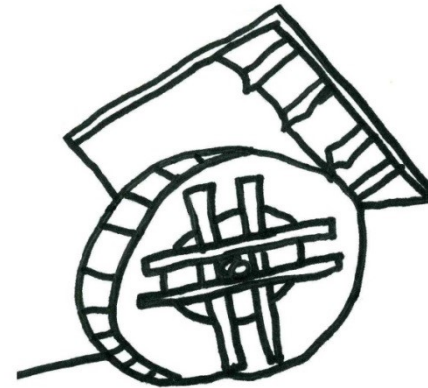


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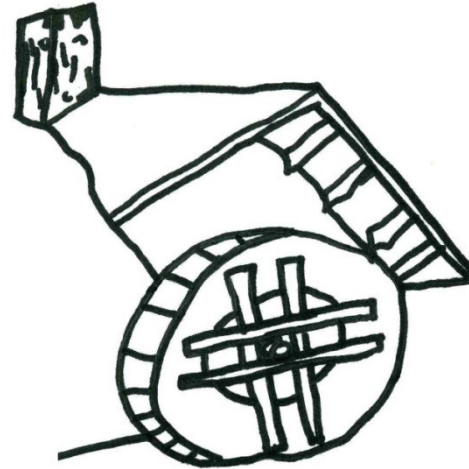


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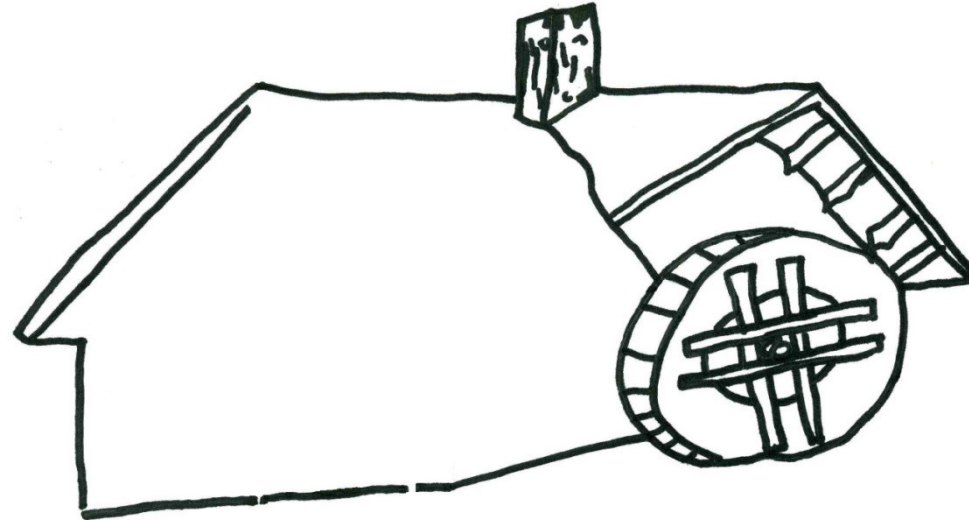


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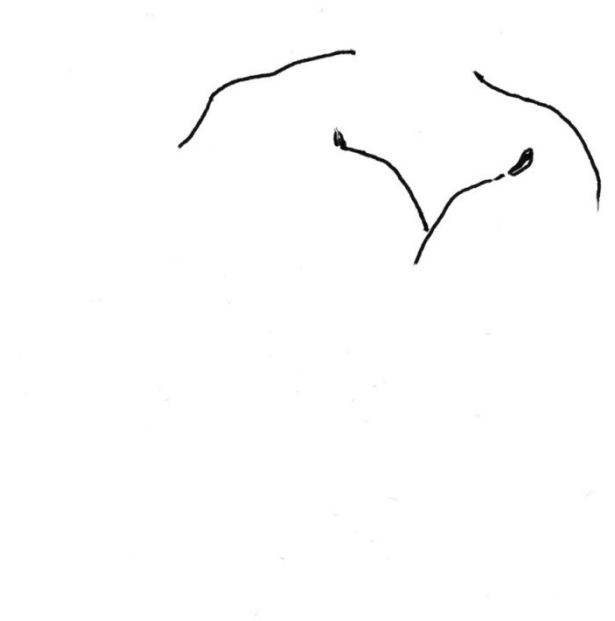
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Picture 5



What might be presented in this picture?



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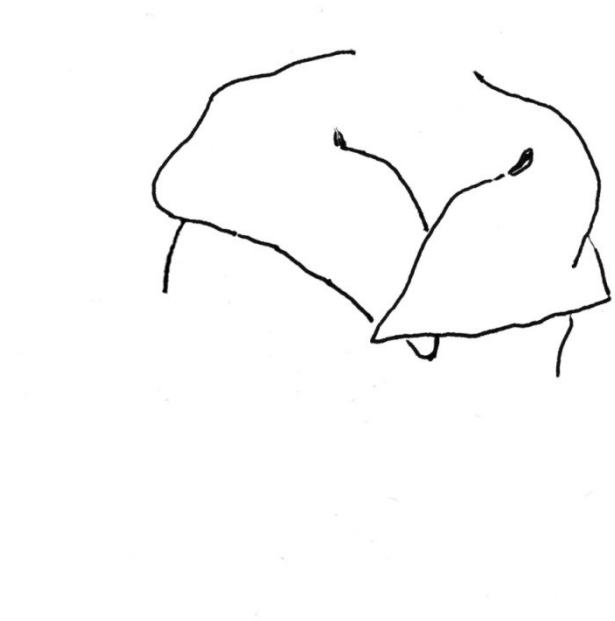


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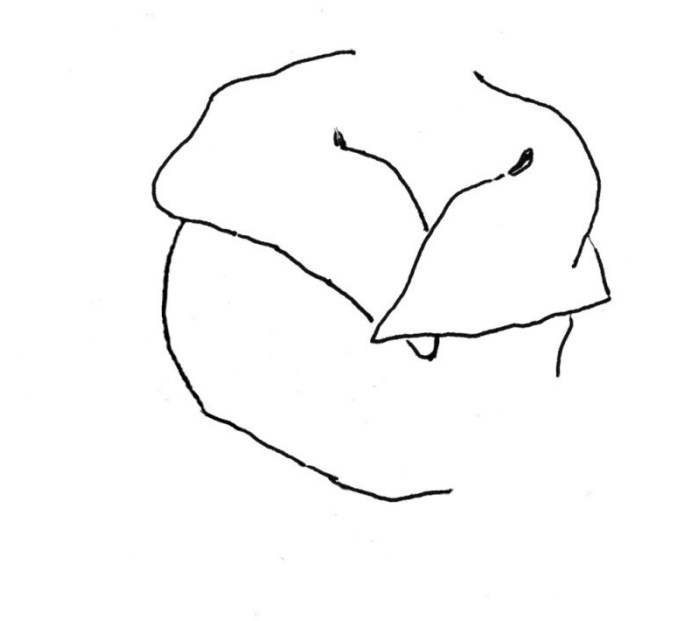


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Optional: Videoclip

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]





Picture 6



What might be presented in this picture?

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



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How confident are you?

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Picture 7



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What might be presented in this picture?



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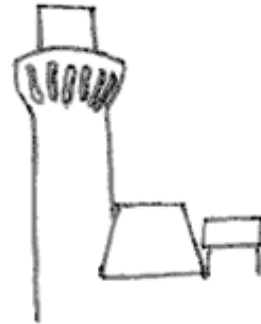


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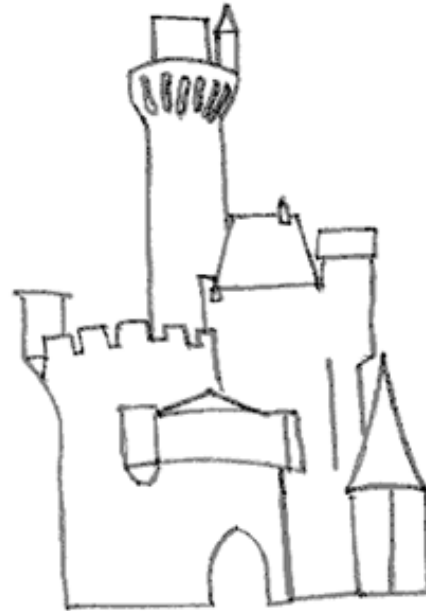


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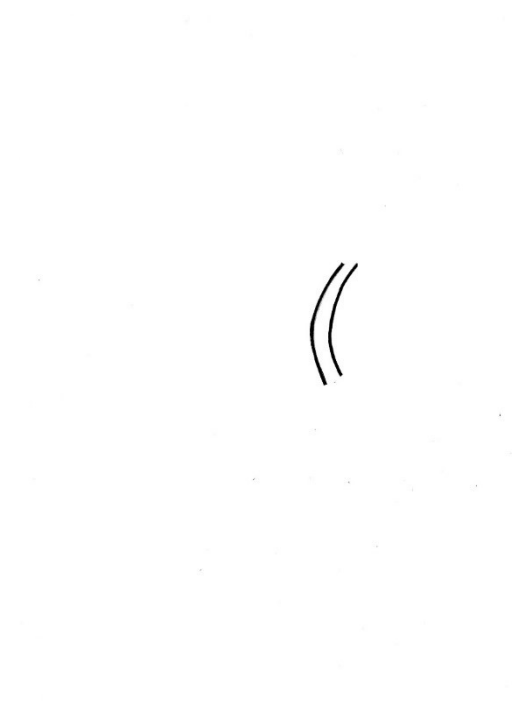


Picture 8



What might be presented in this picture?

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



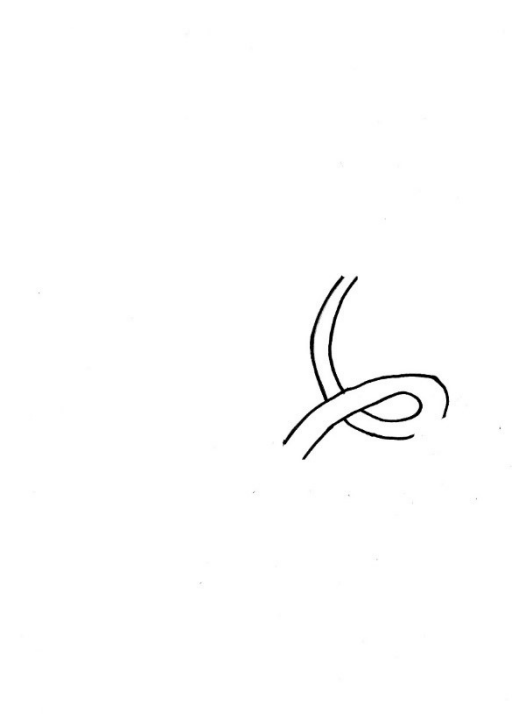
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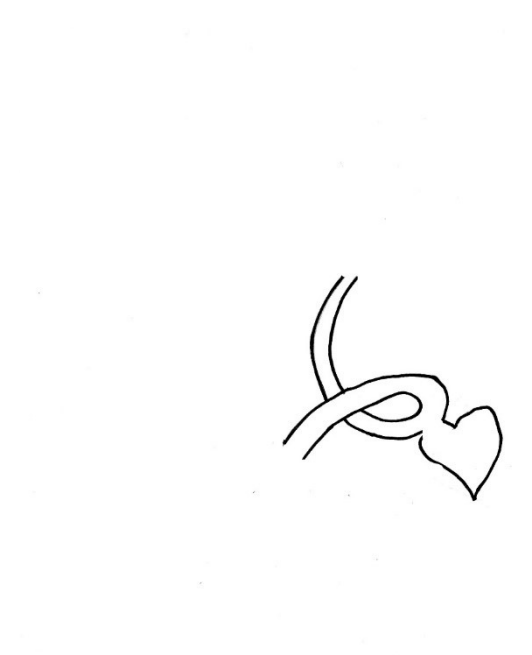
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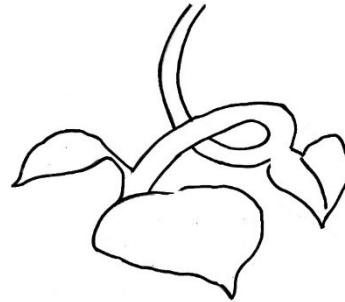
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Picture 9



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What might be presented in this picture?



How confident are you?

Do you want to make a decision yet?



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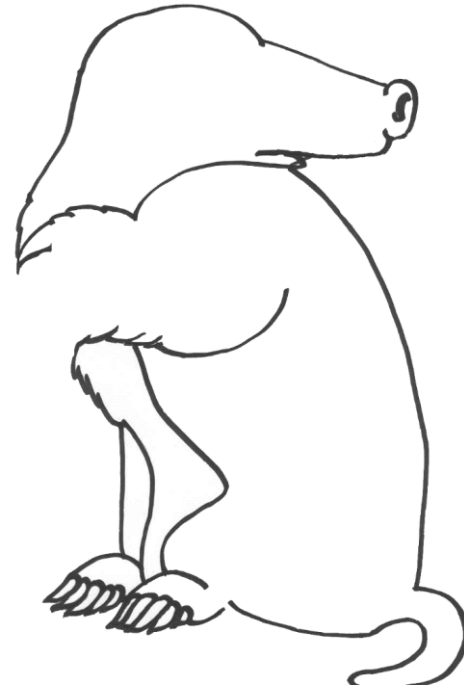


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Picture 10



What might be presented in this picture?

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



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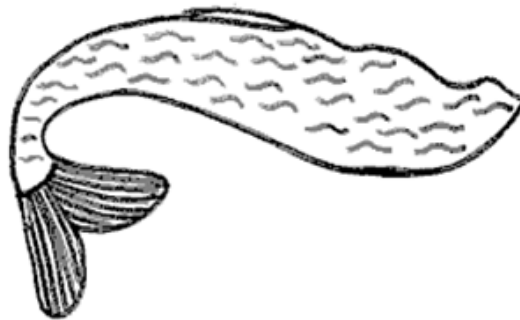
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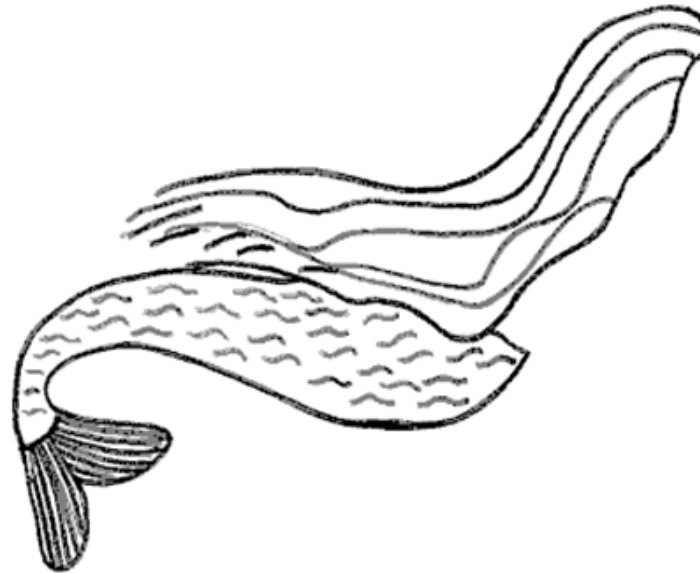
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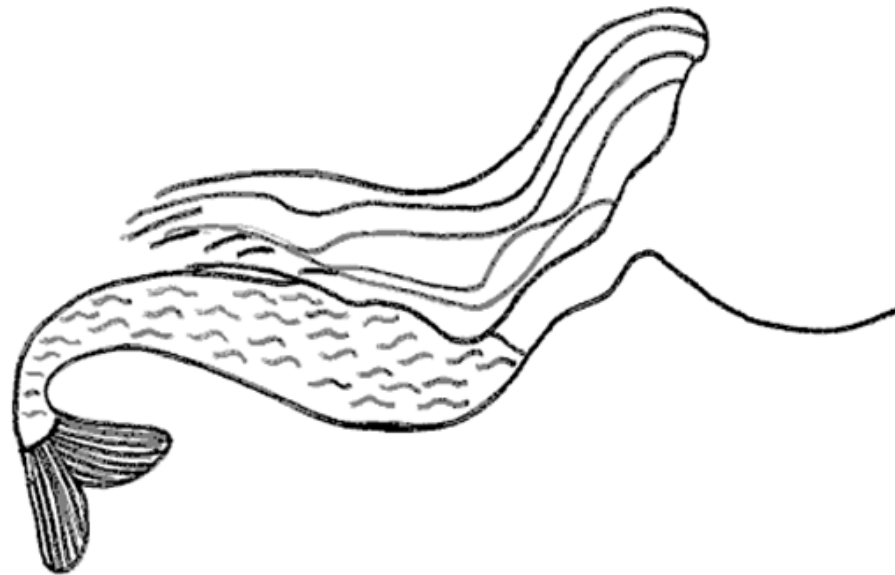
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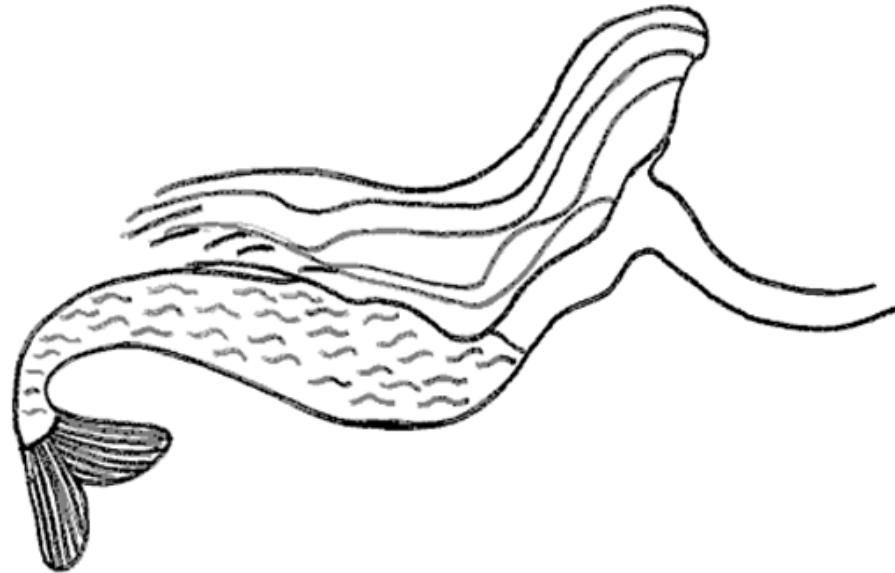
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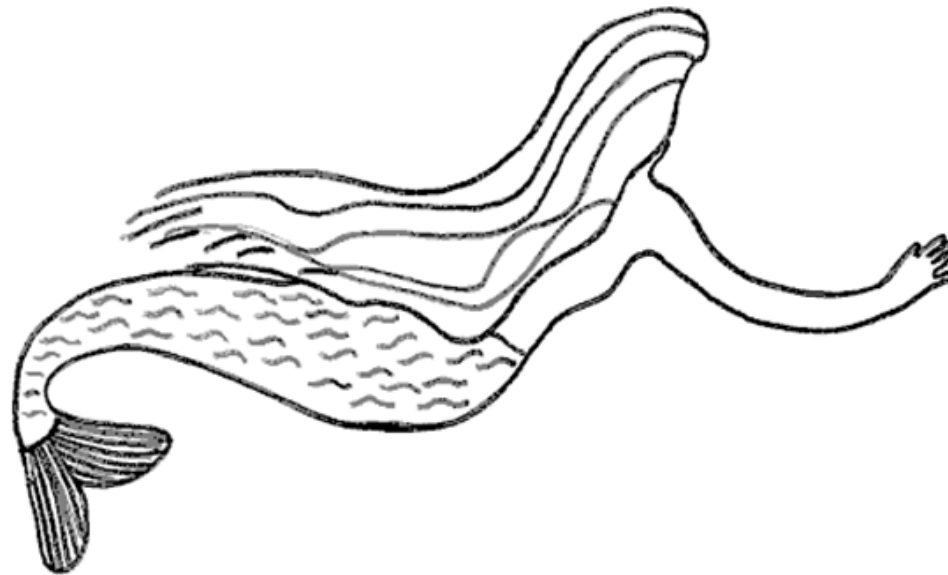
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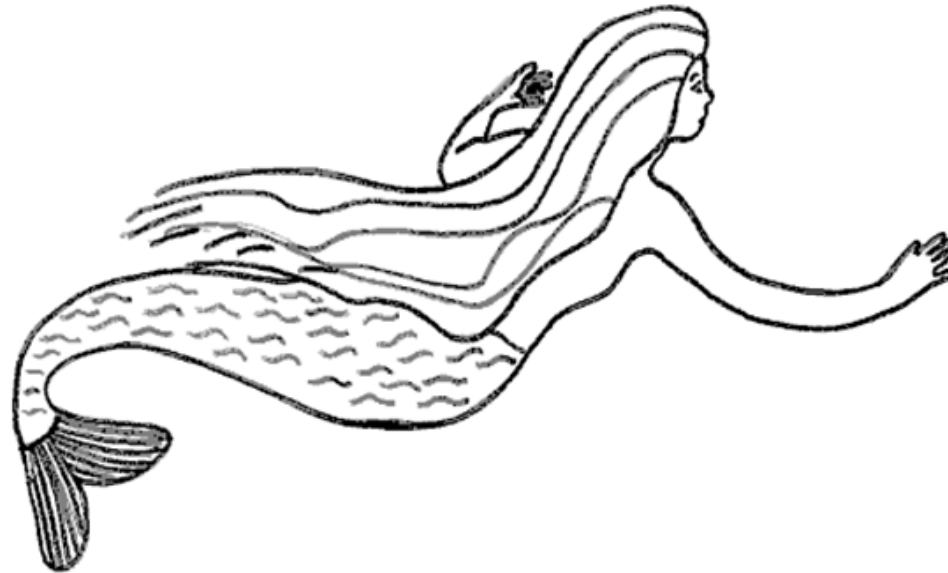
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Task 2:



What do you see?





What do you see now?



Old couple, goblet or ...?



What do you see?





What do you see?





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



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!





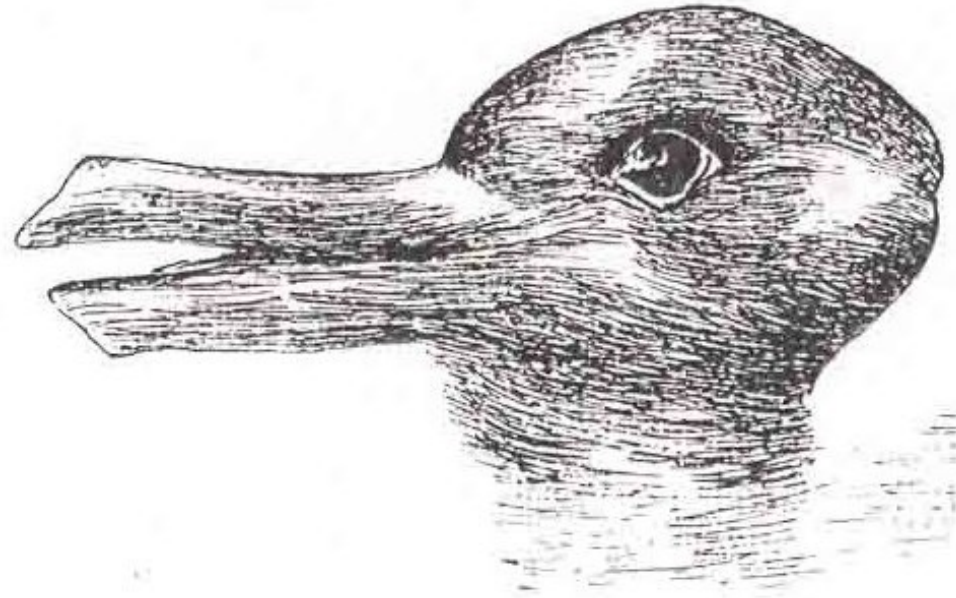
Old woman, young woman, man with mustache?

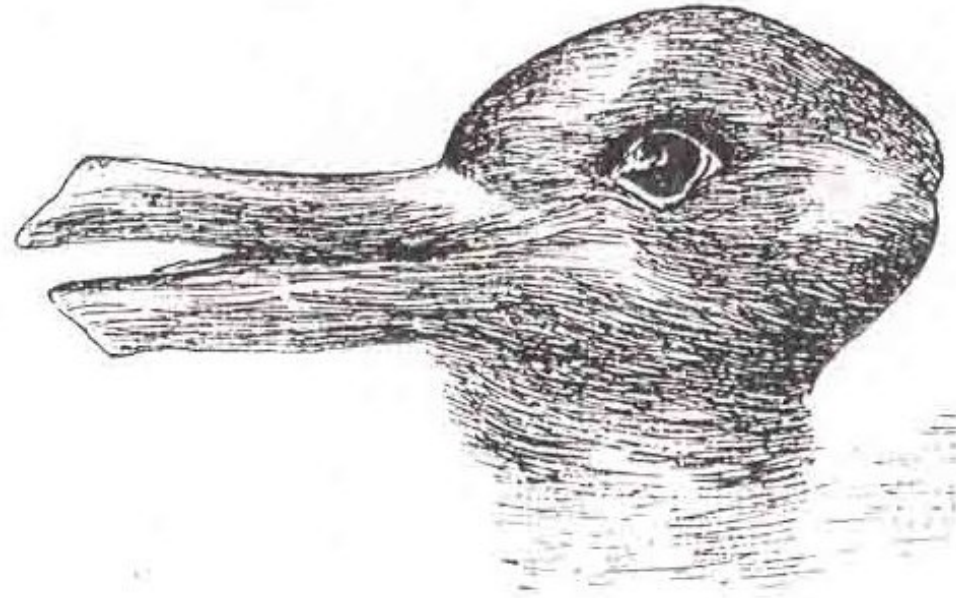




/

Old man or rider?





Duck or rabbit?

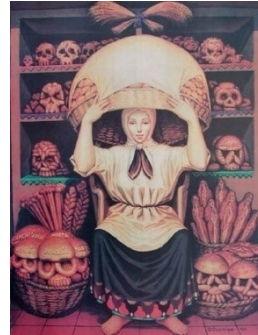




What would you see if you turned the picture upside down?



Horse or rider?





Skull or bakery?



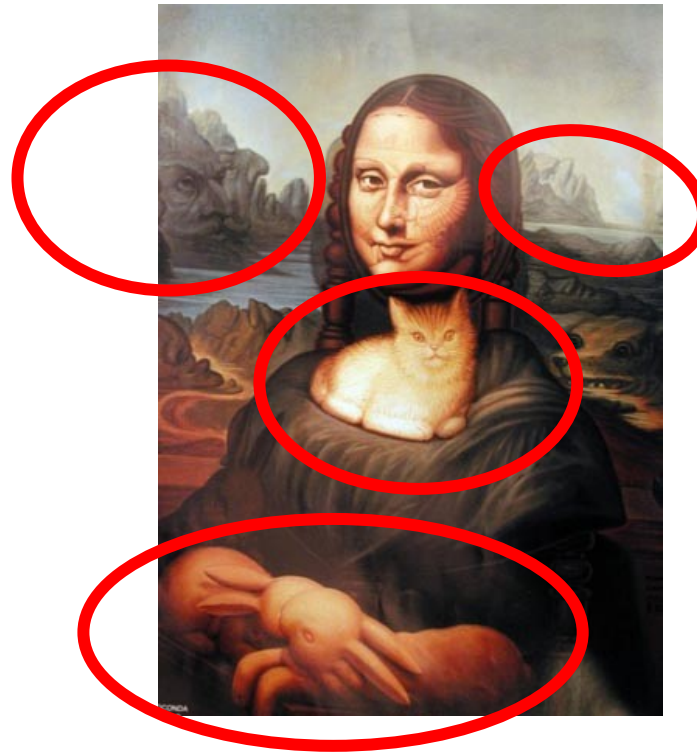
What do you see?





Try to discover all details!







Transfer to everyday life

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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- 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?

Many (but not all!) people with psychosis tend to jump to conclusions and to form extreme opinions.



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



Thank you for your attention!

for trainers:

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



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mharrsch	flickr	Beatle Paul McCartney 2	CC	The young Paul McCartney /Paul McCartney als junger Mann
Alan Light	flickr	Paul McCartney	CC	The older Paul McCartney/ Älterer Paul McCartney
Arbeitsgruppe Neuropsychologie	---	Black&white drawings of fragmented pictures /Schwarz-weiß Zeichnungen fragmentierter Bilder	Produced for the MCT/Anfertigung für das MKT; © Arbeitsgruppe Neuropsychologie	Various motives: rocking chair, elephant etc./Verschiedene Motive: Schaukelstuhl, Elefant etc.
---	American Journal of Psychology	Mother, father, and daughter	Copyright 1961 by the Board of Trustees of the University of Illinois. Used with permission of the University of Illinois Press	Old woman, young woman, man with mustache/Alte Frau, junge Frau, Mann mit Schnurrbart
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Jumping to conclusions “in action”


– Urban legends –

Legend	Conspiracy theorists	“Evidence”
<p>Allegedly the moon landing in 1969 never took place and was merely a fake.</p>	<p>Arguments Pro?</p>	



Jumping to conclusions “in action”


– Urban legends –

Legend	Conspiracy theorists	“Evidence”
<p>Allegedly the moon landing in 1969 never took place and was merely a fake.</p>	<p>Alleged motives of the USA:</p> <ol style="list-style-type: none"> 1. “Technological victory” in space travel competition with the Soviet Union, which had successfully launched a satellite into space earlier 2. Distraction from the Vietnam-War 3. NASA itself faked the moon landing for fear of governmental budget cutback 	



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– Urban legends –

Legend	For and Against	“Evidence”
<p>Allegedly the moon landing in 1969 never took place and was merely a fake.</p>	<p>For: ???</p>	



Jumping to conclusions “in action”


– Urban legends –

Legend	For and Against	“Evidence”
<p>Allegedly the moon landing in 1969 never took place and was merely a fake.</p>	<p>For:</p> <ol style="list-style-type: none"> 1. “Waving flag”: impossible because there is no atmosphere/weather on the moon 2. Pictures of starless sky and varying shadows indicate a film studio production 3. 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 	



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– Urban legends –

Legend	For and Against	“Evidence”
<p>Allegedly the moon landing in 1969 never took place and was merely a fake.</p>	<p>Against:</p> <ol style="list-style-type: none"> 1. The waving of the flag was caused by ramming the pole into the moon’s surface and a supporting mounted crossbar 2. Night photographs 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 	

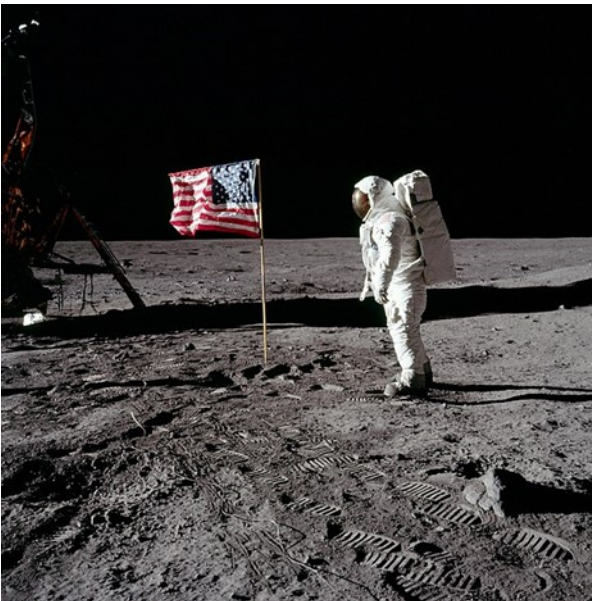


Jumping to conclusions “in action”

– 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?

???



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.