



Metacognitive Training (MCT)

# MCT 2 B – Jumping to Conclusions I

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# Jumping to Conclusions

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  - making a hasty decision (*risk*: poor decision)
  - and*



# Jumping to Conclusions

- We often make snap judgements on the basis of very complex information in our environment.
- 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?
small fluttering object in the morning sky	bird?	???
The bushes around your house are rustling at night; there have been burglars in your neighbourhood	burglar?	???



## Inferences without 100% proof

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## Inferences without 100% proof

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The bushes around your house are rustling at night; there have been burglars in your neighbourhood	burglar?	<b>could be</b> – but there are a number of other explanations (e.g. cat in the bushes, wind) – consider that actions like throwing a stone may have negative consequences (e.g. injuring your neighbour's pet).



# Jumping to conclusions “in action”

domain	example
history	???
media	???



# Jumping to conclusions “in action”

domain	example
history	<p>Witch trials in medieval times: Women were often accused of being a witch only because they were old or had red hair.</p> <p>McCarthy-era (USA, 1950s): Expression of liberal ideas led to many false accusations (being a communist).</p>
media	???



# Jumping to conclusions “in action”

domain	example
<p>history</p>	<p>Witch trials in medieval times: Women were often accused of being a witch only because they were old or had red hair.</p> <p>McCarthy-era (USA, 1950s): Expression of liberal ideas led to many false accusations (being a communist).</p>
<p>media</p>	<div data-bbox="685 945 1067 1325" data-label="Image"> </div> <p>In 1938 the radio-broadcast War of the Worlds, by Orson Welles, caused a mass panic in New York, since many listeners believed that the earth really was being attacked by aliens.</p> <p>False assumption: what’s on the radio must be real!</p>



# Are there any clues on the US \$1 bill to suggest an infiltration of the USA by secret societies?

– Urban legends –


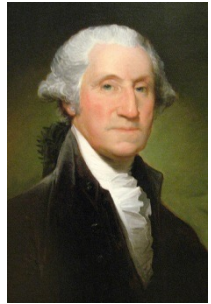




(for an alternative exercise, see end of presentation)



# Premature reasoning in action





Are there any clues on the US \$1 bill that suggest an infiltration of the USA by secret societies?

For	“Evidence”
<ul style="list-style-type: none"> <li>• Figure 1: On the back, different symbols are displayed 13 times each (e.g. stripes on the shield, olive leaves, arrows). 13 is sometimes considered a satanic number.</li> <li>• Figure 2: Some people claim that the bill does not actually display George Washington but Adam Weishaupt, the founder of a secret society.</li> <li>• Figure 3: On the upper right, a little owl is hidden, regarded by some as a satanic symbol.</li> <li>• Figure 4: The pyramid on the back may represent a Freemasonry symbol.</li> </ul>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>1</p> </div> <div style="text-align: center;">  <p>2</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> <div style="text-align: center;">  <p>3</p> </div> <div style="text-align: center;">  <p>4</p> </div> </div>



# Premature reasoning in action

Are there any clues on the US \$1 bill that suggest an infiltration of the USA by secret societies?

Against	“Evidence”
<ul style="list-style-type: none"> <li>• Figure 1: Initially there were 13 US-states, hence the number 13!</li> <li>• Figure 2: In contrast to rumours, there are no obvious similarities between Adam Weishaupt and George Washington!</li> <li>• Figure 3: The owl does not have a specific symbolic meaning, sometimes it represents mischief, however, it often stands for wisdom (e.g. the owl is used as a symbol by many publishers).</li> <li>• Figure 4: The triangle represents the all-seeing eye of God in Christianity (the picture is an image of part of a stained glass window in a Christian church).</li> </ul>	<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center;">  <p>1</p> </div> <div style="text-align: center;">  <p>2</p> </div> <div style="text-align: center;">  <p>3</p> </div> <div style="text-align: center;">  <p>4</p> </div> </div>



# Premature reasoning

– Urban legends –

Are there any clues on the US \$1 bill that suggest an infiltration of the USA by secret societies?







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 Washington looks like Weishaupt).
- They conceal alternative explanations (e.g. that the repetitive use of 13 symbols is related to the 13 original states).
- Legends are sometimes based on facts taken out of context. The significance of these details is also largely exaggerated (Washington was a freemason, however, that does not mean that the USA were infiltrated or still are).
- Freemasons and other confederacies can raise suspicion because they act secretly.
- But: Contrary to common belief the freemasons do not believe in satan but in a 'higher being' (e.g. God, Allah ...). They pursue liberal ideas, but they are not 'rebellious'.



# 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
Your body aches after your first night in hospital.	You must have been kidnapped overnight and had your organs removed; another patient harmed you during the night; voodoo.	Uncomfortable bed, tension; it is common to have an uncomfortable night when in a new environment; might be a pinched nerve.
After outpatient surgery, you are prescribed Heparin injections.	Doctors are planning to murder you with toxic injections.	Standard thrombosis prophylaxis.
On the way to a friend's, you have to stop three times at red traffic lights.	Evidence that you are in danger – someone wants to harm you.	Pure coincidence (when you are in a hurry you are more prone to notice red lights).

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?

- bridge
- raft
- rails
- flagpole
- pile of wood
- paintbrush



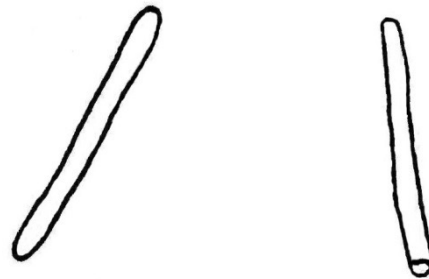
How confident are you?

Do you want to make a decision yet?



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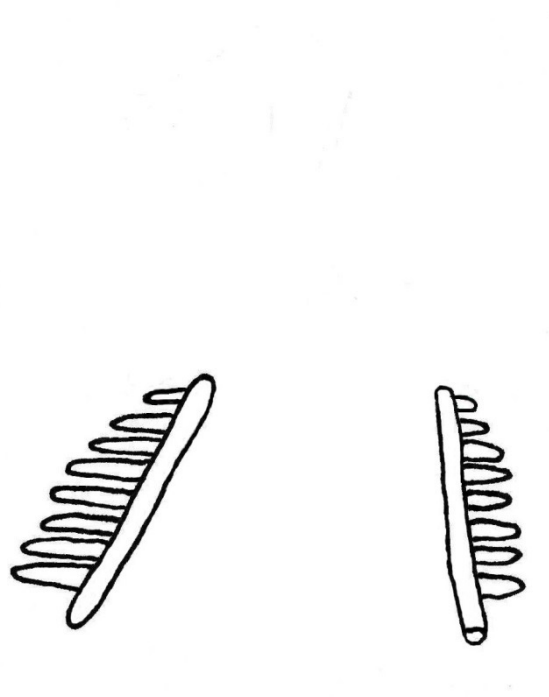
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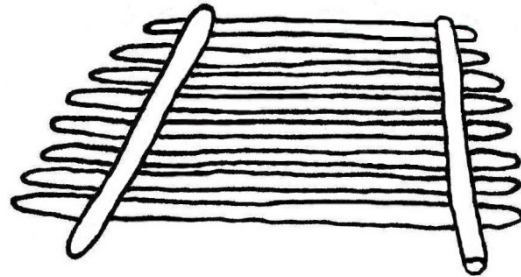
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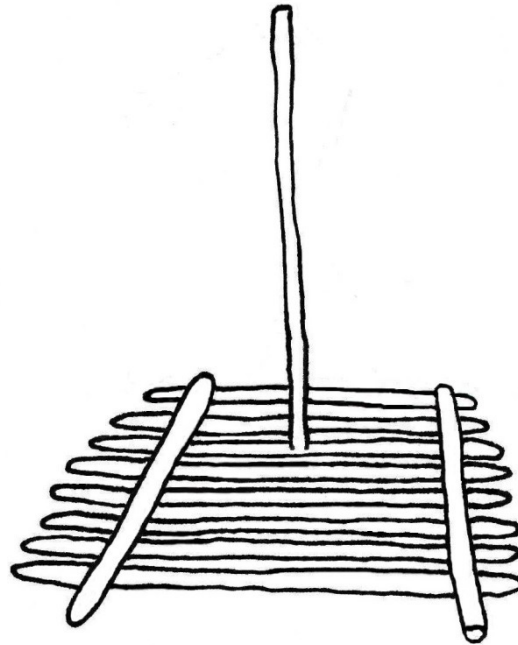
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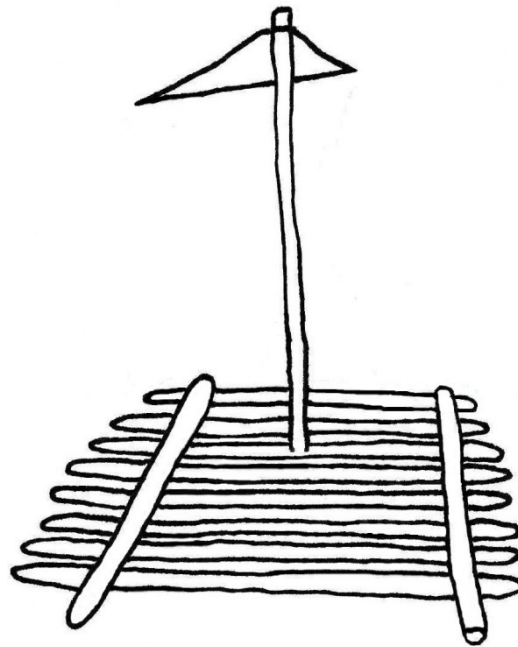
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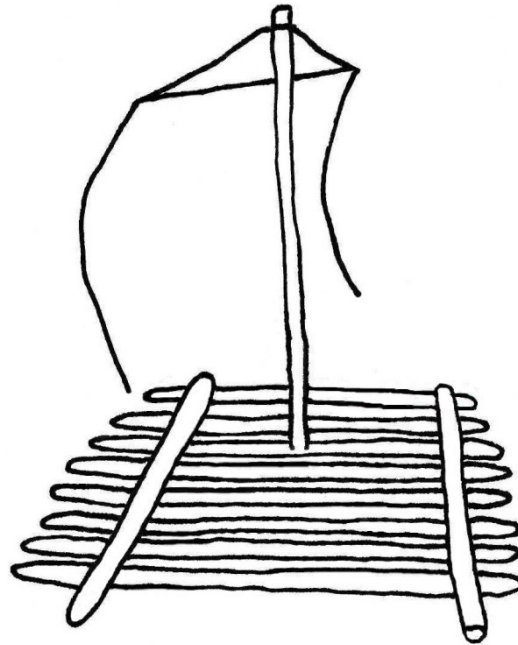
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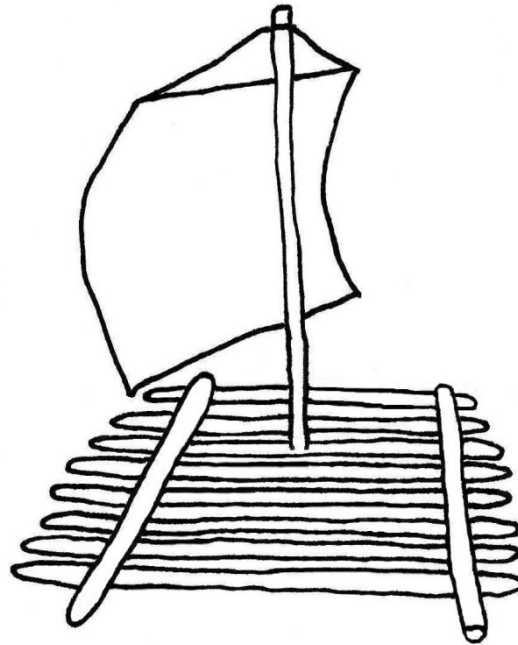
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# What might be presented in this picture?

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How confident are you?

Do you want to make a decision yet?



## 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 in your group!



What might be presented in this picture?



How confident are you?

Do you want to make a decision yet?



What might be presented in this picture?



How confident are you?

Do you want to make a decision yet?



What might be presented in this picture?



How confident are you?

Do you want to make a decision yet?



What might be presented in this picture?

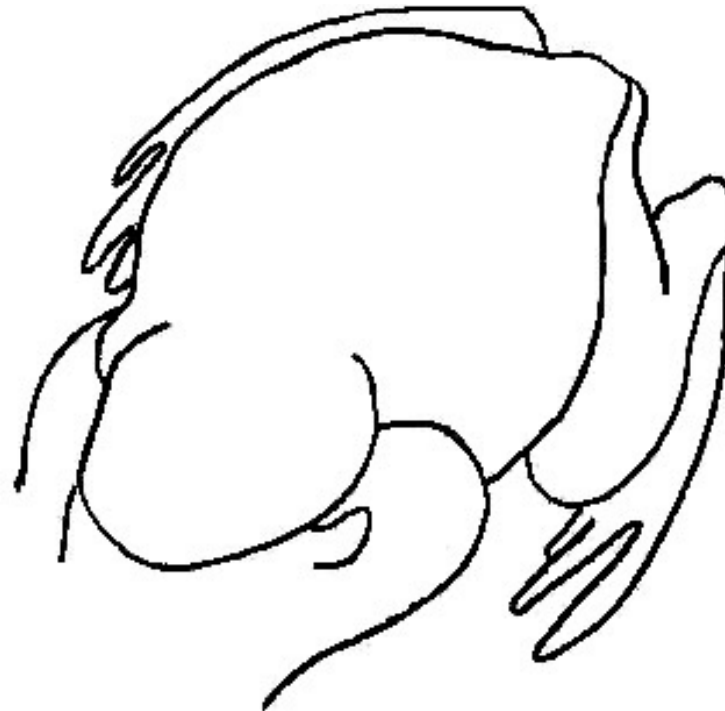


How confident are you?

Do you want to make a decision yet?



What might be presented in this picture?



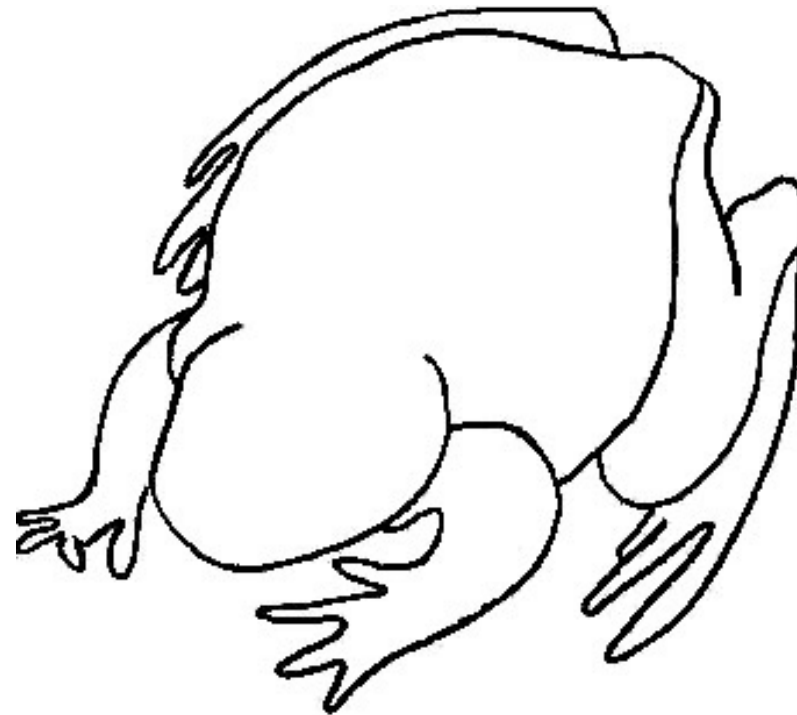
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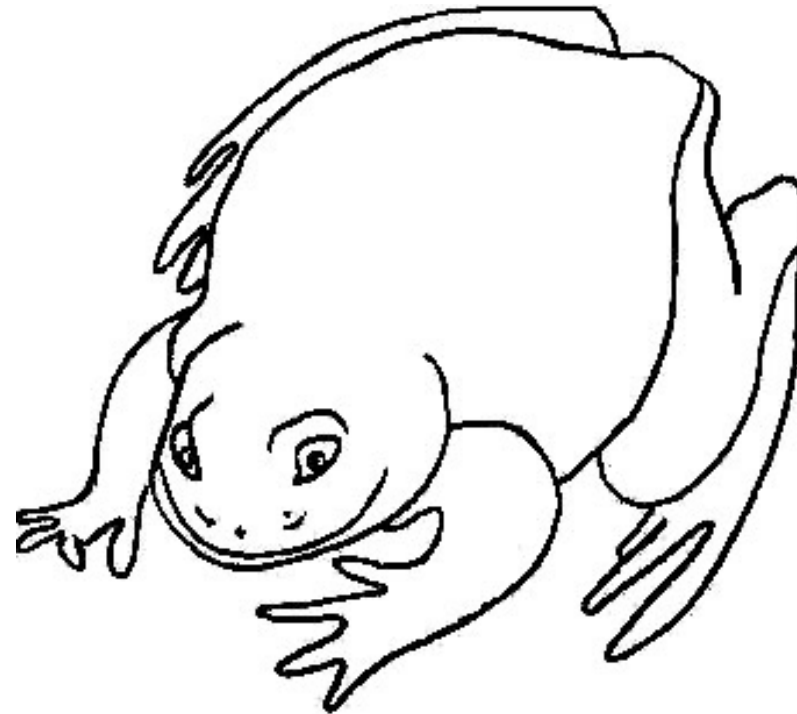


How confident are you?

Do you want to make a decision yet?



What might be presented in this picture?



How confident are you?

Do you want to make a decision yet?



# Picture 3



# What might be presented in this picture?

- pear
- woman
- guitar
- violin case
- keyhole
- owl
- tongue
- light bulb
- footsteps



How confident are you?

Do you want to make a decision yet?



# What might be presented in this picture?

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- woman
- guitar
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How confident are you?

Do you want to make a decision yet?



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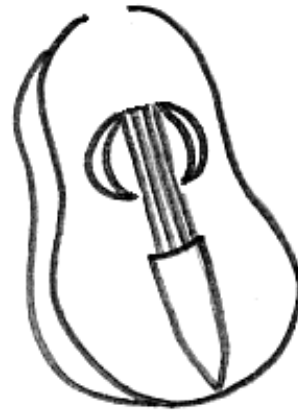
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How confident are you?

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# What might be presented in this picture?

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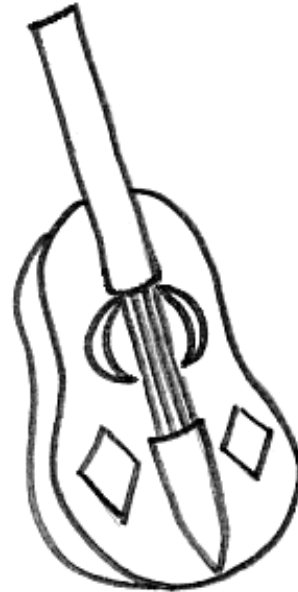
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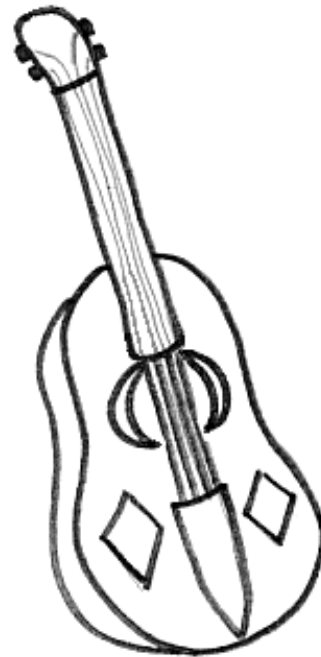
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How confident are you?

Do you want to make a decision yet?

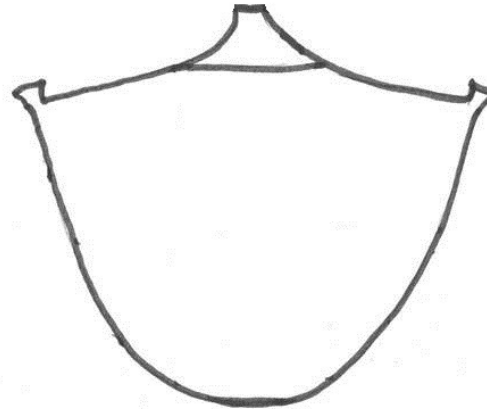


# Picture 4



# What might be presented in this picture?

- goblet
- woman with plunging neckline
- oil lamp
- tent
- carriage
- coat of arms
- magic lamp
- tea pot
- spade



How confident are you?

Do you want to make a decision yet?



# What might be presented in this picture?

- goblet
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How confident are you?

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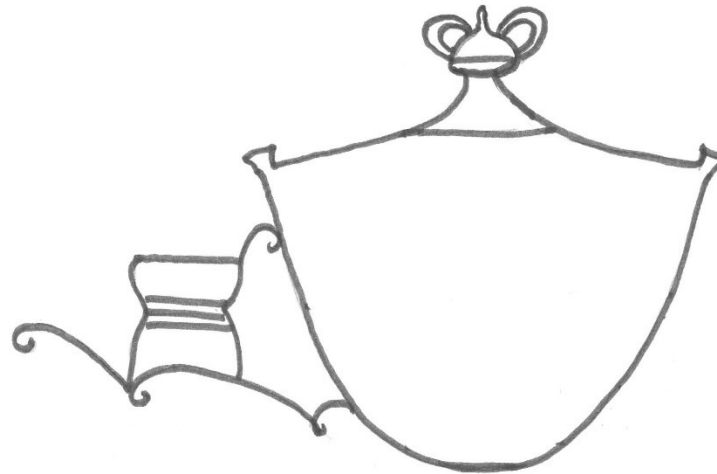
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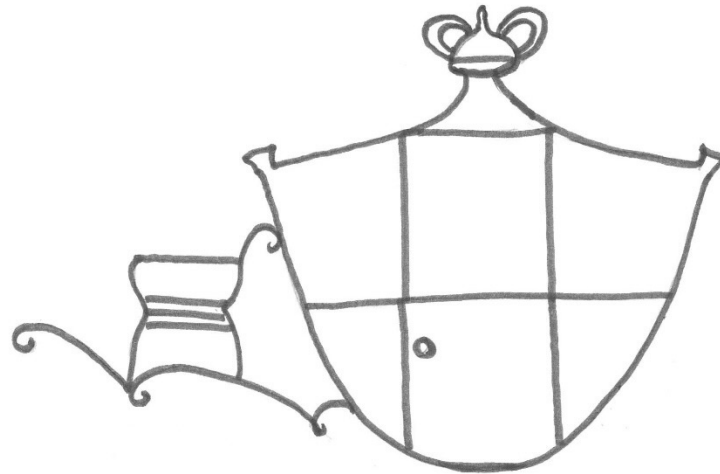
Do you want to make a decision yet?





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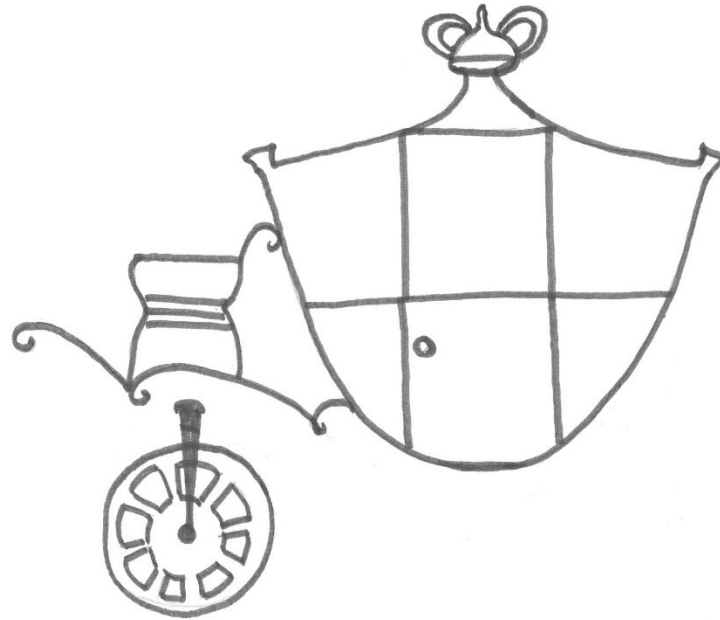
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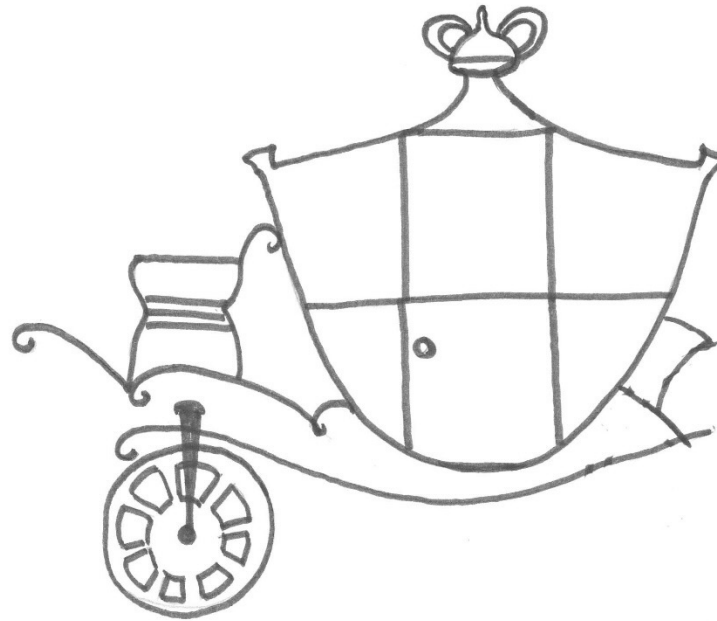
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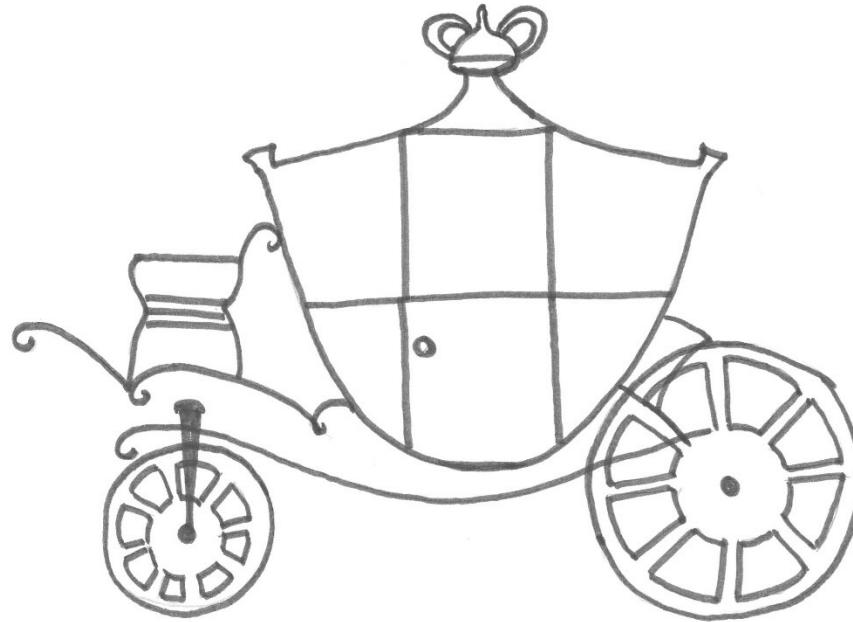
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How confident are you?

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## optional: Video Clip

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

[http://www.uke.de/mct\\_videos](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]

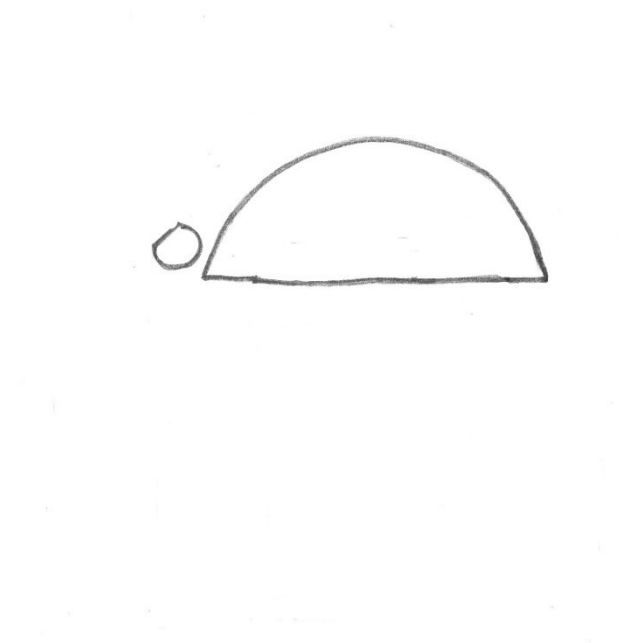




# Picture 5



What might be presented in this picture?

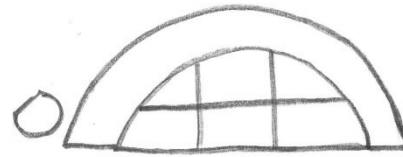


How confident are you?

Do you want to make a decision yet?



What might be presented in this picture?



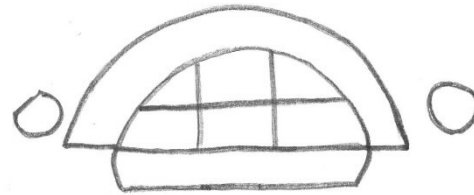
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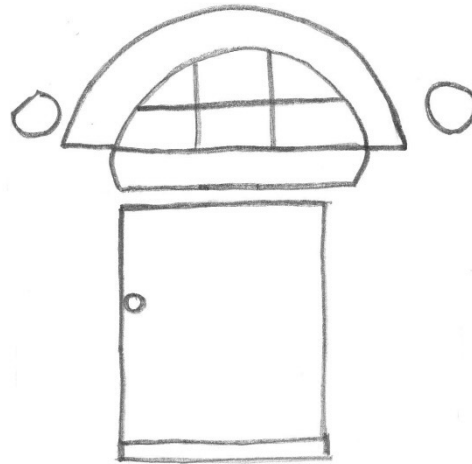


How confident are you?

Do you want to make a decision yet?



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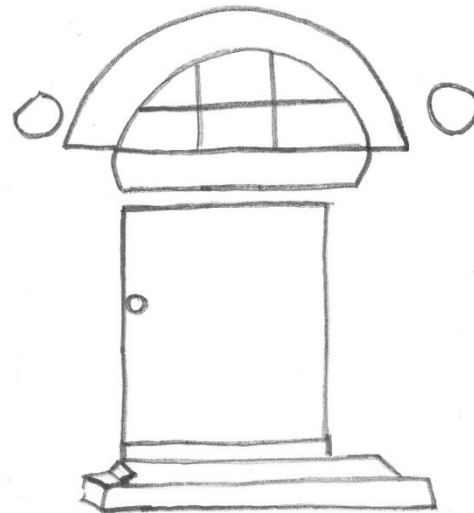


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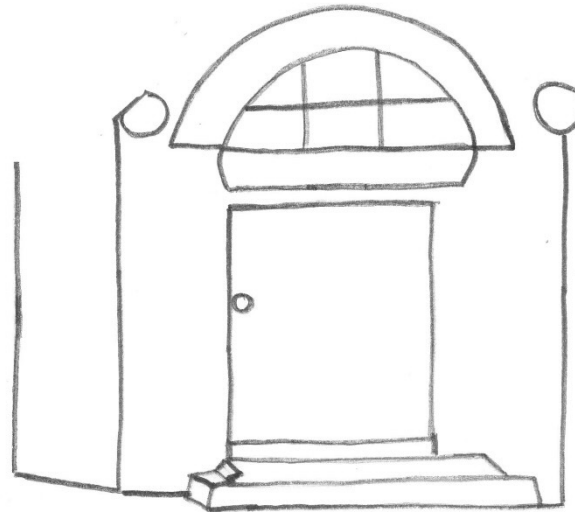


How confident are you?

Do you want to make a decision yet?



What might be presented in this picture?



How confident are you?

Do you want to make a decision yet?



What might be presented in this picture?



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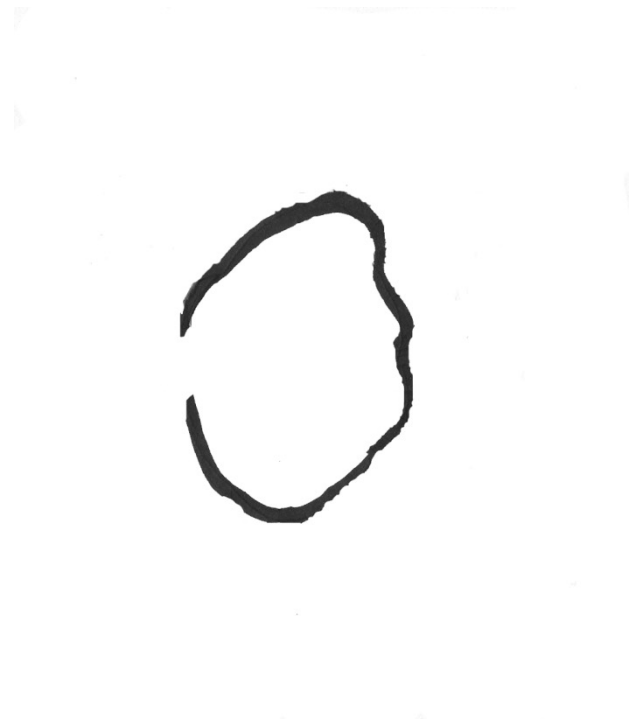


# Picture 6



# What might be presented in this picture?

- potato
- sun
- fish
- cockroach
- TV aerial
- fat man
- UFO
- spider
- tree



How confident are you?

Do you want to make a decision yet?





# What might be presented in this picture?

- potato
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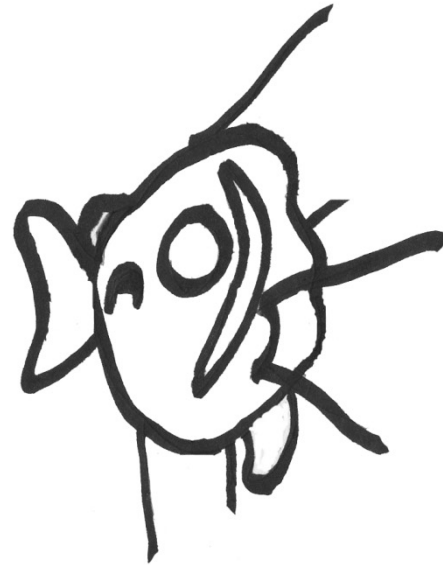
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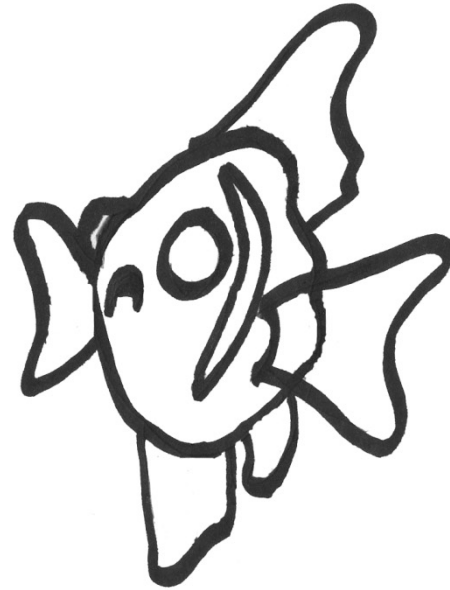
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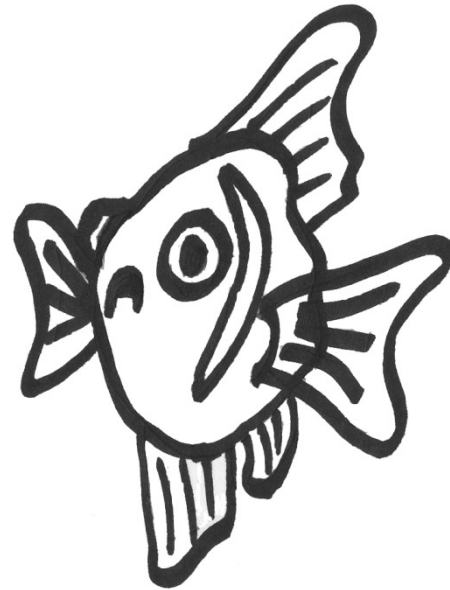
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Do you want to make a decision yet?



# Picture 7





What might be presented in this picture?

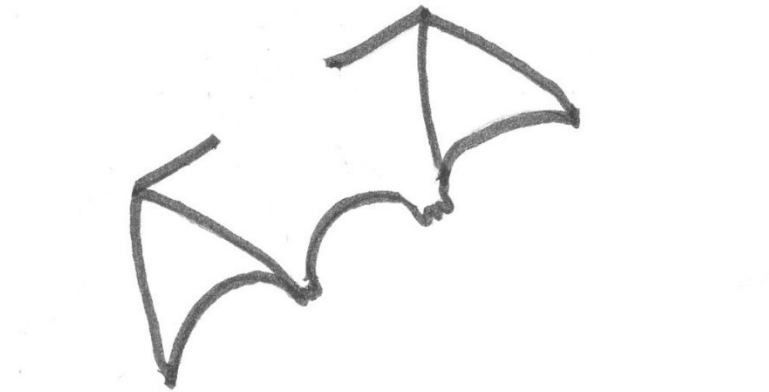


How confident are you?

Do you want to make a decision yet?



What might be presented in this picture?



How confident are you?

Do you want to make a decision yet?



What might be presented in this picture?



How confident are you?

Do you want to make a decision yet?



What might be presented in this picture?



How confident are you?

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What might be presented in this picture?



How confident are you?

Do you want to make a decision yet?



What might be presented in this picture?



How confident are you?

Do you want to make a decision yet?



What might be presented in this picture?



How confident are you?

Do you want to make a decision yet?

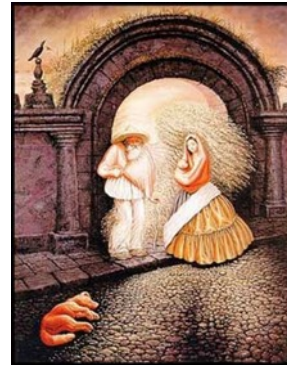


## Task 2:



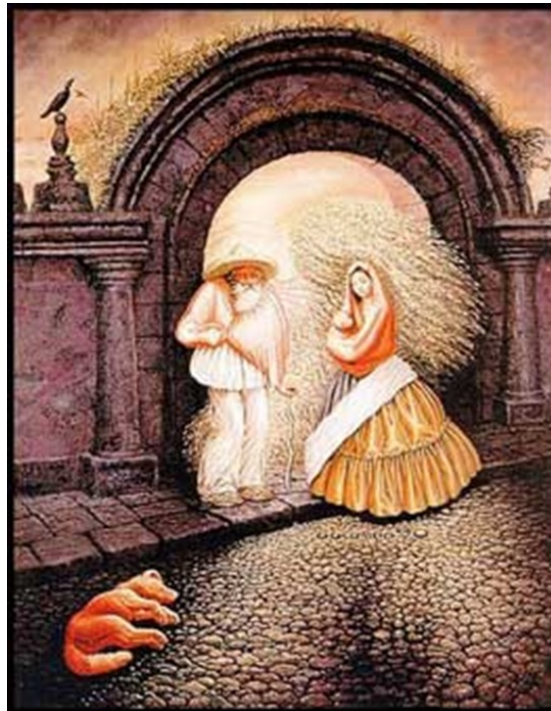


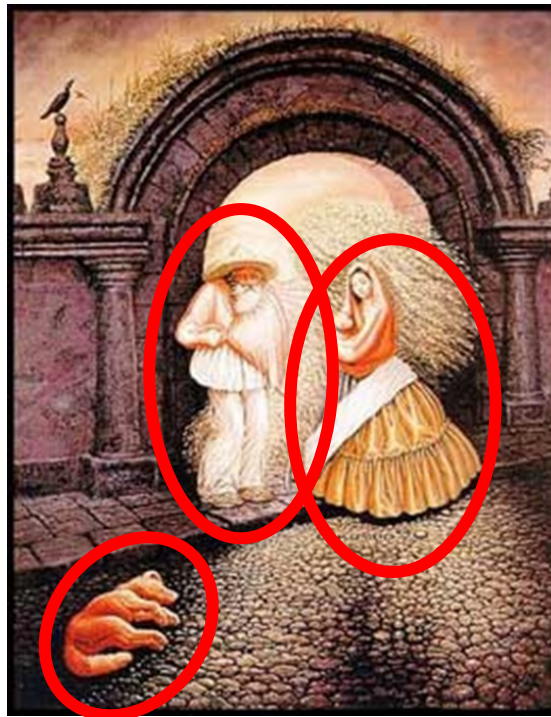
# What do you see?





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





Woman or saxophone player?







Duck or rabbit?





Face or rider?





Jesus or crucifixion?





Madonna or harp-playing fairy?



# Transfer to everyday life

## Learning objectives:

- The last slides demonstrate that quick decisions can lead to mistakes and often only “half the truth” is recognised.





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- 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.



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



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**Example:** Frank accuses his roommate Bertram of trying to poison him!

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**But:** How could Bertram know which meal Frank would take from the trolley? Hardly anyone commits a murder only because of antipathy or minor disagreement.



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**But:** How could Bertram know which meal Frank would take from the trolley? Hardly anyone commits a murder only because of antipathy or minor disagreement.

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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Octavio Ocampo	rockypointcollectibles	Different pictures/Verschiedene Bilder	PP by rockypointcollectibles	---



# 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>	



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## – 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"> <li>1. “Technological victory” in space travel competition with the Soviet Union, which had successfully launched a satellite into space earlier</li> <li>2. Distraction from the Vietnam-War</li> <li>3. NASA itself faked the moon landing for fear of governmental budget cutback</li> </ol>	



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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><b>For:</b></p> <ol style="list-style-type: none"> <li>1. “Waving flag”: impossible because there is no atmosphere/weather on the moon</li> <li>2. Pictures of starless sky and varying shadows indicate a film studio production</li> <li>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</li> </ol>	



# Jumping to conclusions “in action”


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<p>Allegedly the moon landing in 1969 never took place and was merely a fake.</p>	<p><b>Against:</b> ???</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><b>Against:</b></p> <ol style="list-style-type: none"> <li>1. The waving of the flag was caused by ramming the pole into the moon’s surface and a supporting mounted crossbar</li> <li>2. Night photographs cannot capture weak light sources due to exposure times → no stars</li> <li>3. The varying shadows were caused by the uneven moon surface</li> <li>4. The interview had been edited in order to cover the original time delay between Nixon’s and Armstrong’s dialog</li> </ol>	



# 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.