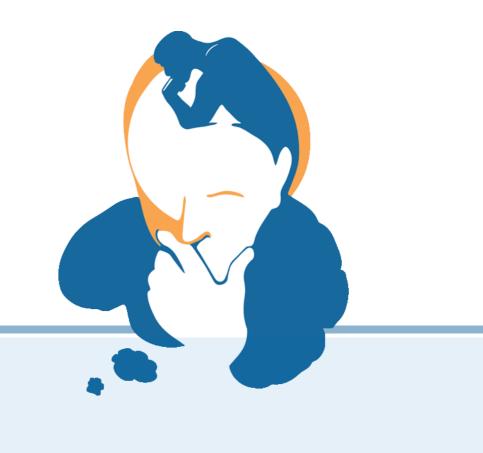


Metacognitive Training (MCT)

MCT 3 A – Changing Beliefs

© Moritz & Woodward, 12|21

Permission to use the pictures in this module has been provided by the artists and copyright holders. For details (artist, title), please refer to the end of this presentation.







Human tendency to hang onto first impressions (e.g. prejudice, "the first impression is the only impression" attitude).





Human tendency to hang onto first impressions (e.g. prejudice, "the first impression is the only impression" attitude).

- Reasons: ???
- Problems: ???

* You only see what you want to see





Human tendency to hang onto first impressions (e.g. prejudice, "the first impression is the only impression" attitude).

- Reasons: Laziness, "confirmation bias"*, thoughtlessness, helps to orient in a complex world, pride
- Problems: ???

* You only see what you want to see





Human tendency to hang onto first impressions (e.g. prejudice, "the first impression is the only impression" attitude).

- Reasons: Laziness, "confirmation bias"*, thoughtlessness, helps to orient in a complex world, pride
- Problems: False judgments (e.g. racial prejudices) are maintained, false overgeneralization ("seen one – seen them all"), someone is not given a second chance who might have deserved one





When predictions don't come true

Marion Keech, leader of a sect in Salt Lake City (USA), claimed to receive messages from outer space. It was revealed to her that the world would end in a great flood before dawn on December 21, 1954. However, she and her followers would be spared and rescued by a spaceship. On the eve of the particular day the group gathered in Keech's living room and waited for the prophecy to fulfill. Midnight passed and ... nothing happened. No flood, no spaceship, no nothing.

How did the sect explain this situation? Did they give up their belief? What are you thinking? ???







When predictions don't come true

When it was clear that the prophecy had failed, Keech, the leader of the sect, was at first in great disbelief and cried.

On the following morning, the group announced that God was so impressed by the little group that he had therefore called off the flood and spared the world.

This explanation is an example on how some people cope with predictions that don't come true:

'If it doesn't fit – use a bigger hammer!'

* Source: Festinger et al., (1956) When Prophecy Fails





domain	examples
geography	???
society	???
catastrophes	???





domain	examples
geography	 The world is flat! This theory was refuted by most scientists in medieval times. However, until the 20th century the Flat Earth Society existed which considered photos of the (ball- shaped) earth from space a conspiracy.
society	???
catastrophes	???





10

domain	examples
geography	• The world is flat! This theory was refuted by most scientists in medieval times. However, until the 20th century the Flat Earth Society existed which considered photos of the (ball-shaped) earth from space a conspiracy.
society	 Glorification of a regime despite proof of evilness and brutality as well as its failure (e.g. fascism, Stalinism).
catastrophes	???





domain	examples
geography	 The world is flat! This theory was refuted by most scientists in medieval times. However, until the 20th century the Flat Earth Society existed which considered photos of the (ball- shaped) earth from space a conspiracy.
society	 Glorification of a regime despite proof of evilness and brutality as well as its failure (e.g. fascism, Stalinism).
catastrophes	 Ignoring warning signals is often the cause of avoidable accidents (e.g. avalanches: victims had often been warned about dangers before the event). Titanic-catastrophe: due to its reputation to be unsinkable, warnings had not been taken seriously.



Why are we doing this?

Studies show that many (but not all!) people with psychosis continue to cling to their opinion or belief about an event, even when confronted with information that challenges this belief.

This may lead to interpersonal problems and may obstruct a healthy, realistic view of the environment.



How rigidly held beliefs promote misinterpretation during psychosis – examples

- Avoiding discussions with friends and relatives about specific ideas because you expect/fear disagreement and do not trust others anymore.
- People who disagree with your own beliefs are thought to be enemies or persecutors.
- Information is derived from one source only (e.g. internet forums about conspiracy theories), with other more serious media (e.g. press agencies) not being considered.



Metacognitive Training 3 - Changing Beliefs

The three pictures below belong to a certain category. What is the category?







If you are confident about the underlying category, give your answer.

You will get feedback ("yes" vs. "no").

Please suggest other items in the sequence to test your assumption.





Category: living beings!

Common error: Most people only search for information that supports their assumption but do not look for contradictory information (due to the confirmation bias). In this case, the seemingly correct category is flowers. Often, no alternative considerations/thoughts are taken into account.

Examples from everyday life:

- one only reads newspapers consistent with one's own opinion.
- one avoids contact with people who think differently instead of discussing opposing views with them.

This might lead to one-sided attitudes and even foster incorrect judgments.

Further options:





• Three pictures illustrating a scenario will be shown to you, along with various interpretations.





- Three pictures illustrating a scenario will be shown to you, along with various interpretations.
- The pictures are shown in reverse order, the final event being shown first.





- Three pictures illustrating a scenario will be shown to you, along with various interpretations.
- The pictures are shown in reverse order, the final event being shown first.
- After each picture is shown, you will be asked to rate the plausibility or likelihood of each of the suggested interpretations. These have to be re-assessed each time a new picture is revealed for that scenario.





- Three pictures illustrating a scenario will be shown to you, along with various interpretations.
- The pictures are shown in reverse order, the final event being shown first.
- After each picture is shown, you will be asked to rate the plausibility or likelihood of each of the suggested interpretations. These have to be re-assessed each time a new picture is revealed for that scenario.
- Please discuss with the group how confident you are in your rating.





What might have happened?



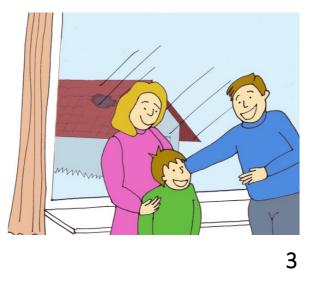
- 1. The boy is happy because he was finally adopted.
- 2. The parents are praising their son for reporting a fire so it was put out quickly.
- 3. The boy received a good grade at school.
- 4. The boy set a fire without getting caught.



Metacognitive Training 3 - Changing Beliefs



How probable do you find each option?

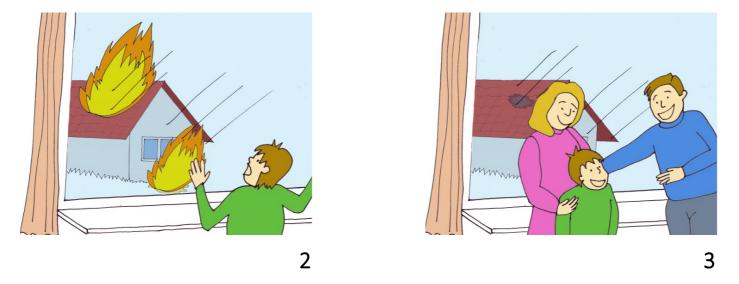


- 1. The boy is happy because he was finally adopted.
- 2. The parents are praising their son for reporting a fire so it was put out quickly.
- 3. The boy received a good grade at school.
- 4. The boy set a fire without getting caught.





Has your judgement changed with the new picture?



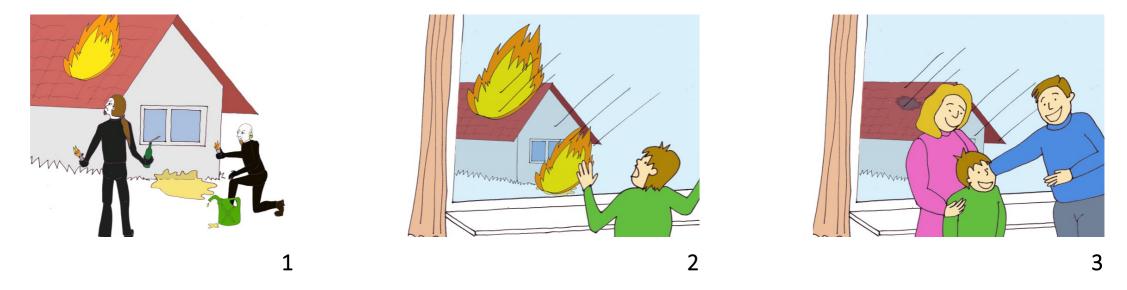
- 1. The boy is happy because he was finally adopted.
- 2. The parents are praising their son for reporting a fire so it was put out quickly.
- 3. The boy received a good grade at school.
- 4. The boy set a fire without getting caught.





23

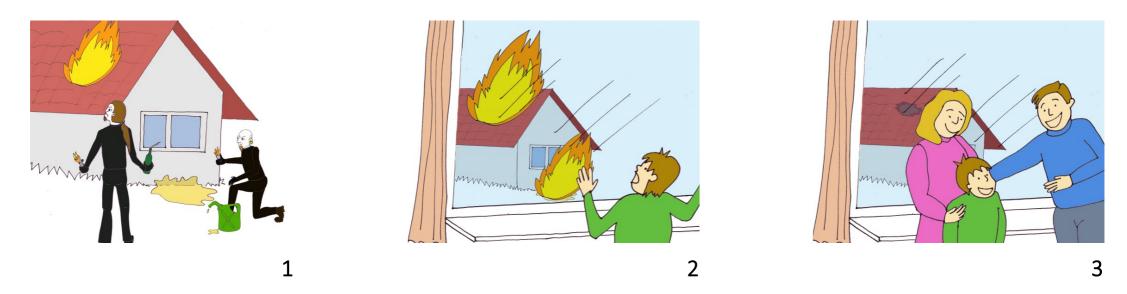
Please re-rate the probability!



- 1. The boy is happy because he was finally adopted.
- 2. The parents are praising their son for reporting a fire so it was put out quickly.
- 3. The boy received a good grade at school.
- 4. The boy set a fire without getting caught.



24



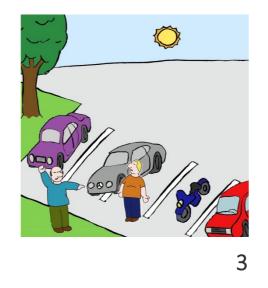
- 1. The boy is happy because he was finally adopted.
- 2. The parents are praising their son for reporting a fire so it was put out quickly.
- 3. The boy received a good grade at school.
- 4. The boy set a fire without getting caught.



Metacognitive Training 3 - Changing Beliefs



How probable do you find each option?

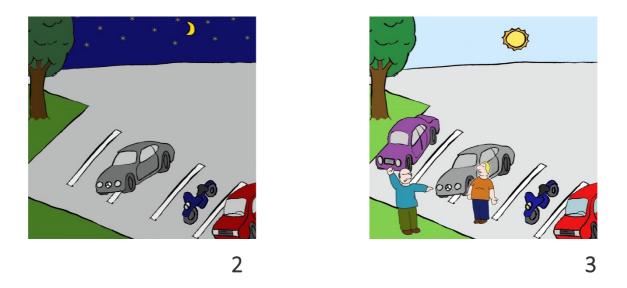


- 1. The men are arguing over the parking space in the shade.
- 2. The man is right in telling the other person off for occupying two parking spaces.
- 3. The driver of the grey car is being wrongly criticized.
- 4. The men disagree about the price of the car.





Has your judgement changed with the new picture?



- 1. The men are arguing over the parking space in the shade.
- 2. The man is right in telling the other person off for occupying two parking spaces.
- 3. The driver of the grey car is being wrongly criticized.
- 4. The men disagree about the price of the car.



Metacognitive Training 3 - Changing Beliefs



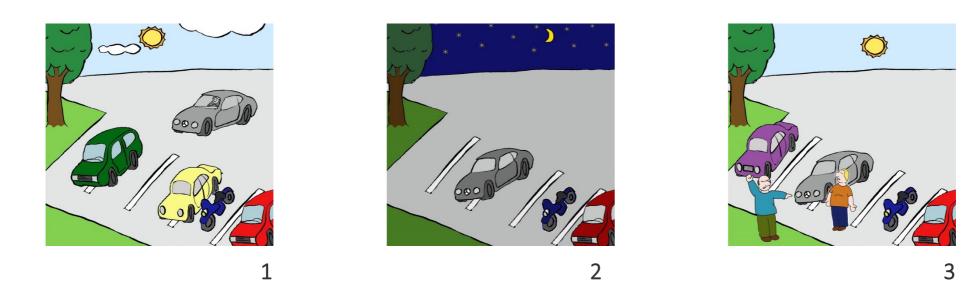
27

Please re-rate the probability!



- 1. The men are arguing over the parking space in the shade.
- 2. The man is right in telling the other person off for occupying two parking spaces.
- 3. The driver of the grey car is being wrongly criticized.
- 4. The men disagree about the price of the car.





- 1. The men are arguing over the parking space in the shade.
- 2. The man is right in telling the other person off for occupying two parking spaces.
- 3. The driver of the grey car is being wrongly criticized.
- 4. The men disagree about the price of the car.



Metacognitive Training 3 - Changing Beliefs



How probable do you find each option?

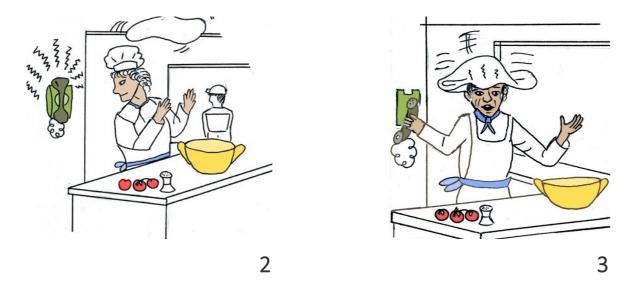


- 1. The man is distracted by the phone and the pizza dough he was just tossing landed on his head.
- 2. The man is calling for help because an alien creature has landed on his head.
- 3. The man is trying to make a girl laugh by wearing a funny hat.
- 4. The man forgot how to bake a cake so he is calling his mother to ask her for the recipe.





Has your judgement changed with the new picture?



- 1. The man is distracted by the phone and the pizza dough he was just tossing landed on his head.
- 2. The man is calling for help because an alien creature has landed on his head.
- 3. The man is trying to make a girl laugh by wearing a funny hat.
- 4. The man forgot how to bake a cake so he is calling his mother to ask her for the recipe.





Please re-rate the probability!



- 1. The man is distracted by the phone and the pizza dough he was just tossing landed on his head.
- 2. The man is calling for help because an alien creature has landed on his head.
- 3. The man is trying to make a girl laugh by wearing a funny hat.
- 4. The man forgot how to bake a cake so he is calling his mother to ask her for the recipe.



32



- 1. The man is distracted by the phone and the pizza dough he was just tossing landed on his head.
- 2. The man is calling for help because an alien creature has landed on his head.
- 3. The man is trying to make a girl laugh by wearing a funny hat.
- 4. The man forgot how to bake a cake so he is calling his mother to ask her for the recipe.



Metacognitive Training 3 - Changing Beliefs



How probable do you find each option?

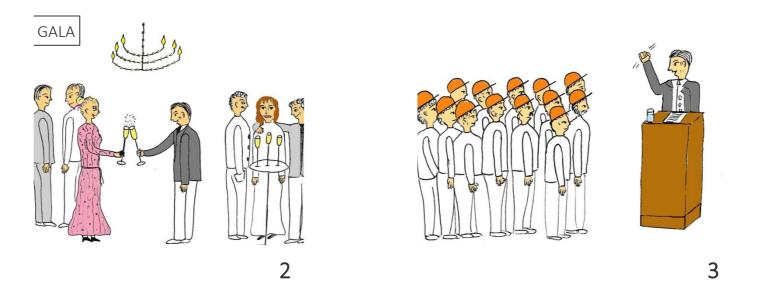


- 1. The politician helps disadvantaged people.
- 2. The communist politician encourages the workers to work harder.
- 3. The preacher is proclaiming the end of the world.
- 4. The boss announces that there is no money to increase salaries, although he lives in luxury.





Has your judgement changed with the new picture?

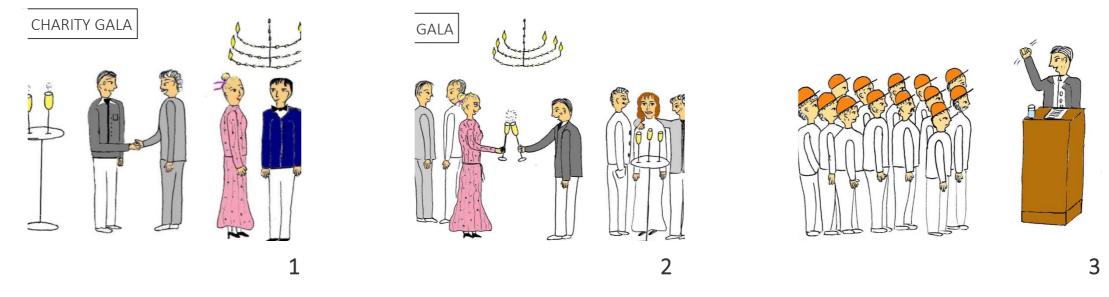


- 1. The politician helps disadvantaged people.
- 2. The communist politician encourages the workers to work harder.
- 3. The preacher is proclaiming the end of the world.
- 4. The boss announces that there is no money to increase salaries, although he lives in luxury.



35

Please re-rate the probability!



- 1. The politician helps disadvantaged people.
- 2. The communist politician encourages the workers to work harder.
- 3. The preacher is proclaiming the end of the world.
- 4. The boss announces that there is no money to increase salaries, although he lives in luxury.





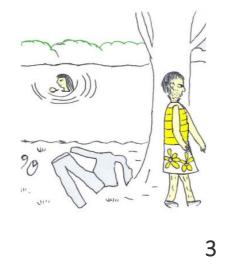
- 1. The politician helps disadvantaged people.
- 2. The communist politician encourages the workers to work harder.
- 3. The preacher is proclaiming the end of the world.
- 4. The boss announces that there is no money to increase salaries, although he lives in luxury.

36





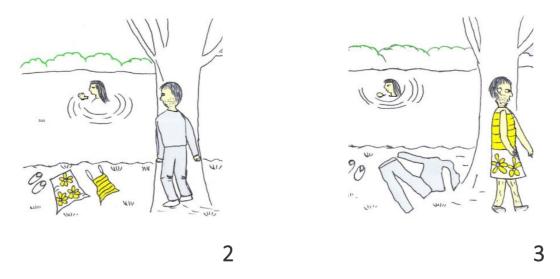
How probable do you find each option?



- 1. The man is trying to trick the police chasing after him.
- 2. The man is trying on the woman's swimming clothes for fun.
- 3. The man is the woman's personal bodyguard.
- 4. The man's clothes are wet so he is stealing the woman's clothes.

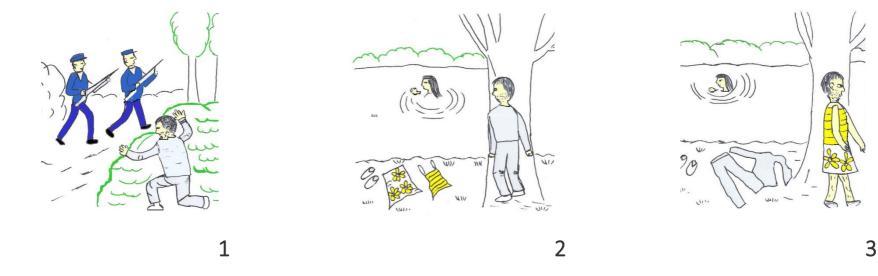






- 1. The man is trying to trick the police chasing after him.
- 2. The man is trying on the woman's swimming clothes for fun.
- 3. The man is the woman's personal bodyguard.
- 4. The man's clothes are wet so he is stealing the woman's clothes.

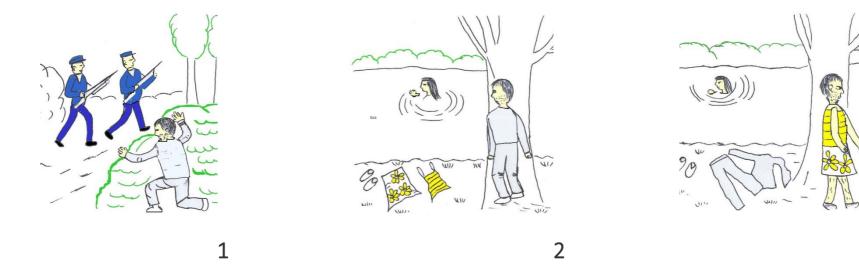




- 1. The man is trying to trick the police chasing after him.
- 2. The man is trying on the woman's swimming clothes for fun.
- 3. The man is the woman's personal bodyguard.
- 4. The man's clothes are wet so he is stealing the woman's clothes.



40



- 1. The man is trying to trick the police chasing after him.
- 2. The man is trying on the woman's swimming clothes for fun.
- 3. The man is the woman's personal bodyguard.
- 4. The man's clothes are wet so he is stealing the woman's clothes.



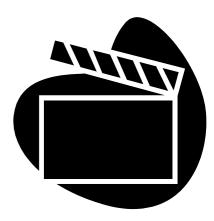
Optional: Videoclip

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]







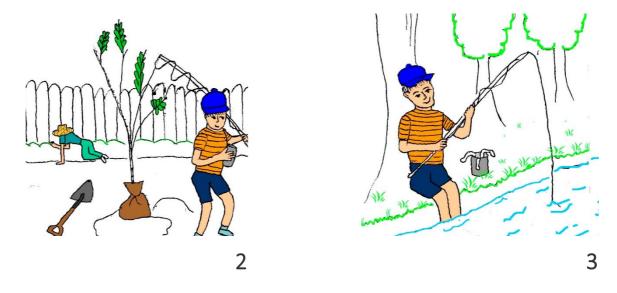
How probable do you find each option?



- 1. The boy is enjoying the lovely day.
- 2. The boy snuck away from gardening to go fishing.
- 3. The boy wants to please his mom by catching a fish for her.
- 4. The boy has stolen worms for fishing.







- 1. The boy is enjoying the lovely day.
- 2. The boy snuck away from gardening to go fishing.
- 3. The boy wants to please his mom by catching a fish for her.
- 4. The boy has stolen worms for fishing.











- 1. The boy is enjoying the lovely day.
- 2. The boy snuck away from gardening to go fishing.
- 3. The boy wants to please his mom by catching a fish for her.
- 4. The boy has stolen worms for fishing.









- 1. The boy is enjoying the lovely day.
- 2. The boy snuck away from gardening to go fishing.
- 3. The boy wants to please his mom by catching a fish for her.
- 4. The boy has stolen worms for fishing.





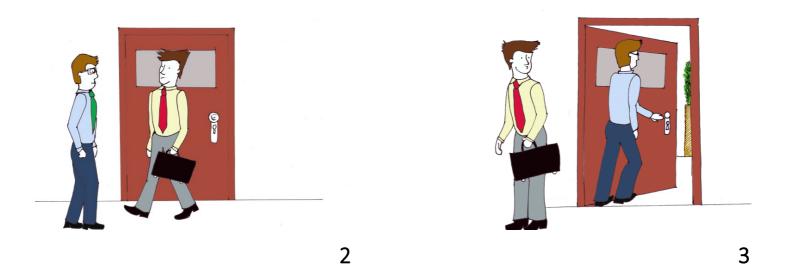
How probable do you find each option?



- 1. The two men are communicating through ESP/telepathy.
- 2. The man is surprised to see the other man opening the door.
- 3. The man turns around, because the other man looks familiar.
- 4. The man turns around stunned, because the other man made a rude comment to him.







- 1. The two men are communicating through ESP/telepathy.
- 2. The man is surprised to see the other man opening the door.
- 3. The man turns around, because the other man looks familiar.
- 4. The man turns around stunned, because the other man made a rude comment to him.







- 1. The two men are communicating through ESP/telepathy.
- 2. The man is surprised to see the other man opening the door.
- 3. The man turns around, because the other man looks familiar.
- 4. The man turns around stunned, because the other man made a rude comment to him.





- The two men are communicating through ESP/telepathy. 1.
- The man is surprised to see the other man opening the door. 2.
- The man turns around, because the other man looks familiar. 3.
- The man turns around stunned, because the other man made a rude comment to him. 4.





How probable do you find each option?

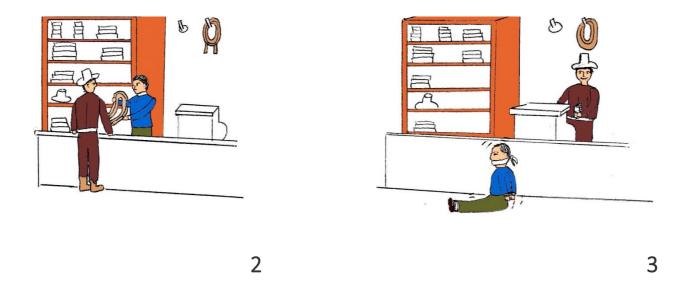


3

- 1. The men are practising their cattle tying skills before the stampede.
- 2. The cowboy wants to buy a lasso.
- 3. The cowboy used a rope from the store to tie up the clerk and take the money.
- 4. The man wants to buy a new hat.



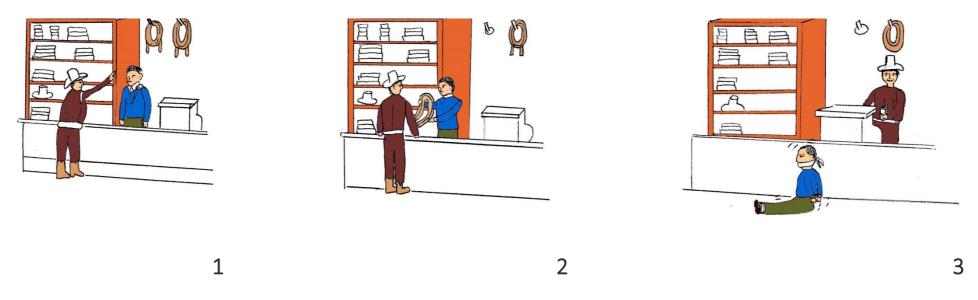




- 1. The men are practising their cattle tying skills before the stampede.
- 2. The cowboy wants to buy a lasso.
- 3. The cowboy used a rope from the store to tie up the clerk and take the money.
- 4. The man wants to buy a new hat.







- 1. The men are practising their cattle tying skills before the stampede.
- 2. The cowboy wants to buy a lasso.
- 3. The cowboy used a rope from the store to tie up the clerk and take the money.
- 4. The man wants to buy a new hat.





- 1. The men are practising their cattle tying skills before the stampede.
- 2. The cowboy wants to buy a lasso.
- 3. The cowboy used a rope from the store to tie up the clerk and take the money.
- 4. The man wants to buy a new hat.





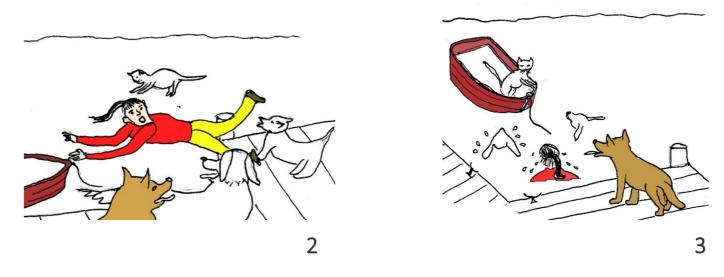
How probable do you find each option?



- 1. Police dogs are trying to prevent a boat theft.
- 2. The girl fell into the water because the dogs were chasing a cat.
- 3. The girl tries to save the cat from drifting away.
- 4. The girl jumped into the water to escape the dogs.

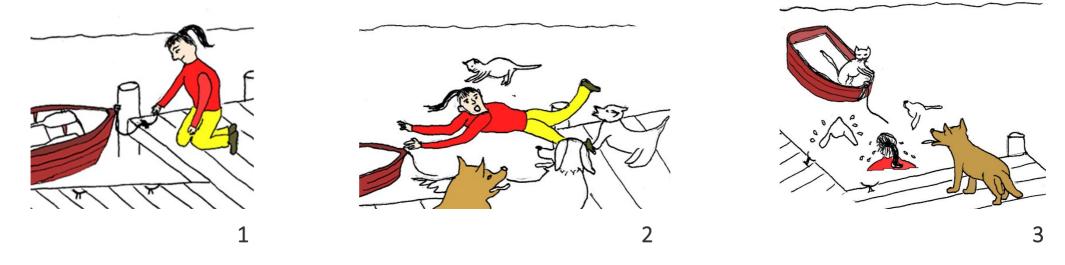






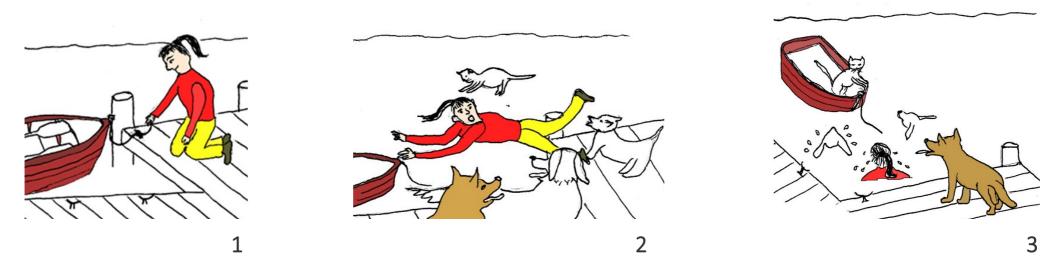
- 1. Police dogs are trying to prevent a boat theft.
- 2. The girl fell into the water because the dogs were chasing a cat.
- 3. The girl tries to save the cat from drifting away.
- 4. The girl jumped into the water to escape the dogs.





- 1. Police dogs are trying to prevent a boat theft.
- 2. The girl fell into the water because the dogs were chasing a cat.
- 3. The girl tries to save the cat from drifting away.
- 4. The girl jumped into the water to escape the dogs.





- 1. Police dogs are trying to prevent a boat theft.
- 2. The girl fell into the water because the dogs were chasing a cat.
- 3. The girl tries to save the cat from drifting away.
- 4. The girl jumped into the water to escape the dogs.





How probable do you find each option?



- 1. The boy saved the man from a robbery.
- 2. The boy helps a drunk man.
- 3. The boy accidentally hit the man with a table.
- 4. Two old friends meet on the street.









- 1. The boy saved the man from a robbery.
- 2. The boy helps a drunk man.
- 3. The boy accidentally hit the man with a table.
- 4. Two old friends meet on the street.





- 1. The boy saved the man from a robbery.
- 2. The boy helps a drunk man.
- 3. The boy accidentally hit the man with a table.
- 4. Two old friends meet on the street.







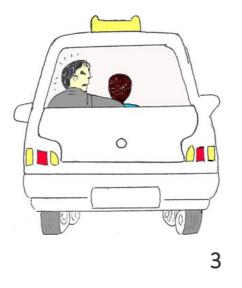


- 1. The boy saved the man from a robbery.
- 2. The boy helps a drunk man.
- 3. The boy accidentally hit the man with a table.
- 4. Two old friends meet on the street.





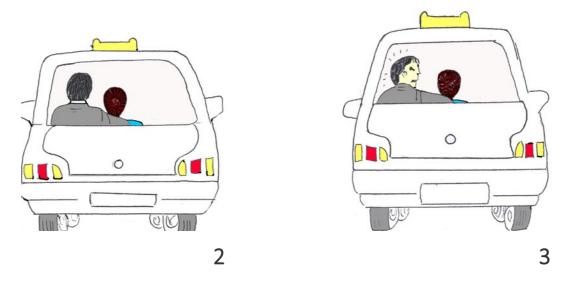
How probable do you find each option?



- 1. The man is watching a drive-in movie with his date.
- 2. The man in the car is with his mistress and hopes no one sees them.
- 3. The man in the car is taking a display dummy to his store.
- 4. The man and the woman are stealing the car.



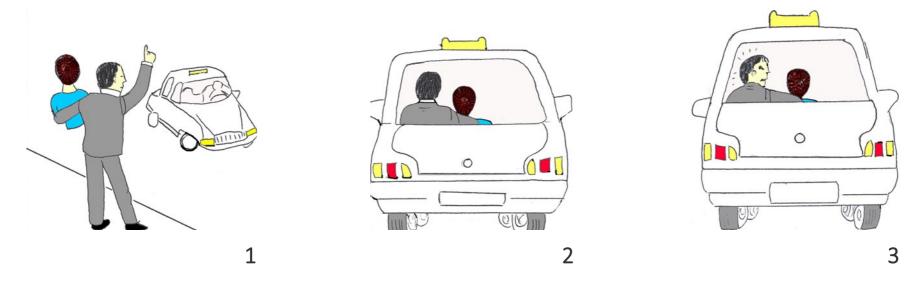




- 1. The man is watching a drive-in movie with his date.
- 2. The man in the car is with his mistress and hopes no one sees them.
- 3. The man in the car is taking a display dummy to his store.
- 4. The man and the woman are stealing the car.

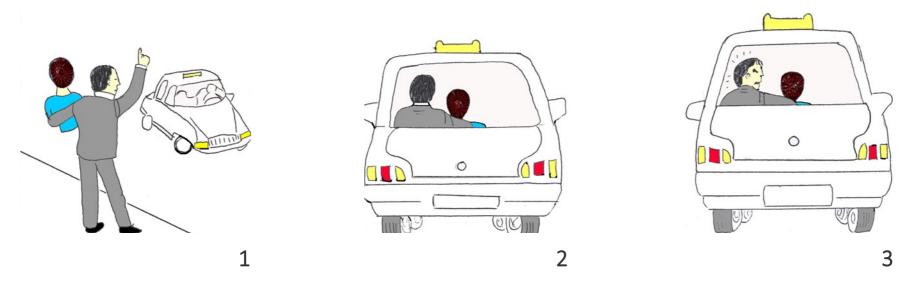






- 1. The man is watching a drive-in movie with his date.
- 2. The man in the car is with his mistress and hopes no one sees them.
- 3. The man in the car is taking a display dummy to his store.
- 4. The man and the woman are stealing the car.





- 1. The man is watching a drive-in movie with his date.
- 2. The man in the car is with his mistress and hopes no one sees them.
- 3. The man in the car is taking a display dummy to his store.
- 4. The man and the woman are stealing the car.



Transfer to everyday life

Learning Objectives:

• Sometimes, events turn out very differently than expected: Quick decisions often lead to wrong conclusions.



Transfer to everyday life

Learning Objectives:

- Sometimes, events turn out very differently than expected: Quick decisions often lead to wrong conclusions.
- You should always consider different interpretations/hypotheses and adjust your beliefs accordingly.



Transfer to everyday life

Learning Objectives:

- Sometimes, events turn out very differently than expected: Quick decisions often lead to wrong conclusions.
- You should always consider different interpretations/hypotheses and adjust your beliefs accordingly.
- Seek as much information as possible to verify your judgment.





What does this have to do with psychosis?

During psychosis, people may maintain false beliefs and ignore counterarguments. In some cases, this may have dramatic consequences.





What does this have to do with psychosis?

During psychosis, people may maintain false beliefs and ignore counterarguments. In some cases, this may have dramatic consequences.

Example: Sven attacked his father. He was convinced that his father died long ago and that robots have taken possession of his body. Even though his father was hurt by the attack and bled, providing evidence against his belief, Sven remained suspicious.

Background: The father behaved in a peculiar way, not as nice as usual.

But: People change when they grow older; maybe the father had his own problems or was overstrained with his son. Sven's relatives could not convince him that everything was OK with his father.





What does this have to do with psychosis?

During psychosis, people may maintain false beliefs and ignore counterarguments. In some cases, this may have dramatic consequences.

Example: Sven attacked his father. He was convinced that his father died long ago and that robots have taken possession of his body. Even though his father was hurt by the attack and bled, providing evidence against his belief, Sven remained suspicious.

Background: The father behaved in a peculiar way, not as nice as usual.

But: People change when they grow older; maybe the father had his own problems or was overstrained with his son. Sven's relatives could not convince him that everything was OK with his father.

It is difficult to keep one's cool when feeling threatened. So, be cautious about your judgments and ask people you trust for advice!



Thank you for your attention!

for trainers:

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

www.uke.de/mct_app











Pictures used in this module are reproduced with indirect (creative commons license) or direct permission of the artists listed below, for which we would like to express our gratitude! A full list can be obtained via <u>www.uke.de/mct</u>. If we have involuntarily breached copyright, please accept our apologies. In this case, we kindly ask creators for their permission to use their work under the "fair use" policy.

Die in diesem Modul verwendeten Bilder wurden mit der indirekten (creative commons Lizenz) oder direkten Zustimmung der untenstehenden Künstler reproduziert, wofür wir uns herzlich bedanken möchten! Eine vollständige Liste ist hinterlegt auf <u>www.uke.de/mkt</u>. Sollten wir unbeabsichtigt gegen das Urheberrecht verstoßen haben, so bitten wir dies vielmals zu entschuldigen und bitten nachträglich um die Verwendungserlaubnis.

Name Photographer/Artist Name Fotograf/Künstler	Source/ Quelle	Picture Name/ Name des Bildes	CC = used with corresponding creative commons license; PP = used with personal permission of artist CC = genutzt unter creative commons Lizenz, PP = verwendet mit persönlicher Zustimmung des Künstlers	Description/Kurzbeschreibung
Jule Berlin	flickr	Sunset at the end of the world	СС	Sunset/Sonnenuntergang
fmc.nikon.d40	flickr	Flower	сс	Yellow blossom/Gelbe Blüte
Aussiegall	flickr	Pentas Flowers	СС	Pink flowers/Pinkfarbene Blumen
Swami Stream	flickr	Mumbai Flowers	СС	Yellow and pink gerbara/Gelbe und pinkfarbene Gerbera
e3000	flickr	I wanna be your dog	СС	Pug/Mops
moore fun	flickr	Jellyfish	СС	Jelly fish/Qualle
Wesley Oostvogels	Flickr	High Key Baby Portrait	СС	Baby/Baby
Benny-Kristin Fischer			Produced for the MCT/Anfertigung für das MKT; © Arbeitsgruppe Neuropsychologie	Various picture sequences fire, chef, charity gala, criminal, boy, door, cowboy´s robbery, dogs, table, taxi, some motives are adapted from the Wechsler Intelligence Scale/Verschiedene Bildersequenzen Feuer, Koch, Wohltätigkeitsgala, Verbrecher, Junge, Tür, Überfall des Cowboys, Hunde, Tisch, Taxi, einige Motive sind angelehnt an Aufgaben des Wechsler Intelligenztests
Janne Hottenrott			Produced for the MCT/Anfertigung für das MKT; © Arbeitsgruppe Neuropsychologie	Picrture sequence parking space is adapted from the Wechser Intelligence Scale/Bildersequenz Parkplatz, Motiv ist angelehnt an Aufgaben des Wechsler Intelligenztests