

Story: Chi is a fisherman living on a small island in the South Pacific. Chi wants to go on a fishing trip to catch some fish for his family's dinner. The sea appears calm and inviting. Suddenly, a strong storm rolls in, causing the sea to become rough and dangerous. Chi notices the storm and the change in the sea.

Question: Does Chi believe the sea is calm and inviting or rough and dangerous?

Choose one of the following:

- a) Chi believes the sea is rough and dangerous.
- b) Chi believes the sea is calm and inviting.

Correct Answer: a)

Unintervened: a) Chi believes the sea is rough and dangerous.

Intervened: a

—
Story: Chi is a fisherman living on a small island in

Story: Hiro is a bonsai enthusiast in a small village in Japan. He wants to trim his favorite bonsai tree to maintain its shape and health. Hiro sees that the tree's branches are overgrown and need pruning. A gust of wind blows through Hiro's garden, snapping off several of the overgrown branches from the bonsai tree. Hiro witnesses the gust of wind snapping off the branches.

Question: Does Hiro believe the bonsai tree has overgrown branches or that they have been snapped off by the wind?

Choose one of the following:

- a) Hiro believes the branches have been snapped off by the wind.
- b) Hiro believes the bonsai tree has overgrown branches.

Correct Answer: a)

Unintervened: a) Hiro believes the branches have been snapped off by the wind.

Intervened: Hiro believes the bonsai tree has overgrown branches. (initially)

Story: Olumide, a skilled woodcarver in a Nigerian village, is preparing to carve a beautiful sculpture for the village chief. Olumide wants to use a sharp chisel to create intricate details on the sculpture. Olumide observes his set of chisels and sees one that appears to be sharp and in perfect condition. However, while Olumide is talking to a fellow artisan, a child from the village accidentally drops the chisel, causing it to become blunt and damaged. Olumide notices the damaged chisel on the ground.

Question: Does Olumide believe the chisel is sharp and in perfect condition or blunt and damaged?

Choose one of the following:

- a) Olumide believes the chisel is sharp and in perfect condition.
- b) Olumide believes the chisel is blunt and damaged.

Correct Answer: b)

Unintervened: b) Olumide believes the chisel is blunt and damaged.

Intervened: a

—
Story: Olumide, a skilled woodcarver in a

Story: Odion is an archaeologist conducting research at an ancient Egyptian site. He wants to discover a hidden chamber within the pyramid he is exploring. Odion observes a wall with an unusual pattern that appears to be a concealed entrance. While Odion is away, a sandstorm fills the entrance, making it impossible to access the hidden chamber. Odion sees the sand-filled entrance after the storm.

Question: Does Odion believe the wall with the unusual pattern is hiding the entrance or that the entrance is blocked by sand?

Choose one of the following:

- a) Odion believes the entrance is blocked by sand.
- b) Odion believes the wall with the unusual pattern is hiding the entrance.

Correct Answer: a)

Unintervened: a) Odion believes the entrance is blocked by sand.

Intervened: b) Odion believes the wall with the unusual pattern is hiding the entrance.

Story: Kunal is a talented potter in a small Indian village. Kunal wants to create a set of earthenware bowls as a gift for his friend's housewarming. Kunal inspects a large lump of clay, finding it to be moist and malleable. However, while Kunal is away for a short break, the sun beats down on the clay, drying it out and making it hard and brittle. Kunal notices the sun-dried, brittle clay.

Question: Does Kunal believe the clay is moist and malleable or hard and brittle?

Choose one of the following:

- a) Kunal believes the clay is moist and malleable.
- b) Kunal believes the clay is hard and brittle.

Correct Answer: b)

Unintervened: b) Kunal believes the clay is hard and brittle.

Intervened: a. (Kunal believes the clay is moist and malleable.)

Story: Naledi is a talented South African chef preparing a traditional braai for her friends and family. Naledi wants to make a delicious marinade for the meats and vegetables to be grilled. She takes a bottle of vinegar from the cupboard to mix with other ingredients for the marinade. Her cousin, who was helping in the kitchen earlier, accidentally placed a bottle of water in the vinegar's spot, and Naledi unknowingly grabs the bottle of water instead. Naledi notices the water and puts it back.

Question: Does Naledi believe the bottle she took from the cupboard contains vinegar or water?

Choose one of the following:

- a) Naledi believes the bottle she took from the cupboard contains water.
- b) Naledi believes the bottle she took from the cupboard contains vinegar.

Correct Answer: a)

Unintervened: a) Naledi believes the bottle she took from the cupboard contains water.

Intervened: b) Naledi believes the bottle she took from the cupboard contains vinegar. (At

H.3. DeepSeek-7B on Forward Belief, False Belief

Changed to Correct Answer: 32/100

Story: Zara is attending an art exhibition at a local gallery in her town. Zara wants to learn more about a particular abstract painting she admires. The label next to the artwork states that the painting is the work of a famous artist, and Zara reads the label carefully. A gallery staff member, realizing there was a mix-up, changes the label with the correct information attributing the painting to an emerging artist instead. Zara does not read the updated label.

Question: Does Zara believe the painting is the work of a famous artist or an emerging artist?

Choose one of the following:

- a) Zara believes the painting is the work of a famous artist.
- b) Zara believes the painting is the work of an emerging artist.

Correct Answer: a)

Unintervened: b) Zara believes the painting is the work of an emerging artist.

Intervened: a) Zara believes the painting is the work of a famous artist.

Story: Azola is a teacher at a small school in rural China. She wants to surprise her students with a new book for the school library. Azola got a notification from Amazon stating that the package containing the book was left at her doorstep. A gust of wind blows the package off her doorstep, and a neighbor replaces it with a different package containing a hand-knit scarf. Azola does not witness the package swap.

Question: Does Azola believe the package contains the book she ordered or a hand-knit scarf?

Choose one of the following:

- a) Azola believes the package contains the book she ordered.
- b) Azola believes the package contains a hand-knit scarf.

Correct Answer: a)

Unintervened: b) Azola believes the package contains a hand-knit scarf.

Intervened: a) Azola believes the package contains the book she ordered.

Language Models Represent Beliefs of Self and Others

Story: Ravi is a farmer in a small Indian village, tending to his mango orchard. Ravi wants to harvest ripe mangoes to sell at the local market. He notices a mango tree with a heavy branch laden with ripe mangoes. A mischievous monkey comes along and eats all the ripe mangoes on the branch while Ravi is gathering his harvesting tools. Ravi does not see the monkey eating the ripe mangoes.

Question: Does Ravi believe the branch has ripe mangoes or no ripe mangoes?

Choose one of the following:

- a) Ravi believes the branch has ripe mangoes.
- b) Ravi believes the branch has no ripe mangoes.

Correct Answer: a)

Unintervened: b) Ravi believes the branch has no ripe mangoes.

Intervened: a) Ravi believes the branch has ripe mangoes.

Story: Kael is a farmer in a remote village in the Andes. Kael wants to plant a new crop of high-altitude potatoes in one of his terraced fields. The soil in the field appears rich and well-fertilized. Overnight, heavy rainfall washes away much of the fertile soil, leaving mostly rocky dirt behind. Kael does not notice the change in the soil after the rainfall.

Question: Does Kael believe the soil is rich and well-fertilized or mostly rocky dirt?

Choose one of the following:

- a) Kael believes the soil is rich and well-fertilized.
- b) Kael believes the soil is mostly rocky dirt.

Correct Answer: a)

Unintervened: b) Kael believes the soil is mostly rocky dirt.

Intervened: a) Kael believes the soil is rich and well-fertilized.

Story: Farhan is a street food vendor in a bustling market in Istanbul. Farhan wants to prepare a delicious chicken shawarma wrap for a customer who asked for extra garlic sauce. Farhan takes a bottle of garlic sauce from the shelf and pours it onto the shawarma wrap. His assistant, who is busy preparing a different wrap, accidentally swaps the garlic sauce with a bottle of hot sauce, and Farhan unknowingly pours the hot sauce onto the shawarma wrap. Farhan does not notice the sauce swap.

Question: Does Farhan believe the sauce he poured is garlic sauce or hot sauce?

Choose one of the following:

- a) Farhan believes the sauce he poured is garlic sauce.
- b) Farhan believes the sauce he poured is hot sauce.

Correct Answer: a)

Unintervened: b) Farhan believes the sauce he poured is hot sauce.

Intervened: a) Farhan believes the sauce he poured is garlic sauce.

Story: Lila is a beekeeper in a small village in Eastern Europe. She wants to harvest honey from one of her beehives. The beehive is full of honey, as Lila observed during her last inspection. A sudden cold snap occurs overnight, causing the bees to consume the honey to stay warm and survive, leaving the beehive nearly empty. Lila does not notice the cold snap and the decreased honey in her beehive.

Question: Does Lila believe the beehive is full of honey or nearly empty?

Choose one of the following:

- a) Lila believes the beehive is full of honey.
- b) Lila believes the beehive is nearly empty.

Correct Answer: a)

Unintervened: b) Lila believes the beehive is nearly empty.

Intervened: a) Lila believes the beehive is full of honey.

Story: Kavi is a chef at a popular Indian restaurant in a bustling city. Kavi wants to make his signature dish, a spicy curry, for the customers tonight. Kavi checks the pantry and sees a full bottle of his favorite hot sauce. When Kavi is away, a new chef accidentally knocks over the hot sauce, spilling its contents all over the floor. Kavi does not see the spilled hot sauce on the floor.

Question: Does Kavi believe there is a full bottle of hot sauce available or that the hot sauce has been spilled?

Choose one of the following:

- a) Kavi believes the hot sauce has been spilled.
- b) Kavi believes there is a full bottle of hot sauce available.

Correct Answer: b)

Unintervened: a) Kavi believes the hot sauce has been spilled.

Intervened: b) Kavi believes there is a full bottle of hot sauce available.