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Supplement A: Materials

Screenshots from all Experiments and Statement Pool

On the following pages, we provide screenshots from Experiment 1. Next, we provide screenshots from all tasks that differ from Experiment 1.

Instructions Exposure Phase

You are participating in a study investigating various influences on people's assessment of information.

In the following, you will read some trivia facts.

For that purpose, you will first learn about the different **topics of two trivia statements**. By clicking on one of the two topics, you can unveil and read the entire trivia statement.

Sometimes, you can decide which one of the two trivia statements you want to read.

Sometimes, the choice has already been made for you.

Important: Some of the trivia statements are correct, others are incorrect. You will learn after this experiment which trivia statements are actually correct. Please **do not use the internet or other sources while the experiment is ongoing**. This is very important.

Next

Active Sampling Trial

Please select which trivia statement you would like to read.

James Connolly...

Most accidents at work...

Statement Exposure

Most accidents at work occur on Mondays.

Passive Sampling

The choice has already been made for you. You will be forwarded in a few seconds.

The official language in Uganda...

Nerthus...

Instructions Judgment Phase

In the following, you should judge whether the information presented to you is **true or false**. Again, please **do not use the internet or any other sources** for your judgment.

Please press "next".

Judgment Phase

Most accidents at work occur on Mondays.

Is this information true or false?

☐
definitely
false



☐
definitely
true

Rating 1/50

Sociodemographics & Seriousness Check

Please indicate your gender.

- ☐ male
- ☐ female
- ☐ diverse
- ☐ other

How old are you?

I am years old.

Did you at any time of this study search the internet or any other source for the trivia information presented to you?

- ☐ No
- ☐ Yes, XX times (please specify XX).

Debriefing

Dear participant, you have finished this survey. **Thank you very much!**

The aim of the study was to investigate the truth effect. The truth effect refers to the tendency for individuals to ascribe higher truth-value to information that is has been encountered before. In this particular study, we wanted to test what happens if one needs to self-select information at first hand.

If you want to know which of the trivia statements you saw were correct or incorrect, take a look at the table below:

Statement	Factual Truth
Cholecalciferol is a vitamin to be found in cod liver oil.	Correct
The world's biggest fish is the basking shark.	False
Emeralds feature a conchate disruption.	Correct
The throwing circle in discus is 3m wide.	False
The world's biggest cemetery is in Bahrain.	Correct
The second of Gulliver's journeys goes to Luggnagg.	False
The river Gomol originates in Afghanistan.	Correct
Alberto Fujimori served as president of Bolivia from 1990 – 2000.	False

Experiment 3: Instructions Interest

In the following, we will present you some topics. Each of these topics also represents the beginning of a trivia statement.

Your task is first to judge how interesting each of these topics is to you. Please press "next".

Next

Experiment 3: Interest Rating

How interesting is this topic to you?

not
interesting
at all

very
interesting

The Vatican...

☐☐☐☐☐☐☐☐☐☐☐

Srang...

☐☐☐☐☐☐☐☐☐☐☐

Excessive sex drive in men...

☐☐☐☐☐☐☐☐☐☐☐

The world's biggest fish...

☐☐☐☐☐☐☐☐☐☐☐

How interesting is this topic to you?

not
interesting
at all

very
interesting

Antonio Vivaldi...

☐☐☐☐☐☐☐☐☐☐☐

Manama...

☐☐☐☐☐☐☐☐☐☐☐

The king in the fairytale "The shoes that were danced to pieces"...

☐☐☐☐☐☐☐☐☐☐☐

Albert Einstein...

☐☐☐☐☐☐☐☐☐☐☐

How interesting is this topic to you?

not
interesting
at all

very
interesting

H. von Euler-Chelpin...

☐☐☐☐☐☐☐☐☐☐☐

The last name of the painter Michelangelo...

☐☐☐☐☐☐☐☐☐☐☐

Next

Experiment 3: Instruction Exposure Phase

You are participating in a study investigating various influences on people's assessment of information.

In the following, you will read some trivia facts. The presentation is fast, but please try to read all of the presented statements.

Important: Some of the trivia statements are correct, others are incorrect. You will learn after this experiment which trivia statements are actually correct. Please **do not use the internet or other sources while the experiment is ongoing**. This is very important.

Next

Experiment 4: Instructions

You are participating in a study investigating various influences on people's assessment of information.

In the following, you will read some trivia facts.

For that purpose, you will first learn about the different **topics of two trivia statements**. By clicking on one of the two topics, you can unveil and read the entire trivia statement.

Sometimes, you can decide which one of the two trivia statements you want to read.

Sometimes, the choice has already been made for you.

Important: Some of the trivia statements are correct, others are incorrect. **Your task is to judge each trivia statement whether it is correct or not.**

You will learn after this experiment which trivia statements are actually correct. Please **do not use the internet or other sources while the experiment is ongoing**. This is very important.

Next

Experiment 4: Statement Presentation + Truth Judgment

Early Scholasticism was a movement during the Middle Ages.

Is this information true or false?

☐ definitely false ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ definitely true

Experiment 5: Instructions

You are participating in a study investigating various influences on people's assessment of information.

In the following, you will read some trivia facts.

For that purpose, you will first learn about the different **topics of two trivia statements**. By clicking on one of the two topics, you can unveil and read the entire trivia statement.

Sometimes, you can choose which one of the two trivia statements you want to read.

Sometimes, it only appears as if you can choose. However, you will be shown a statement on the topic that you did not choose.

Sometimes, the choice has already been made for you.

Important: Some of the trivia statements are correct, others are incorrect. You will learn after this experiment which trivia statements are actually correct. Please **do not use the internet or other sources while the experiment is ongoing**. This is very important.

Experiment 6: Memory Instructions

In the following, you will again be presented with some statements.

Here, you should judge whether the statement presented to you is **from the first phase of the study or new**.

For each statement, there are two options:

- **"Old"** means that the statement had been **shown** to you in the first phase of the experiment
- **"New"** means that the statement had **not been shown in the first phase of the study**.

Important: **Some of the statements may sound similar as those shown in the first phase.**

Please press "next".

Experiment 6: Memory Judgments

Alberto Fujimori served as president of Bolivia from 1990 –
2000.

Is this statement from the first phase of the experiment or new?

New
(NOT from the first phase)

Old
(from the first phase)

Statement 1/40

Experiment 6: Truth Judgments

The world's biggest fish is the basking shark.

Is this statement true or false?

Statement 1/40

Experiment 7: Instructions Judgment Phase

In the following, you will again be presented with some statements. Here, you will be asked to give two judgments.

First, you should judge whether the information presented to you is **true or false**. Again, please **do not use the internet or any other sources** for your judgment.

Second, you should judge whether the statement presented to you is **from the first phase of the study or new**.

Important: **Some of the statements may sound similar as those shown in the first phase.**

Please press "next".

Experiment 7: Truth Judgments

The Teutons were defeated in 101 BC by the Roman general Gaius Marcus.

Is this statement true or false?

○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○

definitely definitely
false true

Statement 1/40

Experiment 7: Memory Judgments

The Teutons were defeated in 101 BC by the Roman general Gaius Marcus.

Is this statement from the first phase of the experiment or new?

○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○

definitely New (NOT from the first phase) definitely Old (from the first phase)

Experiment 8: Instructions Exposure Phase

You are participating in a study investigating various influences on people's assessment of information.

In this study, you will be shown several social media accounts that regularly post trivia content.

Each account will display **two posts**. These posts may contain trivia facts. However, the platform is designed so that the full content of each post is hidden until you choose to reveal it. To read a full post, click the "Read more" button beneath it.

Sometimes, you can decide which one of the two trivia posts you want to read by clicking on one of the "Read more" buttons.

Sometimes, the choice has already been made for you.

Important: **Some of the trivia posts are factually correct, others are incorrect.** You will learn after this experiment which trivia statements are actually correct. Please **do not use the internet or other sources while the experiment is ongoing.** This is very important.

Next

Experiment 8: Active Trials

Please select which of the two posts you want to read.



NerdyNuggets
@nerdynuggets

The smallest bird in the world...

Read more



NerdyNuggets
@nerdynuggets

Excessive sex drive in men...

Read more

Please select which of the two posts you want to read.



NerdyNuggets
@nerdynuggets

The smallest bird in the world is the bee hummingbird.

Read more



NerdyNuggets
@nerdynuggets

Excessive sex drive in men...

Read more

Experiment 8: Passive Trials

Here, the choice has already been made for you.

Show which post has already been chosen



FactoidLab
@factoidlab

The throwing circle in discus...



FactoidLab
@factoidlab

The smallest country in Central America...

Here, the choice has already been made for you.

Show which post has already been chosen



FactoidLab
@factoidlab

The throwing circle in discus is 2.5m wide.



FactoidLab
@factoidlab

The smallest country in Central America...

Experiment S1: Qualitative Assessment

Why did you select this topic? Please give us a short explanation (i.e., 1 sentence).

Experiment S2: Same Topic Trials

Please select which trivia statement you would like to read.

H. von Euler-Chelpin... (Trivia Statement 1)

H. von Euler-Chelpin... (Trivia Statement 2)

The choice has already been made for you. You will be forwarded in a few seconds.

Peterbald... (Trivia Statement 1)

Peterbald... (Trivia Statement 2)

Experiment S3: Passive Trials

On the next page, you will learn something about one of these topics. For that purpose, click on „Next“.

Jürgen Ovens...

A housefly...

Next

Experiment S4:

(all materials and instructions can be found for Experiment 6 and 7)

Statement Pool

The first element is the true statement, the second is the false statement, and the third is the topic.

1. 'The smallest bird in the world is the bee hummingbird.', 'The smallest bird in the world is the star hummingbird.', 'The smallest bird in the world...'
2. 'The Vatican has the highest crime rate.', 'The Vatican has the lowest crime rate.', 'The Vatican...'
3. 'The world\'s biggest fish is the whale shark.', 'The world\'s biggest fish is the basking shark.', 'The world\'s biggest fish...'
4. 'The dopplereffect applies to the velocity of light.', 'The dopplereffect does not apply to the velocity of light.', 'The dopplereffect...'
5. 'Nereid is a moon of the planet Neptune.', 'Nereid is a moon of the planet Saturn.', 'Nereid...'
6. 'Puccinis first opera was “Le Villi”.', 'Puccinis first opera was “Manon Lescaut”.', 'Puccinis first opera...'
7. 'Van Gogh painted “Starry Night” in Saint-Rémy.', 'Van Gogh painted “Starry Night” in Arles.', 'Van Gogh...'
8. 'Kothurn is a shoe of ancient Greek actors.', 'Kothurn is a roman belt.', 'Kothurn is...'
9. 'The king in the fairytale “The shoes that were danced to pieces“ has twelve daughters.', 'The king in the fairytale “The shoes that were danced to pieces“ has seven daughters.', 'The king in the fairytale “The shoes that were danced to pieces“...'
10. 'One of Aphrodite\'s sons was Priapus.', 'One of Aphrodite\'s sons was Anchises.', 'One of Aphrodite\'s sons...'
11. 'The sonnets to Laura are from Petrarca.', 'The sonnets to Laura are from Boccaccio.', 'The sonnets to Laura...'
12. 'Zeus procreated the three spouses of destiny with Themis.', 'Zeus procreated the three spouses of destiny with Leda.', 'Zeus...'

13. 'The last name of the painter Michelangelo was Buonarroti.', 'The last name of the painter Michelangelo was Santi.', 'The last name of the painter Michelangelo...'
14. 'The most toxic jellyfish in the world is Chironex fleckeri.', 'The most toxic jellyfish in the world is Cotylorhiza tuberculata.', 'The most toxic jellyfish in the world ...'
15. 'The second of Gulliver's journeys goes to Brobdingnag.', 'The second of Gulliver's journeys goes to Luggnagg.', 'The second of Gulliver's journeys...'
16. 'Bramante was an architect of the renaissance.', 'Bramante was a composer of the renaissance.', 'Bramante...'
17. 'Phlogiston is not flammable.', 'Phlogiston is flammable.', 'Phlogiston is...'
18. 'Nervus phrenicus innervates the midriff.', 'Nervus phrenicus innervates the arm muscle.', 'Nervus phrenicus...'
19. 'The smallest country in Central America is El Salvador.', 'The smallest country in Central America is Belize.', 'The smallest country in Central America...'
20. 'Georg Philipp Telemann came from Magdeburg.', 'Georg Philipp Telemann came from Leipzig.', 'Georg Philipp Telemann...'
21. 'Dr. Jonas Salk developed the inoculant against polio.', 'Dr. Jonas Salk developed the inoculant against tetanus.', 'Dr. Jonas Salk...'
22. 'Mark Twain translated the "Struwelpeter" into English.', 'Mark Twain translated the "Till Eulenspiegel" into English.', 'Mark Twain...'
23. 'The poison of the tarantula is not dangerous for humans.', 'The poison of the tarantula is life-threatening for humans.', 'The poison of the tarantula...'

24. 'Brecht wrote the piece "Life of Galilei" in exile in Denmark.', 'Brecht wrote the piece "Life of Galilei" in exile in Paris.', 'Brecht...'
25. 'The disability to recognise sequences of sound and rhythms is called amusia.', 'The disability to recognise sequences of sound and rhythms is called dystonia.', 'The disability to recognise sequences of sound and rhythms ...'
26. 'The musician Fiona Apple grew up in New York City.', 'The musician Fiona Apple grew up in Los Angeles.', 'The musician Fiona Apple...'
27. 'Antonio Vivaldi emigrated to Austria in 1740.', 'Antonio Vivaldi emigrated to Germany in 1740.', 'Antonio Vivaldi...'
28. 'Jürgen Ovens was a student of Rembrandt.', 'Jürgen Ovens was a student of Paul Klee.', 'Jürgen Ovens...'
29. 'The Berkley Software Distribution is a system software.', 'The Berkley Software Distribution is an American chain of stores.', 'The Berkley Software Distribution...'
30. 'Srang is one of Tibet's historical currencies.', 'Srang is one of Thailand's historical currencies.', 'Srang...'
31. 'Emeralds feature a conchate disruption.', 'Emeralds feature a hooked disruption.', 'Emeralds...'
32. 'Nerthus is a German goddess of earth.', 'Nerthus is a German goddess of water.', 'Nerthus...'
33. 'Hyperesthesia is the term describing an intolerance to pressure, pain, and touch.', 'Hyperesthesia is the term describing an intolerance to light.', 'Hyperesthesia...'
34. 'H. von Euler-Chelpin was awarded the Nobel Prize in Chemistry.', 'H. von Euler-Chelpin was awarded the Nobel Prize in Physics.', 'H. von Euler-Chelpin...'
35. 'Cholecalciferol is a vitamin to be found in cod liver oil.', 'Cholecalciferol is a vitamin to be found in fruits.', 'Cholecalciferol...'

36. 'Vega is the brightest star on the northern hemisphere.', 'Vega is the brightest star on the southern hemisphere.', 'Vega...'
37. 'Sex reassignment surgery in Cuba is free of cost.', 'Sex reassignment surgery in Cuba is forbidden.', 'Sex reassignment surgery in Cuba...'
38. 'Grolsch is a Dutch brewery.', 'Grolsch is a Dutch fish.', 'Grolsch...'
39. 'Peterbald is a Siamese cat race.', 'Peterbald is a kind of medicinal herb.', 'Peterbald...'
40. 'The Teutons were defeated in 101 BC by the Roman general Gaius Marcus.', 'The Teutons were defeated in 101 BC by the Roman general Lucius Cornelius Sulla.', 'The Teutons...'
41. 'The Hawaiian alphabet features fewer letters than the German alphabet.', 'The Hawaiian alphabet features more letters than the German alphabet.', 'The Hawaiian alphabet...'
42. 'The tie emerged from Croatian mercenary soldiers\' neckbands.', 'The tie was invented in Italy.', 'The tie...'
43. 'The hole-puncher was invented in Bonn.', 'The hole-puncher was invented in Brighton.', 'The hole-puncher...'
44. 'Mick Jagger\'s and Jerry Hall\'s first child was Elizabeth Jagger.', 'Mick Jagger\'s and Jerry Hall\'s first child was James Jagger.', 'Mick Jagger\'s and Jerry Hall\'s first child...'
45. 'Tea bags usually consist of Musaceae leaf fibers.', 'Tea bags usually consist of Asian Persimmon leaf fibers.', 'Tea bags...'
46. 'Most accidents at work occur on Mondays.', 'Most accidents at work occur on Fridays.', 'Most accidents at work...'
47. 'The plosive is part of an occlusive.', 'The plosive is part of an explosive device.', 'The plosive...'
48. 'The river Gomol originates in Afghanistan.', 'The river Gomol originates in Pakistan.', 'The river Gomal...'

49. "The peace treaty ending the Franco-German War was signed in Frankfurt.", "The peace treaty ending the Franco-German War was signed in Bonn.", "The peace treaty ending the Franco-German War..."
50. "Canada has the world's longest coastline.", "Canada has the most renewable fresh water in the world.", "Canada..."
51. "Excessive sex drive in men is called satyriasis.", "Excessive sex drive in men is called hypersatyriasis.", "Excessive sex drive in men..."
52. "Alberto Fujimori served as president of Peru from 1990 – 2000.", "Alberto Fujimori served as president of Bolivia from 1990 – 2000.", "Alberto Fujimori..."
53. "The Yukon is the third longest river in the United States.", "The Yukon is the third longest river in the world.", "The Yukon..."
54. "Lubaantun is a ruined Mayan city in Belize.", "Lubaantun is a ruined Mayan city in Colombia.", "Lubaantun..."
55. "The world's biggest cemetery is in Bahrain.", "The world's biggest cemetery is in Brazil.", "The world's biggest cemetery..."
56. "The throwing circle in discus is 2.5m wide.", "The throwing circle in discus is 3m wide.", "The throwing circle in discus..."
57. "Jürgen Klinsmann was nicknamed 'Flipper' at Bayern Munich.", "Jürgen Klinsmann was nicknamed 'Hopper' at Bayern Munich.", "Jürgen Klinsmann..."
58. "'The Rite of Spring' is a piece of music by Igor Stravinsky.", "'The Rite of Spring' is a piece of music by Pyotr Tchaikovsky.", "'The Rite of Spring'..."
59. "A housefly has a maximum lifespan of 70 days.", "A housefly has a maximum lifespan of 40 days.", "A housefly..."
60. "The Slavonia was the first ship to use the SOS distress signal.", "The Slavonia ran aground in the Azores in 1910.", "The Slavonia..."

61. "The Ising model is a mathematical model of ferromagnetism.", "The Ising model is a mathematical model of ferrimagnetism.", "The Ising model..."
62. "James Polk was president of the United States from 1845-1849.", "James Polk was president of the United States from 1849-1853.", "James Polk..."
63. "The official language in Uganda is English.", "The official language in Uganda is French.", "The official language in Uganda..."
64. "Three-coloured cats are almost always female.", "Three-coloured cats are almost always male.", "Three-coloured cats..."
65. "The name BenQ stands for 'Bringing Enjoyment and Quality to Life'.", "The name BenQ stands for 'Bringing Energy and Quality to Life'.", "The name BenQ..."
66. "Albert Einstein married his cousin.", "Albert Einstein was born in Heidelberg, Germany.", "Albert Einstein..."
67. "The area between the eyebrows is called the Glabella.", "The area between the eyebrows is called the Librigena.", "The area between the eyebrows..."
68. "Panarellos are steam wand adaptors on espresso machines.", "Panarellos are a special sort of cigarettes from Italy.", "Panarellos..."
69. "Manama is the capital of Bahrain.", "Manama has a population of 450.000 citizens.", "Manama..."
70. "A chordophone is a musical instrument that makes sound with its strings.", "A chordophone is a special type of accordion.", "A chordophone..."

71. "James Connolly was the first modern Olympic gold medallist.", "James Connolly was the first person to win an Oscar.", "James Connolly..."
72. "Early Scholasticism was a movement during the Middle Ages.", "Early Scholasticism was a movement during the Roman Empire.", "Early Scholasticism..."
73. "The first time Italy won the football World Cup was in 1934.", "The first time Italy won the football World Cup was in 1930.", "The first time Italy won the football World Cup..."
74. "The first windmills were built in Persia.", "The first windmills were built in Ancient Greece.", "The first windmills..."
75. "The Battle of Zama marked the end of the Second Punic war.", "The Battle of Zama marked the end of the First Punic war.", "The Battle of Zama..."
- 76.** "The Congo river has the largest water flow rate of any river in Africa.", "The Congo river has the largest water flow rate of any river in the world.", "The Congo river..."]

Supplement B: Results from the Multilevel Moderated Mediation Analysis in Experiment 7

Path	Effect Label	Estimate	Std. Error	z-value	p-value	Notes
Without Mediator						
Repetition → Judgment.M	a	2.251	0.116	19.375	< .001	Main effect repetition on memory
Repetition × Exposure → Judgment.M	d2	0.119	0.044	2.701	0.007	Interaction effect on mediator
Exposure → Judgment.M	e	0.215	0.053	4.042	< .001	Main effect exposure on memory
Repetition → Judgment.T	c	1.624	0.099	16.422	< .001	Total effect repetition on truth judgments
Repetition × Exposure → Judgment.T	d1	0.110	0.039	2.853	0.004	Interaction effect on truth judgments
Exposure → Judgment.T	g	0.068	0.039	1.739	0.082	Main effect exposure on truth judgments
Cov(Judgment.M, Judgment.T)		3.925	0.415	9.466	< .001	Covariance at level 1

Path	Effect Label	Estimate	Std. Error	z-value	p-value	Notes
Full Model (With Mediator)						
Repetition → Judgment.M	a	2.251	0.116	19.375	< .001	Main effect repetition on memory
Repetition × Exposure → Judgment.M	d2	0.119	0.044	2.702	0.007	Interaction effect on mediator
Exposure → Judgment.M	e	0.215	0.053	4.039	< .001	Main effect exposure on memory
Repetition → Judgment.T	c'	0.953	0.106	8.963	< .001	Direct effect repetition on truth
Repetition × Exposure → Judgment.T	d1	0.075	0.037	2.030	0.042	Residual interaction effect
Exposure → Judgment.T	g	0.004	0.035	0.123	0.902	Main effect of exposure on truth
Judgment.M → Judgment.T	b	0.298	0.030	9.774	< .001	Relationship between memory and truth
Defined Effects						
Indirect Effect (a × b)		0.671	0.081	8.320	< .001	Mediation present
Direct Effect (c')		0.953	0.106	8.963	< .001	Still significant direct effect

Path	Effect Label	Estimate	Std. Error	z-value	p-value	Notes
Total Effect (c)		1.624	0.099	16.422	< .001	Confirmed with model without mediator
Index of Moderated Mediation		0.035	0.014	2.597	0.009	Significant index of moderated mediation

Supplement C: Supplementary Experiments

Experiment S1: Assessing People's Sampling Motives

Experiment S1 was a pilot study to investigate what drives people's sampling decisions. It was conducted after the first main experiments and served as an exploratory check for whether interest was indeed the main motive for sampling in our paradigm.

Method

Experiment S1 used the same design and procedure as Experiment 2, with the crucial difference that in the exposure phase, the active trials assessed why participants had selected the respective topic. Thus, after each active choice, before the statement presentation, we asked, "Why did you select this topic? Please give us a short explanation (i.e., 1 sentence)". Participants entered their responses into an open textbox. As this study was not intended to show the sampling advantage, the experiment ended immediately after the exposure phase, and no truth judgments were assessed. Due to the exploratory nature of the study, we collected a sample of $N = 20$ native English speakers from the US (10 male, 10 female, $M_{\text{age}} = 42.40$) via Prolific Academic.

Results

We let GPT-4-o-mini classify participants' responses via the OpenAI API. The temperature of the model was set to 0. The exact prompt was:

In a study participants were tasked to choose between two different topics. Afterward, they explained the reason why they chose a topic. I will now give you the reason provided by the participant. Your task is to classify the reason into one of the following categories: interest, familiarity, random, other. Only respond with one of these terms, no further text. This is a reason a participant gave: [an unprocessed participant response]

Each response was classified twice, which led consistently (100%) to the same classification. The model classified 70% of participants' responses into the category "interest", 18% into the category "familiarity", 6% into "other", and 6% into "random".

Discussion

Experiment S1 shows that participants' sampling decisions in our paradigm were primarily driven by which topic interests them most.

Experiment S2: Different-Topic vs. Same-Topic Sampling

Experiment S2 tested whether the sampling advantage emerges once participants sample information within the same topic. Experiment S2 was preregistered at <https://aspredicted.org/gqb2-n4b4.pdf>.

Method

Experiment S2 used the same design and procedure as Experiment 2 but manipulated within subjects whether participants could sample within the same topic or across different topics. For that purpose, the exposure phase was expanded to have 24 decision screens, six per Exposure (Active vs. Passive) x Topic (Same vs. Different) condition. In the different-topic condition, the task was identical to Experiment 2. In the same-topic condition, the decision screen showed "The smallest bird in the world ... (Statement 1)" and "The smallest bird in the world ... (Statement 2)". The rest of the procedure was identical to Experiment 2, except that the judgment phase contained 48 judgments¹. Due to the more complex design, we increased our sample size

¹ Unfortunately, it was not possible to counterbalance in the same-topic condition whether true or false statements would be assigned to the statement 1 or statement 2 option. As a consequence, in this particular condition, participants systematically sampled more true than false statements, with a ratio of roughly 60% to 40%. As our main preregistered analysis statistically controls for objective truth, this should not be a major problem.

and collected a preregistered sample of $N = 200$ native English speakers from the US (83 male, 116 female, 1 diverse, $M_{\text{age}} = 41.10$) via Prolific Academic.

Results from Preregistered Analyses

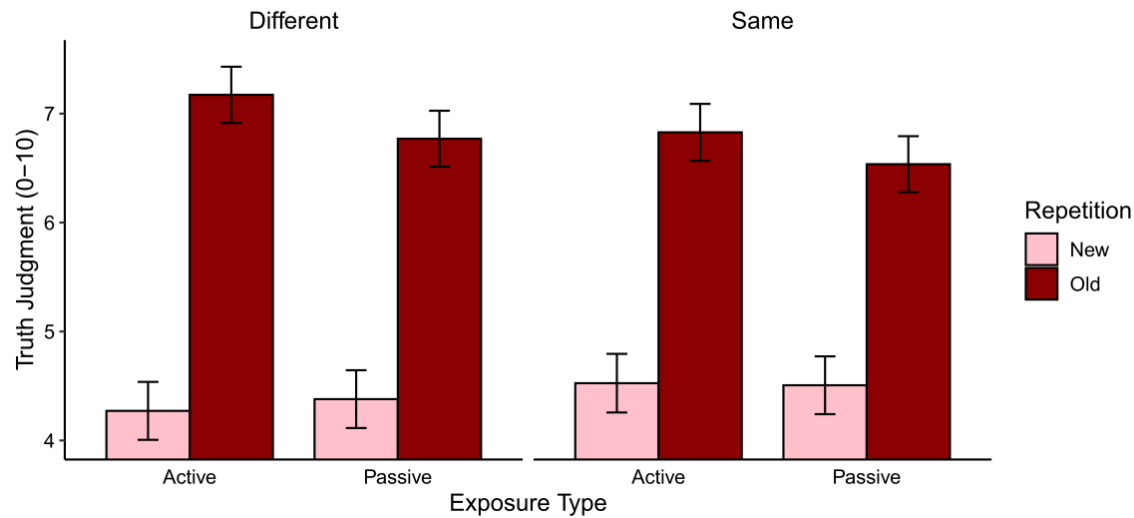
The mean truth judgments are visualized in Figure S2. We analyzed the truth judgments with a $2 \times 2 \times 2 \times 2$ Satterthwaite ANOVA run on an Lme4 model predicting truth judgments by the factors repetition, exposure, topic, and objective truth while adhering to the highest converging random effect structure (i.e., random intercepts for participants and random slopes for objective truth, repetition, and exposure).

Again, there was a significant main effect of repetition, $F(1, 198.5) = 189.89, p < .001$, which was qualified by the predicted Exposure x Repetition interaction, $F(1, 9110.1) = 10.06, p = .002$. As in our previous experiments, the truth effect was stronger in the active condition, $z = 14.00, p < .001$, than in the passive condition, $z = 11.97, p < .001$. In addition, there was a significant main effect of objective truth, $F(1, 199.6) = 14.49, p < .001$, and a significant but conceptually irrelevant main effect of exposure, $F(1, 8946.6) = 6.13, p = .013$. Unexpectedly, there was also a significant Topic x Repetition interaction, $F(1, 9121.0) = 15.01, p < .001$, such that the truth effect was stronger for the different-topic condition, $z = 14.31, p < .001$, than for the same-topic condition, $z = 11.67, p < .001$.

Critically, the three-way interaction between exposure, repetition, and topic was not significant, $F(1, 9121.0) = 0.92, p = .337$. Thus, there was no evidence that the sampling advantage was reduced for same-topic sampling (see Figure S2). No other term from the model reached significance, all p 's $> .247$.

Figure S2

Truth Judgments as a Function of Exposure and Repetition in Experiment S2



Note. Error bars represent 95% confidence intervals.

Discussion

Experiment S2 shows that the sampling advantage is not significantly weaker when sampling within the same topic (vs. sampling across different topics).

Experiment S3: Different Passive

In our previous experiments, the passive condition did not require any physical action of the participant. Participants were automatically forwarded from the topic page to the statement, and depending on the randomization, a further topic page, etc. Participants might have simply paid less attention to these passive trials, eventually leading to a weaker truth effect in the passive condition. To exclude this possibility, Experiment S3 used a passive condition that required the same physical effort (i.e., clicking a button) in the passive as in the active condition.

Experiment S3 tested whether the sampling advantage arises due to mere differences in the physical effort between the active and passive conditions. It replicated the procedure of Experiment S3 while using a passive condition where the mere physical constraints were similar to the active condition. Experiment S3 was preregistered at <https://aspredicted.org/3npp-fsh3.pdf>.

Method

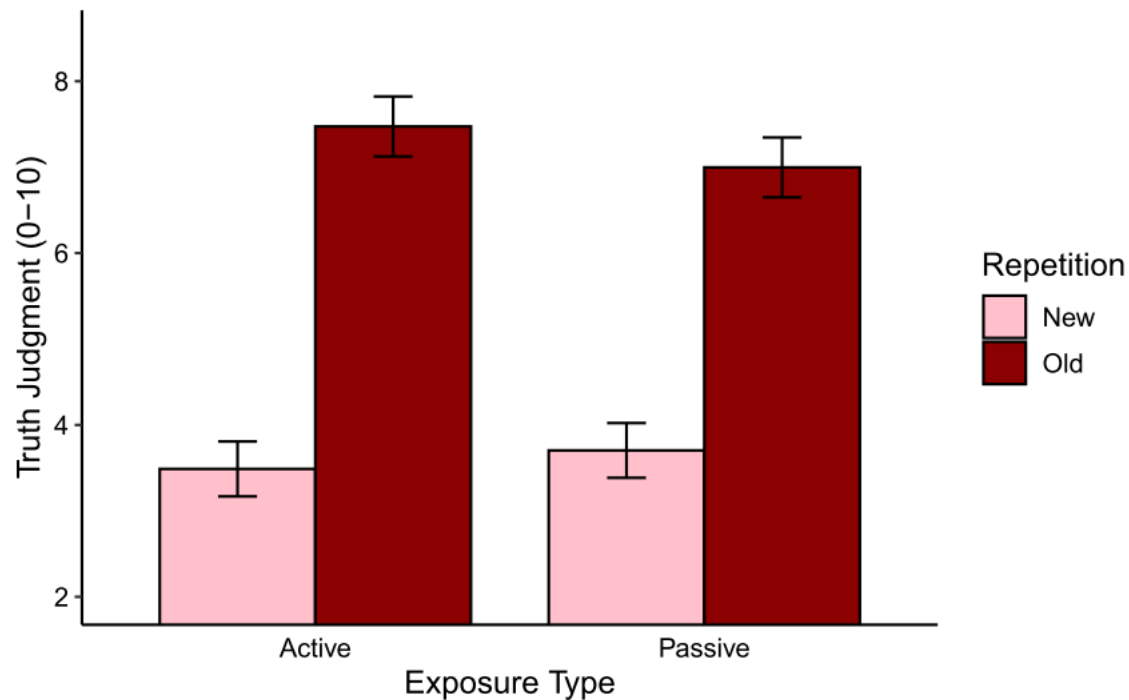
Experiment S3 was identical to Experiment 2 with the following core difference: In the passive condition, participants were not automatically forwarded to the statement. Instead, they had to click on a button beneath the two options to proceed to the statement. Thereby, the mere physical effort was kept constant between both conditions. We collected a preregistered sample size of $N = 100$ native English speakers from the US (42 male, 56 female, 2 diverse, $M_{\text{age}} = 40.91$) via Prolific Academic.

Results from Preregistered Analyses

We present the mean truth judgments per factorial cell in Figure 5. We used the same model as in Experiment 2. Again, there was a significant main effect of repetition, $F(1, 98.9) = 162.15, p < .001$, which was qualified by the predicted Exposure x Repetition interaction, $F(1, 3765.9) = 14.42, p < .001$. Thus, the truth effect was stronger for active exposure, $z = 13.27, p < .001$, than for passive exposure, $z = 10.99, p < .001$. No other term in the model was significant, all p 's $> .091$.

Figure S3

Truth Judgments as a Function of Repetition and Exposure in Experiment S3



Note. Error bars represent 95% confidence intervals.

Discussion

Experiment S3 found the same sampling advantage as in Experiment 2 in a procedure where the mere physical effort was kept constant between the passive and the active condition.

Experiment S4: Memory and Truth – Binary Judgments

Experiment S4 tested whether the sampling advantage found on truth judgments is incremental to the sampling advantage on memory judgments. Thus, it tested the same point as Experiment 7 in the main manuscript but used binary measures for memory and truth. Experiment S4 was preregistered at <https://aspredicted.org/5zvj-g8m3.pdf>.

Methods

Experiment S4 followed the same methods as Experiment 6, except that participants provided both truth and memory judgments on the same statements. Thus, for each statement, participants first provided a truth judgment and, on a subsequent page, a memory judgment.

We preregistered a sample size of $N = 100$ and collected data from 101 native English speakers from the US (47 male, 53 female, 1 diverse, $M_{\text{age}} = 39.20$) via Prolific Academic. Following the preregistration, we excluded two participants who stated that they had searched the Internet.

Results from Preregistered Analyses

The probabilities of responding with “true” or “old” are visualized in Figure S4. We first conducted two multilevel logistic regressions on each judgment type with the predictors repetition (1 = old, -1 = new), exposure (1 = active, -1 = passive), and objective truth (1 = true, -1 = false), including all possible interactions.

On truth judgments (Figure S4a), we found a main effect of repetition, $z = 10.80$, $p < .001$, such that old statements were rather judged as “true”. As in the previous experiments, this effect was qualified by exposure, $z = 2.59$, $p = .010$, with stronger repetition effects for active than passive exposure. In addition, objective truth had a positive effect on truth judgments, $z = 2.87$, $p = .004$. No other effect reached significance, all p 's $> .091$.

On memory judgments (Figure S4b), we found a main effect of repetition, $z = 12.13$, $p < .001$, such that old statements were rather judged as “old”. As in the previous experiment, this effect was qualified by exposure, $z = 2.58$, $p = .010$, with stronger repetition effects for active than passive exposure. In addition, exposure had a positive main effect on memory judgments, with more “old” judgments in general for the active exposure condition, $z = 3.27$, $p = .001$. No other effect reached significance, all p 's $> .122$.

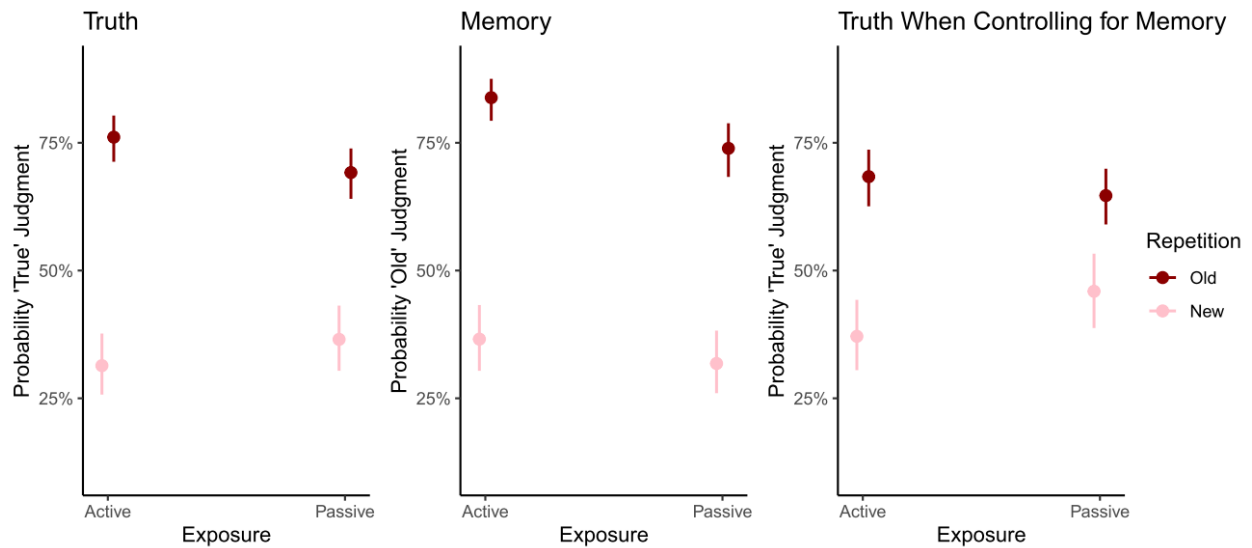
To test whether the sampling advantage on truth judgments was incremental to the one on memory judgments, we added the memory judgment as a further predictor to the model on the truth judgments (Figure S4c). “Old” judgments were significantly correlated with “true” judgments, $z = 11.81$, $p < .001$. The effect of repetition was, however, still significant, $z = 6.02$, $p < .001$. In addition, objective truth still had a positive effect on truth judgments, $z = 2.93$, $p = .003$. Crucially, the exposure x repetition interaction was still significant, $z = 2.13$, $p = .033$. No other effect reached significance, all p 's $> .087$.

Given these findings, we also conducted the same multilevel moderated mediation analysis in Lavaan (Rosseel, 2012) as in the main manuscript, with repetition as the independent variable, truth judgments as the outcome, and memory judgments as a mediator. Exposure served as a moderator on the a-path and the c-path. Thus, this model tested whether the stronger truth effect for active sampling could be statistically accounted for by a corresponding increase in “old” responses. This analysis was not preregistered.

As expected, the overall mediation effect was significant, $b = 0.82$, $z = 8.32$, $p < .001$. Critically, the index of moderated mediation was significant as well, $b = 0.01$, $z = 2.00$, $p = .045$, indicating that the moderation on truth judgments could be accounted for the moderation on memory judgments. Nevertheless, even when controlling for memory, there was a significant direct effect, $b = 0.09$, $z = 7.00$, $p < .001$. In contrast to the preregistered analysis, the moderation effect of exposure on truth judgments was not significant anymore, $b = 0.01$, $z = 1.56$, $p = .118$.

Figure S4

Truth and Memory Judgments as a Function of Exposure and Repetition in Experiment S4



Note. Error bars represent 95% confidence intervals.

Discussion

Experiment S4 showed (mostly) the same findings as Experiment 7 in the main manuscript. Thus, there was a significant sampling advantage both for truth and for memory judgments. When keeping memory statistically constant, the sampling advantage for truth judgments was smaller but significant. Yet, the latter effect depended on the exact analytical procedure.