

# ONLINE APPENDIX

## A Alternative To Constrained Regressions

In the paper's main body, we adopted constrained regressions to avoid concerns of spurious correlation when we regress complexity aversion on ambiguity aversion. As indicated, we could alternatively use different measures to construct the two variables: we use the risk measures adjacent to Ellsberg bets to construct ambiguity aversion and the other risk measure to construct complexity aversion. Tables Online-A.1-Online-A.3 replicate Tables 1-3 using this alternative method.

Table Online-A.1: Counterpart to Table 1 with adjacent measures, Experiment A: The Role of Ambiguity and Cognitive Uncertainty

	Complexity Aversion	
	(1)	(2)
<i>High Cognitive Uncertainty:</i>		
Ambiguity Aversion	.18** (.08)	
<i>Low Cognitive Uncertainty:</i>		
Ambiguity Aversion	-.02 (.06)	
Ambiguity Aversion		-.03 (.06)
CU		-.23 (.90)
Ambiguity Aversion * CU		.27 (.17)
Constant	2.29*** (.80)	2.10** (.82)
Observations	676	676
Controls	Y	Y

Notes: Each updating bet is an observation, with errors clustered by subject in parentheses. \*  
 $p < .1$ , \*\*\*  $p < .01$ . Controls include beliefs about probabilities and a dummy for each updating task and, in model (1), a dummy for High Cognitive Uncertainty (being in the top half of the CU distribution). Each updating bet is an observation.

Table Online-A.2: Counterpart to Table 2 with adjacent measures, Experiment B: The Role of Ambiguity

	Complexity Aversion	
	(1)	(2)
<i>Low Confidence:</i>		
Ambiguity Aversion	.49*** (.01)	
<i>High Confidence:</i>		
Ambiguity Aversion	.01 (.13)	
Ambiguity Aversion		-.04 (.20)
Confidence		8.15*** (2.34)
Ambiguity Aversion * Confidence		.71* (.38)
Constant	10.44*** (2.65)	-4.77*** (1.08)
Observations	684	684
Controls	Y	Y

Notes: Each perceptual bet is an observation, with errors clustered by subject in parentheses.

\*\*\*  $p < .01$ . Controls include a dummy for each updating of the hard perceptual tasks and, in model (1), a dummy for low confidence (i.e., in the bottom half of the confidence distribution).

Table Online-A.3: Counterpart to Table 3 with adjacent measures, Experiment C: The Role of Ambiguity and Cognitive Uncertainty

	Complexity Aversion (Trivial and non-Trivial) (1)	Complexity Aversion (non-Trivial only) (2)	Complexity Aversion (non-Trivial only) (3)	Relative Complexity Aversion (non-Trivial only) (4)	Relative Complexity Aversion (non-Trivial only) (5)	Relative Complexity Aversion (non-Trivial only) (6)
<i>High Cognitive Uncertainty:</i>						
Ambiguity Aversion	.31*** (.06)		.53*** (.05)		.57*** (.06)	
<i>Low Cognitive Uncertainty:</i>						
Ambiguity Aversion	.14** (.06)		.27*** (.07)		.28*** (.07)	
Ambiguity Aversion		.14** (.06)		.34*** (.08)		.35*** (.05)
CU		-.09 (.76)		.24 (.89)		-2.05* (1.23)
Ambiguity Aversion * CU		.27** (.13)		.22 (.14)		.60*** (.20)
Constant	2.18*** (.79)	2.17** (.91)	2.14*** (.81)	2.13** (1.03)	1.52 (1.29)	1.57 (1.26)
Observations	1116	1116	558	558	558	558
Controls	Y	Y	Y	Y	Y	Y

Notes: Standard errors in parentheses, clustered by subject in models (1) and (2), where each compound lottery (trivial and non-trivial) is an observation. \*\*  $p < .05$ , \*\*\*  $p < .01$ . Controls include beliefs and a dummy for each compound lottery; in model (1), (3), (5), also a dummy for High Cognitive Uncertainty (being in the top half of the CU distribution).

## B Screenshots

Below we provide screenshots of the instructions, quiz questions, and decision screens of the three experiments.

### B.1 Experiment A, Updating

#### Instructions

You will get \$3 for completing the survey, and 10% of participants will be randomly selected to get an **additional bonus**. You must complete the study to receive payments.

Answering carefully is in your best interest. If you are selected for the additional bonus, one of the questions you answered will be randomly selected, and your bonus will be **your earnings in that question**.

Figure Online-B.1: Instructions page 1.

## Instructions (continued)

Please **read these instructions carefully**. There will be a **short quiz** at the end.

You will face **7** different scenarios. In each scenario, the computer has created a (virtual) bag with **Green** or **Purple** balls and has **randomly drawn one ball** from the bag.

Each scenario gives you some information about the composition of the bag. For example:

A bag contains **50 Green** balls and **50 Purple** balls.

In some cases, you also receive information on the drawn ball. For example:

A bag contains:

- **50 Green** balls and **50 Purple** balls.
- **1/2** of **Green** balls are marked with an **X**
- **1/2** of **Purple** balls are marked with an **X**

A ball has been drawn from the bag. The computer informs you that this ball is **marked with an X**.

The bag is **different** in each scenario, so read carefully.

Figure Online-B.2: Instructions page 2, main treatment.

## Instructions (continued)

Please **read these instructions carefully**. There will be a **short quiz** at the end.

You will face **7** different scenarios. In each scenario, the computer has created a (virtual) bag with **Green** or **Purple** balls and has **randomly drawn one ball** from the bag.

Each scenario gives you some information about the composition of the bag. For example:

A bag contains **50 Green** balls and **50 Purple** balls.

In some cases, you are told how the bag was constructed using an initial stock of **Green** and **Purple** balls. For example:

There is a stock of **50 Green** balls and **50 Purple** balls available. A bag was constructed as follows:

- **1/2** of the **Green** balls were put in the bag
- **1/2** of the **Purple** balls were put in the bag

The bag is **different** in each scenario, so read carefully.

Figure Online-B.3: Instructions page 2, mirror treatment.

## Instructions (continued)

In some scenarios, you are asked to choose between a fixed amount of money received for sure or winning **\$30** if the drawn ball is **Purple**.

For example, you might be asked to choose between:

**\$30 if drawn ball is Purple**         **\$15 for sure**

- If you select the left option, you win **\$30 if the drawn ball is Purple and \$0 otherwise**.
- If you select the right option, you win **\$15 for sure, regardless of the color of the drawn ball**.

You must answer a list of questions like this. For example:

**\$30 if drawn ball is Purple**         **\$11 for sure**  
**\$30 if drawn ball is Purple**         **\$12 for sure**  
**\$30 if drawn ball is Purple**         **\$13 for sure**  
**\$30 if drawn ball is Purple**         **\$14 for sure**  
**\$30 if drawn ball is Purple**         **\$15 for sure**

The option on the left does not change, while the option on the right **gets better as you go down the list**.

You must make **a choice in all rows**, but for simplicity, you only have to **click once** on the row where you want to **switch from left to right**. You can modify your choice as many times as you want, and you can also select only the left or only the right.

Intuitively, you can think about how much you'd pay for the bet. Then, you switch to the sure amount as soon as it is above the amount you'd pay for the bet.

Below is an example for you to experience the interface (try to click).

**\$30 if drawn ball is Purple**         **\$0 for sure**  
**\$30 if drawn ball is Purple**         **\$7 for sure**  
**\$30 if drawn ball is Purple**         **\$12 for sure**  
**\$30 if drawn ball is Purple**         **\$18 for sure**  
**\$30 if drawn ball is Purple**         **\$20 for sure**

Figure Online-B.4: Instructions page 3.

## Quiz 1

A bag contains:

- **50 Green** balls and **50 Purple** balls.
- **9/10** of **Green** balls are marked with an **X**
- **1/10** of **Purple** balls are marked with an **X**

A ball has been drawn from the bag. The computer informs you that this ball is **unmarked**.

Which statement is correct?

- The drawn ball must be **Purple**.
- The drawn ball must be **Green**.
- The drawn ball can be **Purple** or **Green**

Figure Online-B.5: Quiz question 1, main treatment.

## Quiz 1

There is a stock of **50 Green** balls and **50 Purple** balls available.

A bag was constructed as follows:

- **1/10** of the **Green** balls were put in the bag
- **9/10** of the **Purple** balls were put in the bag

A ball has been drawn from the bag.

Which statement is correct?

- The drawn ball must be **Purple**.
- The drawn ball must be **Green**.
- The drawn ball can be **Purple** or **Green**

Figure Online-B.6: Quiz question 1, mirror treatment.

## Quiz 2

Which do you choose?

- |                 |                       |                       |               |
|-----------------|-----------------------|-----------------------|---------------|
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$1 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$2 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$3 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$4 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$5 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$6 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$7 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$8 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$9 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$10 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$11 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$12 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$13 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$14 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$15 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$16 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$17 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$18 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$19 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$20 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$21 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$22 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$23 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$24 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$25 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$26 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$27 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$28 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$29 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$30 for sure |

Figure Online-B.7: Quiz question 2.

A bag contains **25 Purple** balls and **25 Green** balls.

A ball has been drawn from the bag.

Which do you choose?

Figure Online-B.8: Risk question 1.

\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$1 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$2 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$3 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$4 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$5 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$6 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$7 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$8 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$9 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$10 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$11 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$12 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$13 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$14 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$15 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$16 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$17 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$18 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$19 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$20 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$21 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$22 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$23 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$24 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$25 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$26 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$27 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$28 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$29 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$30 for sure

Figure Online-B.9: MPL.

A bag contains:

- **30 Green** balls and **20 Purple** balls.
- **1/3** of the **Green** balls are marked with an **X**
- **1/2** of the **Purple** balls are marked with an **X**

A ball has been drawn from the bag. The computer informs you that this ball is **marked with an X**.

Which do you choose?

Figure Online-B.10: Main task, main treatment.

In the previous screen, you faced the following scenario:

A bag contains:

- **30 Green** balls and **20 Purple** balls.
- **1/3** of the **Green** balls are marked with an **X**
- **1/2** of the **Purple** balls are marked with an **X**

A ball has been drawn from the bag. The computer informs you that this ball is **marked with an X**.

Using the laws of probability, it is possible to calculate the **Exact Chance** that the drawn ball is **Purple**. What is this **Exact Chance**? (in %)

[You can earn a \$5 bonus with your guess. Your probability of winning goes up the more accurate your answer is, using the formula explained [here](#).]

 %

Figure Online-B.11: Main task with binary scoring rule, main treatment.

How certain are you that your answer above is the **Exact Chance** that the drawn ball is **Purple**, calculated using the laws of probability?



Figure Online-B.12: Cognitive uncertainty.

There is a stock of **30 Green** balls and **20 Purple** balls available.  
A bag was constructed as follows:

- **1/3** of the **Green** balls were put in the bag
- **1/2** of the **Purple** balls were put in the bag

A ball has been drawn from the bag.

Which do you choose?

Figure Online-B.13: Main task, mirror treatment.

In the previous screen, you faced the following scenario:

There is a stock of **30 Green** balls and **20 Purple** balls available.  
A bag was constructed as follows:

- **1/3** of the **Green** balls were put in the bag
- **1/2** of the **Purple** balls were put in the bag

A ball has been drawn from the bag.

Using the laws of probability, it is possible to calculate the **Exact Chance** that the drawn ball is **Purple**. What is this **Exact Chance**? (in %)

[You can earn a \$5 bonus with your guess. Your probability of winning goes up the more accurate your answer is, using the formula explained [here](#).]

 %

Figure Online-B.14: Main task with binary scoring rule, mirror treatment.

A bag contains:

- **20 Green** balls and **30 Purple** balls.
- **1/2** of the **Green** balls are marked with an **X**
- **1/3** of the **Purple** balls are marked with an **X**

A ball has been drawn from the bag. The computer informs you that this ball is **marked with an X**.

Which do you choose?

Figure Online-B.15: Complement task, main treatment.

In the previous screen, you faced the following scenario:

A bag contains:

- **20 Green** balls and **30 Purple** balls.
- **1/2** of the **Green** balls are marked with an **X**
- **1/3** of the **Purple** balls are marked with an **X**

A ball has been drawn from the bag. The computer informs you that this ball is **marked with an X**.

Using the laws of probability, it is possible to calculate the **Exact Chance** that the drawn ball is **Purple**. What is this **Exact Chance**? (in %)

[You can earn a \$5 bonus with your guess. Your probability of winning goes up the more accurate your answer is, using the formula explained [here](#).]

 %

Figure Online-B.16: Complement task with binary scoring rule, main treatment.

There is a stock of **20 Green** balls and **30 Purple** balls available. A bag was constructed as follows:

- **1/2** of the **Green** balls were put in the bag
- **1/3** of the **Purple** balls were put in the bag

A ball has been drawn from the bag.

Which do you choose?

Figure Online-B.17: Complement task, mirror treatment.

In the previous screen, you faced the following scenario:

There is a stock of **20 Green** balls and **30 Purple** balls available.  
A bag was constructed as follows:

- **1/2** of the **Green** balls were put in the bag
- **1/3** of the **Purple** balls were put in the bag

A ball has been drawn from the bag.

Using the laws of probability, it is possible to calculate the **Exact Chance** that the drawn ball is **Purple**. What is this **Exact Chance**? (in %)

[You can earn a \$5 bonus with your guess. Your probability of winning goes up the more accurate your answer is, using the formula explained [here](#).]

 %

Figure Online-B.18: Complement task with binarized scoring rule, mirror treatment.

A bag contains **50 Purple** balls and **50 Green** balls.

A ball has been drawn from the bag.

Which do you choose?

Figure Online-B.19: Risk question 2.

A bag contains **100** balls. Each ball is either **Purple** or **Green**. You are not told the exact number of **Purple** or **Green** balls. They could be all **Purple**, all **Green**, or any combination.

A ball has been drawn from the bag.

Which do you choose?

Figure Online-B.20: Ambiguity question.

## B.2 Experiment B, Perception

### Instructions

You will get \$3 for completing the survey, and 10% of participants will be randomly selected to get an **additional bonus**. You must complete the study to receive payments.

Answering carefully is in your best interest. If you are selected for the additional bonus, one of the questions you answered will be randomly selected, and your bonus will be **your earnings in that question**.

Figure Online-B.21: Instructions page 1.

### Instructions (continued)

The experiment is comprised of **4 Parts**.

Please **read these instructions carefully**. There will be a **short quiz at the end**.

In Part 1, you will face **5** different scenarios. In each scenario, the computer has created a (virtual) bag with **Green** or **Purple** balls and has **randomly drawn one ball** from the bag.

Each scenario gives you some information about the composition of the bag. For example:

A bag contains **50 Green** balls and **50 Purple** balls.

The bag is **different** in each scenario, so read carefully.

Figure Online-B.22: Instructions page 2.

## Instructions (continued)

In each scenario, you are asked to choose between a fixed amount of money received for sure or winning **\$30** if the drawn ball is **Purple**.

For example, you might be asked to choose between:

\$30 if drawn ball is **Purple**     \$15 for sure

- If you select the left option, you win **\$30 if the drawn ball is Purple and \$0 otherwise**.
- If you select the right option, you win **\$15 for sure, regardless of the color of the drawn ball**.

You must answer a list of questions like this. For example:

\$30 if drawn ball is **Purple**     \$11 for sure  
 \$30 if drawn ball is **Purple**     \$12 for sure  
 \$30 if drawn ball is **Purple**     \$13 for sure  
 \$30 if drawn ball is **Purple**     \$14 for sure  
 \$30 if drawn ball is **Purple**     \$15 for sure

The option on the left does not change, while the option on the right **gets better as you go down the list**.

You must make **a choice in all rows**, but for simplicity, you only have to **click once** on the row where you want to **switch from left to right**. You can modify your choice as many times as you want, and you can also select only the left or only the right.

Intuitively, you can think about how much you'd pay for the bet. Then, you switch to the sure amount as soon as it is above the amount you'd pay for the bet.

Below is an example for you to experience the interface (try to click).

\$30 if drawn ball is **Purple**     \$0 for sure  
 \$30 if drawn ball is **Purple**     \$7 for sure  
 \$30 if drawn ball is **Purple**     \$12 for sure  
 \$30 if drawn ball is **Purple**     \$18 for sure  
 \$30 if drawn ball is **Purple**     \$20 for sure

Figure Online-B.23: Instructions page 3.

### Quiz 1

A bag contains **90 Purple** balls and **10 Green** balls.

A ball has been randomly drawn.

Which statement is correct?

- The drawn ball must be **Purple**.
- The drawn ball must be **Green**.
- The drawn ball can be **Purple** or **Green**

Figure Online-B.24: Quiz question 1.

## Quiz 2

Which do you choose?

- |                 |                       |                       |               |
|-----------------|-----------------------|-----------------------|---------------|
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$1 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$2 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$3 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$4 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$5 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$6 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$7 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$8 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$9 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$10 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$11 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$12 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$13 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$14 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$15 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$16 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$17 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$18 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$19 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$20 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$21 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$22 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$23 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$24 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$25 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$26 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$27 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$28 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$29 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$30 for sure |

Figure Online-B.25: Quiz question 2.

A bag contains **50 Purple** balls and **50 Green** balls.

A ball has been drawn from the bag.

Which do you choose?

Figure Online-B.26: Risk question 1.

\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$1 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$2 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$3 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$4 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$5 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$6 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$7 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$8 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$9 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$10 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$11 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$12 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$13 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$14 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$15 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$16 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$17 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$18 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$19 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$20 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$21 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$22 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$23 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$24 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$25 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$26 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$27 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$28 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$29 for sure
\$30 if drawn ball is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$30 for sure

Figure Online-B.27: MPL for risk questions.

A bag contains **70 Purple** balls and **30 Green** balls.

A ball has been drawn from the bag.

Which do you choose?

Figure Online-B.28: Risk question 2.

A bag contains **30 Purple** balls and **70 Green** balls.

A ball has been drawn from the bag.

Which do you choose?

Figure Online-B.29: Risk question 4.

A bag contains **100** balls. Each ball is either **Purple** or **Green**. You are not told the exact number of **Purple** or **Green** balls. They could be all **Purple**, all **Green**, or any combination.

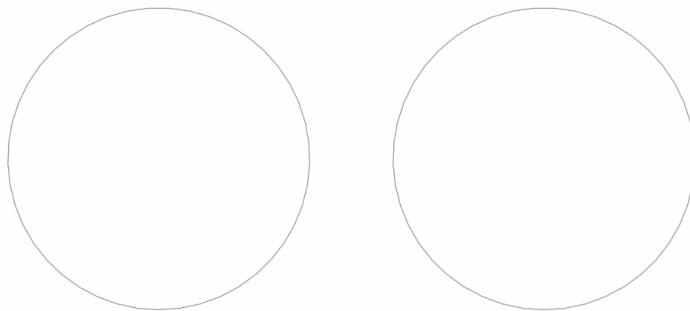
A ball has been drawn from the bag.

Which do you choose?

Figure Online-B.30: Ambiguity question.

## Part 2: Instructions

In Part 2, you will face 4 different scenarios. In each scenario, you will first see two empty circles, like these.



After a brief wait, the circle on the left will be populated with some dots, like this.

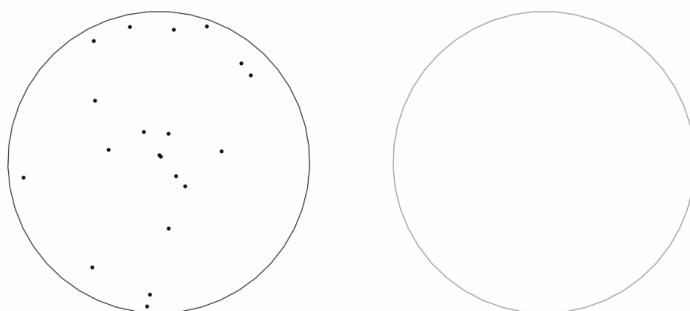
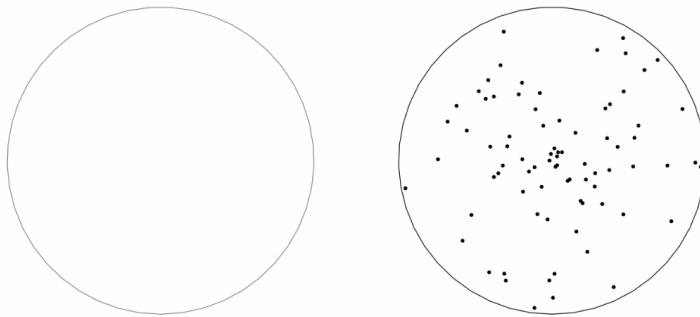


Figure Online-B.31: Instructions page 4.

You will be able to see this for only a few seconds. Then, the circle on the right will be populated with some dots, like this.



Again, this will be shown to you only for a few seconds, and the screen will go back to showing only two empty circles.

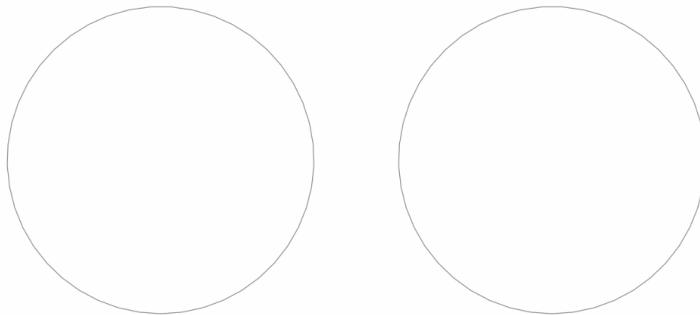


Figure Online-B.32: Instructions page 5.

First, you are asked to report **which circle has more dots**: the one on the left or the one on the right. Sometimes, the choice will be easy. Other times, it will be harder.

Next, you are asked to choose between winning **\$30 if you made the correct choice** and a **fixed amount of money**. For example, you may see:

**\$30 if your choice is correct**            **\$15 for sure**

Like before, you choose between a bet and a sure amount, though the bet is different:

- If you select "\$30 if your choice is correct", you win **\$30 if the circle you selected was the one with more dots and \$0 otherwise**.
- If you select "\$15 for sure", you win **\$15 for sure, regardless of whether you made the right choice**.

As in Part 1, you will see a list of questions like this, and you only need to click once.

Again, you can think about how much you'd pay for the bet that you have made the right choice. Then, you switch to the sure amount as soon as it is above the amount you'd pay for the bet.

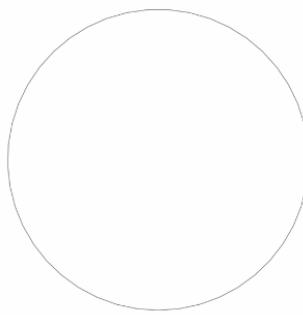
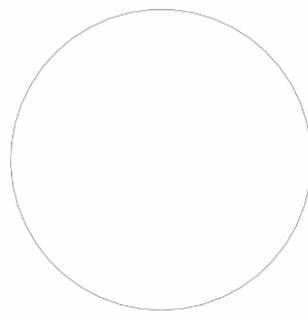
Please note:

- The circles with dots will appear soon after the question, so pay attention!
- The circles are different in every question, and whether the circle with more dots is on the left or right is randomly determined.
- The amount of time each circle is shown may vary.

Next, you will see a practice question to familiarize yourself with the interface.

Figure Online-B.33: Instructions page 6.

Practice Question



Which circle has more dots?

Left

Right

Figure Online-B.34: Practice question.

Which do you choose?

- |                                       |                       |                       |               |
|---------------------------------------|-----------------------|-----------------------|---------------|
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$1 for sure  |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$2 for sure  |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$3 for sure  |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$4 for sure  |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$5 for sure  |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$6 for sure  |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$7 for sure  |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$8 for sure  |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$9 for sure  |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$10 for sure |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$11 for sure |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$12 for sure |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$13 for sure |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$14 for sure |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$15 for sure |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$16 for sure |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$17 for sure |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$18 for sure |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$19 for sure |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$20 for sure |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$21 for sure |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$22 for sure |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$23 for sure |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$24 for sure |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$25 for sure |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$26 for sure |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$27 for sure |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$28 for sure |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$29 for sure |
| <b>\$30 if your choice is correct</b> | <input type="radio"/> | <input type="radio"/> | \$30 for sure |

Figure Online-B.35: MPL for perception task.

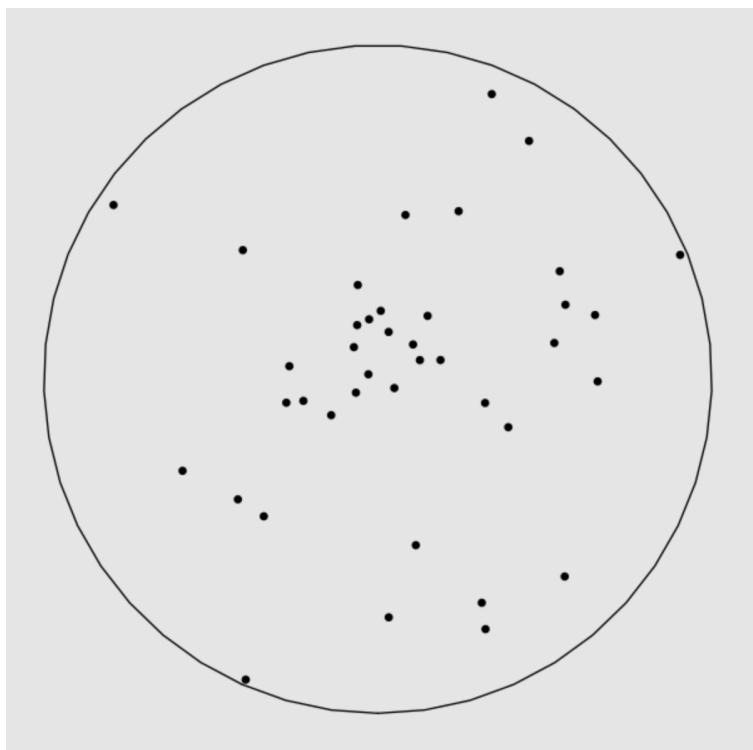


Figure Online-B.36: Easy task, correct answer.

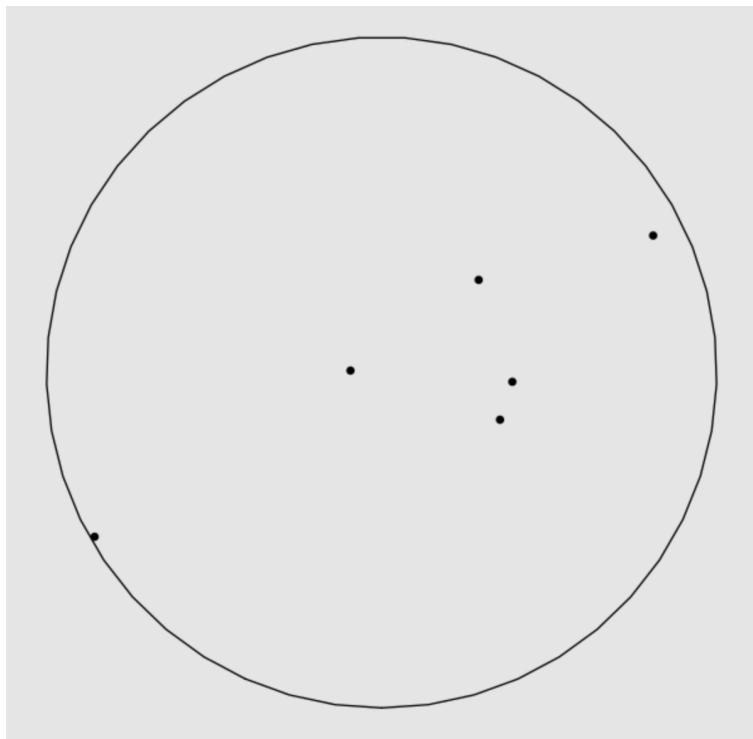


Figure Online-B.37: Easy task, wrong answer.

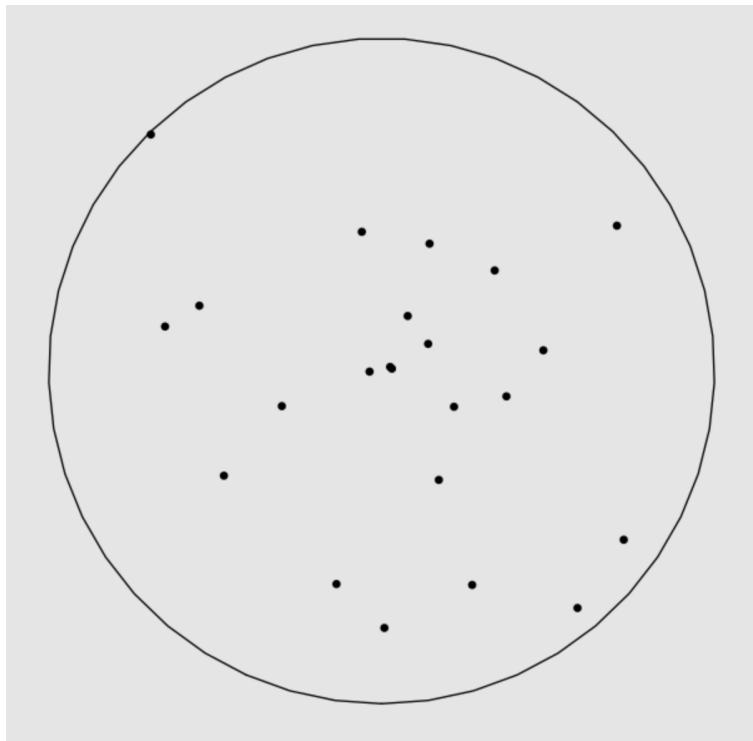


Figure Online-B.38: Hard task, correct answer.

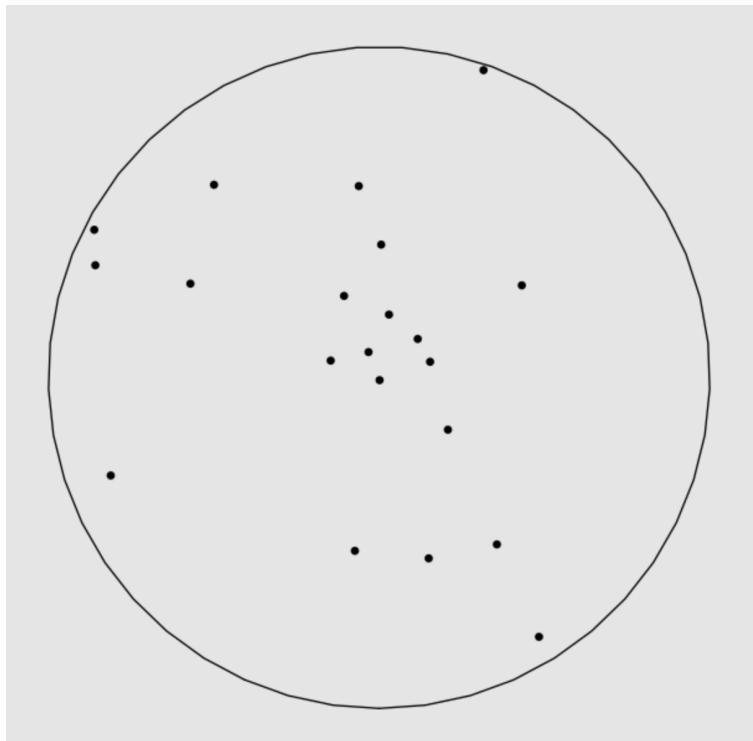


Figure Online-B.39: Hard task, wrong answer.

## Part 3: Instructions

In Part 3, you will face 4 different scenarios.

Like in Part 2, you will see two circles with dots, each displayed only briefly.

First, you are asked to choose which circle has more dots.

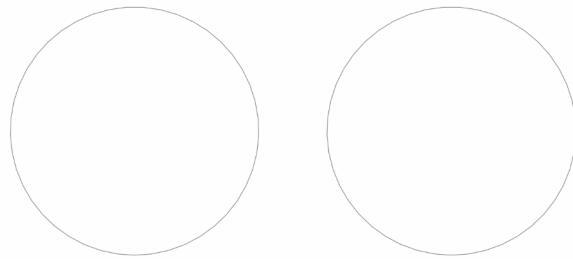
Next, you are asked how certain you are about your decision. Specifically, we are interested in **what you think is the chance (in percent) that your answer is correct**. You will report your answer on a slider as follows:

0      10      20      30      40      50      60      70      80      90      100

---

We are now ready to begin Part 3.

Figure Online-B.40: Instructions page 7.



Which circle has more dots?

Left <input type="radio"/>	Right <input type="radio"/>
-------------------------------	--------------------------------

What do you think is the chance (in percent) that your answer is correct?

0    10    20    30    40    50    60    70    80    90    100



Figure Online-B.41: Perception task with cognitive uncertainty.

### B.3 Experiment C, Compound Lotteries

#### Instructions

You will get \$3 for completing the survey, and 10% of participants will be randomly selected to get an **additional bonus**. You must complete the study to receive payments.

Answering carefully is in your best interest. If you are selected for the additional bonus, one of the questions you answered will be randomly selected, and your bonus will be **your earnings in that question**.

Figure Online-B.42: Instructions page 1.

## Instructions (continued)

Please **read these instructions carefully**. There will be a **short quiz** at the end.

You will face several scenarios. In each scenario, there are **one or more card decks** and **one card is randomly drawn**.

The cards in the decks can have different colors.

Each scenario gives you some information about the composition of the decks. For example, you may face the following:

A deck contains **50 Green** cards and **50 Purple** cards.

The computer shuffles the deck and then draws a card.

Or you could face the following:

There are **2 decks**. Each contains **50** cards:

- In deck 1: **50%** of cards are **Purple** and **50%** are **Green**
- In deck 2: **50%** of cards are **Purple** and **50%** are **Green**

The computer **selects one of the two decks at random**, shuffles the selected deck and then draws a card.

The decks are **different** in each scenario, so read carefully.

Figure Online-B.43: Instructions page 2, main treatment.

## Instructions (continued)

Please **read these instructions carefully**. There will be a **short quiz** at the end.

You will face several scenarios. In each scenario, there are **one or more card decks** and **one card is randomly drawn**.

The cards in the decks can have different colors.

Each scenario gives you some information about the composition of the decks. For example, you may face the following:

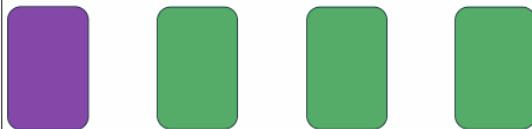
A deck contains **50 Green** cards and **50 Purple** cards.

The computer shuffles the deck and then draws a card.

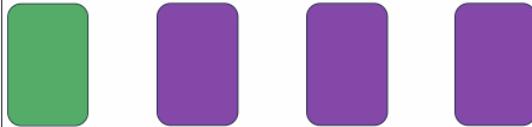
Or you could face the following:

There are **2 decks**. Each contains **4 cards**:

- In deck 1: **1** card is **Purple** and **3** are **Green**



- In deck 2: **3** cards are **Purple** and **1** is **Green**



The computer **selects one of the two decks at random**, shuffles the selected deck and then draws a card.

The decks are **different** in each scenario, so read carefully.

Figure Online-B.44: Instructions page 2, graphical treatment.

## Instructions (continued)

Please **read these instructions carefully**. There will be a **short quiz** at the end.

You will face several scenarios. In each scenario, there are **one or more card decks** and **one card is randomly drawn**.

The cards in the decks can have different colors.

Each scenario gives you some information about the composition of the decks. For example, you may face the following:

A deck contains **50 Green** cards and **50 Purple** cards.

The computer shuffles the deck and then draws a card.

Or you could face the following:

There are **2 decks**. Each contains **50** cards:

- In deck 1: **50%** of cards are **Purple** and **50%** are **Green**
- In deck 2: **50%** of cards are **Purple** and **50%** are **Green**

The computer **combines the two decks together**, shuffles, and then draws a card.

The decks are **different** in each scenario, so read carefully.

Figure Online-B.45: Instructions page 2, mirror treatment.

## Instructions (continued)

In some scenarios, you are asked to choose between a fixed amount of money received for sure or winning **\$30** if the drawn card is **Purple**.

For example, you might be asked to choose between:

**\$30 if drawn card is Purple**   **\$15 for sure**

- If you select the left option, you win **\$30 if the drawn card is Purple and \$0 otherwise**.
- If you select the right option, you win **\$15 for sure, regardless of the color of the drawn card**.

You must answer a list of questions like this. For example:

**\$30 if drawn card is Purple**   **\$11 for sure**

**\$30 if drawn card is Purple**   **\$12 for sure**

**\$30 if drawn card is Purple**   **\$13 for sure**

**\$30 if drawn card is Purple**   **\$14 for sure**

**\$30 if drawn card is Purple**   **\$15 for sure**

The option on the left does not change, while the option on the right **gets better as you go down the list**.

You must make **a choice in all rows**, but for simplicity, you only have to **click once** on the row where you want to **switch from left to right**. You can modify your choice as many times as you want, and you can also select only the left or only the right.

Intuitively, you can think about how much you'd pay for the bet. Then, you switch to the sure amount as soon as it is above the amount you'd pay for the bet.

Below is an example for you to experience the interface (try to click).

**\$30 if drawn card is Purple**   **\$0 for sure**

**\$30 if drawn card is Purple**   **\$7 for sure**

**\$30 if drawn card is Purple**   **\$12 for sure**

**\$30 if drawn card is Purple**   **\$18 for sure**

**\$30 if drawn card is Purple**   **\$20 for sure**

Figure Online-B.46: Instructions page 3.

## Quiz 1

There are **2 decks**, each containing **50** cards:

- In deck 1: **90%** of cards are **Green** and **10%** are **Purple**
- In deck 2: **90%** of cards are **Green** and **10%** are **Purple**

The computer **selects one of the two decks at random**, shuffles the selected deck and then draws a card.

Which statement is correct?

- The drawn card must be **Purple**.
- The drawn card must be **Green**.
- The drawn card can be **Purple** or **Green**

Figure Online-B.47: Quiz question 1, main treatment.

## Quiz 1

There are **2 decks**. Each contains **4** cards:

- In deck 1: **1** card is **Purple** and **3** are **Green**



- In deck 2: **3** cards are **Purple** and **1** is **Green**



The computer **selects one of the two decks at random**, shuffles the selected deck and then draws a card.

Which statement is correct?

- The drawn card must be **Purple**.
- The drawn card must be **Green**.
- The drawn card can be **Purple** or **Green**

Figure Online-B.48: Quiz question 1, graphical treatment.

## Quiz 1

There are **2 decks**, each containing **50** cards:

- In deck 1: **90%** of cards are **Green** and **10%** are **Purple**
- In deck 2: **90%** of cards are **Green** and **10%** are **Purple**

The computer **combines the two decks together**, shuffles, and then draws a card.

Which statement is correct?

- The drawn card must be **Purple**.
- The drawn card must be **Green**.
- The drawn card can be **Purple** or **Green**

Figure Online-B.49: Quiz question 1, mirror treatment.

## Quiz 2

Which do you choose?

- |                 |                       |                       |               |
|-----------------|-----------------------|-----------------------|---------------|
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$1 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$2 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$3 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$4 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$5 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$6 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$7 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$8 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$9 for sure  |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$10 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$11 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$12 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$13 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$14 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$15 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$16 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$17 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$18 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$19 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$20 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$21 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$22 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$23 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$24 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$25 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$26 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$27 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$28 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$29 for sure |
| \$5.50 for sure | <input type="radio"/> | <input type="radio"/> | \$30 for sure |

Figure Online-B.50: Quiz question 2.

A deck contains **50 Purple** cards and **50 Green** cards.

The computer shuffles the deck and then draws a card.

Which do you choose?

Figure Online-B.51: Risk question 1.

\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$1 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$2 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$3 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$4 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$5 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$6 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$7 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$8 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$9 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$10 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$11 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$12 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$13 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$14 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$15 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$16 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$17 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$18 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$19 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$20 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$21 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$22 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$23 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$24 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$25 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$26 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$27 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$28 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$29 for sure
\$30 if drawn card is <b>Purple</b>	<input type="radio"/>	<input type="radio"/>	\$30 for sure

Figure Online-B.52: MPL.

A deck contains **70 Purple** cards and **30 Green** cards.

The computer shuffles the deck and then draws a card.

Which do you choose?

Figure Online-B.53: Risk question 2.

A deck contains **30 Purple** cards and **70 Green** cards.

The computer shuffles the deck and then draws a card.

Which do you choose?

Figure Online-B.54: Risk question 3.

A deck contains **25 Purple** cards and **25 Green** cards.

The computer shuffles the deck and then draws a card.

Which do you choose?

Figure Online-B.55: Risk question 4.

A deck contains **100** cards. Each card is either **Purple** or **Green**.

You are not told the exact number of **Purple** or **Green** cards.

They could be all **Purple**, all **Green**, or any combination.

The computer shuffles the deck and then draws a card.

Which do you choose?

Figure Online-B.56: Ambiguity.

There are **2 decks**. Each contains **50** cards:

- In deck 1: **20%** of cards are **Purple** and **80%** are **Green**
- In deck 2: **80%** of cards are **Purple** and **20%** are **Green**

The computer **selects one of the two decks at random**, shuffles the selected deck and then draws a card.

Which do you choose?

Figure Online-B.57: Non-trivial compound lottery, main treatment.

There are **2 decks**. Each contains **5 cards**:

- In deck 1: **1** card is **Purple** and **4** are **Green**



- In deck 2: **4** cards are **Purple** and **1** is **Green**



The computer **selects one of the two decks at random**, shuffles the selected deck and then draws a card.

Which do you choose?

Figure Online-B.58: Non-trivial compound lottery, graphical treatment.

There are **2 decks**. Each contains **50 cards**:

- In deck 1: **20%** of cards are **Purple** and **80%** are **Green**
- In deck 2: **80%** of cards are **Purple** and **20%** are **Green**

The computer **combines the two decks together**, shuffles, and then draws a card.

Which do you choose?

Figure Online-B.59: Non-trivial compound lottery, mirror treatment.

There are **2 decks**. Each contains **50 cards**:

- In deck 1: **50%** of cards are **Purple** and **50%** are **Green**
- In deck 2: **50%** of cards are **Purple** and **50%** are **Green**

The computer **selects one of the two decks at random**, shuffles the selected deck and then draws a card.

Which do you choose?

Figure Online-B.60: Trivial compound lottery, main treatment.

There are **2 decks**. Each contains **4** cards:

- In deck 1: **2** cards are **Purple** and **2** are **Green**



- In deck 2: **2** cards are **Purple** and **2** are **Green**



The computer **selects one of the two decks at random**, shuffles the selected deck and then draws a card.

Which do you choose?

Figure Online-B.61: Trivial compound lottery, graphical treatment.

There are **2 decks**. Each contains **50** cards:

- In deck 1: **50%** of cards are **Purple** and **50%** are **Green**
- In deck 2: **50%** of cards are **Purple** and **50%** are **Green**

The computer **combines the two decks together**, shuffles, and then draws a card.

Which do you choose?

Figure Online-B.62: Trivial compound lottery, mirror treatment.

A deck contains **3 cards**: one **Purple**, one **Green**, and one **Orange**. The computer shuffles the deck and draws a card:

- If the drawn card is **Purple** or **Green** it stops.
- If it is **Orange**, it discards that card and draws again from the deck.

Which do you choose?

Figure Online-B.63: Draw-again compound lottery, main treatment.

A deck contains **3 cards**: one **Purple**, one **Green**, and one **Orange**.



The computer shuffles the deck and draws a card:

- If the drawn card is **Purple** or **Green** it stops.
- If it is **Orange**, it discards that card and draws again from the deck.

Which do you choose?

Figure Online-B.64: Draw-again compound lottery, graphical treatment.

A deck contains **3 cards**: one **Purple**, one **Green**, and one **Orange**. The computer first discards the **Orange** card. Then it shuffles the deck and draws a card.

Which do you choose?

Figure Online-B.65: Draw-again compound lottery, mirror treatment.

There are **2 decks**. Each contains **50 cards**:

- In deck 1: **20%** of cards are **Purple** and **80%** are **Green**
- In deck 2: **80%** of cards are **Purple** and **20%** are **Green**

The computer **selects one of the two decks at random**, shuffles the selected deck and then draws a card.

Using the laws of probability, it is possible to calculate the **Exact Chance** that the drawn card is **Purple**. What is this **Exact Chance**? (in %)

[You can earn a \$5 bonus with your guess. Your probability of winning goes up the more accurate your answer is, using the formula explained [here](#).]

 %

Figure Online-B.66: Non-trivial compound lottery with binary scoring rule, main treatment.

There are **2 decks**. Each contains **5 cards**:

- In deck 1: **1** card is **Purple** and **4** are **Green**



- In deck 2: **4** cards are **Purple** and **1** is **Green**



The computer **selects one of the two decks at random**, shuffles the selected deck and then draws a card.

Using the laws of probability, it is possible to calculate the **Exact Chance** that the drawn card is **Purple**. What is this **Exact Chance**? (in %)

[You can earn a \$5 bonus with your guess. Your probability of winning goes up the more accurate your answer is, using the formula explained [here](#).]

 %

Figure Online-B.67: Non-trivial compound lottery with binary scoring rule, graphical treatment.

There are **2 decks**. Each contains **50** cards:

- In deck 1: **20%** of cards are **Purple** and **80%** are **Green**
- In deck 2: **80%** of cards are **Purple** and **20%** are **Green**

The computer **combines the two decks together**, shuffles, and then draws a card.

Using the laws of probability, it is possible to calculate the **Exact Chance** that the drawn card is **Purple**. What is this **Exact Chance**? (in %)

[You can earn a \$5 bonus with your guess. Your probability of winning goes up the more accurate your answer is, using the formula explained [here](#).]

 %

Figure Online-B.68: Non-trivial compound lottery with binary scoring rule, mirror treatment.

How certain are you that your answer above is the **Exact Chance** that the drawn card is **Purple**, calculated using the laws of probability?



Figure Online-B.69: Cognitive Uncertainty question.

There are **2 decks**. Each contains **50** cards:

- In deck 1: **50%** of cards are **Purple** and **50%** are **Green**
- In deck 2: **50%** of cards are **Purple** and **50%** are **Green**

The computer **selects one of the two decks at random**, shuffles the selected deck and then draws a card.

Using the laws of probability, it is possible to calculate the **Exact Chance** that the drawn card is **Purple**. What is this **Exact Chance**? (in %)

[You can earn a \$5 bonus with your guess. Your probability of winning goes up the more accurate your answer is, using the formula explained [here](#).]

 %

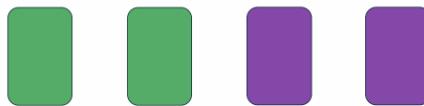
Figure Online-B.70: Trivial compound lottery with binary scoring rule, main treatment.

There are **2 decks**. Each contains **4 cards**:

- In deck 1: **2** cards are **Purple** and **2** are **Green**



- In deck 2: **2** cards are **Purple** and **2** are **Green**



The computer **selects one of the two decks at random**, shuffles the selected deck and then draws a card.

Using the laws of probability, it is possible to calculate the **Exact Chance** that the drawn card is **Purple**. What is this **Exact Chance**? (in %)

[You can earn a \$5 bonus with your guess. Your probability of winning goes up the more accurate your answer is, using the formula explained [here](#).]

 %

Figure Online-B.71: Trivial compound lottery with binary scoring rule, graphical treatment.

There are **2 decks**. Each contains **50** cards:

- In deck 1: **50%** of cards are **Purple** and **50%** are **Green**
- In deck 2: **50%** of cards are **Purple** and **50%** are **Green**

The computer **combines the two decks together**, shuffles, and then draws a card.

Using the laws of probability, it is possible to calculate the **Exact Chance** that the drawn card is **Purple**. What is this **Exact Chance**? (in %)

[You can earn a \$5 bonus with your guess. Your probability of winning goes up the more accurate your answer is, using the formula explained [here](#).]

 %

Figure Online-B.72: Trivial compound lottery with binary scoring rule, mirror treatment.

A deck contains **3 cards**: one **Purple**, one **Green**, and one **Orange**. The computer shuffles the deck and draws a card:

- If the drawn card is **Purple** or **Green** it stops.
- If it is **Orange**, it discards that card and draws again from the deck.

Using the laws of probability, it is possible to calculate the **Exact Chance** that the last drawn card is **Purple**. What is this **Exact Chance**? (in %)

[You can earn a \$5 bonus with your guess. Your probability of winning goes up the more accurate your answer is, using the formula explained [here](#).]

 %

Figure Online-B.73: Draw-again compound lottery with binary scoring rule, main treatment.

A deck contains **3 cards**: one **Purple**, one **Green**, and one **Orange**.



The computer shuffles the deck and draws a card:

- If the drawn card is **Purple** or **Green** it stops.
- If it is **Orange**, it discards that card and draws again from the deck.

Using the laws of probability, it is possible to calculate the **Exact Chance** that the last drawn card is **Purple**. What is this **Exact Chance**? (in %)

[You can earn a \$5 bonus with your guess. Your probability of winning goes up the more accurate your answer is, using the formula explained [here](#).]

 %

Figure Online-B.74: Draw-again compound lottery with binary scoring rule, graphical treatment.

A deck contains **3 cards**: one **Purple**, one **Green**, and one **Orange**. The computer first discards the **Orange** card. Then it shuffles the deck and draws a card.

Using the laws of probability, it is possible to calculate the **Exact Chance** that the last drawn card is **Purple**. What is this **Exact Chance**? (in %)

[You can earn a \$5 bonus with your guess. Your probability of winning goes up the more accurate your answer is, using the formula explained [here](#).]

 %

Figure Online-B.75: Draw-again compound lottery with binary scoring rule, mirror treatment.