

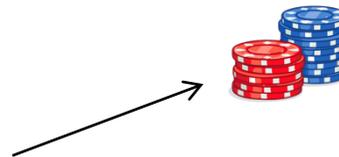
Supplementary Materials for “Controlling uncertainty: The illusion of control in decision-making under risk and uncertainty” by Alex Berger and Agnieszka Tymula

Appendix A Experimental instructions

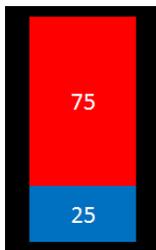
Welcome to our decision-making study!!!

Thank you for helping us understand how people make decisions!

(Please do not write on these instructions. We re-use them.)



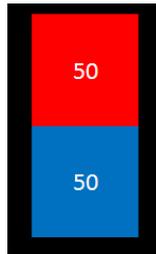
In the task you are going to see pictures of bags of chips. Each bag is filled with 100 chips and corresponds to one, real bag of chips that the researcher has with them. Some of the chips in the bags are red and some of them are blue. For example:



In this bag 75 chips are red and 25 are blue.

We are using 6 bags with different quantities of red and blue chips in the study. You will make 10 decisions for each bag. At the end of the study, you will pick **one** chip from a bag and its colour will determine your payment. Keep on reading the instructions to understand how it all works.

Here is an example of just one decision that you will have to make:



Decision number		Option A			Option B
8		Red pays \$5 Blue pays \$5	or		Red pays \$33 Blue pays \$0

There are 50 red and 50 blue chips in this bag. Imagine that you are to pick one chip from this bag without looking. Do you prefer:

Option A which pays you \$5 independent of the colour you pick, or

Option B which pays you \$33 if you pick red chip but nothing if you pick a blue one? In option B your payment is determined by chance - you can't be sure about the colour of the chip that you will pick.

You will let us know which option you prefer by putting a tick in the empty box to the left of it. For example, if you prefer option A you will mark it this way:

18	✓	Red pays you \$5 Blue pays you \$5	or		Red pays you \$33 Blue pays you \$0
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And if you prefer option B you will mark it this way:

18		Red pays you \$5 Blue pays you \$5	or	✓	Red pays you \$33 Blue pays you \$0
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In the study you will see tables like the one below. You are supposed to make one decision in each row by drawing a tick next to your preferred option. (Please do not complete the table below. It is just an example.)

Decision number		Option A			Option B
1		Red pays \$5 Blue pays \$5	or		Red pays \$5 Blue pays \$0
2		Red pays \$5 Blue pays \$5	or		Red pays \$8 Blue pays \$0
3		Red pays \$5 Blue pays \$5	or		Red pays \$11 Blue pays \$0
4		Red pays \$5 Blue pays \$5	or		Red pays \$15 Blue pays \$0
5		Red pays \$5 Blue pays \$5	or		Red pays \$19 Blue pays \$0
6		Red pays \$5 Blue pays \$5	or		Red pays \$23 Blue pays \$0
7		Red pays \$5 Blue pays \$5	or		Red pays \$29 Blue pays \$0
8		Red pays \$5 Blue pays \$5	or		Red pays \$33 Blue pays \$0
9		Red pays \$5 Blue pays \$5	or		Red pays \$37 Blue pays \$0
10		Red pays \$5 Blue pays \$5	or		Red pays \$41 Blue pays \$0

There are no wrong decisions. Everybody prefers something else, so pick the option you like more.

Once you finish the task, you should have one tick in each row in each table. It is important that you don't miss any rows. If you miss a decision, you risk not getting paid.

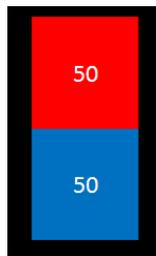
Each of the bag images that you will see corresponds to exactly one bag of poker chips. The experimenter has all the bags with them here today.

Payment

At the end of the study, you will pick a chip from a different bag that contains 60 chips numbered from 1 to 60. The number on this chip will determine which decision you are paid for. You will receive your earnings in cash at the end of the study.

Independent of your choice, you will receive \$10 for participation. If you did not make a choice in the 'payment decision' then you will get only \$10 for participation.

Example: Suppose that you picked a chip with number 18 and so this is the decision that you are paid for. Suppose that you picked Option B.



18		Red pays you \$5 Blue pays you \$5	or	✓	Red pays you \$33 Blue pays you \$0
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For sure you will receive \$10 for participation. Then you will pick one chip from a bag that has 50 red and 50 blue chips. If the chip you pick is red, you will get extra \$33. If the chip you pick is blue you don't get anything extra.

[In Illusion of Control Treatments: In this experiment you will choose which colour of the poker chip you would like to be your winning colour. You will be asked to make this choice twice. You can choose the same, or a different winning colour poker chip each time you are asked.]

[In Control Treatments: To determine what colour of poker chip will be your winning colour poker chip, a student volunteer, who is not a part of the research team, will randomly draw a poker chip from a bag containing 2 red and 2 blue poker chips. The colour poker chip drawn from the bag will be your winning colour poker chip. If the student volunteer randomly draws a red poker chip from the bag, then your winning colour poker chip will be red. If the student volunteer randomly draws a blue poker chip from the bag, then your winning colour poker chip will be blue.]

This is the end of instructions.

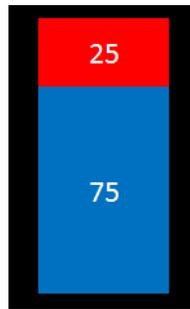
If you have any questions about the task please raise your hand and one of the researchers will come over to help you.

If you understand the task, you can start making your decisions using the provided decision sheets.

Appendix B Experimental task (IOC Risk IOC Ambiguity Treatment)

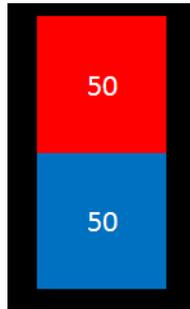
Before you continue to choose, please choose one colour that you would like to be the winning colour in Option 2 for all questions on pages 1, 2, and 3. Then if you draw your colour from the bag, you win the specified amount of money and if the other colour is drawn from the bag you get \$0.

I choose my winning colour for pages 1, 2 and 3 to be: RED / BLUE (circle one)



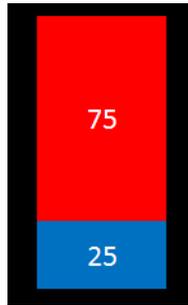
There are 25 red and 75 blue chips in this bag. Which option do you prefer?

Decision number		Option 1			Option 2
1		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$5 Other colour pays you \$0
2		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$8 Other colour pays you \$0
3		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$11 Other colour pays you \$0
4		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$15 Other colour pays you \$0
5		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$19 Other colour pays you \$0
6		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$23 Other colour pays you \$0
7		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$29 Other colour pays you \$0
8		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$33 Other colour pays you \$0
9		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$37 Other colour pays you \$0
10		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$41 Other colour pays you \$0



There are 50 red and 50 blue chips in this bag. Which option do you prefer?

Decision number		Option 1			Option 2
1		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$5 Other colour pays you \$0
2		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$8 Other colour pays you \$0
3		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$11 Other colour pays you \$0
4		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$15 Other colour pays you \$0
5		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$19 Other colour pays you \$0
6		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$23 Other colour pays you \$0
7		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$29 Other colour pays you \$0
8		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$33 Other colour pays you \$0
9		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$37 Other colour pays you \$0
10		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$41 Other colour pays you \$0

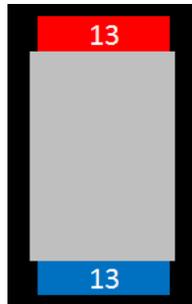


There are 75 red and 25 blue chips in this bag. Which option do you prefer?

Decision number		Option 1			Option 2
1		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$5 Other colour pays you \$0
2		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$8 Other colour pays you \$0
3		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$11 Other colour pays you \$0
4		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$15 Other colour pays you \$0
5		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$19 Other colour pays you \$0
6		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$23 Other colour pays you \$0
7		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$29 Other colour pays you \$0
8		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$33 Other colour pays you \$0
9		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$37 Other colour pays you \$0
10		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$41 Other colour pays you \$0

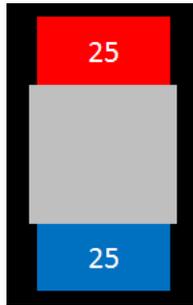
Before you continue to choose, please choose one colour that you would like to be the winning colour in Option 2 for all questions on pages 4, 5, and 6. Then if you draw your colour from the bag, you win the specified amount of money and if the other colour is drawn from the bag you get \$0.

I choose my winning colour for pages 4, 5 and 6 to be: RED / BLUE (circle one)



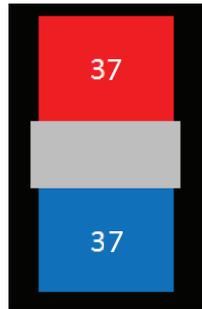
There are 100 chips in this bag. At least 13 are red and at least 13 are blue. The remaining 74 chips hidden behind the grey bar are of some unknown combination of red and blue. So you don't know whether there is more of red or more of blue colour in this bag. Which option do you prefer?

Decision number		Option 1			Option 2
1		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$5 Other colour pays you \$0
2		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$8 Other colour pays you \$0
3		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$11 Other colour pays you \$0
4		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$15 Other colour pays you \$0
5		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$19 Other colour pays you \$0
6		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$23 Other colour pays you \$0
7		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$29 Other colour pays you \$0
8		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$33 Other colour pays you \$0
9		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$37 Other colour pays you \$0
10		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$41 Other colour pays you \$0



There are 100 chips in this bag. At least 25 are red and at least 25 are blue. The remaining 50 hidden behind the gray bar are of some unknown combination of red and blue. So you don't know whether there is more of red or more of blue colour in this bag. Which option do you prefer?

Decision number		Option 1			Option 2
1		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$5 Other colour pays you \$0
2		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$8 Other colour pays you \$0
3		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$11 Other colour pays you \$0
4		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$15 Other colour pays you \$0
5		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$19 Other colour pays you \$0
6		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$23 Other colour pays you \$0
7		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$29 Other colour pays you \$0
8		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$33 Other colour pays you \$0
9		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$37 Other colour pays you \$0
10		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$41 Other colour pays you \$0



There are 100 chips in this bag. At least 37 are red and at least 37 are blue. The remaining 26 chips hidden behind the grey bar are of some unknown combination of red and blue. So you don't know whether there is more of red or more of blue colour in this bag. Which option do you prefer?

Decision number		Option 1			Option 2
1		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$5 Other colour pays you \$0
2		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$8 Other colour pays you \$0
3		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$11 Other colour pays you \$0
4		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$15 Other colour pays you \$0
5		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$19 Other colour pays you \$0
6		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$23 Other colour pays you \$0
7		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$29 Other colour pays you \$0
8		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$33 Other colour pays you \$0
9		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$37 Other colour pays you \$0
10		Red pays you \$5 Blue pays you \$5	or		Your colour pays you \$41 Other colour pays you \$0

Appendix C Demographic questions

1. I am (circle the right answer): male female other
2. I was born on (day/month/year)
3. I am years old
4. How many years has it been since you graduated from high school?
5. Are you a university student (YES/NO)?
6. How many years has it been since you started university?
7. Are you a masters or HDR student (YES/NO)?.....
8. How many siblings do you have?
9. How many younger siblings do you have?
10. I consider myself (circle one):
 - Very wealthy
 - Wealthy
 - Neither poor nor wealthy
 - Poor
 - Very poor
11. What is your weekly budget to spend on entertainment (in Australian dollars)?
 -
12. In the last 12 months did you partake in any of the following or similar activities: state lotteries, raffles, poker machines/keno, gambling in a casino, online gambling or other online games involving risks with monetary outcomes?
 - Yes
 - No

13. (skip if you answered no to question 12)

If you answered yes to question 12, which statement best describes how frequently you engaged in these activities?

- Once every 12 months
- Once every 6 months
- Once every 3 months
- Once a month
- Once a fortnight
- Once a week
- More than once a week

14. What do you think the experiment was about?

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