

Ambiguity Aversion and Household Portfolio Choice

Questionnaire administered to the LISS panel

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1 Project description

Title: Ambiguity Aversion and Household Portfolio Choice

Datafile: bm10a

Funding sources: MESS Project

Investigator: Stephen Dimmock, Roy Kouwenberg and Peter Wakker

Project description: The survey focuses on ambiguity aversion and the relationship between ambiguity aversion and the economic choices people make.

Sample:

Selected number of household members: 2,491 (100%)
(random selection of panel members)

Nonresponse: 556 (22.3%)

Response: 1,935 (77.7%)

Complete: 1,933 (77.6%)

Incomplete: 2 (0.1%)

Date of data collection: January 2010

Titel: Aversie tegen onzekerheid en de economische beslissingen van huishoudens

Databestand: bm10a

Financiering: MESS Project

Onderzoeker: Stephen Dimmock, Roy Kouwenberg en Peter Wakker

Projectbeschrijving: De vragenlijst gaat over de aversie tegen onzekerheid en de relatie tussen de aversie tegen onzekerheid en de economische keuzes die mensen maken.

Responsoverzicht:

Selectie aantal huishoudleden: 2.491 (100%)

(willekeurige selectie van panelleden)

Nonrespons: 556 (22,3%)

Respons: 1.935 (77,7%)

Compleet: 1.933 (77,6%)

Incompleet: 2 (0,1%)

Datum van data verzameling: januari 2010



2 Introduction

In January 2010, the LISS panel completed a questionnaire about the choices one makes when confronted with a known and unknown probability distribution. The questionnaire was presented to 2,491 panel members, and it was fully completed by 1,933 respondents (response percentage 77.6%).

The respondents were presented with three games, preceded by an example question. Each game consisted of six rounds at most. The chance of winning with the known probability distribution varied from the second round on, depending on the respondent's choice in the previous round ('known' or 'unknown'). A game ended as soon as the respondent indicated to have no preference, or if the chance of winning fell below a certain value (less than 2.5% difference with a so-called 'floor' or 'ceiling' value¹).

After three games, two control questions were asked. These questions consisted of a single round each. The chance of winning with these questions depended on the chance of winning in the last round of game 1.

Finally, two questions were posed about risk aversion. These questions also involved a game consisting of six rounds at most. Respondents either chose the option that guaranteed winning a certain sum, or the option that offered a 50% chance of a higher amount and a 50% chance of 0 euro. The amount for the guarantee option varied from the second round on, depending on the choice made in the previous round. A game ended as soon as the respondent indicated to have no preference, or if the amount with the guarantee option fell below a certain value (less than 100 euros difference with the so-called 'floor' or 'ceiling' value).

Respondents were assigned one of two conditions beforehand. Respondents had 50% chance of being assigned condition 1, and 50% chance of condition 2. Within a household, panel members were assigned the same condition. Respondents under condition 1 knew that this involved a fictitious game and that no extra reward would be paid out. Respondents under condition 2 were informed that a real game would be played at the end, in which they could earn an extra reward of 15 euros.

¹ Read more about these terms in the descriptions of the various questions in the codebook.



3 Codebook

This codebook contains the questionnaire as it was fielded in the LISS panel.

- The variable names are printed in **bold** and correspond to the names in the dataset.
- The questionnaire routing is printed in *italics* for each variable concerned.
- *open*: answer box; no limit to the length of the answer
- *string*: answer box that accommodates a maximum amount of characters (255 is standard)
- With numerical variables, wherever the range within which the respondent could choose an answer was not visible to the respondent, this is printed in italics in the codebook. Wherever no limits applied to the range within which to choose an answer, this is indicated in the codebook as '*integer*'.
- The so-called 'fills' (variable text) are presented between straight brackets [].

nomem_encr

Number of the respondent encrypted

nohouse_encr

Number of the household encrypted

bm10a_m

Year and month of field work period

preloaded variable

bm10a001

Group

1 no extra incentive

2 extra incentive



preloaded variable

bm10a002

Position within the household

- 1 Household head*
- 2 Wedded partner
- 3 Unwedded partner
- 4 Parent (in law)
- 5 Child living at home
- 6 Housemate
- 7 Family member or boarder
- 9 Unknown (missing)

** The household head is the person whose name appears on the rent contract or purchase deed of the house. If the contract or deed carries more than one name, the household head is the person with the highest income.*

preloaded variable

bm10a003

The household head lives together with a partner (wedded or unwedded)

- 0 no
- 1 yes

preloaded variable

bm10a004

Takes care of the financial matters

- 0 no
- 1 yes



if bm10a001=1

{intro}

Now we present a number of questions that require you to choose between two boxes, box B and box O.

Both boxes contain 100 balls of various colors, for instance yellow and purple.

Suppose a ball is drawn from the box you choose, and that you win a 15 euro prize if the drawn ball is purple.

This poses the question: which box will you choose to draw a ball from, box B or box O?

You do not really stand to win an extra 15 euros in this experiment. This is just a fictitious game devised to help research how people make choices.

First, a brief question to practice.

This is followed by a number of questions that consist of multiple rounds (6 at most), in which the distribution of colored balls in Box B is different each time.

if bm10a001=2

{introR}

Now we present a number of questions that require you to choose between two boxes, box B and box O.

Both boxes contain 100 balls of various colors, for instance yellow and purple.

Suppose a ball is drawn from the box you choose, and that you win a 15 euro prize if the drawn ball is purple.

This poses the question: which box will you choose to draw a ball from, box B or box O?

First, a brief question to practice.

This is followed by a number of questions that consist of multiple rounds (6 at most), in which the distribution of colored balls in Box B is different each time.

After you have answered all the questions, we will play one round of the game for real.

This works as follows:

- The computer will select at random one of the rounds you played.
- For this round, the computer will draw a random ball from the box you chose in that round.
- If the drawn ball has the right color, you win 15 euros. This amount will be paid into your bank account along with the next compensation payment round.
- If the drawn ball does not have the right color, you do not win any prize.

**bm10a005**

color of choice example question

- 1 Purple
- 2 Yellow
- 3 Salmon
- 4 Khaki
- 5 Teal

bm10a006

risky probability gain - example question, first iteration

20



{KLEUR1 and KLEUR2=bm10a005. If bm10a005=1; KLEUR1='purple',
KLEUR2='purple'.}

bm10a007

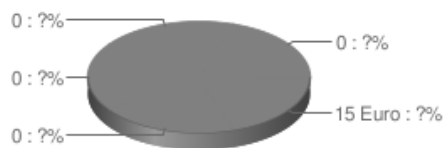
Example question: Choosing between two boxes with five different colors of balls

In this game you can choose between box B or box O. Both boxes contain 100 balls of 5 different colors. One ball will be drawn from the box you have chosen. You win 15 euro if a [KLEUR1] ball is drawn.

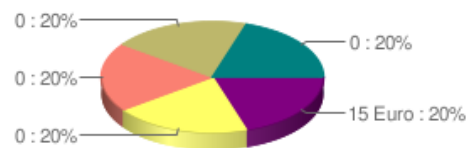
For box B ('Known') you can see the exact proportion of colored balls. Box O ('Unknown') also contains five different colors of balls, but the proportions are not shown in advance. Hence, box B as well as box O contains 100 balls with the same 5 colors. The composition of colored balls is known for box B and unknown for box O.

Please select the box of your choice: B or O. If you think both boxes are equally attractive, select 'Indifferent'.

Doos O



Doos B



Which option do you prefer? (You win 15 euro if a [KLEUR2] ball is drawn.)

Doos O

Geen voorkeur

Doos B

Note: if you prefer a different winning color than [KLEUR2], use the drop box.

Select color



- 1 Box B
- 2 Box O
- 3 Indifferent

**bm10a008**

number of seconds between click on button at previous item and click on button at this item

bm10a009, bm10a012, bm10a015, bm10a018, bm10a021

risky probability gain - example question, [second/third/fourth/fifth/sixth] iteration
integer

if bm10a007=1 or bm10a007=2

The question below was repeated until the respondent selected option 3 'Indifferent', or until the sixth question was answered, or until the chance of winning differed less than 2.5% from the 'floor' or 'ceiling' (convergence).

{KLEUR1 and KLEUR2=bm10a005. So if bm10a005=1; KLEUR1='purple', KLEUR2='purple'.}

bm10a010, bm10a013, bm10a016, bm10a019, bm10a022

Example question: Choosing between two boxes with five different colors of balls

We play the same game again, but with a different proportion of colored balls in boxes B and O (see below). Everything else is the same. You can choose between box B and box O. Both boxes contain 100 balls of 5 different colors. One ball will be drawn from the box you have chosen. You win 15 euro if a [KLEUR1] ball is drawn.

Please select the box of your choice: B or O. If you think both boxes are equally attractive, you can select 'Indifferent'.

{Distribution of percentages Box B:

- If choice at previous question = Box O, then
new chance of winning (bm10a009, bm10a012, bm10a015, bm10a018, bm10a021) = previous chance of winning (e.g. 20%) + ceiling (100%) / 2 (= e.g. 60%)
- new floor:= previous chance of winning (e.g. 20%)*
- If choice at previous question = Box B, then
new chance of winning (bm10a009, bm10a012, bm10a015, bm10a018, bm10a021) = previous chance of winning (e.g. 20%) + floor (0%) / 2 (= e.g. 10%)
- new ceiling:=previous chance of winning (e.g. 20%)}*

Which option do you prefer? (You win 15 euro if a [KLEUR2] ball is drawn.)

Doos O

Geen voorkeur

Doos B

- 1 Box B
- 2 Box O
- 3 Indifferent



bm10a011, bm10a014, bm10a017, bm10a020, bm10a023

number of seconds between click on button at previous item and click on button at this item

bm10a024

risky probability gain - example question, final iteration
integer

bm10a025

choice selected - example question, final iteration

- 1 Box O
- 2 Box B
- 3 Indifferent

bm10a026

total number of iterations - example question
1..6

bm10a027

color of choice - question 1

- 1 Purple
- 2 Yellow

bm10a028

risky probability gain - question 1, first iteration
50



{KLEUR1 and KLEUR2=bm10a027. If bm10a027=1; KLEUR1='purple',
KLEUR2='purple'.}

bm10a029

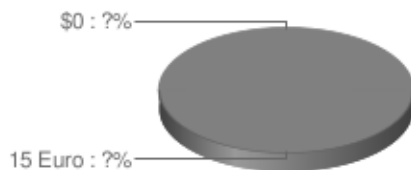
Question 1: Choosing between two boxes with yellow and purple balls

In this game you can choose between box B or box O. Both boxes contain 100 balls, which can be either yellow or purple. One ball will be drawn from the box you have chosen. You win 15 euro if a [KLEUR1] ball is drawn.

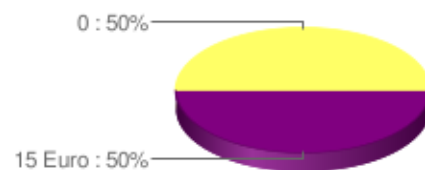
For box B ('Known') you can see the exact proportion of yellow and purple balls. Box O ('Unknown') also contains yellow and purple balls, but the proportions are not shown in advance. Hence, both boxes contain 100 balls with two different colors (yellow and purple). The composition of yellow and purple balls is known for box B and unknown for box O.

Please select the box of your choice: B or O. If you think both boxes are equally attractive, you can select 'Indifferent'.

Doos O



Doos B



Which option do you prefer? (You win 15 euro if a [KLEUR2] ball is drawn.)

Doos O

Geen voorkeur

Doos B

Note: if you prefer a different winning color than [KLEUR2], use the drop box.

Select color



- 1 Box B
- 2 Box O
- 3 Indifferent

**bm10a030**

number of seconds between click on button at previous item and click on button at this item

bm10a031, bm10a034, bm10a037, bm10a040

risky probability gain - question 1, [second/third/fourth/fifth] iteration
integer

if bm10a029=1 or bm10a029=2

The question below was repeated until the respondent selected option 3 'Indifferent', or until the sixth question was answered, or until the chance of winning differed less than 2.5% from the 'floor' or 'ceiling' (convergence).²

{KLEUR1 and KLEUR2=bm10a027. If bm10a027=1; KLEUR1='purple', KLEUR2='purple'.}

bm10a032, bm10a035, bm10a038, bm10a041**Question 1: Choosing between two boxes with yellow and purple balls**

We play the same game again, but with a different proportion of purple and yellow balls in boxes B and O (see below). Everything else is the same. In this game you can choose between box B and box O. Both boxes contain 100 balls in 2 colors (yellow and purple). One ball will be drawn from the box you have chosen. You win 15 euro if a [KLEUR1] ball is drawn.

Please select the box of your choice: B or O. If you think both boxes are equally attractive, you can select 'Indifferent'.

{Distribution of percentages Box B

- If choice at previous question = Box O, then
new chance of winning = previous chance of winning (e.g. 50%) + ceiling (100%) / 2 (= e.g. 75%)
- new floor:= previous chance of winning (e.g. 50%)*
- If choice at previous question = Box B, then
new chance of winning = previous chance of winning (e.g. 50%) + floor (0%) / 2 (= e.g. 25%)
- new ceiling:=previous chance of winning (e.g. 50%)}*

Which option do you prefer? (You win 15 euro if a [KLEUR2] ball is drawn.)

Doos O

Geen voorkeur

Doos B

- 1 Box B
- 2 Box O
- 3 Indifferent

² Convergence was always reached after five iterations at most.



bm10a033, bm10a036, bm10a039, bm10a042

number of seconds between click on button at previous item and click on button at this item

bm10a043

risky probability gain - question 1, final iteration
integer

bm10a044

choice selected - question 1, final iteration

- 1 Box B
- 2 Box O
- 3 Indifferent

bm10a045

total number of iterations - question 1
1..5

bm10a046

color of choice question 2

- 1 Purple
- 2 Yellow
- 3 Salmon
- 4 Khaki
- 5 Teal
- 6 Green
- 7 Orange
- 8 Brown
- 9 Blue
- 10 Red

bm10a047

risky probability gain - question 2, first iteration
10



{KLEUR1 and KLEUR2=bm10a046. If bm10a046=1; KLEUR1='purple', KLEUR2='purple'.}

bm10a048

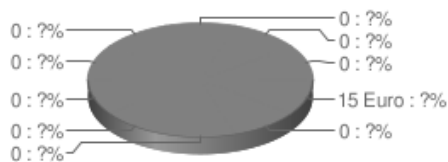
Question 2: Choosing between two boxes with 10 different colors

In this game you can choose between box B or box O. Both boxes contain 100 balls of 10 different colors. One ball will be drawn from the box you have chosen. You win 15 euro if a [KLEUR1] ball is drawn.

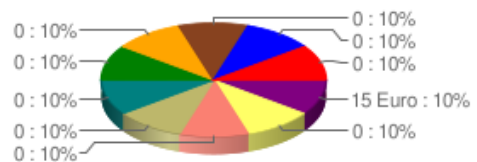
For box B ('Known') you can see the exact proportion of colored balls. Box O ('Unknown') also contains 10 different colors of balls, but the proportions are not shown in advance. Hence, both box B as well as box O contains 100 balls with the same 10 different colors. The composition of colored balls is known for box B and unknown for box O.

Please select the box of your choice: B or O. If you think both boxes are equally attractive, select 'Indifferent'.

Doos O



Doos B



Which option do you prefer? (You win 15 euro if a [KLEUR2] ball is drawn.)

Doos O

Geen voorkeur

Doos B

Note: if you prefer a different winning color than [KLEUR2], use the drop box.

Select color

Paars ▼

Paars
Geel
Zalm
Kaki
Zeegroen
Groen
Oranje
Bruin
Blauw
Rood

- 1 Box B
- 2 Box O
- 3 Indifferent

**bm10a049**

number of seconds between click on button at previous item and click on button at this item

bm10a050, bm10a053, bm10a056, bm10a059, bm10a062

risky probability gain - question 2, [second/third/fourth/fifth/sixth] iteration
integer

if bm10a048=1 or bm10a048=2

The question below was repeated until the respondent selected option 3 'Indifferent', or until the sixth question was answered, or until the chance of winning differed less than 2.5% from the 'floor' or 'ceiling' (convergence).

{KLEUR1 and KLEUR2=bm10a046. If bm10a046=1; KLEUR1='purple', KLEUR2='purple'.}

bm10a051, bm10a054, bm10a057, bm10a060, bm10a063**Question 2: Choosing between two boxes with 10 different colors**

We play the same game again, but with a different proportion of colored balls in box B and O (see below). Everything else is the same. You can choose between box B or box O. Both boxes contain 100 balls of 10 different colors. One ball will be drawn from the box you have chosen. You win 15 euro if a [KLEUR1] ball is drawn.

Please select the box of your choice: B or O. If you think both boxes are equally attractive, you can select 'Indifferent'.

{Distribution of percentages Box B:

- If choice at previous question = Box O, then
new chance of winning = previous chance of winning (e.g. 10%) + ceiling (100%) / 2 (= e.g. 55%)
- new floor:= previous chance of winning (e.g. 10%)*
- If choice at previous question = Box B, then
new chance of winning = previous chance of winning (e.g. 10%) + floor (0%) / 2 (= e.g. 5%)
- new ceiling:=previous chance of winning (e.g. 10%)}*

Which option do you prefer? (You win 15 euro if a [KLEUR2] ball is drawn.)

Doos O

Geen voorkeur

Doos B

- 1 Box B
- 2 Box O
- 3 Indifferent



bm10a052, bm10a055, bm10a058, bm10a061, bm10a064

number of seconds between click on button at previous item and click on button at this item

bm10a065

risky probability gain - question 2, final iteration
integer

bm10a066

choice selected - question 2, final iteration

- 1 Box B
- 2 Box O
- 3 Indifferent

bm10a067

total number of iterations - question 2
1..6

bm10a068

color of choice question 3

- 1 Purple
- 2 Yellow
- 3 Salmon
- 4 Khaki
- 5 Teal
- 6 Green
- 7 Orange
- 8 Brown
- 9 Blue
- 10 Red

bm10a069

risky probability gain - question 3, first iteration
10



{KLEUR1 and KLEUR2=bm10a068. If bm10a068=1; KLEUR1='purple', KLEUR2='purple'.}

bm10a070

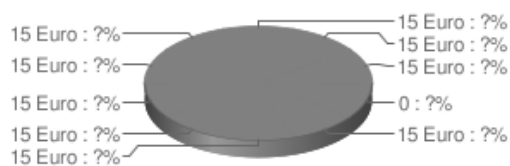
Question 3: Choosing between two boxes with 10 different colors

In this game you can choose between box B or box O. Both boxes contain 100 balls of 10 different colors. One ball will be drawn from the box you have chosen. If the ball drawn from the box is any color **OTHER** than [KLEUR1] you win 15 euro.

For box B you can see the exact proportion of colored balls. Box O also contains 10 different colors of balls, but the proportions are not shown in advance. Hence, both boxes contain 100 balls with the same 10 different colors. The composition of colored balls is known for box B and unknown for box O.

Please select the box of your choice: O or B. If you think both boxes are equally attractive, select 'Indifferent'.

Doos O



Doos B



Which box do you prefer? (You win 15 euro if any color **OTHER** than [KLEUR2].)

Doos O

Geen voorkeur

Doos B

Note: if you prefer a different **NOT** winning color than [KLEUR2], use the drop box.

Select color

Paars ▼

Paars

Geel

Zalm

Kaki

Zeegroen

Groen

Oranje

Bruin

Blauw

Rood

- 1 Box B
- 2 Box O
- 3 Indifferent

**bm10a071**

number of seconds between click on button at previous item and click on button at this item

bm10a072, bm10a075, bm10a078, bm10a081, bm10a084

risky probability gain - question 3, [second/third/fourth/fifth/sixth] iteration
integer

if bm10a070=1 or bm10a070=2

The question below was repeated until the respondent selected option 3 'Indifferent', or until the sixth question was answered, or until the chance of losing differed less than 2.5% from the 'floor' or 'ceiling' (convergence).

{KLEUR1 and KLEUR2=bm10a068. If bm10a068=1; KLEUR1='purple', KLEUR2='purple'.}

bm10a073, bm10a076, bm10a079, bm10a082, bm10a085**Question 3: Choosing between two boxes with 10 different colors**

We play the same game again, but with a different proportion of colored balls in boxes B and O. Everything else is the same. If the ball drawn from the box is any color **OTHER** than [KLEUR1] you win 15 euro.

Please select the box of your choice: B or O. If you think both boxes are equally attractive, you can select 'Indifferent'.

{Distribution of percentages Box B:

- If choice at previous question = Box O, then
new chance of losing = previous chance of losing (e.g. 10%) + floor (100%) / 2
(= e.g. 55%)
- new ceiling: = previous chance of losing (e.g. 10%)*
- If choice at previous question = Box B, then
new chance of losing = previous chance of losing (e.g. 10%) + floor (0%) / 2 (= e.g. 55%)
- new floor: = previous chance of losing (e.g. 10%)}*

Which option do you prefer (You win 15 euro if any color **OTHER** than [KLEUR2] ball is drawn).

Doos O

Geen voorkeur

Doos B

- 1 Box B
- 2 Box O
- 3 Indifferent



bm10a074, bm10a077, bm10a080, bm10a083, bm10a086

number of seconds between click on button at previous item and click on button at this item

bm10a087

risky probability gain - question 3, final iteration
integer

bm10a088

choice selected - question 3, final iteration

- 1 Box O
- 2 Box B
- 3 Indifferent

bm10a089

total number of iterations - question 3
1..6

bm10a090

color of choice question 4

- 1 Purple
- 2 Yellow

bm10a091

risky probability gain - question 4, first iteration
= bm10a043 (risky probability gain question 1, final iteration)* 1.2 (maximum = 100)



{The percentages for Box B depended on the value for question 1 at the last iteration.
See the description at bm10a091.}

{KLEUR1 and KLEUR2=bm10a090. If bm10a090=1; KLEUR1='purple',
KLEUR2='purple'.}

bm10a092

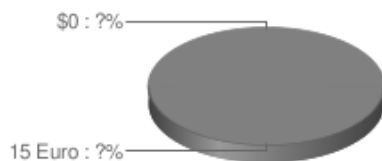
Question 4: Choosing between two boxes with yellow and purple balls

In this game you can choose between box B and box O. Both boxes contain 100 balls of two different colors (yellow or purple). One ball will be drawn from the box you have chosen. You win 15 euro if a [KLEUR1] ball is drawn.

For box B ('Known') you can see the exact proportion of yellow and purple balls. Box O ('Unknown') also contains yellow and purple balls, but the proportions are not shown in advance. Hence, box B as well as box O contains 100 balls with the same two different colors (yellow and purple). The composition of colored balls is known for box B and unknown for box O.

Please select the box of your choice: B or O. If you think both boxes are equally attractive, select 'Indifferent'.

Doos O



Doos B



Which option do you prefer? (You win 15 euro if a [KLEUR2] ball is drawn.)

Doos O

Geen voorkeur

Doos B

Note: if you prefer a different winning color than [KLEUR2], use the drop box.

Select color

Paars ▼
Paars
Geel

- 1 Box B
- 2 Box O
- 3 Indifferent

**bm10a093**

number of seconds between click on button at previous item and click on button at this item

bm10a094

color of choice question 5

1 Purple

2 Yellow

bm10a095

risky probability gain - question 5, first iteration

= bm10a043 (risky probability gain question 1, final iteration) * 0.8



{The percentages for Box B depended on the value for question 1 at the last iteration. See the description at bm10a095.}

{KLEUR1 and KLEUR2=bm094. If bm094=1; KLEUR1='purple', KLEUR2='purple'.}

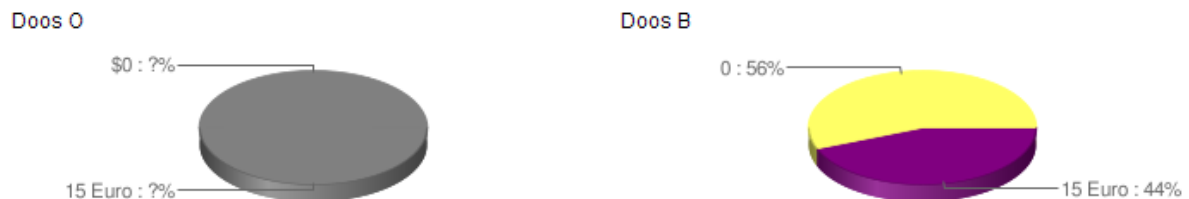
bm10a096

Question 5: Choosing between two boxes with yellow and purple balls

In this game you can choose between box B and box O. Both boxes contain 100 balls of two different colors (yellow or purple). One ball will be drawn from the box you have chosen. You win 15 euro if a [KLEUR1] ball is drawn.

For box B ('Known') you can see the exact proportion of yellow and purple balls. Box O ('Unknown') also contains yellow and purple balls, but the proportions are not shown in advance. Hence, box B as well as box O contains 100 balls with the same two different colors (yellow and purple). The composition of colored balls is known for box B and unknown for box O.

Please select the box of your choice: B or O. If you think both boxes are equally attractive, select 'Indifferent'.



Which option do you prefer? (You win 15 euro if a [KLEUR2] ball is drawn.)

Note: if you prefer a different winning color than [KLEUR2], use the drop box.

Select color

- 1 Box B
- 2 Box O
- 3 Indifferent

bm10a097

number of seconds between click on button at previous item and click on button at this item

**bm10a098**

risky probability gain - question 6, first iteration

500

bm10a099

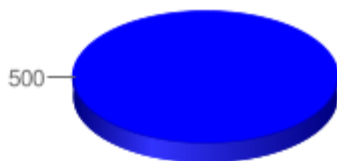
In this game you can choose between box Z and box K. Both boxes contain 100 balls, which can be either blue or red. One ball will be drawn from the box you have chosen. You win a prize if a blue ball is drawn.

Box Z ('Secure') only contains blue balls and that is why you have a 100% chance of winning a 500 euro prize. Box K ('Chance') contains 50% blue balls and 50% red balls, and you win 1000 euro if a blue ball is drawn from Box K. With box K you have a 50% chance of winning 1000 euro, and a 50% chance of winning no prize (0 euro).

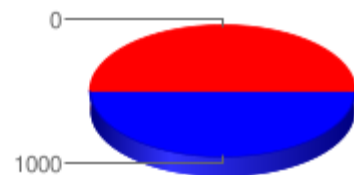
Please select the box of your choice: Z or K. If you think both boxes are equally attractive, select 'Indifferent'.

After you made your choice, we play the same game but with a different prize for box Z.

Doos Z



Doos K



Which option do you prefer?

Doos Z

Geen voorkeur

Doos K

- 1 Box Z
- 2 Box K
- 3 Indifferent

bm10a100

number of seconds between click on button at previous item and click on button at this item

bm10a101, bm10a104

risky probability gain - question 6, [second/third] iteration
integer



if $bm10a099=1$ or $bm10a099=2$

The question below was repeated until the respondent chose option 3 'Indifferent' or until the prize amount at Box Z differed less than 100 euros from the 'floor' or 'ceiling' (convergence).³

bm10a102, bm10a105

We play the same game, but with different prizes. Both boxes Z and K contain 100 balls, which can be either blue or red. One ball will be drawn from the box you have chosen. You win a prize if a blue ball is drawn.

Box Z ('Secure') only contains blue balls and that is why you have a 100% chance of winning a [BEDRAG] euro prize. Box K ('Chance') contains 50% blue balls and 50% red balls, and you win 1000 euro if a blue ball is drawn from Box K. With box K you have a 50% chance of winning 1000 euro, and a 50% chance of winning no prize (0 euro).

Please select the box of your choice: Z or K. If you think both boxes are equally attractive, select 'Indifferent'.

After you made your choice, we play the same game but with a different prize for box Z.

{Amount Box Z:

- If choice at previous question = Box K, then
new amount = previous prize amount Box Z (e.g. 500 euros) + ceiling (1000 euros) / 2 (= 750 euros)
AMOUNT:=750
- new floor = previous prize amount Box Z (e.g. 500)
- If choice at previous question = Box Z, then
new amount = previous prize amount Box Z (500 euros) + floor (0 euros) / 2 (= 250 euros)
AMOUNT:=250}
- new ceiling = previous prize amount Box Z (e.g. 500)

Which option do you prefer?

Doos Z

Geen voorkeur

Doos K

- 1 Box Z
- 2 Box K
- 3 Indifferent

³ Convergence was always reached after three iterations.

**bm10a103, bm10a106**

number of seconds between click on button at previous item and click on button at this item

bm10a107

risky probability gain - question 6, final iteration
integer

bm10a108

choice selected - question 6, final iteration

- 1 Box Z
- 2 Box K
- 3 Indifferent

bm10a109

total number of iterations - question 6
1..3

bm10a110

risky probability gain - question 7, first iteration
10000



bm10a111

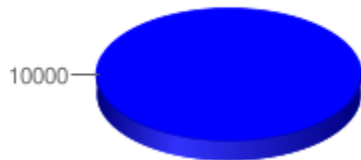
In this game you can choose between box Z and box K. Both boxes contain 100 balls, which can be either blue or red. One ball will be drawn from the box you have chosen. You win a prize if a blue ball is drawn.

Box Z ('Secure') only contains blue balls and that is why you have a 100% chance of winning a 10,000 euro prize. Box K ('Chance') contains 50% blue balls and 50% red balls, and you win 18,000 euro if a blue ball is drawn from Box K. With box K you have a 50% chance of winning 1000 euro, and a 50% chance of winning no prize (0 euro).

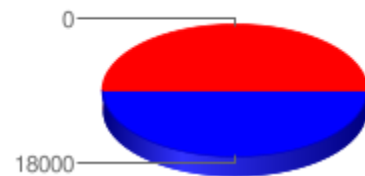
Please select the box of your choice: Z or K. If you think both boxes are equally attractive, select 'Indifferent'.

After you made your choice, we play the same game but with a different prize for box Z.

Doos Z



Doos K



Which option do you prefer?

Doos Z

Geen voorkeur

Doos K

- 1 Box Z
- 2 Box K
- 3 Indifferent

bm10a112, bm10a115, bm10a118, bm10a121, bm10a124, bm10a127

number of seconds between click on button at previous item and click on button at this item

bm10a113, bm10a116, bm10a119, bm10a122, bm10a125

risky probability gain - question 7, [second/third/fourth/fifth/sixth] iteration
integer

bm10a128

risky probability gain - question 7, final iteration
integer

**bm10a129**

choice selected - question 7, final iteration

- 1 Box Z
- 2 Box K
- 3 Indifferent

bm10a130

total number of iterations - question 7

1..6



if $bm10a111=1$ or $bm10a111=2$

The question below was repeated until the respondent chose option 3 'Indifferent', or until the sixth question was answered, or until the prize sum at Box Z differed less than 100 euros from the 'floor' or 'ceiling' (convergence).

bm10a114, bm10a117, bm10a120, bm10a123, bm10a126

We play the same game, but with different prizes. Both boxes Z and K contain 100 balls, which can be either blue or red. One ball will be drawn from the box you have chosen. You win a prize if a blue ball is drawn.

Box Z ('Secure') only contains blue balls and that is why you have a 100% chance of winning a [BEDRAG] euro prize. Box K ('Chance') contains 50% blue balls and 50% red balls, and you win 18,000 euro if a blue ball is drawn from Box K. With box K you have a 50% chance of winning 18,000 euro, and a 50% chance of winning no prize (0 euro).

Please select the box of your choice: Z or K. If you think both boxes are equally attractive, select 'Indifferent'.

After you made your choice, we play the same game but with a different prize for box Z.

{Amount Box Z:

- If choice at previous question = Box K, then
new amount = previous prize amount Box Z (e.g. 10,00 euros) + ceiling (18,000 euros) / 2 (= 14,000 euros)
AMOUNT:=14,000
- new floor = previous prize amount Box Z (e.g. 10,000)
- If choice at previous question = Box Z, then
new amount = previous prize amount Box Z (10,000 euros) + floor (0 euros) / 2 (= 5000 euros)
AMOUNT:=5000}
- new ceiling = previous prize amount Box Z (e.g. 10,000)

Which option do you prefer?

Doos Z

Geen voorkeur

Doos K

- 1 Box Z
- 2 Box K
- 3 Indifferent



if bm10a003=empty

bm10a131

Do you currently have a partner?

- 1 yes
- 2 no

if bm10a131=1

bm10a132

Who of the people in your household is most involved with the financial administration of your household?

- 1 you
- 2 your partner

bm10a133

Did you own any investments in shares or share funds on 31 December 2009?

*[if (bm10a002=1 or bm10a002=2 or bm10a002=3) and (bm10a003=1 or bm10a131=1) and (bm10a004=1 or bm10a132=1): 'Partners often have property registered on both their names. If that is the case, please list the property that are on **both names** as well as the property that is only on **your own** name.' / if (bm10a004=0 or bm10a132=2): Partners often have property registered on both their names. If that is the case, please list only the property that is on **your own** name. The question concerning shared property is posed to your bm10a003.' / if (bm10a002>3): 'Please list only the property that is on **your own** name.']*

- 1 yes
- 2 no

if bm10a133=1

bm10a134

What was the total value of your investments in shares or share funds on 31 December 2009?

- 0..999999999
- 9999999998 I would rather not say
- 9999999999 I don't know

{introfl}

The following questions are about knowledge of financial matters and about planning expenditures. When answering these questions, please do not look up any information and refrain from using a calculator. What matters for each question is your first idea.

bm10a135

Suppose you have 100 euros on a savings account and the interest is 20% per year, and you never withdraw money or the interest. What amount would you then have on your account, after five years?

- 1 more than 200 euros
- 2 exactly 200 euros
- 3 less than 200 euros

**bm10a136**

Which of the investments below generally speaking offers the greatest return over an extended period (say 10 or 20 years): a savings account, bonds or shares?

- 1 savings account
- 2 bonds
- 3 shares

bm10a137

What happens to the risk of losing money if an investor spreads his money across different types of investment: it increases, it decreases, or stays the same?

- 1 increases
- 2 decreases
- 3 stays the same

if bm10a001=2

{exit}

The computer has selected the following round to play for real: [round number]

[if round number=3: 'This is the game that offered a choice from two boxes with balls of ten different colors, where you win if [winning color] was NOT chosen.

/ if round number=2: 'This is the game that offered a choice from two boxes with balls of ten different colors, where you win if [winning color] was chosen.'

/ if round number≠2 and round number≠3: 'This is the game that offered a choice from two boxes with balls of two different colors, where you win if [winning color] was chosen.']

[if choice in round = 'Indifferent': 'You indicated not to have any preference. The computer will therefore choose either Box O, or Box B.']

You chose for: [Box O / Box B] from which you drew a ball.

[if round number=3: 'You win 15 euros if the ball is NOT [winning color].'

/ if round number≠3: 'You win 15 euros if the ball is [winning color].']

The computer has drawn a ball with the color [color].

[if (round number≠3 and winning color=color) or (round number=3 and winning color≠color): 'Congratulations, you have won 15 euros. This amount will be deposited in your account along with the next compensation payment (early April).'

/if (round number=3 and winning color=color) or (round number≠3 and winning color≠color):

'Sorry, but you didn't win.']



bm10a138 through bm10a142

Note: Please complete the questionnaire fully until you are returned to the initial screen.

Only then will the system register the questionnaire as **fully** completed.

Finally. What did you think of this questionnaire?

1 = certainly not

5 = certainly yes

bm10a138 Was it difficult to answer the questions?

bm10a139 Were the questions sufficiently clear?

bm10a140 Did the questionnaire get you thinking about things?

bm10a141 Was it an interesting subject?

bm10a142 Did you enjoy answering the questions?

1 1

2 2

3 3

4 4

5 5

bm10a143

Starting date questionnaire

bm10a144

Starting time questionnaire

bm10a145

End date questionnaire

bm10a146

End time questionnaire

bm10a147

duration in seconds



4 Descriptives

	N	Minimum	Maximum	Mean	Std. Deviation
bm10a001 Group	1934	1	2	1.49	.500
bm10a002 Position within the household	1934	1	7	1.80	1.231
bm10a003 The household head lives together with a partner (wedded or unwedded)	1928	0	1	.75	.433
bm10a004 Takes care of the financial matters	1928	0	1	.56	.497
bm10a005 color of choice - example question	1935	1	5	1.05	.382
bm10a006 risky probability gain - example question, first iteration	1935	20	20	20.00	.000
bm10a007 choice selected - example question, first iteration	1935	1	3	1.82	.762
bm10a008 number of seconds between click on button at previous item and click on button at this item	1935	1	1471563	835.39	33452.039
bm10a009 risky probability gain - example question, second iteration	1515	10	60	34.85	25.008
bm10a010 choice selected - example question, second iteration	1515	1	3	1.52	.618
bm10a011 number of seconds between click on button at previous item and click on button at this item	1515	1	1615322	1587.97	43967.251
bm10a012 risky probability gain - example question, third iteration	1416	5	80	32.21	26.086



bm10a013 choice selected - example question, third iteration	1416	1	3	1.54	.607
bm10a014 number of seconds between click on button at previous item and click on button at this item	1416	1	1568	18.26	47.420
bm10a015 risky probability gain - example question, fourth iteration	1330	2.50	90.00	31.4868	27.34700
bm10a016 choice selected - example question, fourth iteration	1330	1	3	1.57	.604
bm10a017 number of seconds between click on button at previous item and click on button at this item	1330	0	946	12.40	33.427
bm10a018 risky probability gain - example question, fifth iteration	655	25	95	50.97	26.195
bm10a019 choice selected - example question, fifth iteration	655	1	3	1.61	.582
bm10a020 number of seconds between click on button at previous item and click on button at this item	655	1	60	9.16	8.614
bm10a021 risky probability gain - example question, sixth iteration	622	22.50	97.50	51.3505	27.15890
bm10a022 choice selected - example question, sixth iteration	622	1	3	1.61	.539
bm10a023 number of seconds between click on button at previous item and click on button at this item	622	0	704	9.46	29.141
bm10a024 risky probability gain - example question, final iteration	1935	2.50	97.50	28.2933	25.10276



bm10a025 choice selected - example question, final iteration	1935	1	3	2.10	.808
bm10a026 total number of iterations - example question	1935	1	6	3.86	1.869
bm10a027 color of choice - question 1	1935	1	2	1.01	.096
bm10a028 risky probability gain - question 1, first iteration	1935	50	50	50.00	.000
bm10a029 choice selected - question 1, first iteration	1935	1	3	1.52	.748
bm10a030 number of seconds between click on button at previous item and click on button at this item	1935	1	859047	473.93	19529.978
bm10a031 risky probability gain - question 1, second iteration	1636	25	75	37.56	21.692
bm10a032 choice selected - question 1, second iteration	1636	1	3	1.67	.596
bm10a033 number of seconds between click on button at previous item and click on button at this item	1636	0	1191552	741.67	29458.908
bm10a034 risky probability gain - question 1, third iteration	1526	12.50	87.50	39.6134	23.20697
bm10a035 choice selected - question 1, third iteration	1526	1	3	1.65	.583
bm10a036 number of seconds between click on button at previous item and click on button at this item	1526	0	90	8.75	10.248
bm10a037 risky probability gain - question 1, fourth iteration	1441	6.25	93.75	40.7052	24.72835
bm10a038 choice selected - question 1, fourth iteration	1441	1	3	1.58	.587



bm10a039 number of seconds between click on button at previous item and click on button at this item	1441	0	538	7.39	17.985
bm10a040 risky probability gain - question 1, fifth iteration	1368	3.13	96.88	40.9407	25.73369
bm10a041 choice selected - question 1, fifth iteration	1368	1	3	1.56	.590
bm10a042 number of seconds between click on button at previous item and click on button at this item	1368	0	148	6.74	9.333
bm10a043 risky probability gain - question 1, final iteration	1935	3.13	96.88	41.6864	23.33437
bm10a044 choice selected - question 1, first iteration	1935	1	3	1.99	.821
bm10a045 total number of iterations - question 1	1935	1	5	4.09	1.537
bm10a046 color of choice question 2	1935	1	5	1.03	.297
bm10a047 risky probability gain - question 2, first iteration	1935	10	10	10.00	.000
bm10a048 choice selected - question 2, first iteration	1935	1	3	1.94	.724
bm10a049 number of seconds between click on button at previous item and click on button at this item	1935	0	1356731	1299.83	39979.122
bm10a050 risky probability gain - question 2, second iteration	1481	5	55	35.89	24.304
bm10a051 choice selected - question 2, second iteration	1481	1	3	1.40	.573
bm10a052 number of seconds between click on button at previous item and click on button at this item	1481	1	609413	419.80	15835.374



bm10a053 risky probability gain - question 2, third iteration	1416	2.50	77.50	28.8065	23.70062
bm10a054 choice selected - question 2, third iteration	1416	1	3	1.48	.601
bm10a055 number of seconds between click on button at previous item and click on button at this item	1416	0	312	6.61	10.882
bm10a056 risky probability gain - question 2, fourth iteration	851	21.25	88.75	39.4932	25.60213
bm10a057 choice selected - question 2, fourth iteration	851	1	3	1.53	.598
bm10a058 number of seconds between click on button at previous item and click on button at this item	851	0	1148	8.60	54.345
bm10a059 risky probability gain - question 2, fifth iteration	805	15.63	94.38	39.3878	28.46696
bm10a060 choice selected - question 2, fifth iteration	805	1	3	1.61	.589
bm10a061 number of seconds between click on button at previous item and click on button at this item	805	0	1784525	2222.27	62896.049
bm10a062 risky probability gain - question 2, sixth iteration	761	12.82	97.19	40.1884	29.52399
bm10a063 choice selected - question 2, sixth iteration	761	1	3	1.57	.549
bm10a064 number of seconds between click on button at previous item and click on button at this item	761	0	68	5.44	6.245
bm10a065 risky probability gain - question 2, final iteration	1935	2.50	97.19	22.4277	25.19109



bm10a066 choice selected - question 2, final iteration	1935	1	3	2.05	.823
bm10a067 total number of iterations - question 2	1935	1	6	3.74	2.018
bm10a068 color of choice question 3	1935	1	5	1.02	.268
bm10a069 risky probability gain - question 3, first iteration	1935	10	10	10.00	.000
bm10a070 choice selected - question 3, first iteration	1935	1	3	1.71	.771
bm10a071 number of seconds between click on button at previous item and click on button at this item	1935	0	927	19.11	35.027
bm10a072 risky probability gain - question 3, second iteration	1560	5	55	34.90	24.522
bm10a073 choice selected - question 3, second iteration	1560	1	3	1.71	.562
bm10a074 number of seconds between click on button at previous item and click on button at this item	1560	1	282	10.77	14.605
bm10a075 risky probability gain - question 3, third iteration	1473	2.50	77.50	31.5530	28.32392
bm10a076 choice selected - question 3, third iteration	1473	1	3	1.63	.573
bm10a077 number of seconds between click on button at previous item and click on button at this item	1473	0	117	7.79	9.598
bm10a078 risky probability gain - question 3, fourth iteration	826	21.25	88.75	49.4976	28.27773
bm10a079 choice selected - question 3, fourth iteration	826	1	3	1.54	.592



bm10a080 number of seconds between click on button at previous item and click on button at this item	826	0	153	6.68	10.151
bm10a081 risky probability gain - question 3, fifth iteration	784	15.63	94.38	50.3701	30.84198
bm10a082 choice selected - question 3, fifth iteration	784	1	3	1.51	.583
bm10a083 number of seconds between click on button at previous item and click on button at this item	784	0	313	6.89	14.259
bm10a084 risky probability gain - question 3, sixth iteration	749	12.82	97.19	51.1333	32.09055
bm10a085 choice selected - question 3, sixth iteration	749	1	3	1.52	.584
bm10a086 number of seconds between click on button at previous item and click on button at this item	749	0	541	6.53	20.878
bm10a087 risky probability gain - question 3, final iteration	1935	2.50	97.19	27.6297	30.47236
bm10a088 choice selected - question 3, final iteration	1935	1	3	2.01	.809
bm10a089 total number of iterations - question 3	1935	1	6	3.79	1.945
bm10a090 color of choice question 4	1935	1	2	1.01	.079
bm10a091 risky probability gain - question 4, first iteration	1935	3.76	100.00	48.9514	25.67099
bm10a092 choice selected - question 4, first iteration	1935	1	3	1.53	.753
bm10a093 number of seconds between click on button at previous item and click on button at this item	1935	0	6265	19.19	143.977



bm10a094 color of choice question 5	1935	1	2	1.00	.064
bm10a095 risky probability gain - question 5, first iteration	1935	2.50	77.50	33.3463	18.66759
bm10a096 choice selected - question 5, first iteration	1935	1	3	1.87	.681
bm10a097 number of seconds between click on button at previous item and click on button at this item	1935	0	3640	10.31	84.231
bm10a098 risky probability gain - question 6, first iteration	1935	500	500	500.00	.000
bm10a099 choice selected - question 6, first iteration	1935	1	3	1.51	.708
bm10a100 number of seconds between click on button at previous item and click on button at this item	1935	0	16989	40.92	392.573
bm10a101 risky probability gain - question 6, second iteration	1692	250	750	400.71	229.505
bm10a102 choice selected - question 6, second iteration	1692	1	3	1.47	.562
bm10a103 number of seconds between click on button at previous item and click on button at this item	1692	0	1931	17.28	57.001
bm10a104 risky probability gain - question 6, third iteration	1636	125	875	377.44	281.015
bm10a105 choice selected - question 6, third iteration	1636	1	3	1.59	.559
bm10a106 number of seconds between click on button at previous item and click on button at this item	1636	0	255	10.60	13.381



bm10a107 risky probability gain - question 6, final iteration	1935	125	875	395.61	265.278
bm10a108 choice selected - question 6, final iteration	1935	1	3	1.81	.724
bm10a109 total number of iterations - question 6	1935	1	3	2.72	.673
bm10a110 risky probability gain - question 7, first iteration	1935	10000	10000	10000.00	.000
bm10a111 choice selected - question 7, first iteration	1935	1	3	1.50	.711
bm10a112 number of seconds between click on button at previous item and click on button at this item	1935	0	349	12.92	20.257
bm10a113 risky probability gain - question 7, second iteration	1688	5000	14000	7511.26	4037.890
bm10a114 choice selected - question 7, second iteration	1688	1	3	1.42	.570
bm10a115 number of seconds between click on button at previous item and click on button at this item	1688	0	286	10.84	16.884
bm10a116 risky probability gain - question 7, third iteration	1620	2500	16000	6654.01	5187.755
bm10a117 choice selected - question 7, third iteration	1620	1	3	1.50	.565
bm10a118 number of seconds between click on button at previous item and click on button at this item	1620	0	1366	9.78	42.088
bm10a119 risky probability gain - question 7, fourth iteration	1564	1250	17000	6449.17	5647.712
bm10a120 choice selected - question 7, fourth iteration	1564	1	3	1.54	.544



bm10a121 number of seconds between click on button at previous item and click on button at this item	1564	0	134	7.65	9.446
bm10a122 risky probability gain - question 7, fifth iteration	1527	625	17500	6392.35	5817.336
bm10a123 choice selected - question 7, fifth iteration	1527	1	3	1.54	.559
bm10a124 number of seconds between click on button at previous item and click on button at this item	1527	0	261	7.99	13.601
bm10a125 risky probability gain - question 7, sixth iteration	1478	312.50	17750.00	6378.0024	5886.05187
bm10a126 choice selected - question 7, sixth iteration	1478	1	3	1.50	.537
bm10a127 number of seconds between click on button at previous item and click on button at this item	1478	0	143	7.60	9.326
bm10a128 risky probability gain - question 7, final iteration	1935	312.50	17750.00	7080.7171	5601.38593
bm10a129 choice selected - question 7, final iteration	1935	1	3	1.85	.792
bm10a130 total number of iterations - question 7	1935	1	6	5.07	1.804
bm10a131 Do you currently have a partner?	7	1	2	1.86	.378
bm10a132 Which of the members of your household is most involved in the financial administration of your household?	1	1	1	1.00	.
bm10a133 On 31 December 2009, did you possess investments in share funds or stocks?	1935	1	2	1.82	.383



bm10a134 What was the total value of your investments in share funds or stocks on 31 December 2009?	178	0	700000	36381.86	76714.250
bm10a135 After 5 years, how much would you have in this account in total?	1799	1	3	1.38	.667
bm10a136 Considering a long time period (for example 10 or 20 years) which asset normally gives you the highest return?	1400	1	3	2.27	.806
bm10a137 When an investor spreads his money among different assets, does the risk increase, decrease or remain the same?	1515	1	3	2.11	.568
bm10a138 Was it difficult to answer the questions?	1933	1	5	2.85	1.394
bm10a139 Were the questions sufficiently clear?	1933	1	5	3.58	1.222
bm10a140 Did the questionnaire get you thinking about things?	1933	1	5	2.70	1.214
bm10a141 Was it an interesting subject?	1933	1	5	3.16	1.256
bm10a142 Did you enjoy answering the questions?	1933	1	5	3.35	1.215
bm10a147 duration in seconds	1933	18.00	1387468.00	939.4966	31625.60378
Valid N (listwise)	0				