Gains version

**Setting up**

**[Experimenters to set up the room as follows, before any subjects arrive. Place five tables around the room, evenly spaced. On each, place two pairs of lotteries, where each lottery consists of 20 coloured counters. Group the counters together by colour so that the subject can easily see how many of each colour of counter is in each lottery.**

**The lotteries and tables should be placed in such a way that a subject by first walking along the tables on one side, and then back along the tables on the other side, encounters the pairs of lotteries in the order given below.**

**The chart below shows how many of which colours of counters to include in each lottery. Lotteries 1a and 1b will be placed on the first table and so on. Place labels with the lottery numbers written on them next to each lottery.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table number | Lottery number | Number of lilac counters | Number of light blue counters | Number of white counters |
| 1 | 1a | - | 20 | - |
|  | 1b | 4 | 9 | 7 |
| 2 | 2a | 5 | 15 | - |
|  | 2b | 9 | 4 | 7 |
| 3 | 3a | 4 | 16 | - |
|  | 3b | 8 | 5 | 7 |
| 4 | 4a | 3 | 17 | - |
|  | 4b | 7 | 6 | 7 |
| 5 | 5a | 6 | 14 | - |
|  | 5b | 10 | 3 | 7 |
| 5 | 6a | 8 | 12 | - |
|  | 6b | 12 | 1 | 7 |
| 4 | 7a | 9 | 11 | - |
|  | 7b | 13 | 0 | 7 |
| 3 | 8a | 1 | 19 | - |
|  | 8b | 5 | 8 | 7 |
| 2 | 9a | 2 | 18 | - |
|  | 9b | 6 | 7 | 7 |
| 1 | 10a | 7 | 13 | - |
|  | 10b | 11 | 2 | 7 |

**For example, the third table will on one side have two lotteries on it, one consisting of a group of 4 lilac counters and 16 light blue counters, with the lottery number 3a next to it; the other consisting of 6 lilac counters, 7 light blue counters and 7 white counters, with the lottery number 3b next to it.**

**On the other side, the third table will again have two lotteries on it, one consisting of a group of 1 lilac counter and 19 light blue counters, with the lottery number 8a next to it; the other consisting of 3 lilac counters, 10 light blue counters and 7 white counters, with the lottery number 8b next to it.]**

**Welcome and general introduction**

Welcome. Thank you for taking the time to come today. [Introduce Experimenters and Assistants] You can ask any of us questions during today’s programme.

We have invited you here, today, because we want to learn about how people in this area take decisions. You are going to be asked to take decisions about money. The money that results from your decisions will be yours to keep.

What you need to do will be explained fully in a few minutes. But first we want to make a couple of things clear.

First of all, this is not our money. We belong to a university, and this money has been given to us for research.

Participation is voluntary. You may still choose not to participate in the exercise.

We also have to make clear that this is research about your decisions. Therefore you cannot talk with others. This is very important. I’m afraid that if we find you talking with others, we will have to send you home, and you will not be able to earn any money here today. Of course, if you have questions, you can ask one of us. We also ask you to switch off your mobile phones.

Make sure that you listen carefully to us. You will be able to make a good amount of money here today, and it is important that you follow our instructions.

During today’s programme, you will be asked to make one or more choices, which will be explained to you very clearly. Only one of your choices will be selected to determine the money you will be paid. At the end of the exercise, we will randomly select one of your decisions to be paid out. Any money you earn will be paid out to you privately and confidentially after all parts of the exercise are complete.

Now, before we explain what you need to do, it is really important to bear one more thing in mind. You will be asked to take decisions that are not a matter of getting it right or wrong; they are about what you prefer. However, it is important to think seriously about your choices because they will affect how much money you can take home.

There are two parts to today’s programme. In both parts you will be asked to take decisions. Only one of the decisions will be selected. You will be told which decision that is at the end, and that decision determines how much money you take home. However, you will only find out which decision is selected at the end, so with every decision you take, remember: for all you know**, this could be the one that determines how much money you take home**.

We will now start with explaining part 1. When you’ve finished taking all decisions related to part 1, we will start explaining part 2. You will make 10 decisions in Part 1 and 1 decision in Part 2 so 11 decisions in total. After you have made all decisions, one decision will be selected by drawing one counter from a bag with 11 numbered counters so that each decision is exactly as likely to be selected as any other. Therefore, each decision could be the one that determines how much money you take home.

**Part 1**

**[For a randomly selected half of the subjects, choice problems 1-10 are played in the order presented above; in the other half, they are played in the reverse order. This will be indicated on each subject’s data entry sheet.**

**These instructions should be delivered to all subjects together.]**

“As you can see, there are five tables. On each side of a table you will be asked to make a choice between two lotteries, meaning that you will make ten choices in total.”

“Each lottery consists of 20 counters of different colours. Each counter is worth a different amount of money. Lilac counters are worth 8000 Shillings, light blue counters are worth 10,000 Shillings, and white counters are worth 13,000 Shillings. Remember, you have already been given a voucher worth 8000 Shillings. Therefore, if a lilac counter is eventually drawn, then you do not earn any extra money, but keep your 8000 Shillings. If a light blue counter is drawn, then you keep your 8000 Shillings, and receive an additional 2000 Shillings. Finally, if you draw a white counter, then you keep your 8000 Shillings, and receive an additional 5000 Shillings, meaning you would leave with 13,000 Shillings in total. If you want to check the values of the counters at any time, please refer to the poster on the wall, here **[indicate poster]**.”

“On each table, one lottery will have more lilac counters than the other, but it will also have more white counters than the other. This means that if you select that lottery instead of the other one, you have a higher chance of only leaving with 8000 Shillings in total, but you also have a higher chance of leaving with 13,000 Shillings.”

“If one of your decisions from Part 1 is selected at the end of the programme, all of the counters from the lottery you choose will be placed into a bag, and one will be drawn at random. If it is lilac, you earn 8000 Shillings, if it is light blue you earn 10,000 Shillings, and if it is white you earn 13,000 Shillings. Let me demonstrate how this is done.”

**[Lead the subjects to the fifth table on the side where lotteries 6a and 6b are displayed]**

“For example, on this table, one lottery consists of 8 lilac counters and 12 light blue counters. The other consists of 12 lilac counters, 1 light blue counter, and 7 white counters. If you select the first lottery, lottery 6a, you have a chance of leaving with either 8000 or 10,000 Shillings. If you select the second lottery, lottery 6b, you are more likely to leave with 8000 Shillings because it contains 12 lilac counters rather than 8. However, you are also more likely to leave with 13,000 Shillings, because there are 7 white counters in lottery a, and none in lottery b. Therefore, you must choose which lottery is preferable to you, a or b; there are no right or wrong choices.”

**[Now demonstrate how we will draw a counter at the end if choice problem 6 were selected:**

* **First put 8 lilac counters and 12 light blue counters in a bag and explain that this would happen for everybody who had chosen lottery 6a.**
* **Then shake the bag and ask a volunteer to draw a counter. If it is lilac, explain that this would mean the subject goes home with 8000 shillings. If it is light blue, 10,000 shillings.**
* **Next put 12 lilac counters, 1 light blue counter and 7 white counters in a bag and explain that this would happen for everybody who had chosen lottery 6b.**
* **Then shake the bag and ask a volunteer to draw a counter. If it is lilac, explain that this would mean the subject goes home with 8000 shillings. If it is light blue, 10,000 shillings. If it is white, 13,000 shillings.]**

“Do you have any questions about how the tasks will work?”

**[Answer any questions as clearly and accurately as possible; then ask all subjects to wait outside of the experiment room. An experimenter or assistant should bring the first subject into the experiment room, and then lead subject to their appropriate first choice problem]**

“We just want to check your understanding of the task. Can you please tell me, of the two lotteries here in front of you, which one offers the higher chance of leaving with exactly 10,000/=? **[Record whether subject’s answer was correct or not, offer explanation if their first answer was incorrect.]**

If you have no further questions, we will now begin. Please choose which of the two lotteries on this table you would prefer. When you have made your decision, point to the one you have chosen, and I will record your choice”

**[Wait for subject to make their choice, and record it; then do the same for all other choice problems in the order relevant for this session]**

**Part 2**

**[A table is set up as follows. On its top are a beaker that can be closed with a lid, a coin with paper tightly wrapped around and affixed to it with the letter A clearly written on one side, B on the other, and 20 individual counters spread out]**

**[Invite all subjects into the room to explain the following instructions to them as a group.]**

We now begin part 2 of today’s programme. There are 20 counters spread out on this table. Each counter is worth 400 Shillings so 20 times 400 equals 8,000 shillings. These 20 counters represent the 8,000 shillings on the voucher which you have been given a few weeks ago. That money is yours and you can do with it exactly what you like.

For example, you could decide to do nothing with it. That means we give you 8,000 actual shillings and you can take those 8,000 shillings home.

But we’re also giving you the opportunity to invest some or all of that money. Let me show you what happens if you decide to invest.

For example, let’s say you decided to invest 4,000 shillings. You would then take 10 counters (remember, each counter represents 400 shillings) and you would place them here, right next to the beaker.

Now, we would then toss this coin that has A written on one side and B on the other. We put it in the beaker, put the lid on top, shake it and then we put the beaker upside down, like this; we remove the beaker: and which side of the coin shows?

It’s [A/B]. That means the investment [is successful/failed]. So there are 2 possibilities: the investment can succeed or fail. It succeeds when A comes up; it fails when B comes up. Now let me explain what success and failure mean.

If the investment succeeds, we triple what you have invested. So since you had invested 4,000, we give you back three times 4,000 equals 12,000 **[count out cash next to invested counters]**. We add that to the money you had not invested (4,000) **[count out cash next to uninvested counters]**, so you go home with 4,000 + 12,000 = 16,000 **[count out total cash].**

Now, what happens if the investment fails? Your investment failing means you lose all of it. In this case you go home with the money that you didn’t invest. So you will take home 4,000 **[count out cash next to uninvested counters]**

So remember, if your investment succeeds (that is when A comes up) you receive three times the amount you invested PLUS the money you did not invest. And if your investment fails (that is when B comes up), you keep the money you did not invest, but nothing else. I´ll give you a few more examples of how that would work out.

* If you decide to invest 3 counters, and your investment fails, you take home 6,800; and if it were to succeed 10,400.
* If you invest 7 counters, and your investment fails, you take home 5,200; and if it were to succeed 13,600.
* If you invest 17 counters, and your investment fails, you take home 1,200; and if it were to succeed 21,600.
* If you invest 20 counters, and your investment fails, you take home nothing; and if it were to succeed 24,000.

So, you should feel free to invest any number of counters you choose: you can invest zero counters; you can invest 20 counters, or any number of counters between zero and 20.

“Do you have any questions about how the tasks will work?”

**[Answer any questions as clearly and accurately as possible; then ask all subjects to wait outside of the experiment room. An experimenter or assistant should bring the first subject into the experiment room, and then ask the subject the following control question and record the answer]**

We just want to check your understanding of the task. If A comes up, what happens to your investment? **[pause for answer, correct if necessary]** and if B comes up what happens to your investment? **[pause for answer, correct if necessary. Record whether or not subject answers correctly: 1=both parts correct, 0=one or more parts incorrect.]**

Thank you; please now move the number of counters you would like to invest next to the beaker. Remember each counter is worth 400 shillings.

**[Wait for subject to make their choice, and record it; then do the same for all other choice problems in the order relevant for this session]**

**Resolution**

**[Invite all subjects into the room.]** “Thank you. Now you have made all of your decisions, we will find out how much money you will each leave with today. Remember that we said at the beginning that only one decision will determine how much money you will take home. So we must now select that decision. The decision selected will be the same for each of you.

I have here counters with the numbers 1 to 11 written on it. The numbers 1 to 10 stand for the 10 decisions you took during part 1 of today’s programme; number 11 for the decision you took in part 2. **[Put counters in a bag; draw one; and resolve the game. If the number is 1-10, draw a single counter from each of the two lotteries. If 11 is drawn, toss the coin and inform subjects of the result of their investment. One enumerator sits outside the room, subjects exit one-by-one and are paid by that enumerator.]**

Losses version

**Setting up**

**[Experimenters to set up the room as follows, before any subjects arrive. Place five tables around the room, evenly spaced. On each, place two pairs of lotteries, where each lottery consists of 20 coloured counters. Group the counters together by colour so that the subject can easily see how many of each colour of counter is in each lottery.**

**The lotteries and tables should be placed in such a way that a subject by first walking along the tables on one side, and then back along the tables on the other side, encounters the pairs of lotteries in the order given below.**

**The chart below shows how many of which colours of counters to include in each lottery. Lotteries 1a and 1b will be placed on the first table and so on. Place labels with the lottery numbers written on them next to each lottery.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table number | Lottery number | Number of lilac counters | Number of light blue counters | Number of white counters |
| 1 | 1a | 13 | 7 | - |
|  | 1b | 15 | 1 | 4 |
| 2 | 2a | 2 | 18 | - |
|  | 2b | 4 | 12 | 4 |
| 3 | 3a | 14 | 6 | - |
|  | 3b | 16 | - | 4 |
| 4 | 4a | 8 | 12 | - |
|  | 4b | 10 | 6 | 4 |
| 5 | 5a | 4 | 16 | - |
|  | 5b | 6 | 10 | 4 |
| 5 | 6a | 12 | 8 | - |
|  | 6b | 14 | 2 | 4 |
| 4 | 7a | 1 | 19 | - |
|  | 7b | 3 | 13 | 4 |
| 3 | 8a | - | 20 | - |
|  | 8b | 2 | 14 | 4 |
| 2 | 9a | 10 | 10 | - |
|  | 9b | 12 | 4 | 4 |
| 1 | 10a | 6 | 14 | - |
|  | 10b | 8 | 8 | 4 |

**For example, the third table will on one side have two lotteries on it, one consisting of a group of 14 lilac counters and 6 light blue counters, with the lottery number 3a next to it; the other consisting of 16 lilac counters, and 4 white counters, with the lottery number 3b next to it.**

**On the other side, the third table will again have two lotteries on it, one consisting of a group of 20 light blue counters, with the lottery number 8a next to it; the other consisting of 2 lilac counters, 14 light blue counters and 4 white counters, with the lottery number 8b next to it.]**

**Welcome and general introduction**

Welcome. Thank you for taking the time to come today. [Introduce Experimenters and Assistants] You can ask any of us questions during today’s programme.

We have invited you here, today, because we want to learn about how people in this area take decisions. You are going to be asked to take decisions about money. The money that results from your decisions will be yours to keep.

What you need to do will be explained fully in a few minutes. But first we want to make a couple of things clear.

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Participation is voluntary. You may still choose not to participate in the exercise.

We also have to make clear that this is research about your decisions. Therefore you cannot talk with others. This is very important. I’m afraid that if we find you talking with others, we will have to send you home, and you will not be able to earn any money here today. Of course, if you have questions, you can ask one of us. We also ask you to switch off your mobile phones.

Make sure that you listen carefully to us. You will be able to make a good amount of money here today, and it is important that you follow our instructions.

During today’s programme, you will be asked to make one or more choices, which will be explained to you very clearly. Only one of your choices will be selected to determine the money you will be paid. At the end of the exercise, we will randomly select one of your decisions to be paid out. Any money you earn will be paid out to you privately and confidentially after all parts of the exercise are complete.

Now, before we explain what you need to do, it is really important to bear one more thing in mind. You will be asked to take decisions that are not a matter of getting it right or wrong; they are about what you prefer. However, it is important to think seriously about your choices because they will affect how much money you can take home.

There are two parts to today’s programme. In both parts you will be asked to take decisions. Only one of the decisions will be selected. You will be told which decision that is at the end, and that decision determines how much money you take home. However, you will only find out which decision is selected at the end, so with every decision you take, remember: for all you know**, this could be the one that determines how much money you take home**.

We will now start with explaining part 1. When you’ve finished taking all decisions related to part 1, we will start explaining part 2. You will make 10 decisions in Part 1 and 1 decision in Part 2 so 11 decisions in total. After you have made all decisions, one decision will be selected by drawing one counter from a bag with 11 numbered counters so that each decision is exactly as likely to be selected as any other. Therefore, each decision could be the one that determines how much money you take home.

**Part 1**

**[For a randomly selected half of the subjects, choice problems 1-10 are played in the order presented above; in the other half, they are played in the reverse order. This will be indicated on each subject’s data entry sheet.**

**These instructions should be delivered to all subjects together.]**

“As you can see, there are five tables. On each side of a table you will be asked to make a choice between two lotteries, meaning that you will make ten choices in total.”

“Each lottery consists of 20 counters of different colours. Each counter is worth a different amount of money. Lilac counters are worth 3000 Shillings, light blue counters are worth 5000 Shillings, and white counters are worth 8000 Shillings. Remember, you have already been given a voucher worth 8000 Shillings. Therefore, if a white counter is eventually drawn, then you do not earn any extra money, but keep your 8000 Shillings. If a light blue counter is drawn, then you lose 3000 shillings and keep 5000 Shillings. Finally, if you draw a lilac counter, then you lose 5000 shillings and keep 3000 Shillings. If you want to check the values of the counters at any time, please refer to the poster on the wall, here **[indicate poster]**.”

“On each table, one lottery will have more lilac counters than the other, but it will also have more white counters than the other. This means that if you select that lottery instead of the other one, you have a higher chance of leaving with 8000 Shillings, but you also have a higher chance of leaving with 3000 Shillings.”

“If one of your decisions from Part 1 is selected at the end of the programme, all of the counters from the lottery you choose will be placed into a bag, and one will be drawn at random. If it is lilac, you earn 3000 Shillings, if it is light blue you earn 5000 Shillings, and if it is white you earn 8000 Shillings. Let me demonstrate how this is done.”

**[Lead the subjects to the fifth table on the side where lotteries 6a and 6b are displayed]**

“For example, on this table, one lottery consists of 12 lilac counters and 8 light blue counters. The other consists of 14 lilac counters, 2 light blue counters, and 4 white counters. If you select the first lottery, lottery 6a, you have a chance of leaving with either 3000 or 5000 Shillings. If you select the second lottery, lottery 6b, you are more likely to leave with 3000 Shillings because it contains 14 lilac counters rather than 12. However, you are also more likely to leave with 8000 Shillings, because there are 4 white counters in lottery a, and none in lottery b. Therefore, you must choose which lottery is preferable to you, a or b; there are no right or wrong choices.”

**[Now demonstrate how we will draw a counter at the end if choice problem 6 were selected:**

* **First put 12 lilac counters and 8 light blue counters in a bag and explain that this would happen for everybody who had chosen lottery 6a.**
* **Then shake the bag and ask a volunteer to draw a counter. If it is lilac, explain that this would mean the subject goes home with 3000 shillings. If it is light blue, 5000 shillings.**
* **Next put 14 lilac counters, 2 light blue counter and 4 white counters in a bag and explain that this would happen for everybody who had chosen lottery 6b.**
* **Then shake the bag and ask a volunteer to draw a counter. If it is lilac, explain that this would mean the subject goes home with 3000 shillings. If it is light blue, 5000 shillings. If it is white, 8000 shillings.]**

“Do you have any questions about how the tasks will work?”

**[Answer any questions as clearly and accurately as possible; then ask all subjects to wait outside of the experiment room. An experimenter or assistant should bring the first subject into the experiment room, and then lead subject to their appropriate first choice problem]**

“We just want to check your understanding of the task. Can you please tell me, of the two lotteries here in front of you, which one offers the higher chance of leaving with exactly 5000/=? **[Record whether subject’s answer was correct or not, offer explanation if their first answer was incorrect.]**

“If you have no further questions, we will now begin. Please choose which of the two lotteries on this table you would prefer. When you have made your decision, point to the one you have chosen, and I will record your choice”

**[Wait for subject to make their choice, and record it; then do the same for all other choice problems in the order relevant for this session]**

**Part 2**

**[A table is set up as follows. On its top are a beaker that can be closed with a lid, a coin with paper tightly wrapped around and affixed to it with the letter A clearly written on one side, B on the other, and 20 individual counters spread out]**

**[Invite all subjects into the room to explain the following instructions to them as a group.]**

We now begin part 2 of today’s programme. There are 20 counters spread out on this table. Each counter is worth 400 Shillings so 20 times 400 equals 8000 shillings. These 20 counters represent the 8,000 shillings on the voucher which you have been given a few weeks ago. That money is yours and you can do with it exactly what you like.

For example, you could decide to do nothing with it. That means we give you 8,000 actual shillings and you can take those 8,000 shillings home.

But we’re also giving you the opportunity to invest some or all of that money. Let me show you what happens if you decide to invest.

For example, let’s say you decided to invest 4,000 shillings. You would then take 10 counters (remember, each counter represents 400 shillings) and you would place them here, right next to the beaker.

Now, we would then toss this coin that has A written on one side and B on the other. We put it in the beaker, put the lid on top, shake it and then we put the beaker upside down, like this; we remove the beaker: and which side of the coin shows?

It’s [A/B]. That means the investment [is successful/failed]. So there are 2 possibilities: the investment can succeed or fail. It succeeds when A comes up; it fails when B comes up. Now let me explain what success and failure mean.

If the investment succeeds, we triple what you have invested. So since you had invested 4,000, we give you back three times 4,000 equals 12,000 **[count out cash next to invested counters]**. We add that to the money you had not invested (4,000) **[count out cash next to uninvested counters]**, so you go home with 4,000 + 12,000 = 16,000 **[count out total cash].**

Now, what happens if the investment fails? Your investment failing means you lose all of it. In this case you go home with the money that you didn’t invest. So you will take home 4,000 **[count out cash next to uninvested counters]**

So remember, if your investment succeeds (that is when A comes up) you receive three times the amount you invested PLUS the money you did not invest. And if your investment fails (that is when B comes up), you keep the money you did not invest, but nothing else. I´ll give you a few more examples of how that would work out.

* If you decide to invest 3 counters, and your investment fails, you take home 6,800; and if it were to succeed 10,400.
* If you invest 7 counters, and your investment fails, you take home 5,200; and if it were to succeed 13,600.
* If you invest 17 counters, and your investment fails, you take home 1,200; and if it were to succeed 21,600.
* If you invest 20 counters, and your investment fails, you take home nothing; and if it were to succeed 24,000.

So, you should feel free to invest any number of counters you choose: you can invest zero counters; you can invest 20 counters, or any number of counters between zero and 20.

“Do you have any questions about how the tasks will work?”

**[Answer any questions as clearly and accurately as possible; then ask all subjects to wait outside of the experiment room. An experimenter or assistant should bring the first subject into the experiment room, and then ask the subject the following control question and record the answer]**

We just want to check your understanding of the task. If A comes up, what happens to your investment? **[pause for answer, correct if necessary]** and if B comes up what happens to your investment? **[pause for answer, correct if necessary. Record whether or not subject answers correctly: 1=both parts correct, 0=one or more parts incorrect.]**

Thank you; please now move the number of counters you would like to invest next to the beaker. Remember each counter is worth 400 shillings.

**[Wait for subject to make their choice, and record it; then do the same for all other choice problems in the order relevant for this session]**

**Resolution**

**[Invite all subjects into the room.]** “Thank you. Now you have made all of your decisions, we will find out how much money you will each leave with today. Remember that we said at the beginning that only one decision will determine how much money you will take home. So we must now select that decision. The decision selected will be the same for each of you.

I have here pieces of paper with the numbers 1 to 11 written on it. The numbers 1 to 10 stand for the 10 decisions you took during part 1 of today’s programme; number 11 for the decision you took in part 2. **[Put pieces of paper in a bag; draw one; and resolve the game. If the number is 1-10, draw a single counter from each of the two lotteries. If 11 is drawn, toss the coin and inform subjects of the result of their investment.]** You have now found out how much you have earned from the game. There is also a show-up fee of 5000/= which will be given to you for participating. This will be added to your payment. **[One enumerator sits outside the room, subjects exit one-by-one and are paid by that enumerator.]**