

Efficiency, Equality and Labelling: An Experimental Investigation of Focal Points in Explicit Bargaining

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Online Appendix

A.1.1 Experimental Instructions for the Main Treatment

Introduction

Welcome and thank you for taking part in this experiment.

Please wait for instructions...

[oral: I will now take you through the instructions, which will appear on your screen, and I will read them out. In order to proceed with the instructions, you will have to click on buttons and objects.

IT IS EXTREMELY IMPORTANT THAT YOU PRESS ON BUTTONS ONLY WHEN I ASK YOU TO DO SO. EVEN IF YOU ARE MUCH FASTER THAN ME IN READING THE TEXT ON THE SCREEN, PLEASE DO NOT PRESS ANY BUTTONS OR CLICK ON ANY OBJECT WITH YOUR MOUSE UNLESS I TELL YOU TO DO SO, THANK YOU]

CONTINUE

The scenarios

Everyone in the room is receiving exactly the same instructions.

You will be presented with 18 different scenarios, one after the other. Each scenario is an interaction between **You** and an **Other** person.

You will be assigned to a group of 4 people for the duration of the experiment. In each scenario, you will be paired with one of the other 3 people in your group. This person will not be the same in all the scenarios. You will never know who you are paired with.

The order of the scenarios is determined by the computer, so that the 4 people in the same group will face the scenarios in different orders.

CONTINUE

The real scenarios

Two of these scenarios will be paid for real. By this we mean that:

- At the end of the experiment, the computer will randomly pick two of the 18 scenarios.

- The decisions made by you and the person you were matched with in each of these two scenarios determine how much money you are paid at the end of the session. You will receive the total of your earnings in these two scenarios.

Because you will not know which scenarios will be paid for real until you have responded to all of them, you should treat each scenario as if it was going to be paid for real. So, when thinking about each scenario, remember that it could be real and think about it in isolation from the others.

CONTINUE

An example of a scenario

Each scenario is represented by a picture like the one displayed on the screen. We will call this picture a **table**.

Each scenario is an interaction between **you** and the **other person**. Each person has a **base**, represented by the two grey squares on the table. You will be assigned to one of the bases, and the other person will be assigned to the other one.

There are some discs on the table. Each disc has a money value. This is shown on the disc. For example, on the table shown on your screen there are three discs, worth £1, £2 and £3, respectively.

CONTINUE

If you are assigned to the left base...

This is how we will show the table to the person who is assigned to the left base.

Suppose that was you. We have rotated the table and the discs anticlockwise so that your base appears at the bottom and the other person's base appears at the top. Your base is coloured in red and labelled 'You'; the other person's base stays grey and is now labelled 'Other'.

Notice that the disc values you see on your screen are, from left to right, £1, £2 and £3.

You can use the 'Back' button to remind you of what the table looked like before it was rotated.

BACK -> CONTINUE -> CONTINUE

If you are assigned to the right base...

This is how we will show the table to the person who is assigned to the right base.

Suppose that was you. We have rotated the table and the discs clockwise so that your base appears at the bottom and the other person's base appears at the top. Your base is coloured in red and labelled 'You'; the other person's base stays grey and is now labelled 'Other'.

Notice that the disc values you see on your screen now are, from left to right, £3, £2 and £1.

You can use the 'Back' button to remind you of what the table looked like before it was rotated.

BACK (left base) -> BACK (initial table) -> CONTINUE -> CONTINUE -> CONTINUE

The basic rules

In each scenario, you and the other person have **90 seconds** to reach an agreement on how to divide the discs.

You can propose which discs you would like to get by clicking on them. We will say that you are **claiming** those discs. You can claim as many (or as few) discs as you want. The other person can do the same.

Your claims and the other person's claims are displayed simultaneously on the screen. At any point during the 90 seconds, you and the other person can agree to make those claims **final**. This means that no further change to the claims can be made.

These final claims determine how much you earn:

- If you have not claimed any of the discs that the other person claimed, that is, if you and the other person claimed different discs, you get all the discs that you claimed. You then earn the total value of these discs.
- But if any disc has been claimed by both you and the other person, you get no discs and so earn nothing.

CONTINUE

Claiming discs

In each scenario, you and the other person have 90 seconds to agree on how to divide the discs. The remaining time is shown at the top-right corner of your screen.

We now explain how you claim discs, and how claims are shown on the screen.

Initially, all the discs are white. This indicates that neither you nor the other person have yet made any claims.

You and the other person can claim discs by clicking on them.

If you claim a disc that has not been claimed by the other person (that is, a disc shown in white), the disc turns red, and a red line connecting it to your base appears on your screen.

[Try this by clicking on the £2 disc on your screen... Now try with the £1 disc...]

Similarly, if the other person claims a disc that has not been claimed by you, the disc turns grey on your screen, and a grey line connecting it to the other person's base appears on your screen.

*[For example, **CLICK CONTINUE TO** see what happens if the other person claims the £3 disc]*

You can also claim a disc that has already been claimed by the other person (and, therefore, is shown in grey on your screen).

[Try this by clicking on the £3 disc...]

Similarly, the other person can claim a disc that has already been claimed by you (shown in red on your screen).

*[To see what happens if the other person claims the £1 disc that you have claimed **CLICK ON CONTINUE...**]*

Whenever a disc has been claimed by both you and the other person, it turns yellow and starts to blink. This indicates that if neither you nor the other person change claims before the 90 seconds expire, nobody will get any of the discs on the table. In this case, you and the other person will both earn nothing.

CONTINUE

Changing your claims

At any time during the 90 seconds, you can cancel your claim on a disc by clicking on it once again. The disc turns grey or white, depending on whether it has been claimed by the other person or not. The line that connects the disc to your base disappears.

*[See what happens if you click again on the £3 disc...
Now try to click again on the £2 disc...]*

Similarly, if the other person cancels their claim on a disc, the disc turns red if you have claimed it, and white otherwise. The line that connects the disc to the other person's base disappears.

*[Suppose the other person cancels their claim on the £1 disc and their claim on the £3 disc...**CLICK CONTINUE TO SEE WHAT HAPPENS IF THEY DO SO**]*

After you cancel your claim on a disc, you can claim that same disc again. You can do this as many times as you like until the 90 seconds expire. The other person can do the same.

*[Suppose the other person claimed the £3 disc again...**CLICK CONTINUE TO SEE WHAT HAPPENS IF THEY DO SO**]*

CONTINUE

How claims are shown

To sum up:

- Discs shown in white with no lines are discs that have not been claimed either by you or the other person
- Discs shown in red with a red line connecting them to your base are discs that have been claimed by you but not by the other person
- Discs shown in grey with a grey line connecting them to the other person's base are discs that have been claimed by the other person but not by you

- Discs shown in blinking yellow with a red line connecting them to your base and a grey line connecting them to the other person's base are discs that have been claimed by both you and the other person.

CONTINUE

Reaching an agreement

At all times during the 90 seconds, your claims and the other person's claims are shown on the screen. How much you and the other person would earn if those claims were made final is shown on the top right-hand part of your screen.

CONTINUE

If you are happy with the claims that you and the other person have made, you can propose to make them final by clicking on the 'You accept' box. A tick will appear in this box. The other person can do the same. If they do this, a tick appears in 'The other person accepts' box. We will call these boxes the **accept boxes**.

CONTINUE

If you and the other person both accept the same claims, an agreement is reached, and so those claims become final. No further changes to these claims can be made.

CONTINUE

If only one of the accept boxes is ticked, any change to the claims made by either you or the other person will make that tick disappear. This is because when a person ticks their accept box, they accept the claims that are shown on the screen at that time. If the claims shown on the screen change, previous accept decisions are cancelled. If this happens, both accept boxes will have to be ticked again for an agreement to be reached.

CONTINUE

You can always cancel your acceptance before the 90 seconds expire if the other person has not accepted yet, simply by clicking again on your accept box.

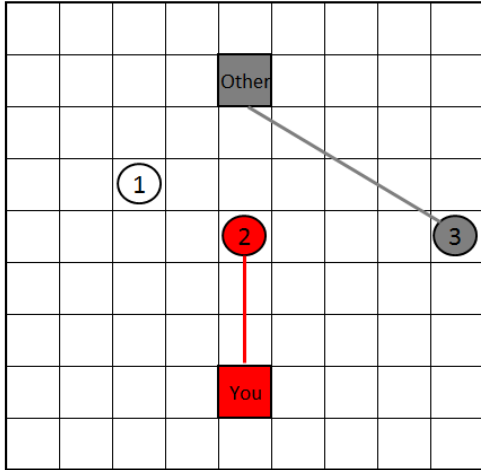
If no agreement has been reached by the end of the 90 seconds, the claims shown on the screen at that time will become final.

We now show some examples of how these rules work.

CONTINUE

Example 1

Suppose the final claims are as now shown on the screen.



In this case, no disc has been claimed by both you and the other person. The £2 disc has been claimed only by you, so you get it. The £3 disc has been claimed only by the other person, so the other person gets it. No one has claimed the £1 disc, so no one gets it.

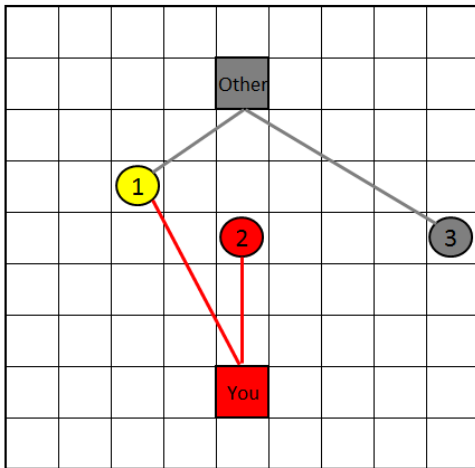
Therefore, you earn £2, and the other person earns £3.

[Are there any questions about Example 1?]

CONTINUE

Example 2

Now suppose the final claims are as shown.



In this case, the £1 disc (shown in blinking yellow) has been claimed by both you and the other person, so neither you nor the other person get any disc.

Therefore, both you and the other person earn nothing.

[Are there any questions about Example 2?]

CONTINUE

Moving from one scenario to the next

After completing each scenario, your earnings from that scenario will be displayed on your screen. Remember how your earnings are determined by the final claims:

- If you have not claimed any of the discs that the other person claimed, that is, if you and the other person claimed different discs, you get all the discs that you claimed. You then earn the total value of these discs.
- But if any disc has been claimed by both you and the other person, you get no discs and so earn nothing.

You may be required to wait for a few seconds while the other people in the room complete the current scenario. We ask you to be patient and to remain silent if this happens.

Once everyone has completed the current scenario and had a chance to see their earnings, you will be paired again with a person in your group, and the next scenario will appear on your screen.

CONTINUE

Your earnings

After everyone has finished all 18 scenarios, the computer will randomly determine which two of these will be paid for real. Each of these scenarios will be shown on your screen again. For each of them, you will see the final claims you and the other person made, and the resulting earnings.

Your total earnings will be the sum of your earnings in these two scenarios plus a £5 show-up fee. Your total earnings will be paid to you in cash straight away.

Receiving your earnings will end your participation in the experiment.

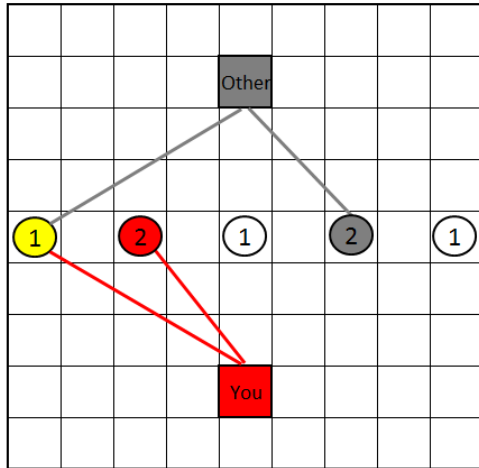
Before starting the experiment, we would like you to answer the following questions. Do not hesitate to raise your hand and seek assistance if anything is unclear.

PRESS CONTINUE TO START QUESTIONNAIRE

Then follow instructions on the screen to move from one question to the next

Question 1

Suppose the final claims in a scenario are as now shown.



How much would you and the other person earn?

- You would earn £3 and the other person would earn £3
- You would earn £2 and the other person would earn £2
- You would earn £0 and the other person would earn £0
- You would earn £3 and the other person would earn £2

Answer to Question 1

Your answer is correct. Press NEXT to proceed.

OR:

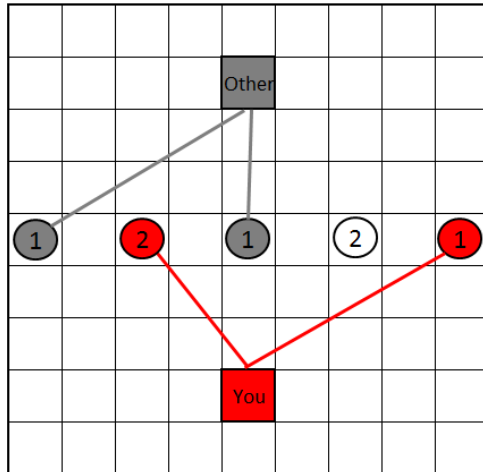
Your answer is incorrect. Remember how your earnings are determined by the final claims:

- If you have not claimed any of the discs that the other person claimed, that is, if you and the other person claimed different discs, you get all the discs that you claimed. You then earn the total value of these discs.
- But if any disc has been claimed by both you and the other person, you get no discs and so earn nothing.

Press BACK to try again.

Question 2

Suppose the final claims in a scenario are as now shown.



How much would you and the other person earn?

- e. You would earn £3 and the other person would earn £4
- f. You would earn £2 and the other person would earn £2
- g. You would earn £0 and the other person would earn £0
- h. You would earn £3 and the other person would earn £2

Answer to Question 1

Your answer is correct. Press NEXT to proceed.

OR:

Your answer is incorrect. Remember how your earnings are determined by the final claims:

- If you have not claimed any of the discs that the other person claimed, that is, if you and the other person claimed different discs, you get all the discs that you claimed. You then earn the total value of these discs.
- But if any disc has been claimed by both you and the other person, you get no discs and so earn nothing.

Press BACK to try again.

Question 3

If you have accepted the claims shown on the screen and the other person hasn't:

- a. You cannot cancel your acceptance even if there is time left
- b. You can cancel your acceptance as long as the other person has not accepted and there is time left
- c. You can cancel your acceptance after the other person accepts as long as there is time left

Answer to Question 3

Your answer is correct. Press NEXT to proceed.

OR:

Your answer is incorrect.

You can always cancel your acceptance before the 90 seconds expire if the other person has not accepted yet, simply by clicking again on your accept box.

Question 4

Suppose the other person has ticked their accept box and you haven't ticked yours. Then you change your claims. For the new claims to become final:

- a. You have to tick your accept box, and the other person has to tick theirs
- b. Only you have to tick your accept box
- c. Only the other person has to tick their accept box

Answer to Question 4

Your answer is correct. Press NEXT to proceed.

OR:

Your answer is incorrect.

If only one of the accept boxes is ticked, any change to the claims made by either you or the other person will make that tick disappear. This is because when a person ticks their accept box, they accept the claims that are shown on the screen at that time. If the claims shown on the screen change, previous accept decisions are cancelled. If this happens, both accept boxes will have to be ticked again for an agreement to be reached.

Question 5

The other person will be:

- a. The same person in all the scenarios
- b. One of three other people, chosen by the computer separately for each scenario
- c. A different person in each scenario

Answer to Question 5

Your answer is correct. Press NEXT to proceed.

OR:

Your answer is incorrect.

You will be assigned to a group of 4 people for the duration of the experiment. In each scenario, you will be paired with one of the other 3 people in your group. This person will not be the same in all the scenarios. You will never know who you are paired with.

Question 6

Your earnings from the experiment will be:

- a. The sum of your earnings from all the scenarios
- b. The sum of your earnings from all the scenarios, plus the show-up fee of £5
- c. The sum of your earnings from the two real scenarios, plus the show-up fee of £5
- d. Your earnings from one of the scenarios, plus the show-up fee of £5.

Answer to Question 6

Your answer is correct. Press NEXT to proceed.

OR:

Your answer is incorrect.

Your earnings from the experiment will be the sum of your earnings from the two real scenarios, plus the show-up fee of £5.

WE ARE ABOUT TO START THE EXPERIMENT
ARE THERE ANY QUESTIONS BEFORE WE START? ...
THE FIRST SCENARIO WILL APPEAR ON YOUR SCREENS SHORTLY

A.1.2 A screenshot of the Main Treatment

Period 3 of 18 Remaining time [sec]: 81

If you and the other person accept,
you earn £5,
the other person would earn £6.

You accept.
 The other person accepts.

A.2 Experimental Instructions for the Control Treatment

Introduction

Welcome and thank you for taking part in this experiment.

Please wait for instructions...

[oral: I will now take you through the instructions, which will appear on your screen, and I will read them out. In order to proceed with the instructions, you will have to click on buttons and objects.

IT IS EXTREMELY IMPORTANT THAT YOU PRESS ON BUTTONS ONLY WHEN I ASK YOU TO DO SO. EVEN IF YOU ARE MUCH FASTER THAN ME IN READING THE TEXT ON THE SCREEN, PLEASE DO NOT PRESS ANY BUTTONS OR CLICK ON ANY OBJECT WITH YOUR MOUSE UNLESS I TELL YOU TO DO SO, THANK YOU]

The scenarios

Everyone in the room is receiving exactly the same instructions.

You will be presented with 30 different scenarios, one after the other. Each scenario is an interaction between **You** and an **Other** person.

You will be assigned to a group of 4 people for the duration of the experiment. In each scenario, you will be paired with one of the other 3 people in your group. This person will not be the same in all the scenarios. You will never know who you are paired with.

The order of the scenarios is determined by the computer, so that the 4 people in the same group will face the scenarios in different orders.

The real scenarios

Two of these scenarios will be paid for real. By this we mean that:

- At the end of the experiment, the computer will randomly pick two of the 30 scenarios.
- The decisions made by you and the person you were matched with in each of these two scenarios determine how much money you are paid at the end of the session. You will receive the total of your earnings in these two scenarios.

Because you will not know which scenarios will be paid for real until you have responded to all of them, you should treat each scenario as if it was going to be paid for real. So, when thinking about each scenario, remember that it could be real and think about it in isolation from the others.

An example of a scenario

Each scenario is represented by a picture like the one displayed on the screen. We will call this picture a **table**.

There are some discs on the table. Each disc has a money value. This is shown on the disc. For example, on the table shown on your screen there are three discs, worth £1, £2 and £3, respectively.

The basic rules

In each scenario, you and the other person have **90 seconds** to reach an agreement on how to divide the discs.

You can propose which discs you would like to get by clicking on them. We will say that you are **claiming** those discs. You can claim as many (or as few) discs as you want. The other person can do the same.

Your claims and the other person's claims are displayed simultaneously on the screen. At any point during the 90 seconds, you and the other person can agree to make those claims **final**. This means that no further change to the claims can be made.

These final claims determine how much you earn:

- If you have not claimed any of the discs that the other person claimed, that is, if you and the other person claimed different discs, you get all the discs that you claimed. You then earn the total value of these discs.
- But if any disc has been claimed by both you and the other person, you get no discs and so earn nothing.

Claiming discs

In each scenario, you and the other person have 90 seconds to agree on how to divide the discs. The remaining time is shown at the top-right corner of your screen.

We now explain how you claim discs, and how claims are shown on the screen.

Initially, all the discs are white. This indicates that neither you nor the other person have yet made any claims.

You and the other person can claim discs by clicking on them.

If you claim a disc that has not been claimed by the other person (that is, a disc shown in white), the disc turns red.

[Try this by clicking on the £2 disc on your screen... Now try with the £1 disc...]

Similarly, if the other person claims a disc that has not been claimed by you, the disc turns grey on your screen.

[For example, **CLICK CONTINUE TO** see what happens if the other person claims the £3 disc]

You can also claim a disc that has already been claimed by the other person (and, therefore, is shown in grey on your screen).

[Try this by clicking on the £3 disc...]

Similarly, the other person can claim a disc that has already been claimed by you (shown in red on your screen).

[To see what happens if the other person claims the £1 disc that you have claimed **CLICK ON CONTINUE...**]

Whenever a disc has been claimed by both you and the other person, it turns yellow and starts to blink. This indicates that if neither you nor the other person change claims before the 90 seconds expire, nobody will get any of the discs on the table. In this case, you and the other person will both earn nothing.

CONTINUE

Changing your claims

At any time during the 90 seconds, you can cancel your claim on a disc by clicking on it once again. The disc turns grey or white, depending on whether it has been claimed by the other person or not.

[See what happens if you click again on the £3 disc...]

Now try to click again on the £2 disc...]

Similarly, if the other person cancels their claim on a disc, the disc turns red if you have claimed it, and white otherwise.

[Suppose the other person cancels their claim on the £1 disc and their claim on the £3 disc...**CLICK CONTINUE TO SEE WHAT HAPPENS IF THEY DO SO**]

After you cancel your claim on a disc, you can claim that same disc again. You can do this as many times as you like until the 90 seconds expire. The other person can do the same.

[Suppose the other person claimed the £3 disc again...**CLICK CONTINUE TO SEE WHAT HAPPENS IF THEY DO SO**]

CONTINUE

How claims are shown

To sum up:

- Discs shown in white are discs that have not been claimed either by you or the other person
- Discs shown in red are discs that have been claimed by you but not by the other person
- Discs shown in grey are discs that have been claimed by the other person but not by you

- Discs shown in blinking yellow are discs that have been claimed by both you and the other person.

CONTINUE

Reaching an agreement

At all times during the 90 seconds, your claims and the other person’s claims are shown on the screen. How much you and the other person would earn if those claims were made final is shown on the top right-hand part of your screen.

If you are happy with the claims that you and the other person have made, you can propose to make them final by clicking on the ‘You accept’ box. A tick will appear in this box. The other person can do the same. If they do this, a tick appears in ‘The other person accepts’ box. We will call these boxes the **accept boxes**.

If you and the other person both accept the same claims, an agreement is reached, and so those claims become final. No further changes to these claims can be made.

If only one of the accept boxes is ticked, any change to the claims made by either you or the other person will make that tick disappear. This is because when a person ticks their accept box, they accept the claims that are shown on the screen at that time. If the claims shown on the screen change, previous accept decisions are cancelled. If this happens, both accept boxes will have to be ticked again for an agreement to be reached.

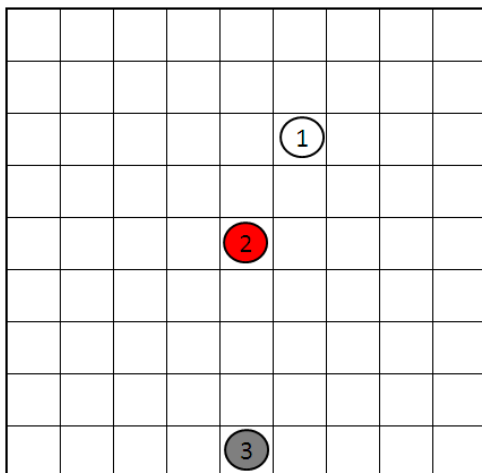
You can always cancel your acceptance before the 90 seconds expire if the other person has not accepted yet, simply by clicking again on your accept box.

If no agreement has been reached by the end of the 90 seconds, the claims shown on the screen at that time will become final.

We now show some examples of how these rules work.

Example 1

Suppose the final claims are as now shown on the screen.



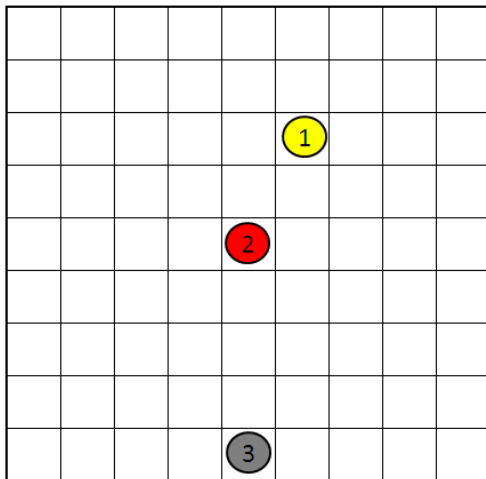
In this case, no disc has been claimed by both you and the other person. The £2 disc has been claimed only by you, so you get it. The £3 disc has been claimed only by the other person, so the other person gets it. No one has claimed the £1 disc, so no one gets it.

Therefore, you earn £2, and the other person earns £3.

[Are there any questions about Example 1?]

Example 2

Now suppose the final claims are as shown.



In this case, the £1 disc (shown in blinking yellow) has been claimed by both you and the other person, so neither you nor the other person get any disc.

Therefore, both you and the other person earn nothing.

[Are there any questions about Example 2?]

CONTINUE

Moving from one scenario to the next

After completing each scenario, your earnings from that scenario will be displayed on your screen. Remember how your earnings are determined by the final claims:

- If you have not claimed any of the discs that the other person claimed, that is, if you and the other person claimed different discs, you get all the discs that you claimed. You then earn the total value of these discs.
- But if any disc has been claimed by both you and the other person, you get no discs and so earn nothing.

You may be required to wait for a few seconds while the other people in the room complete the current scenario. We ask you to be patient and to remain silent if this happens.

Once everyone has completed the current scenario and had a chance to see their earnings, you will be paired again with a person in your group, and the next scenario will appear on your screen.

Your earnings

After everyone has finished all 30 scenarios, the computer will randomly determine which two of these will be paid for real. Each of these scenarios will be shown on your screen again. For each of them, you will see the final claims you and the other person made, and the resulting earnings.

Your total earnings will be the sum of your earnings in these two scenarios plus a £5 show-up fee. Your total earnings will be paid to you in cash straight away.

Receiving your earnings will end your participation in the experiment.

Before starting the experiment, we would like you to answer the following questions. Do not hesitate to raise your hand and seek assistance if anything is unclear.

Then follow instructions on the screen to move from one question to the next

Question 1

Suppose the final claims in a scenario are as now shown.

				1				
				2				
				1				
				2				
				1				

How much would you and the other person earn?

- i. You would earn £3 and the other person would earn £3
- j. You would earn £2 and the other person would earn £2
- k. You would earn £0 and the other person would earn £0
- l. You would earn £3 and the other person would earn £2

Answer to Question 1

Your answer is correct. Press NEXT to proceed.

OR:

Your answer is incorrect. Remember how your earnings are determined by the final claims:

- If you have not claimed any of the discs that the other person claimed, that is, if you and the other person claimed different discs, you get all the discs that you claimed. You then earn the total value of these discs.
- But if any disc has been claimed by both you and the other person, you get no discs and so earn nothing.

Press BACK to try again.

Question 2

Suppose the final claims in a scenario are as now shown.

				1				
				2				
				1				
				2				
				1				

How much would you and the other person earn?

- m. You would earn £3 and the other person would earn £4
- n. You would earn £2 and the other person would earn £2
- o. You would earn £0 and the other person would earn £0
- p. You would earn £3 and the other person would earn £2

Answer to Question 1

Your answer is correct. Press NEXT to proceed.

OR:

Your answer is incorrect. Remember how your earnings are determined by the final claims:

- If you have not claimed any of the discs that the other person claimed, that is, if you and the other person claimed different discs, you get all the discs that you claimed. You then earn the total value of these discs.
- But if any disc has been claimed by both you and the other person, you get no discs and so earn nothing.

Press BACK to try again.

Question 3

If you have accepted the claims shown on the screen and the other person hasn't:

- d. You cannot cancel your acceptance even if there is time left
- e. You can cancel your acceptance as long as the other person has not accepted and there is time left
- f. You can cancel your acceptance after the other person accepts as long as there is time left

Answer to Question 3

Your answer is correct. Press NEXT to proceed.

OR:

Your answer is incorrect.

You can always cancel your acceptance before the 90 seconds expire if the other person has not accepted yet, simply by clicking again on your accept box.

Question 4

Suppose the other person has ticked their accept box and you haven't ticked yours. Then you change your claims. For the new claims to become final:

- d. You have to tick your accept box, and the other person has to tick theirs
- e. Only you have to tick your accept box
- f. Only the other person has to tick their accept box

Answer to Question 4

Your answer is correct. Press NEXT to proceed.

OR:

Your answer is incorrect.

If only one of the accept boxes is ticked, any change to the claims made by either you or the other person will make that tick disappear. This is because when a person ticks their accept box, they accept the claims that are shown on the screen at that time. If the claims shown on the screen change, previous accept decisions are cancelled. If this happens, both accept boxes will have to be ticked again for an agreement to be reached.

Question 5

The other person will be:

- d. The same person in all the scenarios
- e. One of three other people, chosen by the computer separately for each scenario
- f. A different person in each scenario

Answer to Question 5

Your answer is correct. Press NEXT to proceed.

OR:

Your answer is incorrect.

You will be assigned to a group of 4 people for the duration of the experiment. In each scenario, you will be paired with one of the other 3 people in your group. This person will not be the same in all the scenarios. You will never know who you are paired with.

Question 6

Your earnings from the experiment will be:

- e. The sum of your earnings from all the scenarios
- f. The sum of your earnings from all the scenarios, plus the show-up fee of £5
- g. The sum of your earnings from the two real scenarios, plus the show-up fee of £5
- h. Your earnings from one of the scenarios, plus the show-up fee of £5.

Answer to Question 6

Your answer is correct. Press NEXT to proceed.

OR:

Your answer is incorrect.

Your earnings from the experiment will be the sum of your earnings from the two real scenarios, plus the show-up fee of £5.

WE ARE ABOUT TO START THE EXPERIMENT

ARE THERE ANY QUESTIONS BEFORE WE START? ...

THE FIRST SCENARIO WILL APPEAR ON YOUR SCREENS SHORTLY

A.3 A Reduced Form Model of Bargaining

The *Hawk–Dove–Bourgeois* game was first presented by Maynard Smith and Parker (1976) in a seminal contribution to evolutionary game theory. It can be interpreted as a reduced form model of bargaining between two players over who should take which of two unequally valued objects. The objects have the values x and $1 - x$, where $1 > x > 0.5$. If the players fail to agree, each gets a payoff of 0. Before the start of bargaining, a randomly-generated payoff-irrelevant cue assigns one player the role of *favored* and the other the role of *unfavored*. In the context of our bargaining table design, x and $1 - x$ might be interpreted as the values of the only two discs on the table, and the cue might be the spatial layout of the discs.

Three types of bargaining strategy are modelled. The *hawk* and *dove* strategies are spatially blind – that is, they take no account of the cue. A hawk demands the higher-valued object and never concedes. A dove accepts the lower-valued object if this is necessary to reach agreement. In an encounter between two doves, which player gets the higher-valued object is determined at random. Thus, in a hawk–dove encounter, the hawk’s payoff is x and the dove’s is $1 - x$. In a hawk–hawk encounter, both players get zero. In a dove–dove encounter, the expected payoff to each player is 0.5. The third strategy, *bourgeois*, is spatially aware, treating the cue as suggesting that the favored player should take the higher-valued object. A bourgeois player acts like a hawk if favored and like a dove if unfavored. The payoffs to types, conditional on roles, are therefore as shown below.

		<i>unfavored player</i>		
		<i>hawk</i>	<i>dove</i>	<i>bourgeois</i>
<i>favored player</i>	<i>hawk</i>	0, 0	$x, 1-x$	$x, 1-x$
	<i>dove</i>	$1-x, x$	0.5, 0.5	0.5, 0.5
	<i>bourgeois</i>	0, 0	$x, 1-x$	$x, 1-x$

Consider a population of potential players of this game. Let s be the proportion of bourgeois types, and let t be the proportion of non-bourgeois types that are hawks. (Equivalently, one might interpret t as defining a mixed hawk/dove strategy followed by spatially blind players.) Thus, the proportions of hawk, dove and bourgeois types are respectively $(1 - s)t$, $(1 - s)(1 - t)$, and s . Let E_F and E_U be the expected payoff to the favored and unfavored player respectively, given the population distribution of types. It is straightforward to show that $E_F - E_U = s(2x - 1)$, which is strictly positive if $s > 0$. In other

words: *provided that the proportion of bourgeois types is non-zero, the average payoff to favored players is higher than that to unfavored players.* Notice that this result does not depend on any equilibrium assumptions. The intuition behind it is that, since hawks and doves do not condition their behaviour on their roles, role asymmetry can affect players' expected payoffs only if one or both players are bourgeois. But in any interaction which involves at least one bourgeois player, the favored player's expected payoff is greater than or equal to the unfavored player's.

Now consider how average efficiency (i.e. the expected value of the sum of the two players' payoffs, which has a maximum of 1) varies with exogenous changes in the distribution of types. Average efficiency, denoted by q , is given by:

$$q = 1 - (1 - s)^2 t^2 - (1 - s)st.$$

Clearly, average efficiency is maximal when all players are bourgeois (i.e. $s = 1$ implies $q = 1$). But, in general, increases in s do not imply increases in average efficiency.

Differentiating the previous expression,

$$\partial q / \partial s = -t[2st - 2(t + s) + 1].$$

Thus, $\partial q / \partial s > 0$ (i.e. average efficiency increases as the proportion of bourgeois types increases) if and only if

$$s > (1 - 2t) / [2(1 - t)].$$

If s and t are both relatively low, $\partial q / \partial s$ can be negative. (For example, this is the case if $t = 1/4$ and $s < 1/3$.) The intuition behind this result is that if $t < 0.5$, bourgeois types are *on average* more 'hawkish' than non-bourgeois types, and so an increase in s increases the amount of hawkishness in the population. This has negative effects on efficiency in interactions in which one player is non-bourgeois. The lower the value of s , the higher the proportion of interactions in which this is the case.

Now suppose that pairs of players drawn from the population sometimes play games in which there is no role asymmetry. Given that the distribution of player types is being treated as exogenous, a natural and neutral assumption is that, in such games, bourgeois types play the hawk and dove strategies in the same proportions as non-bourgeois types do. This is equivalent to holding t constant across both types of games, and setting $s = 0$ in role-symmetric games. In other words, the effect of introducing role asymmetry is equivalent to increasing s from zero to some positive value. The result derived in the previous paragraph

then implies that, even if some players are spatially aware, *the presence of role asymmetry does not necessarily increase average efficiency.*

Recall that this result is derived by treating the population distribution of types as exogenous. If instead s were treated as exogenous but t were assumed to take the value consistent with mixed-strategy equilibrium, a comparative-static analysis would show that efficiency increases with s whenever $s > 0$. And of course, as Maynard Smith and Parker show, if both s and t are treated as endogenous, the only evolutionarily stable strategy has $s = 1$. Thus, one might predict that, *after sufficient experiential learning*, average efficiency would be greater in games with role asymmetries. But the conclusion that role asymmetry induces payoff asymmetry is much more robust.

A.4 Additional Data Analysis for Sets I and II

A.4.1 Comparison of games which were common between Set I and Set II

For each of the games that were common between Set I and Set II (G1–G6), we compare overall efficiency (i.e. total earnings in a pair) and, for games where SC pick out one of the LUE allocations (G4 and G6), the distribution of the game earnings for favored and unfavored players. In each case, we conduct a two-tail Mann-Whitney test that uses matching groups as the unit of observation. In other words, we average total earnings, earnings by favored players, and earnings by unfavored players for each game at the group level. We find no significant difference. The results of these tests are reported in Table A.4.1.

A.4.2 Comparison of games with the same disc collection

For games with the same disc collection, we looked for systematic differences in efficiency and the percentage of interactions that ended with an LUE allocation. In each case, we compare games with SC of some kind with the corresponding spatially neutral game using matching groups as the unit of observation.

The comparison of efficiency uses two-tail Wilcoxon signed-rank tests. We only find one significant difference (with $p < 0.1$), between G11 and G14, with efficiency being lower in the latter than in the former. In this game, the SC suggested an 8-3 split when 6-5 was

possible, and this may account for the lower efficiency. These tests are reported in Table A.4.2.

For the percentage of LUE agreements, we use a χ^2 test. For each of the two games involved, we count the matching groups with 0, 1 or 2 LUE agreements, and we conduct a χ^2 test in the corresponding 2×3 contingency table. These tests are reported in Table A.4.3.

A.4.3 *Agreement times*

The cumulative distributions of the time at which pairs agreed on profitable allocations (i.e. allocations that gave a positive payoff to at least one of the players) from which Figures 2a and 2b in the paper are drawn are reported in Table A.4.4a for Set I and Table A.4.4b for Set II.

Each of these tables reports two sets of statistical tests, which use matching groups as the unit of observation. The first is a comparison of the distribution of *bargaining durations* of each non-neutral game with the corresponding spatially neutral game, based on a two-tail Wilcoxon signed-rank test. We find that the distributions are typically not significantly different, with the exception of G8, G21 and G26 (in all three cases the distributions of bargaining durations shift to the left with spatial cues – i.e. there are more pairs who agree earlier).

The second is a comparison of the percentage of profitable agreements (these include explicit and implicit agreements in which at least one player earns a positive payoff). For each matching group, we count whether there are 0, 1 or 2 such agreements in the game of interest and in the corresponding spatially neutral game. We then conduct a χ^2 test on the resulting 2x3 table. We only find a significant difference for G30, in which there are more profitable agreements than in G28.

A.4.4 *The time path of claims*

Tables A.4.5a–A.4.5i summarise the distributions of claims made by *individual* participants at 10s intervals for each of the 30 games played in Sets I and II. For each game, we report the mean, median and standard deviation of the claims, as well as the distribution of claims by value. For games in which spatial cues single out one of the players as favored, we report

the above information separately for favored and unfavored players. The observations for games G1–G6 are pooled across Sets I and II.

A.4.5 Comparison between early and late agreements

Tables A.4.6a and A.4.6b are the equivalent of Tables 2a and 2b in the paper, but only contain data for early agreement interactions (i.e. interactions in which an agreement was sealed by 60 seconds, including cases in which this implied that both players got nothing).

Tables A.4.7a and A.4.7b are the corresponding tables for disagreement interactions (i.e. interactions that lasted longer than 60 seconds). All percentages refer to the total number of pairs in the respective sets (72 in Set I and 84 in Set II).

The statistical tests on normalised payoff asymmetry (NPA) use matching groups as the unit of observation. Where both pairs in a matching group sealed an agreement by (or after) 60 seconds, the corresponding entry for that group is the average of the earnings of favored and unfavored players. Groups in which one pair agreed by 60 seconds and the other after 60 seconds appear in both tables, as they are still independent of the other observations used for the relevant Wilcoxon test.

A.4.6 The advantage conferred by early claims

Players who make more claims during the first few seconds might gain an advantage over their opponents. To investigate this possibility, we employ regression analysis on the *payoff difference*, which is the final payoff to player L minus the final payoff to player R, by each pair in each game. The explanatory variable is the *early claim advantage*, defined as the value of discs claimed by L at 5s after the start of the game minus the value of the discs claimed by R at 5s. Error clustering is used to take into account the possible non-independence of observations by different pairs in the same group. While we pool the data from Sets I and II, interactions in which pairs had already reached agreement at 5s or ended up with disagreement are excluded from the analysis.

Table A.4.8 reports the regressions on the payoff difference of pairs who had not agreed yet at 5s and 60s. Our focus is on the games without spatial cues because a positive correlation between early claim advantage and final payoff asymmetry in games with spatial cues might indicate, not a causal link from the former to the latter, but the effects of a common causal

factor – the spatial layout of the discs. When we consider agreements reached after 5s, we find that the early claim advantage has a significantly positive effect ($p < 0.001$) on the final payoff difference, with coefficient of 0.188.

However, this effect is weakened when interactions reach the last 30s. In the second regression, we exclude pairs whose agreement times are 60s or less. The relationship between the payoff difference and the claim advantage at 5s is still statistically significant ($p = 0.87$) but much weaker, with a coefficient of only 0.081.

A.4.7 *Group heterogeneity*

For each of Sets I and II, we looked at whether matching groups were heterogeneous in two dimensions of interest: ‘hawkishness’ and spatial awareness.

In order to capture hawkishness, we use two variables: the number of agreements sealed by 60s inclusive and the number of (0, 0) outcomes. The mean, standard deviation and various percentiles of the distributions of these variables summing over all the games played by each matching group (i.e. 2×18 games) are reported in the first two columns of Tables A.4.9a and A.4.9b for Sets I and II respectively. For each matching group, we have 18 observations for each of these variables. We test for heterogeneity in hawkishness using the Kruskal-Wallis test. For both variables in both sets we find strongly significant differences.

In order to capture spatial awareness, we use NPA in the games for which this concept is defined, and conduct similar statistical tests. The relevant data are reported in the last column of Tables A.4.9a and A.4.9b for Sets I and II respectively. We find no evidence of heterogeneity in this dimension.

A.4.8 *Learning*

Each participant in our experiment took part in a sequence of games, presented in randomised order. Here, we investigate whether there were detectable changes in the way games were played as the experiment progressed.

Figures A.4.1a and A.4.1b report average efficiency *by period* in Sets I and II respectively, pooling across all pairs in each set. Each point is an average of efficiency for the games played in the relevant experimental period. Since the order in which games were faced was randomised, we are pooling across different sets of games. Nevertheless, these figures should

allow us to see if there was any generalised tendency for efficiency to increase or decrease over the course of the sequence of games played in each set. We do not find systematic trends in this respect.

Figures A.4.2a and A.4.2b report the percentage of pairs who reached an agreement by 60 seconds in each of the 18 periods of Sets I and II respectively. The percentage seems to decline in the first few periods, especially in Set II. But after the first 6–7 periods the trend stops. It is clear from the figures that there were on average fewer pairs agreeing by 60 seconds in Set II than in Set I, as a consequence of the larger inequality that had to be accepted in most of the games of the former.

Tables A.4.10a and A.4.10b report statistical tests at the game level. For each game, we compare efficiency, NPA and the distribution of bargaining durations for cases in which the game was played in the first half of the experiment (periods 1–9) with the cases in which the game was played in the second half (periods 10–18). Since the two pairs belonging to the same matching group could have played the same game in the two halves of the experiment, we do not use matching groups as the unit of observation as this would drastically reduce the observations available for the test, but use individual pairs as the unit of observation.

The comparisons of efficiency are based on two-tail Mann-Whitney tests (we also use the 1-tail robust rank test that is more appropriate when the variable of interest is bounded). For efficiency, we only find significant differences in five out 36 cases (recall that six games were played in both sets). We observe a significant decrease in efficiency in G6 (in Set I) and G9, and an increase in G10, G23 and G30. Only the changes for G6, G23 and G30 are also significant in the robust rank sum test. Overall, there do not seem to be systematic trends in efficiency.

The comparisons for NPA are also based on the Mann-Whitney and robust rank tests. We find significant increases only in some of the games of Set I (G4, G13 and G17; G14 is also significant in the robust rank test). In the remaining 10 cases in which the NPA concept is defined, we do not find significant differences. Therefore, there seem to be weak evidence that the distributional effects we found in Set I are often driven by behaviour of pairs who played the relevant game in the second half of the experiment.

When we compare the distributions of bargaining durations using the Kolmogorov-Smirnov test, we often find significant differences. In Set I, when we find a statistically significant difference, the median bargaining duration (also shown in the tables) is shorter in the second

half of the experiment in four cases and longer in one. In Set II the median bargaining durations of games in which we find statistically significant differences indicate a tendency for bargaining to take less time in the second half of the experiment when there are low trade-offs between efficiency and equality (G1, G3, G4 and G21), and to take longer when the trade-offs become more extreme (G4 and G27–G30).

A.5 Analysis of the Control Treatment

In this section, we report the key results of the additional control treatment in which we removed the bases from the bargaining table. Since most of this analysis replicates what we have done for the main treatment (Sets I and II), we will only describe the tables and tests that depart from the corresponding analysis of that treatment.

The analysis is based on 92 participants matched in groups of four according to the matching protocol described in the paper. Summaries are reported for the 46 pairs who played each game. Statistical tests use the 23 matching groups as the unit of observation. Earnings in this treatment ranged from £9 to £21 with an average of £15.13, including the £5 show-up fee.

We then compare the spatially neutral games in the main treatment with the corresponding games in the control treatment to see if there are systematic differences in efficiency or bargaining durations.

A.5.1 The outcome of bargaining

Table A.5.1 summarises the outcome of bargaining in the 30 games that were played by participants in the control treatment. Since none of these games had spatial cues of the kind that we studied in the main treatment, the ‘% SC (SC claims)’ and ‘NPA’ columns are empty. The broad patterns in terms of efficiency, percentage of equal allocations and percentage of LUE allocations are very close to those we found in the main treatment.

A.5.2 Comparison of games with the same disc collection

Table A.5.2 reports statistical tests comparing efficiency levels in games with the same disc collection. We only find two significant differences. Efficiency is lower in G6 than in G5 (p.

< 0.1), and higher in G13 than in G11 ($p. < 0.01$). It is worth noting that G11 is a bit of an outlier in terms of efficiency in the set of games with the same disc collection.

Table A.5.3 reports similar comparisons for the percentage of LUE agreements. For the reason we just mentioned, the only two statistical differences involve G11. There are significantly more LUE agreements in G13 than G11 and in G12 than G11.

A.5.3 Agreement times

Table A.5.4 reports the cumulative distributions of profitable agreement times and the percentage of profitable agreements for each of the games played the control treatment. Here too, the broad patterns are similar to those observed in the main treatment.

A.5.4 Comparison between early and late agreements

Tables A.5.5 and A.5.6 report the information on the bargaining outcomes of the control treatment for early agreement and deadline interactions respectively. Once again, we find similar patterns to those observed in the main treatment.

A.5.5 Group heterogeneity

Table A.5.7 reports our tests of group heterogeneity in hawkishness in the control treatment. Since there were no spatial cues in this treatment, there could not be heterogeneity in spatial awareness of the kind that was possible in the main treatment. We find significant heterogeneity in the number of agreements reached by 60 seconds, but not in the number of (0, 0) outcomes.

A.5.6 Learning

Figure A.5.1 shows average efficiency for each of the 30 periods of the control treatment. Figure A.5.2 shows the percentage of pairs who reached an agreement by 60 seconds in each of the 30 periods of the control treatment. As in the main treatment, we do not find systematic trends in efficiency, but we do observe a tendency for the percentage of agreements reached by 60 seconds to decrease in the early part of the experiment.

Table A.5.8 reports statistical tests comparing efficiency and bargaining durations in each game when it was played in the first half of the experiment with efficiency in the same game when it was played in the second half. These tests use the pair (not the matching group) as the unit of observation. Although we find occasional statistically significant differences, there do not seem to be systematic trends as far efficiency is concerned. Bargaining durations tend to be slightly shorter in most of the cases in which we find significant differences.

A.5.7 Comparison of the control treatment with the main treatment

Table A.5.9 reports some statistical tests comparing behaviour in the spatially neutral games of the main treatment with the corresponding games of the control treatment (i.e. the same games non-rotated and without bases). We look at average efficiency (computed over all agreements, and for early agreement interactions and deadline interactions separately), the percentage of LUE allocations and the distributions of bargaining durations.

We use two-tail Mann-Whitney tests for efficiency comparisons, χ^2 tests when comparing the percentages of LUE allocations, and Kolmogorov-Smirnov tests for comparisons of bargaining durations distributions. In all cases matching groups are the unit of observation. The observations for G1, G3 and G5 in the main treatment are pooled (recall that behaviour in these games did not differ significantly between the two experiments).

The only game for which we find significant differences (only for efficiency and the percentage of LUE allocations) is G11. This may be related to the fact that, as we noted above, however, this game is uncharacteristic of the set of games with the disc collection $\{1,2,2,1,2,2,1\}$. Overall, we have no evidence that the absence of bases altered behaviour significantly in the main dimensions of interest.

Table A.4.1 – Comparison of games in common between Set I and Set II

Game description	Efficiency			Favored earnings			Unfavored earnings		
	Exp. 1	Exp. 2	Sig. ^a	Exp. 1	Exp. 2	Sig. ^b	Exp. 1	Exp. 2	Sig. ^c
G1 = 5,5	0.986	1.000	0.2801	-	-	-	-	-	-
G2 = 5 5	0.986	1.000	0.2801	-	-	-	-	-	-
G3 = 5,6	0.958	0.976	0.5236	-	-	-	-	-	-
G4 = 6 5	0.972	0.964	0.7768	5.44	5.51	0.2327	5.25	5.10	0.1460
G5 = 3,8	0.802	0.782	0.6215	-	-	-	-	-	-
G6 = 8 3	0.760	0.759	0.9955	4.26	4.39	0.9550	4.10	3.95	0.7546

a - Significance level in two-tail Mann-Whitney test of comparison of total payoffs averaging within matching groups: * = 10** = 5%, *** = 1%.

b - Significance level in two-tail Mann-Whitney test of comparison of payoffs to favored players averaging within matching groups: * = 10** = 5%, *** = 1%.

c - Significance level in two-tail Mann-Whitney test of comparison of payoffs to unfavored players averaging within matching groups: * = 10** = 5%, *** = 1%.

Table A.4.2 – Comparison of efficiency in games with the same disc collection (Sets I and II)

Spatially neutral		Spatial cues pick out:											
		EE			LUE, not equal			Efficient, not LUE			LIE, not efficient		
Game	Av. eff.	Game	Av. eff.	Sig. ^a	Game	Av. eff.	Sig. ^a	Game	Av. eff.	Sig. ^a	Game	Av. eff.	Sig. ^a
G1 - Exp. 1	0.986	G2 - Exp. 1	0.986	1.0000	-	-	-	-	-	-	-	-	-
G1 - Exp. 2	1.000	G2 - Exp. 2	1.000	n/a	-	-	-	-	-	-	-	-	-
G3 - Exp. 1	0.958	-	-	-	G4 - Exp. 1	0.972	0.5637	-	-	-	-	-	-
G3 - Exp. 2	0.976	-	-	-	G4 - Exp. 2	0.964	0.5637	-	-	-	-	-	-
G5 - Exp. 1	0.802	-	-	-	G6 - Exp. 1	0.760	0.3441	-	-	-	-	-	-
G5 - Exp. 2	0.782	-	-	-	G6 - Exp. 2	0.759	0.8350	-	-	-	-	-	-
G7	0.983	G8	0.981	0.1978	-	-	-	G9	0.958	0.6266	-	-	-
G11	0.984	-	-	-	G13	0.943	0.4654	G10	0.983	1.0000	-	-	-
G15	0.971	-	-	-	G17	0.957	0.6741	G14	0.915	0.0954*	G12	0.986	0.4671
G19	0.968	-	-	-	G20	0.958	0.6020	G18	0.956	0.6889	G16	0.944	0.1143
G22	0.886	-	-	-	G23	0.888	0.9621	-	-	-	G21	0.962	0.9874
G25	0.838	-	-	-	G26	0.872	0.7615	-	-	-	G24	0.867	0.6736
G28	0.802	-	-	-	G29	0.885	0.2529	-	-	-	G27	0.805	0.5386
											G30	0.845	0.8559

a - Significance level in two-tail Wilcoxon test on total payoffs averaging within matching groups: * = 10**, ** = 5%, *** = 1%.

Table A.4.3 – Comparison of the distribution of LUE agreements in games with the same disc collection (Sets I and II)

Spatially neutral		Spatial cues pick out:											
		EE			LUE, not equal			Efficient, not LUE			LIE, not efficient		
Game	% LUE	Game	% LUE	Sig. ^a	Game	% LUE	Sig. ^a	Game	% LUE	Sig. ^a	Game	% LUE	Sig. ^a
G1 - Exp. 1	98.6	G2 - Exp. 1	98.6	1.000	-	-	-	-	-	-	-	-	-
G1 - Exp. 2	100.0	G2 - Exp. 2	100.0	n/a	-	-	-	-	-	-	-	-	-
G3 - Exp. 1	94.4	-	-	-	G4 - Exp. 1	97.2	0.394	-	-	-	-	-	-
G3 - Exp. 2	97.6	-	-	-	G4 - Exp. 2	96.4	0.645	-	-	-	-	-	-
G5 - Exp. 1	79.2	-	-	-	G6 - Exp. 1	73.6	0.328	-	-	-	-	-	-
G5 - Exp. 2	77.4	-	-	-	G6 - Exp. 2	75.0	0.838	-	-	-	-	-	-
G7	87.5	G8	87.5	0.530	-	-	-	G9	79.2	0.425	-	-	-
G11	95.8	-	-	-	G13	88.9	0.101	G10	81.9	0.550	-	-	-
G15	94.4	-	-	-	G17	93.1	0.722	G14	87.5	0.252	G12	94.4	0.691
G19	86.9	-	-	-	G20	86.9	0.5440	G18	94.4	1.000	G16	87.5	0.126
G22	76.2	-	-	-	G23	76.2	0.453	-	-	-	G21	86.9	0.544
G25	78.6	-	-	-	G26	78.6	0.830	-	-	-	G24	76.2	0.790
G28	76.2	-	-	-	G29	82.1	0.211	-	-	-	G27	76.2	0.213
											G30	77.4	0.889

a - Significance level in a χ^2 test using matching groups as the unit of observation: * = 10** = 5%, *** = 1%.

Table A.4.4a – Distributions of profitable agreement times (Set I)

Game description	% of pairs agreeing on profitable allocations by:										Profitable agreements	
	10s	20s	30s	40s	50s	60s	70s	80s	90s	sig. ^a	%	sig. ^b
G1 = 5,5	84.7	90.3	91.7	93.1	95.8	95.8	95.8	97.2	98.6	-	98.6	-
G2 = 5 5	84.7	97.2	97.2	98.6	98.6	98.6	98.6	98.6	98.6		98.6	
G3 = 5,6	54.2	68.1	75.0	75.0	75.0	77.8	77.8	80.6	83.3	-	95.8	-
G4 = 6 5	48.6	62.5	65.3	69.4	72.2	75.0	79.2	79.2	90.3		97.2	
G5 = 3,8	18.1	22.2	25.0	26.4	34.7	34.7	36.1	44.4	62.5	-	80.6	-
G6 = 8 3	11.1	23.6	27.8	31.9	33.3	33.3	36.1	38.9	56.9		76.4	
G7 = 1,2,2,2,2,1	31.9	58.3	65.3	75.0	77.8	80.6	84.7	87.5	91.7	-	98.6	-
G8 = 2,2,1 1,2,2	48.6	75.0	81.9	83.3	83.3	83.3	87.5	91.7	93.1	**	98.6	
G9 = 2,1,1 2,2,2	25.0	54.2	63.9	73.6	80.6	84.7	84.7	87.5	91.7		95.8	
G10 = 2,1 1,2,2,2	22.2	51.4	65.3	73.6	84.7	84.7	86.1	88.9	94.4		98.6	
G11 = 1,2,2,1,2,2,1	9.7	33.3	50.0	62.5	70.8	75.0	79.2	80.6	88.9	-	98.6	-
G12 = 2,1,2 1,2,2,1	12.5	50.0	59.7	66.7	66.7	72.2	73.6	75.0	88.9		98.6	
G13 = 2,1,2,1 2,2,1	18.1	43.1	58.3	63.9	69.4	72.2	75.0	77.8	84.7		94.4	
G14 = 2,2,2,2 1,1,1	5.6	36.1	54.2	55.6	59.7	62.5	63.9	66.7	79.2		91.7	
G15 = 4,2,1,4	30.6	61.1	66.7	68.1	72.2	76.4	77.8	80.6	84.7	-	97.2	-
G16 = 4 2,1 4	30.6	55.6	59.7	61.1	66.7	69.4	73.6	75.0	83.3		94.4	
G17 = 2,4 4,1	45.8	59.7	62.5	66.7	73.6	75.0	79.2	79.2	90.3		95.8	
G18 = 2,1 4,4	19.4	51.4	62.5	66.7	70.8	76.4	81.9	81.9	87.5		95.8	

a - Significance level in a two-tail Wilcoxon signed-rank test comparing the distributions of bargaining durations using matching groups as the unit of observation: * = 10%, ** = 5%, *** = 1%. Each game with spatial cues is compared to the corresponding spatially neutral game.

b - Significance level in a χ^2 test using matching groups as the unit of observation: * = 10%, ** = 5%, *** = 1%. Each game with spatial cues is compared to the corresponding spatially neutral game.

Table A.4.4b – Distributions of profitable agreement times (Set II)

Game description	% of pairs agreeing on profitable allocations by:										Profitable agreements	
	10s	20s	30s	40s	50s	60s	70s	80s	90s	sig. ^a	%	sig. ^b
G1 = 5,5	88.1	92.9	94.0	96.4	96.4	96.4	97.6	97.6	98.8	-	100.0	-
G2 = 5 5	89.3	92.9	96.4	96.4	97.6	97.6	97.6	97.6	98.8		100.0	n/a
G3 = 5,6	57.1	77.4	82.1	85.7	85.7	85.7	85.7	86.9	89.3	-	97.6	-
G4 = 6 5	54.8	64.3	75.0	77.4	77.4	78.6	78.6	78.6	88.1		96.4	
G5 = 3,8	13.1	27.4	33.3	39.3	41.7	42.9	44.0	47.6	61.9	-	78.6	-
G6 = 8 3	20.2	32.1	35.7	39.3	40.5	42.9	45.2	48.8	58.3		76.2	
G19 = 5,1,5	31.0	42.9	50.0	53.6	54.8	57.1	59.5	64.3	81.0	-	97.6	-
G20 = 1,5 5	28.6	48.8	58.3	59.5	59.5	60.7	61.9	63.1	79.8		96.4	
G21 = 5 1 5	33.3	51.2	63.1	65.5	67.9	71.4	71.4	73.8	79.8	**	97.6	
G22 = 4,2,4	16.7	29.8	39.3	40.5	42.9	42.9	47.6	48.8	67.9	-	91.7	-
G23 = 4 4,2	22.6	31.0	34.5	38.1	40.5	40.5	41.7	42.9	56.0		91.7	
G24 = 4 2 4	20.2	28.6	36.9	39.3	41.7	44.0	46.4	50.0	58.3		89.3	
G25 = 4,3,4	8.3	17.9	20.2	25.0	26.2	27.4	27.4	29.8	56.0	-	85.7	-
G26 = 3,4 4	22.6	26.2	31.0	31.0	32.1	34.5	38.1	40.5	53.6	*	89.3	
G27 = 4 3 4	13.1	22.6	23.8	27.4	28.6	29.8	31.0	35.7	48.8		82.1	
G28 = 5,5,5	8.3	19.0	22.6	26.2	27.4	29.8	32.1	32.1	52.4	-	82.1	-
G29 = 5 5,5	11.9	22.6	26.2	28.6	31.0	31.0	31.0	33.3	51.2		91.7	
G30 = 5 5 5	9.5	19.0	26.2	28.6	29.8	29.8	31.0	32.1	52.4		88.1	

a - Significance level in a two-tail Wilcoxon signed-rank test comparing the distributions of bargaining durations using matching groups as the unit of observation: * = 10%, ** = 5%, *** = 1%. Each game with spatial cues is compared to the corresponding spatially neutral game.

b - Significance level in a χ^2 test using matching groups as the unit of observation: * = 10%, ** = 5%, *** = 1%. Each game with spatial cues is compared to the corresponding spatially neutral game.

Table A.4.5a – Distribution of claim values by game at 10 sec (Sets I and II)

Game description	Fav/unfav	Mean	Median	Std. dev.	Claim value												
					0	1	2	3	4	5	6	7	8	9	10	11	15
G1 = 5,5		5.833	5	2.686	3	-	-	-	-	29	-	-	-	-	10	-	-
G2 = 5 5		5.500	5	2.481	3	-	-	-	-	30	-	-	-	-	7	-	-
G3 = 5,6		6.797	6	2.538	5	-	-	-	-	15	87	-	-	-	-	31	-
G4 = 6 5	Fav	6.533	6	2.379	3	-	-	-	-	7	52	-	-	-	-	13	-
	Unfav	6.653	6	2.490	3	-	-	-	-	8	49	-	-	-	-	15	-
G5 = 3,8		7.765	8	2.757	15	-	-	22	-	-	-	-	171	-	-	56	-
G6 = 8 3	Fav	7.700	8	2.750	8	-	-	10	-	-	-	-	87	-	-	25	-
	Unfav	7.769	8	2.587	5	-	-	13	-	-	-	-	87	-	-	25	-
G7 = 1,2,2,2,2,1		5.602	5	1.531	0	0	4	4	3	45	18	13	8	1	2	-	-
G8 = 2,2,1 1,2,2		5.338	5	1.546	1	1	1	3	6	35	13	8	5	0	1	-	-
G9 = 2,1,1 2,2,2	Fav	5.685	6	1.477	1	0	0	1	3	20	20	3	4	1	1	-	-
	Unfav	4.981	5	1.407	1	0	3	1	9	22	14	2	2	0	0	-	-
G10 = 2,1 1,2,2,2	Fav	5.643	6	1.667	1	0	1	1	7	16	17	7	4	0	2	-	-
	Unfav	5.179	5	1.550	0	0	4	2	10	18	13	6	2	0	1	-	-
G11 = 1,2,2,1,2,2,1		5.977	6	1.507	0	1	1	4	12	22	54	17	13	4	1	1	-
G12 = 2,1,2 1,2,2,1		5.675	6	1.373	2	0	3	0	8	31	63	12	5	1	0	1	-
G13 = 2,1,2,1 1,2,2	Fav	5.712	6	1.565	1	0	1	2	4	13	27	6	2	2	1	0	-
	Unfav	5.559	6	1.632	1	1	1	1	6	15	24	3	5	2	0	0	-
G14 = 2,2,2,2 1,1,1	Fav	6.338	6	1.742	0	0	1	1	5	16	20	6	10	7	1	1	-
	Unfav	5.721	6	1.852	2	1	1	0	5	19	24	8	4	2	1	1	-
G15 = 4,2,1,4		5.900	6	1.521	2	0	0	0	8	19	50	15	2	1	0	3	-

Table A.4.5a (continued)

Game description	Fav/unfav	Mean	Median	Std. dev.	Claim value												
					0	1	2	3	4	5	6	7	8	9	10	11	15
G16 = 4 2,1 4		6.110	6	1.885	3	1	0	0	1	20	50	14	4	0	1	6	-
G17 = 2,4 4,1	Fav	6.154	6	2.072	2	0	0	0	1	4	23	3	2	0	3	1	-
	Unfav	6.590	6	1.846	0	0	0	0	3	7	15	5	2	4	0	3	-
G18 = 2,1 4,4	Fav	6.345	6	2.022	0	0	1	0	8	12	17	6	6	2	2	4	-
	Unfav	5.897	6	1.813	0	1	1	1	6	11	26	6	1	2	0	3	-
G19 = 5,1,5		6.224	6	1.740	1	1	-	-	-	20	82	-	-	-	3	9	-
G20 = 1,5 5	Fav	6.133	6	1.241	0	0	-	-	-	12	43	-	-	-	5	0	-
	Unfav	6.367	6	1.794	0	0	-	-	-	16	36	-	-	-	2	6	-
G21 = 5 1 5		6.036	6	1.488	1	1	-	-	-	21	81	-	-	-	4	4	-
G22 = 4,2,4		5.900	6	1.406	0	-	1	-	26	-	101	-	3	-	9	-	-
G23 = 4 4,2	Fav	5.815	6	1.609	2	-	0	-	8	-	51	-	0	-	4	-	-
	Unfav	6.000	6	1.696	2	-	0	-	8	-	44	-	8	-	3	-	-
G24 = 4 2 4		6.104	6	1.498	1	-	0	-	17	-	100	-	5	-	11	-	-
G25 = 4,3,4		6.636	7	1.672	2	-	-	1	24	-	-	114	6	-	-	7	-
G26 = 3,4 4	Fav	6.708	7	1.343	0	-	-	1	8	-	-	53	1	-	-	2	-
	Unfav	6.646	7	1.874	1	-	-	1	12	-	-	36	12	-	-	3	-
G27 = 4 3 4		6.801	7	1.672	2	-	-	2	16	-	-	109	9	-	-	8	-
G28 = 5,5,5		9.318	10	2.219	1	-	-	-	-	24	-	-	-	-	124	-	5
G29 = 5 5,5	Fav	9.797	10	1.744	0	-	-	-	-	6	-	-	-	-	65	-	3
	Unfav	9.189	10	2.870	2	-	-	-	-	13	-	-	-	-	54	-	5
G30 = 5 5 5		9.441	10	2.269	0	-	-	-	-	25	-	-	-	-	119	-	8

Table A.4.5b – Distribution of claim values by game at 20 sec (Sets I and II)

Game description	Fav/unfav	Mean	Median	Std. dev.	Claim value												
					0	1	2	3	4	5	6	7	8	9	10	11	15
G1 = 5,5		7.115	5	2.519	0	-	-	-	-	15	-	-	-	-	11	-	-
G2 = 5 5		5.313	5	2.869	2	-	-	-	-	11	-	-	-	-	3	-	-
G3 = 5,6		6.679	6	2.066	1	-	-	-	-	7	62	-	-	-	-	14	-
G4 = 6 5	Fav	7.232	6	2.320	0	-	-	-	-	6	35	-	-	-	-	15	-
	Unfav	6.393	6	2.447	3	-	-	-	-	5	39	-	-	-	-	9	-
G5 = 3,8		8.013	8	2.410	8	-	-	16	-	-	-	-	161	-	-	49	-
G6 = 8 3	Fav	8.209	8	2.299	4	-	-	4	-	-	-	-	77	-	-	25	-
	Unfav	8.091	8	2.293	3	-	-	7	-	-	-	-	77	-	-	23	-
G7 = 1,2,2,2,2,1		5.983	6	1.535	0	0	0	2	1	24	18	9	1	0	5	-	-
G8 = 2,2,1 1,2,2		6.333	6	1.673	0	0	0	1	0	14	7	6	4	1	3	-	-
G9 = 2,1,1 2,2,2	Fav	6.091	6	0.843	0	0	0	0	0	8	16	7	2	0	0	-	-
	Unfav	5.636	5	1.194	0	0	0	0	2	18	7	4	1	0	1	-	-
G10 = 2,1 1,2,2,2	Fav	6.200	6	1.302	0	0	0	0	2	8	14	6	3	1	1	-	-
	Unfav	5.886	5	1.586	0	0	0	1	1	17	8	4	1	0	3	-	-
G11 = 1,2,2,1,2,2,1		6.229	6	1.261	0	0	0	2	3	18	40	20	9	3	0	1	-
G12 = 2,1,2 1,2,2,1		6.292	6	1.347	0	0	0	0	2	11	43	8	2	2	2	2	-
G13 = 2,1,2,1 1,2,2	Fav	6.098	6	1.463	1	0	0	0	1	6	24	2	5	2	0	0	-
	Unfav	6.341	6	1.315	0	0	0	0	0	11	17	6	4	1	2	0	-
G14 = 2,2,2,2 1,1,1	Fav	6.565	6	1.615	0	0	0	0	2	6	25	1	6	3	1	2	-
	Unfav	6.261	6	1.625	0	0	0	1	1	16	13	5	5	3	1	1	-
G15 = 4,2,1,4		6.661	6	1.564	0	0	0	0	0	5	33	11	0	2	0	5	-

Table A.4.5b (continued)

Game description	Fav/unfav	Mean	Median	Std. dev.	Claim value												
					0	1	2	3	4	5	6	7	8	9	10	11	15
G16 = 4 2,1 4		6.781	6	1.777	0	0	0	1	1	4	36	9	3	2	2	6	-
G17 = 2,4 4,1	Fav	6.862	6	1.726	0	0	0	0	0	1	20	2	1	0	3	2	-
	Unfav	7.138	6	1.787	0	0	0	0	0	3	12	5	2	4	0	3	-
G18 = 2,1 4,4	Fav	7.200	7	1.844	0	0	0	0	0	5	12	6	4	1	5	2	-
	Unfav	6.229	6	1.573	0	0	1	0	1	8	12	9	2	0	1	1	-
G19 = 5,1,5		6.260	6	1.617	0	1	-	-	-	16	69	-	-	-	4	6	-
G20 = 1,5 5	Fav	6.119	6	0.916	0	0	-	-	-	3	37	-	-	-	2	0	-
	Unfav	6.476	6	1.851	0	0	-	-	-	9	27	-	-	-	1	5	-
G21 = 5 1 5		6.256	6	1.734	0	2	-	-	-	10	61	-	-	-	4	5	-
G22 = 4,2,4		5.915	6	1.152	0	-	0	-	17	-	94	-	2	-	5	-	-
G23 = 4 4,2	Fav	6.379	6	1.694	0	-	1	-	5	-	42	-	2	-	8	-	-
	Unfav	6.483	6	1.603	0	-	0	-	6	-	39	-	6	-	7	-	-
G24 = 4 2 4		6.119	6	1.207	0	-	0	-	11	-	96	-	4	-	7	-	-
G25 = 4,3,4		6.831	7	1.463	1	-	-	1	14	-	-	108	6	-	-	6	-
G26 = 3,4 4	Fav	7.066	7	1.788	0	-	-	1	7	-	-	45	1	-	-	7	-
	Unfav	7.230	7	1.910	0	-	-	2	6	-	-	37	8	-	-	8	-
G27 = 4 3 4		7.008	7	1.577	0	-	-	1	15	-	-	94	10	-	-	10	-
G28 = 5,5,5		9.773	10	2.036	1	-	-	-	-	11	-	-	-	-	113	-	7
G29 = 5 5,5	Fav	10.154	10	1.761	0	-	-	-	-	3	-	-	-	-	57	-	5
	Unfav	10.154	10	2.160	1	-	-	-	-	2	-	-	-	-	56	-	6
G30 = 5 5 5		9.701	10	2.103	1	-	-	-	-	13	-	-	-	-	113	-	7

Table A.4.5c – Distribution of claim values by game at 30 sec (Sets I and II)

Game description	Fav/unfav	Mean	Median	Std. dev.	Claim value												
					0	1	2	3	4	5	6	7	8	9	10	11	15
G1 = 5,5		6.591	5	2.384	0	-	-	-	-	15	-	-	-	-	7	-	-
G2 = 5 5		5.500	5	3.689	2	-	-	-	-	5	-	-	-	-	3	-	-
G3 = 5,6		6.667	6	2.501	3	-	-	-	-	3	47	-	-	-	-	13	-
G4 = 6 5	Fav	7.022	6	2.169	0	-	-	-	-	4	31	-	-	-	-	10	-
	Unfav	6.200	6	2.128	2	-	-	-	-	4	34	-	-	-	-	5	-
G5 = 3,8		8.225	8	2.359	9	-	-	7	-	-	-	-	150	-	-	52	-
G6 = 8 3	Fav	8.155	8	2.033	2	-	-	5	-	-	-	-	77	-	-	19	-
	Unfav	8.340	8	1.829	1	-	-	4	-	-	-	-	77	-	-	21	-
G7 = 1,2,2,2,2,1		5.920	6	1.307	0	0	0	1	0	23	14	6	3	2	1	-	-
G8 = 2,2,1 1,2,2		6.500	6	1.530	0	0	0	0	0	7	10	4	1	2	2	-	-
G9 = 2,1,1 2,2,2	Fav	6.077	6	0.891	0	0	0	0	0	7	12	5	2	0	0	-	-
	Unfav	5.615	5	1.745	0	0	1	0	4	11	4	3	0	2	1	-	-
G10 = 2,1 1,2,2,2	Fav	5.680	5	0.900	0	0	0	0	1	12	6	6	0	0	0	-	-
	Unfav	5.360	5	1.912	1	0	1	0	2	12	4	2	2	0	1	-	-
G11 = 1,2,2,1,2,2,1		6.347	6	1.436	0	0	0	0	2	15	34	11	3	3	2	2	-
G12 = 2,1,2 2,2,1		6.466	6	1.466	0	0	0	0	2	5	36	7	2	1	3	2	-
G13 = 2,1,2,1 1,2,2	Fav	6.233	6	1.612	1	0	0	0	0	3	17	5	2	1	1	0	-
	Unfav	6.667	6	1.561	0	0	0	0	0	7	11	4	4	1	3	0	-
G14 = 2,2,2,2 1,1,1	Fav	6.818	6	1.402	0	0	0	0	1	1	17	4	6	3	0	1	-
	Unfav	7.000	6	1.521	0	0	0	0	0	2	15	6	6	1	1	2	-
G15 = 4,2,1,4		6.563	6	1.147	0	0	0	0	0	3	25	17	0	0	2	1	-

Table A.4.5c (continued)

Game description	Fav/unfav	Mean	Median	Std. dev.	Claim value												
					0	1	2	3	4	5	6	7	8	9	10	11	15
G16 = 4 2,1 4		6.982	6	1.721	0	0	0	0	0	3	31	9	3	3	1	6	-
G17 = 2,4 4,1	Fav	6.926	6	1.838	0	0	0	0	0	2	17	2	0	1	3	2	-
	Unfav	6.889	6	1.948	0	0	0	0	1	2	14	5	0	1	0	4	-
G18 = 2,1 4,4	Fav	7.926	7	2.303	0	0	0	0	0	4	7	3	2	1	4	6	-
	Unfav	6.667	6	2.038	0	0	1	0	1	4	9	6	2	0	2	2	-
G19 = 5,1,5		6.381	6	1.649	0	1	-	-	-	8	65	-	-	-	5	5	-
G20 = 1,5 5	Fav	6.265	6	1.333	0	0	-	-	-	4	27	-	-	-	2	1	-
	Unfav	6.471	6	1.710	0	0	-	-	-	4	26	-	-	-	0	4	-
G21 = 5 1 5		6.129	6	1.624	0	2	-	-	-	5	50	-	-	-	2	3	-
G22 = 4,2,4		6.040	6	1.171	1	-	0	-	6	-	86	-	3	-	4	-	-
G23 = 4 4,2	Fav	6.327	6	1.320	0	-	0	-	3	-	45	-	2	-	5	-	-
	Unfav	6.473	6	1.386	0	-	0	-	3	-	41	-	6	-	5	-	-
G24 = 4 2 4		6.212	6	0.962	0	-	0	-	2	-	94	-	3	-	5	-	-
G25 = 4,3,4		6.841	7	1.307	0	-	-	1	14	-	-	107	5	-	-	5	-
G26 = 3,4 4	Fav	7.232	7	1.388	0	-	-	0	3	-	-	46	2	-	-	5	-
	Unfav	7.036	7	1.858	0	-	-	1	8	-	-	35	6	-	-	6	-
G27 = 4 3 4		6.867	7	1.166	0	-	-	0	13	-	-	102	10	-	-	3	-
G28 = 5,5,5		9.960	10	2.144	1	-	-	-	-	9	-	-	-	-	106	-	10
G29 = 5 5,5	Fav	10.242	10	1.905	0	-	-	-	-	3	-	-	-	-	53	-	6
	Unfav	10.161	10	2.390	1	-	-	-	-	3	-	-	-	-	51	-	7
G30 = 5 5 5		10.042	10	1.889	1	-	-	-	-	5	-	-	-	-	106	-	8

Table A.4.5d – Distribution of claim values by game at 40 sec (Sets I and II)

Game description	Fav/unfav	Mean	Median	Std. dev.	Claim value												
					0	1	2	3	4	5	6	7	8	9	10	11	15
G1 = 5,5		6.875	5	2.500	0	-	-	-	-	10	-	-	-	-	6	-	-
G2 = 5 5		5.625	5	3.204	1	-	-	-	-	5	-	-	-	-	2	-	-
G3 = 5,6		7.383	6	2.300	0	-	-	-	-	2	41	-	-	-	-	17	-
G4 = 6 5	Fav	7.125	6	2.115	0	-	-	-	-	0	31	-	-	-	-	9	-
	Unfav	6.500	6	1.754	0	-	-	-	-	5	30	-	-	-	-	5	-
G5 = 3,8		8.299	8	2.134	5	-	-	8	-	-	-	-	144	-	-	47	-
G6 = 8 3	Fav	8.495	8	1.617	1	-	-	1	-	-	-	-	73	-	-	20	-
	Unfav	8.305	8	1.863	1	-	-	4	-	-	-	-	71	-	-	19	-
G7 = 1,2,2,2,2,1		6.139	6	1.313	0	0	0	1	0	11	13	6	2	3	0	-	-
G8 = 2,2,1 1,2,2		6.500	6	1.694	0	0	0	0	0	9	7	2	0	5	1	-	-
G9 = 2,1,1 2,2,2	Fav	5.684	6	0.749	0	0	0	0	0	9	7	3	0	0	0	-	-
	Unfav	5.789	5	1.228	0	0	0	0	1	9	5	2	1	1	0	-	-
G10 = 2,1 1,2,2,2	Fav	5.947	5	1.508	0	0	0	0	2	8	2	5	1	0	1	-	-
	Unfav	6.000	5	1.795	0	0	0	0	2	10	1	2	1	2	1	-	-
G11 = 1,2,2,1,2,2,1		6.574	6	1.667	0	0	0	1	1	7	27	8	3	2	2	3	-
G12 = 2,1,2 2,2,1		6.583	6	1.350	0	0	0	0	1	3	29	6	3	4	1	1	-
G13 = 2,1,2,1 1,2,2	Fav	6.077	6	1.787	1	0	0	0	0	6	13	1	3	1	1	0	-
	Unfav	6.423	6	1.528	0	0	0	0	1	5	12	4	0	2	2	0	-
G14 = 2,2,2,2 1,1,1	Fav	6.500	6	1.244	0	0	0	0	0	4	18	3	6	0	0	1	-
	Unfav	6.969	6	1.656	0	0	0	0	0	3	14	7	3	2	0	3	-
G15 = 4,2,1,4		6.477	6	1.210	0	0	0	0	0	4	25	12	0	0	2	1	-

Table A.4.5d (continued)

Game description	Fav/unfav	Mean	Median	Std. dev.	Claim value												
					0	1	2	3	4	5	6	7	8	9	10	11	15
G16 = 4 2,1 4		6.796	6	1.720	0	0	0	0	0	5	32	6	3	2	0	6	-
G17 = 2,4 4,1	Fav	7.167	6	1.971	0	0	0	0	0	2	13	2	1	0	4	2	-
	Unfav	6.750	6	2.027	0	0	1	0	1	0	13	4	0	2	1	2	-
G18 = 2,1 4,4	Fav	7.708	7	2.116	0	0	0	0	0	2	8	5	0	2	3	4	-
	Unfav	7.083	6	2.020	0	0	0	1	0	1	11	5	0	1	3	2	-
G19 = 5,1,5		6.321	6	1.382	0	0	-	-	-	7	64	-	-	-	3	4	-
G20 = 1,5 5	Fav	5.970	6	0.174	0	0	-	-	-	1	32	-	-	-	0	0	-
	Unfav	6.424	6	1.678	0	0	-	-	-	5	24	-	-	-	1	3	-
G21 = 5 1 5		6.125	6	1.608	0	2	-	-	-	4	45	-	-	-	4	1	-
G22 = 4,2,4	Fav	6.042	6	1.264	1	-	0	-	7	-	81	-	2	-	5	-	-
	Unfav	6.308	6	1.076	0	-	0	-	1	-	45	-	3	-	3	-	-
G23 = 4 4,2	Fav	6.192	6	1.329	0	-	0	-	6	-	38	-	5	-	3	-	-
	Unfav	6.280	6	1.138	0	-	0	-	3	-	87	-	3	-	7	-	-
G24 = 4 2 4	Fav	6.863	7	1.129	0	-	-	1	10	-	-	105	5	-	-	3	-
	Unfav	7.268	7	1.543	0	-	-	0	4	-	-	43	3	-	-	6	-
G25 = 4,3,4	Fav	6.946	7	1.813	0	-	-	2	7	-	-	36	6	-	-	5	-
	Unfav	6.926	7	1.100	0	-	-	0	10	-	-	100	9	-	-	3	-
G26 = 3,4 4	Fav	9.917	10	2.048	1	-	-	-	-	8	-	-	-	-	103	-	8
	Unfav	10.083	10	2.346	0	-	-	-	-	6	-	-	-	-	47	-	7
G27 = 4 3 4	Fav	10.583	10	1.862	0	-	-	-	-	1	-	-	-	-	51	-	8
	Unfav	9.828	10	1.464	1	-	-	-	-	4	-	-	-	-	109	-	2
G28 = 5,5,5																	
G29 = 5 5,5	Fav																
	Unfav																
G30 = 5 5 5																	

Table A.4.5e – Distribution of claim values by game at 50 sec (Sets I and II)

Game description	Fav/unfav	Mean	Median	Std. dev.	Claim value												
					0	1	2	3	4	5	6	7	8	9	10	11	15
G1 = 5,5		6.250	5	2.261	0	-	-	-	-	9	-	-	-	-	3	-	-
G2 = 5 5		6.667	7.5	4.082	1	-	-	-	-	2	-	-	-	-	3	-	-
G3 = 5,6		7.259	6	2.237	0	-	-	-	-	2	41	-	-	-	-	15	-
G4 = 6 5	Fav	7.184	6	2.154	0	-	-	-	-	0	29	-	-	-	-	9	-
	Unfav	6.526	6	1.797	0	-	-	-	-	5	28	-	-	-	-	5	-
G5 = 3,8		8.372	8	1.940	5	-	-	2	-	-	-	-	141	-	-	40	-
G6 = 8 3	Fav	8.565	8	1.536	1	-	-	0	-	-	-	-	71	-	-	20	-
	Unfav	8.304	8	1.765	1	-	-	3	-	-	-	-	71	-	-	17	-
G7 = 1,2,2,2,2,1		6.281	6	1.373	0	0	0	0	0	11	10	7	0	3	1	-	-
G8 = 2,2,1 1,2,2		6.458	6	1.414	0	0	0	0	0	9	4	4	5	2	0	-	-
G9 = 2,1,1 2,2,2	Fav	6.071	6	1.328	0	0	0	0	0	5	6	2	0	0	1	-	-
	Unfav	5.643	5	1.336	0	0	0	0	1	8	3	0	1	1	0	-	-
G10 = 2,1 1,2,2,2	Fav	6.273	7	1.191	0	0	0	0	1	2	2	5	1	0	0	-	-
	Unfav	6.909	7	1.640	0	0	0	0	0	3	1	4	1	1	1	-	-
G11 = 1,2,2,1,2,2,1		6.738	6	1.578	0	0	0	0	0	3	25	6	4	0	0	4	-
G12 = 2,1,2 1,2,2,1		6.375	6	1.104	0	0	0	0	0	6	30	5	2	5	0	0	-
G13 = 2,1,2,1 1,2,2	Fav	6.364	6	2.083	1	0	0	0	0	3	11	3	1	0	3	0	-
	Unfav	6.909	6.5	1.477	0	0	0	0	0	2	9	5	4	0	1	1	-
G14 = 2,2,2,2 1,1,1	Fav	6.828	6	1.774	0	0	0	0	0	3	17	2	3	0	1	3	-
	Unfav	7.310	6	2.072	0	0	0	0	0	2	14	5	1	1	0	6	-
G15 = 4,2,1,4		6.605	6	1.480	0	0	0	0	1	3	20	9	1	1	1	2	-

Table A.4.5e (continued)

Game description	Fav/unfav	Mean	Median	Std. dev.	Claim value												
					0	1	2	3	4	5	6	7	8	9	10	11	15
G16 = 4 2,1 4		6.826	6	1.924	0	0	0	0	2	4	24	7	1	1	1	6	-
G17 = 2,4 4,1	Fav	7.263	6	1.939	0	0	0	0	0	1	10	2	1	1	2	2	-
	Unfav	6.947	6	2.013	0	0	0	1	0	1	8	5	0	1	1	2	-
G18 = 2,1 4,4	Fav	7.571	7	2.135	0	0	0	0	0	3	6	4	1	1	3	3	-
	Unfav	6.905	6	1.868	0	0	0	0	1	2	8	6	0	1	1	2	-
G19 = 5,1,5		6.079	6	1.055	0	0	-	-	-	11	61	-	-	-	3	1	-
G20 = 1,5 5	Fav	6.091	6	0.914	0	0	-	-	-	2	30	-	-	-	0	1	-
	Unfav	6.424	6	1.582	0	0	-	-	-	4	25	-	-	-	2	2	-
G21 = 5 1 5		6.462	6	1.565	0	0	-	-	-	4	42	-	-	-	2	4	-
G22 = 4,2,4	Fav	6.000	6	1.109	0	-	0	-	10	-	76	-	2	-	4	-	-
	Unfav	6.360	6	1.191	0	-	0	-	1	-	43	-	2	-	4	-	-
G23 = 4 4,2	Fav	6.200	6	0.926	0	-	0	-	2	-	42	-	5	-	1	-	-
	Unfav	6.188	6	1.127	0	-	0	-	5	-	83	-	2	-	6	-	-
G24 = 4 2 4		6.910	7	1.286	1	-	-	0	9	-	-	101	7	-	-	4	-
G25 = 4,3,4	Fav	7.167	7	1.225	0	-	-	0	3	-	-	42	6	-	-	3	-
	Unfav	7.130	7	1.791	0	-	-	1	6	-	-	36	5	-	-	6	-
G26 = 3,4 4		6.933	7	0.968	0	-	-	0	8	-	-	102	8	-	-	2	-
G27 = 4 3 4		9.746	10	2.153	2	-	-	-	-	8	-	-	-	-	102	-	6
G28 = 5,5,5	Fav	10.000	10	1.873	0	-	-	-	-	4	-	-	-	-	50	-	4
	Unfav	10.517	10	1.799	0	-	-	-	-	1	-	-	-	-	50	-	7
G29 = 5 5,5		9.868	10	1.691	0	-	-	-	-	8	-	-	-	-	101	-	5
G30 = 5 5 5																	

Table A.4.5f – Distribution of claim values by game at 60 sec (Sets I and II)

Game description	Fav/unfav	Mean	Median	Std. dev.	Claim value												
					0	1	2	3	4	5	6	7	8	9	10	11	15
G1 = 5,5		6.667	5	3.257	1	-	-	-	-	6	-	-	-	-	5	-	-
G2 = 5 5		6.667	7.5	4.082	1	-	-	-	-	2	-	-	-	-	3	-	-
G3 = 5,6		7.426	6	2.582	1	-	-	-	-	2	34	-	-	-	-	17	-
G4 = 6 5	Fav	6.971	6	2.051	0	-	-	-	-	1	27	-	-	-	-	7	-
	Unfav	6.200	6	1.232	0	-	-	-	-	3	30	-	-	-	-	2	-
G5 = 3,8		8.296	8	1.832	4	-	-	3	-	-	-	-	145	-	-	34	-
G6 = 8 3	Fav	8.379	8	1.720	1	-	-	2	-	-	-	-	67	-	-	17	-
	Unfav	8.310	8	1.673	1	-	-	2	-	-	-	-	69	-	-	15	-
G7 = 1,2,2,2,2,1		6.036	6	1.347	0	0	0	0	1	11	8	5	1	1	1	-	-
G8 = 2,2,1 1,2,2		6.417	5.5	1.976	0	0	0	0	2	10	3	2	2	2	3	-	-
G9 = 2,1,1 2,2,2	Fav	6.364	6	1.286	0	0	0	0	0	1	8	1	0	0	1	-	-
	Unfav	5.909	5	1.514	0	0	0	0	1	5	2	1	1	1	0	-	-
G10 = 2,1 1,2,2,2	Fav	6.182	6	1.722	0	0	0	0	1	4	2	2	1	0	1	-	-
	Unfav	6.636	7	1.804	0	0	0	1	0	2	1	4	1	2	0	-	-
G11 = 1,2,2,1,2,2,1		6.167	6	0.775	0	0	0	0	0	4	25	5	1	1	0	0	-
G12 = 2,1,2 1,2,2,1		6.150	6	0.893	0	0	0	1	0	2	30	4	2	1	0	0	-
G13 = 2,1,2,1 1,2,2	Fav	6.250	6	1.517	0	0	0	1	0	2	13	1	2	0	0	1	-
	Unfav	6.650	6	1.496	0	0	0	0	0	3	10	2	3	1	0	1	-
G14 = 2,2,2,2 1,1,1	Fav	6.852	6	1.537	0	0	0	0	0	1	17	2	3	1	2	1	-
	Unfav	6.778	6	1.826	0	0	0	0	1	5	10	4	1	4	0	2	-
G15 = 4,2,1,4		6.875	6	1.737	0	0	0	0	0	2	19	5	1	0	2	3	-

Table A.4.5f (continued)

Game description	Fav/unfav	Mean	Median	Std. dev.	Claim value												
					0	1	2	3	4	5	6	7	8	9	10	11	15
G16 = 4 2,1 4		6.667	6	1.720	0	0	0	0	1	5	23	6	0	2	2	3	-
G17 = 2,4 4,1	Fav	6.889	6	1.937	0	0	0	0	0	3	9	2	0	0	3	1	-
	Unfav	6.889	6	1.906	0	0	0	0	1	1	9	3	0	2	0	2	-
G18 = 2,1 4,4	Fav	6.588	6	1.121	0	0	0	0	0	1	9	5	1	0	1	0	-
	Unfav	6.529	6	2.401	0	0	0	1	1	4	6	1	1	0	0	3	-
G19 = 5,1,5		6.097	6	1.009	0	0	-	-	-	7	62	-	-	-	1	2	-
G20 = 1,5 5	Fav	5.938	6	0.246	0	0	-	-	-	2	30	-	-	-	0	0	-
	Unfav	6.188	6	1.176	0	0	-	-	-	3	27	-	-	-	1	1	-
G21 = 5 1 5		6.435	6	1.424	0	0	-	-	-	2	39	-	-	-	3	2	-
G22 = 4,2,4		5.739	6	1.118	1	-	0	-	13	-	76	-	0	-	2	-	-
G23 = 4 4,2	Fav	6.400	6	1.400	0	-	0	-	2	-	42	-	0	-	6	-	-
	Unfav	6.280	6	1.278	0	-	0	-	4	-	38	-	5	-	3	-	-
G24 = 4 2 4		6.200	6	1.238	0	-	0	-	7	-	73	-	4	-	6	-	-
G25 = 4,3,4		6.883	7	1.285	1	-	-	0	9	-	-	102	4	-	-	4	-
G26 = 3,4 4	Fav	6.962	7	1.236	0	-	-	1	3	-	-	43	3	-	-	2	-
	Unfav	7.038	7	1.737	1	-	-	0	4	-	-	38	5	-	-	4	-
G27 = 4 3 4		6.914	7	1.169	0	-	-	0	10	-	-	98	4	-	-	4	-
G28 = 5,5,5		9.825	10	1.751	0	-	-	-	-	9	-	-	-	-	100	-	5
G29 = 5 5,5	Fav	9.649	10	1.856	0	-	-	-	-	6	-	-	-	-	49	-	2
	Unfav	10.439	10	1.711	0	-	-	-	-	1	-	-	-	-	50	-	6
G30 = 5 5 5		9.956	10	1.939	1	-	-	-	-	6	-	-	-	-	100	-	7

Table A.4.5g – Distribution of claim values by game at 70 sec (Sets I and II)

Game description	Fav/unfav	Mean	Median	Std. dev.	Claim value												
					0	1	2	3	4	5	6	7	8	9	10	11	15
G1 = 5,5		7.500	7.5	2.635	0	-	-	-	-	5	-	-	-	-	5	-	-
G2 = 5 5		7.500	10	4.183	1	-	-	-	-	1	-	-	-	-	4	-	-
G3 = 5,6		6.926	6	2.354	1	-	-	-	-	4	37	-	-	-	-	12	-
G4 = 6 5	Fav	6.781	6	1.845	0	-	-	-	-	0	27	-	-	-	-	5	-
	Unfav	6.281	6	1.871	1	-	-	-	-	0	28	-	-	-	-	3	-
G5 = 3,8		8.198	8	1.968	5	-	-	4	-	-	-	-	141	-	-	32	-
G6 = 8 3	Fav	8.133	8	1.999	2	-	-	3	-	-	-	-	64	-	-	14	-
	Unfav	8.193	8	1.756	1	-	-	3	-	-	-	-	66	-	-	13	-
G7 = 1,2,2,2,2,1		5.773	5.5	1.020	0	0	0	0	0	11	7	3	0	1	0	-	-
G8 = 2,2,1 1,2,2		5.778	5.5	1.215	0	0	0	0	1	8	6	1	1	1	0	-	-
G9 = 2,1,1 2,2,2	Fav	6.273	6	1.489	0	0	0	0	1	1	6	2	0	0	1	-	-
	Unfav	5.909	5	1.758	0	0	0	0	1	6	1	1	1	0	1	-	-
G10 = 2,1 1,2,2,2	Fav	5.900	6	1.101	0	0	0	0	1	3	2	4	0	0	0	-	-
	Unfav	6.100	6	1.287	0	0	0	0	0	4	3	2	0	1	0	-	-
G11 = 1,2,2,1,2,2,1		6.300	6	1.119	0	0	0	0	0	3	21	3	2	0	0	1	-
G12 = 2,1,2 1,2,2,1		6.211	6	0.777	0	0	0	0	0	2	31	1	3	1	0	0	-
G13 = 2,1,2,1 1,2,2	Fav	6.278	6	1.320	0	0	0	0	0	2	14	0	1	0	0	1	-
	Unfav	6.778	6	1.517	0	0	0	0	0	1	11	2	1	2	0	1	-
G14 = 2,2,2,2 1,1,1	Fav	6.500	6	1.175	0	0	0	0	0	2	17	2	3	1	1	0	-
	Unfav	7.077	6	1.998	0	0	0	0	1	3	10	5	0	3	1	3	-
G15 = 4,2,1,4		6.767	6	1.612	0	0	0	0	0	2	18	5	1	0	2	2	-

Table A.4.5g (continued)

Game description	Fav/unfav	Mean	Median	Std. dev.	Claim value												
					0	1	2	3	4	5	6	7	8	9	10	11	15
G16 = 4 2,1 4		6.972	6	1.934	0	0	0	0	1	2	20	5	1	1	1	5	-
G17 = 2,4 4,1	Fav	7.000	6	1.852	0	0	0	0	0	1	9	1	1	0	2	1	-
	Unfav	6.667	6	1.113	0	0	0	0	0	0	10	2	1	2	0	0	-
G18 = 2,1 4,4	Fav	6.538	6	0.660	0	0	0	0	0	0	7	5	1	0	0	0	-
	Unfav	7.231	7	1.787	0	0	0	0	0	1	5	3	1	1	1	1	-
G19 = 5,1,5		6.103	6	1.174	0	0	-	-	-	11	53	-	-	-	2	2	-
G20 = 1,5 5	Fav	5.968	6	0.180	0	0	-	-	-	1	30	-	-	-	0	0	-
	Unfav	6.097	6	0.944	0	0	-	-	-	2	28	-	-	-	0	1	-
G21 = 5 1 5		6.239	6	1.119	0	0	-	-	-	2	41	-	-	-	2	1	-
G22 = 4,2,4		5.833	6	1.085	1	-	0	-	8	-	73	-	0	-	2	-	-
G23 = 4 4,2	Fav	6.122	6	0.949	0	-	0	-	2	-	44	-	1	-	2	-	-
	Unfav	6.245	6	0.969	0	-	0	-	2	-	40	-	6	-	1	-	-
G24 = 4 2 4		6.279	6	1.411	0	-	0	-	8	-	66	-	4	-	8	-	-
G25 = 4,3,4		7.050	7	1.249	0	-	-	0	8	-	-	103	2	-	-	7	-
G26 = 3,4 4	Fav	6.980	7	0.478	0	-	-	0	1	-	-	46	2	-	-	0	-
	Unfav	7.102	7	1.159	0	-	-	0	3	-	-	38	6	-	-	2	-
G27 = 4 3 4		6.851	7	1.050	0	-	-	0	10	-	-	97	5	-	-	2	-
G28 = 5,5,5		9.727	10	1.489	0	-	-	-	-	8	-	-	-	-	100	-	2
G29 = 5 5,5	Fav	9.737	10	1.470	0	-	-	-	-	4	-	-	-	-	52	-	1
	Unfav	10.175	10	1.325	0	-	-	-	-	1	-	-	-	-	53	-	3
G30 = 5 5 5		9.866	10	1.248	0	-	-	-	-	5	-	-	-	-	105	-	2

Table A.4.5h – Distribution of claim values by game at 80 sec (Sets I and II)

Game description	Fav/unfav	Mean	Median	Std. dev.	Claim value												
					0	1	2	3	4	5	6	7	8	9	10	11	15
G1 = 5,5		6.250	5	2.315	0	-	-	-	-	6	-	-	-	-	2	-	-
G2 = 5 5		6.667	5	2.582	0	-	-	-	-	4	-	-	-	-	2	-	-
G3 = 5,6		7.188	6	2.238	0	-	-	-	-	3	33	-	-	-	-	12	-
G4 = 6 5	Fav	6.875	6	2.028	0	-	-	-	-	2	24	-	-	-	-	6	-
	Unfav	6.000	6	1.704	1	-	-	-	-	4	25	-	-	-	-	2	-
G5 = 3,8		8.122	8	2.127	5	-	-	6	-	-	-	-	123	-	-	30	-
G6 = 8 3	Fav	8.269	8	1.884	2	-	-	1	-	-	-	-	61	-	-	14	-
	Unfav	8.397	8	1.252	0	-	-	1	-	-	-	-	65	-	-	12	-
G7 = 1,2,2,2,2,1		5.833	6	0.857	0	0	0	0	0	7	8	2	1	0	0	-	-
G8 = 2,2,1 1,2,2	Fav	6.667	6	1.414	0	0	0	0	0	1	4	3	0	0	1	-	-
	Unfav	5.667	5	1.118	0	0	0	0	0	6	1	1	1	0	0	-	-
G10 = 2,1 1,2,2,2	Fav	5.500	5	1.069	0	0	0	0	1	4	1	2	0	0	0	-	-
	Unfav	5.875	5.5	1.126	0	0	0	0	0	4	2	1	1	0	0	-	-
G11 = 1,2,2,1,2,2,1		6.071	6	0.604	0	0	0	0	0	3	21	3	1	0	0	0	-
G12 = 2,1,2 2,2,1	Fav	6.313	6	0.704	0	0	0	0	0	0	13	1	2	0	0	0	-
	Unfav	6.625	6	1.544	0	0	0	0	0	2	9	2	1	1	0	1	-
G13 = 2,1,2,1 1,2,2	Fav	6.375	6	1.056	0	0	0	0	1	1	15	3	3	1	0	0	-
	Unfav	6.750	6	1.595	0	0	0	0	0	4	10	5	1	2	1	1	-
G15 = 4,2,1,4		6.500	6	1.364	0	0	0	0	0	3	15	5	1	0	1	1	-

Table A.4.5h (continued)

Game description	Fav/unfav	Mean	Median	Std. dev.	Claim value												
					0	1	2	3	4	5	6	7	8	9	10	11	15
G16 = 4 2,1 4		6.688	6	1.554	0	0	0	0	1	3	14	9	2	0	1	2	-
G17 = 2,4 4,1	Fav	6.733	6	1.486	0	0	0	0	0	1	9	2	1	0	2	0	-
	Unfav	6.667	6	1.952	0	0	0	1	0	1	9	0	0	2	2	0	-
G18 = 2,1 4,4	Fav	7.077	6	1.801	0	0	0	0	0	0	7	4	0	0	0	2	-
	Unfav	6.769	6	1.787	0	0	0	0	0	3	5	2	0	1	2	0	-
G19 = 5,1,5		6.067	6	0.880	0	0	-	-	-	5	53	-	-	-	1	1	-
G20 = 1,5 5	Fav	5.967	6	0.183	0	0	-	-	-	1	29	-	-	-	0	0	-
	Unfav	6.100	6	0.759	0	0	-	-	-	1	28	-	-	-	1	0	-
G21 = 5 1 5		6.286	6	1.154	0	0	-	-	-	1	38	-	-	-	2	1	-
G22 = 4,2,4		5.951	6	0.993	0	-	0	-	8	-	71	-	0	-	3	-	-
G23 = 4 4,2	Fav	6.083	6	0.919	0	-	0	-	2	-	44	-	0	-	2	-	-
	Unfav	6.250	6	0.978	0	-	0	-	2	-	39	-	6	-	1	-	-
G24 = 4 2 4		6.231	6	0.966	0	-	0	-	1	-	71	-	2	-	4	-	-
G25 = 4,3,4		6.802	7	1.057	0	-	-	0	11	-	-	101	2	-	-	2	-
G26 = 3,4 4	Fav	7.087	7	0.784	0	-	-	0	1	-	-	41	3	-	-	1	-
	Unfav	6.848	7	1.192	0	-	-	0	5	-	-	36	4	-	-	1	-
G27 = 4 3 4		6.877	7	1.209	0	-	-	0	10	-	-	91	1	-	-	4	-
G28 = 5,5,5		9.727	10	1.489	0	-	-	-	-	8	-	-	-	-	100	-	2
G29 = 5 5,5	Fav	9.727	10	1.496	0	-	-	-	-	4	-	-	-	-	50	-	1
	Unfav	10.182	10	1.348	0	-	-	-	-	1	-	-	-	-	51	-	3
G30 = 5 5 5		9.682	10	1.401	0	-	-	-	-	8	-	-	-	-	101	-	1

Table A.4.5i – Distribution of claim values by game at 90 sec (Sets I and II)

Game description	Fav/unfav	Mean	Median	Std. dev.	Claim value												
					0	1	2	3	4	5	6	7	8	9	10	11	15
G1 = 5,5		6.250	5	2.500	0	-	-	-	-	3	-	-	-	-	1	-	-
G2 = 5 5		5.000	5	0.000	0	-	-	-	-	2	-	-	-	-	0	-	-
G3 = 5,6		6.050	6	2.136	1	-	-	-	-	17	17	-	-	-	-	5	-
G4 = 6 5	Fav	5.800	5	1.521	0	-	-	-	-	8	6	-	-	-	-	1	-
	Unfav	6.400	6	1.920	0	-	-	-	-	4	9	-	-	-	-	2	-
G5 = 3,8		6.991	8	2.767	2	-	-	27	-	-	-	-	65	-	-	14	-
G6 = 8 3	Fav	6.482	8	2.501	1	-	-	16	-	-	-	-	38	-	-	1	-
	Unfav	7.179	8	2.803	1	-	-	13	-	-	-	-	33	-	-	9	-
G7 = 1,2,2,2,2,1		5.167	5	1.267	0	0	0	1	2	5	3	0	1	0	0	-	-
G8 = 2,2,1 1,2,2		5.100	5	0.994	0	0	0	0	3	4	2	1	0	0	0	-	-
G9 = 2,1,1 2,2,2	Fav	5.667	5.5	1.366	0	0	0	0	1	2	2	0	1	0	0	-	-
	Unfav	5.333	5	0.516	0	0	0	0	0	4	2	0	0	0	0	-	-
G10 = 2,1 1,2,2,2	Fav	4.750	5	0.500	0	0	0	0	1	3	0	0	0	0	0	-	-
	Unfav	6.000	5.5	1.414	0	0	0	0	0	2	1	0	1	0	0	-	-
G11 = 1,2,2,1,2,2,1		5.563	6	0.512	0	0	0	0	0	7	9	0	0	0	0	0	-
G12 = 2,1,2 1,2,2,1		5.625	5.5	1.088	0	0	0	0	2	6	5	2	1	0	0	0	-
G13 = 2,1,2,1 1,2,2	Fav	5.636	6	1.629	0	0	1	0	0	4	4	0	2	0	0	0	-
	Unfav	6.182	6	1.722	0	0	0	0	0	4	5	1	0	0	0	1	-
G14 = 2,2,2,2 1,1,1	Fav	6.071	6	1.328	0	0	0	0	0	6	5	0	2	1	0	0	-
	Unfav	5.857	5.5	1.099	0	0	0	0	0	7	4	1	2	0	0	0	-
G15 = 4,2,1,4		5.500	5.5	0.707	0	0	0	0	1	8	8	1	0	0	0	0	-

Table A.4.5i (continued)

Game description	Fav/unfav	Mean	Median	Std. dev.	Claim value												
					0	1	2	3	4	5	6	7	8	9	10	11	15
G16 = 4 2,1 4		6.100	6	1.804	0	0	0	0	2	7	6	2	1	0	1	1	-
G17 = 2,4 4,1	Fav	7.000	6	2.160	0	0	0	0	0	2	2	1	0	0	2	0	-
	Unfav	6.571	6	2.070	0	0	0	0	0	3	2	0	0	1	1	0	-
G18 = 2,1 4,4	Fav	5.556	6	0.527	0	0	0	0	0	4	5	0	0	0	0	0	-
	Unfav	6.444	6	1.810	0	0	0	0	1	2	3	0	1	2	0	0	-
G19 = 5,1,5		5.633	5	1.129	0	0	-	-	-	16	13	-	-	-	0	1	-
G20 = 1,5 5	Fav	5.333	5	0.488	0	0	-	-	-	10	5	-	-	-	0	0	-
	Unfav	5.933	6	1.486	0	0	-	-	-	6	8	-	-	-	0	1	-
G21 = 5 1 5		5.656	5.5	1.096	0	0	-	-	-	16	15	-	-	-	0	1	-
G22 = 4,2,4		5.080	6	1.007	0	-	0	-	23	-	27	-	0	-	0	-	-
G23 = 4 4,2	Fav	4.611	4	1.050	0	-	1	-	23	-	12	-	0	-	0	-	-
	Unfav	5.611	6	1.337	0	-	0	-	11	-	22	-	2	-	1	-	-
G24 = 4 2 4		5.129	6	1.180	0	-	0	-	29	-	32	-	0	-	1	-	-
G25 = 4,3,4		5.931	7	1.466	0	-	-	0	26	-	-	45	1	-	-	0	-
G26 = 3,4 4	Fav	5.914	7	1.579	0	-	-	1	12	-	-	20	2	-	-	0	-
	Unfav	5.571	4	1.836	0	-	-	1	17	-	-	15	1	-	-	1	-
G27 = 4 3 4		6.024	7	1.544	0	-	-	0	29	-	-	53	1	-	-	1	-
G28 = 5,5,5		8.264	10	2.540	0	-	-	-	-	26	-	-	-	-	45	-	1
G29 = 5 5,5	Fav	6.795	5	2.430	0	-	-	-	-	25	-	-	-	-	14	-	0
	Unfav	8.333	10	2.388	0	-	-	-	-	13	-	-	-	-	26	-	0
G30 = 5 5 5		7.847	10	2.631	0	-	-	-	-	32	-	-	-	-	39	-	1

Table A.4.6a – Summary of bargaining outcomes for early agreement interactions (Set I)

Game description	Obs. (%)	Average eff.	% Efficient	% Equal	% LUE	% SC (SC claims)	% (0, 0) (agreed)	NPA ^{a,b}
G1 = 5,5	69 (95.8)	1.000	95.8	95.8	95.8	-	0 (0)	-
G2 = 5 5	71 (98.6)	1.000	98.6	98.6	98.6	98.6 (84.7)	0 (0)	-
G3 = 5,6	57 (79.2)	0.982	77.8	-	77.8	-	1.4 (1.4)	-
G4 = 6 5	54 (75)	1.000	75.0	-	75.0	50 (50)	0 (0)	0.333**
G5 = 3,8	25 (34.7)	1.000	34.7	-	34.7	-	0 (0)	-
G6 = 8 3	29 (40.3)	0.828	33.3	-	31.9	15.3 (15.3)	6.9 (6.9)	-0.11
G7 = 1,2,2,2,2,1	58 (80.6)	1.000	80.6	76.4	76.4	-	0 (0)	-
G8 = 2,2,1 1,2,2	60 (83.3)	0.997	81.9	79.2	79.2	79.2 (63.9)	0 (0)	-
G9 = 2,1,1 2,2,2	61 (84.7)	1.000	84.7	73.6	73.6	11.1 (9.7)	0 (0)	0.131***
G10 = 2,1 1,2,2,2	61 (84.7)	0.997	81.9	69.4	69.4	0 (0)	0 (0)	0.049
G11 = 1,2,2,1,2,2,1	54 (75)	0.997	73.6	0.0	72.2	-	0 (0)	-
G12 = 2,1,2 2,2,1	52 (72.2)	1.000	72.2	0.0	70.8	0 (0)	0 (0)	-
G13 = 2,1,2,1 2,2,1	52 (72.2)	0.998	70.8	1.4	66.7	37.5 (29.2)	0 (0)	0.058
G14 = 2,2,2,2 1,1,1	45 (62.5)	1.000	62.5	0.0	61.1	0 (0)	0 (0)	0.04
G15 = 4,2,1,4	56 (77.8)	0.981	75.0	0.0	75.0	-	1.4 (1.4)	-
G16 = 4 2,1 4	51 (70.8)	0.980	69.4	0.0	68.1	0 (0)	1.4 (1.4)	-
G17 = 2,4 4,1	54 (75)	0.998	73.6	0.0	73.6	56.9 (52.8)	0 (0)	0.574***
G18 = 2,1 4,4	55 (76.4)	1.000	76.4	0.0	76.4	0 (0)	0 (0)	0.047*

a - Normalised payoff asymmetry, $NPA = (w_F - w_U) / (w_F^* - w_U^*)$; where w_F and w_U are means of actual earnings of favored and unfavored players respectively, w_F^* and w_U^* are earnings of favored and unfavored players in the SC allocation.

b - Significance level in 1-tail Wilcoxon signed-rank test of comparison of payoffs to favored and to unfavored players averaging within matching groups: * = 10%, ** = 5%, *** = 1%. Only interactions that ended with an explicit agreement in the first 60 seconds are included.

Table A.4.6b – Summary of bargaining outcomes for early agreement interactions (Set II)

Game description	Obs. (%)	Average eff.	% Efficient	% Equal	% LUE	% SC (SC claims)	% (0, 0) (agreed)	NPA^{a,b}
G1 = 5,5	81 (96.4)	1.000	96.4	96.4	96.4	-	0 (0)	-
G2 = 5 5	82 (97.6)	1.000	97.6	97.6	97.6	97.6 (86.9)	0 (0)	-
G3 = 5,6	72 (85.7)	1.000	85.7	-	85.7	-	0 (0)	-
G4 = 6 5	67 (79.8)	0.985	78.6	-	78.6	58.3 (58.3)	1.2 (1.2)	0.478***
G5 = 3,8	38 (45.2)	0.947	42.9	-	42.9	-	2.4 (2.4)	-
G6 = 8 3	40 (47.6)	0.900	42.9	-	42.9	27.4 (27.4)	4.8 (4.8)	0.250*
G19 = 5,1,5	48 (57.1)	0.991	51.2	6.0	50.0	-	0 (0)	-
G20 = 1,5 5	52 (61.9)	0.974	56.0	4.8	53.6	35.7 (29.8)	1.2 (1.2)	-0.058
G21 = 5 1 5	61 (72.6)	0.966	61.9	8.3	61.9	8.3 (6)	1.2 (1.2)	-
G22 = 4,2,4	38 (45.2)	0.916	35.7	7.1	35.7	-	2.4 (2.4)	-
G23 = 4 4,2	34 (40.5)	0.953	31.0	9.5	31.0	22.6 (20.2)	0 (0)	0.353**
G24 = 4 2 4	39 (46.4)	0.913	35.7	8.3	35.7	8.3 (7.1)	2.4 (2.4)	-
G25 = 4,3,4	24 (28.6)	0.902	21.4	6.0	21.4	-	1.2 (1.2)	-
G26 = 3,4 4	32 (38.1)	0.881	31.0	3.6	31.0	25 (23.8)	3.6 (3.6)	0.500***
G27 = 4 3 4	26 (31)	0.920	25.0	4.8	23.8	4.8 (4.8)	1.2 (1.2)	-
G28 = 5,5,5	27 (32.1)	0.877	25.0	4.8	25.0	-	2.4 (2.4)	-
G29 = 5 5,5	27 (32.1)	0.914	26.2	4.8	26.2	17.9 (17.9)	1.2 (1.2)	0.296
G30 = 5 5 5	27 (32.1)	0.840	21.4	8.3	21.4	8.3 (3.6)	2.4 (2.4)	-

a - Normalised payoff asymmetry, $NPA = (w_F - w_U) / (w_F^* - w_U^*)$; where w_F and w_U are means of actual earnings of favored and unfavored players respectively, w_F^* and w_U^* are earnings of favored and unfavored players in the SC allocation.

b - Significance level in one-tail Wilcoxon signed-rank test of comparison of payoffs to favored and to unfavored players averaging within matching groups: * = 10%, ** = 5%, *** = 1%. Only interactions that ended with an explicit agreement in the first 60 seconds are included.

Table A.4.7a – Summary of bargaining outcomes for deadline interactions (Set I)

Game description	Obs. (%)	Average eff.	% Efficient	% Equal	% LUE	% SC (SC claims)	% (0, 0) (agreed)	NPA ^{a,b}
G1 = 5,5	3 (4.2)	0.667	2	2	2	-	1.4 (0)	-
G2 = 5 5	1 (1.4)	0.000	0	0	0	0 (0)	1.4 (1.4)	-
G3 = 5,6	15 (20.8)	0.867	13	-	12	-	2.8 (0)	-
G4 = 6 5	18 (25)	0.889	16	-	16	8.3 (8.3)	2.8 (1.4)	-0.222
G5 = 3,8	47 (65.3)	0.696	32	-	32	-	19.4 (2.8)	-
G6 = 8 3	43 (59.7)	0.715	30	-	30	23.6 (23.6)	16.7 (0)	0.130
G7 = 1,2,2,2,2,1	14 (19.4)	0.914	12	8	8	-	1.4 (0)	-
G8 = 2,2,1 1,2,2	12 (16.7)	0.900	9	6	6	8.3 (6.9)	1.4 (0)	-
G9 = 2,1,1 2,2,2	11 (15.3)	0.727	8	4	4	1.4 (0)	4.2 (0)	0.091
G10 = 2,1 1,2,2,2	11 (15.3)	0.909	10	9	9	0 (0)	1.4 (0)	-0.045
G11 = 1,2,2,1,2,2,1	18 (25)	0.944	17	0	17	-	1.4 (0)	-
G12 = 2,1,2 1,2,2,1	20 (27.8)	0.950	19	0	17	0 (0)	1.4 (0)	-
G13 = 2,1,2,1 2,2,1	20 (27.8)	0.800	16	0	16	13.9 (9.7)	5.6 (0)	0.200
G14 = 2,2,2,2 1,1,1	27 (37.5)	0.774	20	1	19	0 (0)	8.3 (1.4)	0.030
G15 = 4,2,1,4	16 (22.2)	0.938	15	0	14	-	1.4 (1.4)	-
G16 = 4 2,1 4	21 (29.2)	0.857	18	0	14	0 (0)	4.2 (1.4)	-
G17 = 2,4 4,1	18 (25)	0.833	15	0	14	11.1 (11.1)	4.2 (0)	0.389
G18 = 2,1 4,4	17 (23.6)	0.813	13	0	13	0 (0)	4.2 (0)	0.047

a - Normalised payoff asymmetry, $NPA = (w_F - w_U) / (w_F^* - w_U^*)$; where w_F and w_U are means of actual earnings of favored and unfavored players respectively, w_F^* and w_U^* are earnings of favored and unfavored players in the SC allocation.

b - Significance level in one-tail Wilcoxon signed-rank test of comparison of payoffs to favored and to unfavored players averaging within matching groups: * = 10%, ** = 5%, *** = 1%. Only interactions that reached the last 30 seconds are included.

Table A.4.7b – Summary of bargaining outcomes for deadline interactions (Set II)

Game description	Obs. (%)	Average eff.	% Efficient	% Equal	% LUE	% SC (SC claims)	% (0, 0) (agreed)	NPA ^{a,b}
G1 = 5,5	3 (3.6)	1.000	3.6	3.6	3.6	-	0 (0)	-
G2 = 5 5	2 (2.4)	1.000	2.4	2.4	2.4	2.4 (1.2)	0 (0)	-
G3 = 5,6	12 (14.3)	0.833	11.9	-	11.9	-	2.4 (0)	-
G4 = 6 5	17 (20.2)	0.882	17.9	-	17.9	10.7 (10.7)	2.4 (0)	0.176
G5 = 3,8	46 (54.8)	0.646	34.5	-	34.5	-	19 (1.2)	-
G6 = 8 3	44 (52.4)	0.630	32.1	-	32.1	15.5 (15.5)	19 (1.2)	-0.059
G19 = 5,1,5	36 (42.9)	0.937	36.9	3.6	36.9	-	2.4 (1.2)	-
G20 = 1,5 5	32 (38.1)	0.932	33.3	2.4	33.3	13.1 (11.9)	2.4 (1.2)	-0.188
G21 = 5 1 5	23 (27.4)	0.953	25.0	1.2	25.0	1.2 (1.2)	1.2 (0)	-
G22 = 4,2,4	46 (54.8)	0.861	40.5	8.3	40.5	-	6 (0)	-
G23 = 4 4,2	50 (59.5)	0.844	46.4	4.8	45.2	21.4 (17.9)	8.3 (1.2)	-0.1
G24 = 4 2 4	45 (53.6)	0.827	40.5	4.8	40.5	4.8 (4.8)	8.3 (2.4)	-
G25 = 4,3,4	60 (71.4)	0.812	57.1	1.2	57.1	-	13.1 (0)	-
G26 = 3,4 4	52 (61.9)	0.867	51.2	2.4	47.6	26.2 (22.6)	7.1 (1.2)	0.038
G27 = 4 3 4	58 (69)	0.754	51.2	1.2	51.2	1.2 (1.2)	16.7 (0)	-
G28 = 5,5,5	57 (67.9)	0.766	51.2	1.2	51.2	-	15.5 (2.4)	-
G29 = 5 5,5	57 (67.9)	0.871	56.0	4.8	56.0	16.7 (14.3)	7.1 (1.2)	0.333***
G30 = 5 5 5	57 (67.9)	0.848	56.0	2.4	56.0	2.4 (1.2)	9.5 (2.4)	-

a - Normalised payoff asymmetry, $NPA = (w_F - w_U) / (w_F^* - w_U^*)$; where w_F and w_U are means of actual earnings of favored and unfavored players respectively, w_F^* and w_U^* are earnings of favored and unfavored players in the SC allocation.

b - Significance level in one-tail Wilcoxon signed-rank test of comparison of payoffs to favored and to unfavored players averaging within matching groups: * = 10%, ** = 5%, *** = 1%. Only interactions that reached the last 30 seconds are included.

Table A.4.8 – GLS random effects regressions on player L’s payoff minus player R’s payoff (Sets I and II)

	Games without spatial cues			
	Agreed after 5s		Agreed after 60s	
	<i>β</i>	<i>p</i>	<i>β</i>	<i>p</i>
L’s claim value minus R’s claim value at 5s	0.188	0.000	0.081	0.087
Constant	0.105	0.130	0.071	0.629
Observations	1,310		507	
<i>R</i> ² (overall)	0.050		0.006	

Note: Regressions use clustering at the level of the four-subject group.

Table A.4.9a – Statistical tests of group heterogeneity in hawkishness and spatial awareness (Set I)

	Number of agreements by 60s	Number of (0, 0) outcomes	Normalised Payoff Asymmetry
Mean	26.78	1.89	0.151
Std. dev.	6.01	1.85	0.246
Percentiles			
1%	13	0	-0.293
5%	16	0	-0.279
10%	18	0	-0.243
25%	23	0	-0.018
50%	28	1.5	0.189
75%	31	3	0.357
90%	34	4	0.457
95%	34	6	0.529
99%	35	7	0.536
Sig. ^a	***	***	

a - Significance level in a Kruskal-Wallis test: * = 10%, ** = 5%, *** = 1%.

Table A.4.9b – Statistical tests of group heterogeneity in hawkishness and spatial awareness (Set II)

	Number of agreements by 60s	Number of (0, 0) outcomes	Normalised Payoff Asymmetry
Mean	19.40	3.36	0.094
Std. dev.	5.67	2.35	0.401
Percentiles			
1%	9	0	-1.583
5%	11	1	-0.333
10%	12	1	-0.250
25%	15	2	-0.083
50%	19	3	0.083
75%	23	5	0.417
90%	26	8	0.500
95%	28	8	0.667
99%	34	9	0.750
Sig. ^a	***	***	

a - Significance level in a Kruskal-Wallis test: * = 10%, ** = 5%, *** = 1%.

Table A.4.10a – Statistical tests of learning (Set I)

Game description	Mean efficiency		Two-tail rank sum test	One-tail robust rank test	NPA		Two-tail rank sum test	One-tail robust rank test	Median bargaining duration (secs)		KS test on bargaining durations
	(1-9)	(10-18)			(1-9)	(10-18)			(1-9)	(10-18)	
G1 = 5,5	1.000	0.970	0.277	0.416					6	4	0.003
G2 = 5 5	0.974	1.000	0.344	0.425					6	4	0.000
G3 = 5,6	0.941	0.974	0.494	0.408					9	11	0.936
G4 = 6 5	1.000	0.939	0.122	0.336	-0.077	0.515	0.012	0.015	18	9	0.486
G5 = 3,8	0.756	0.853	0.246	0.208					84.5	88.5	0.999
G6 = 8 3	0.882	0.651	0.016	0.035	-0.035	0.095	0.619	0.326	55	89.5	0.088
G7 = 1,2,2,2,2,1	0.971	0.995	0.921	0.489					19.5	14	0.518
G8 = 2,2,1 1,2,2	0.994	0.970	0.432	0.380					14.5	10	0.174
G9 = 2,1,1 2,2,2	1.000	0.921	0.097	0.284	0.118	0.132	0.875	0.461	20	16.5	0.908
G10 = 2,1 1,2,2,2	0.965	1.000	0.063	0.266	0.000	0.066	0.273	0.244	25	17.5	0.410
G11 = 1,2,2,1,2,2,1	0.994	0.975	0.889	0.485					28	33.5	0.249
G12 = 2,1,2 1,2,2,1	1.000	0.974	0.344	0.425					24.5	18	0.744
G13 = 2,1,2,1 2,2,1	0.933	0.962	0.448	0.381	-0.130	0.500	0.029	0.023	31.5	16	0.160
G14 = 2,2,2,2 1,1,1	0.872	0.950	0.139	0.236	0.006	0.060	0.112	0.086	22	27.5	0.750
G15 = 4,2,1,4	0.969	0.973	0.536	0.417					16	14	0.480
G16 = 4 2,1,4	0.913	1.000	0.124	0.287					19	13.5	0.150
G17 = 2,4 4,1	0.906	0.998	0.194	0.312	0.344	0.675	0.038	0.055	18	8	0.069
G18 = 2,1 4,4	0.966	0.946	0.977	0.496	0.046	0.049	0.977	0.487	22	18	0.055

Table A.4.10b – Statistical tests of learning (Set II)

Game description	Mean efficiency		Two-tail rank sum test	One-tail robust rank test	NPA		Two-tail rank sum test	One-tail robust rank test	Median bargaining duration (secs)		KS test on bargaining durations
	(1-9)	(10-18)			(1-9)	(10-18)			(1-9)	(10-18)	
G1 = 5,5	1.000	1.000	n/a	n/a					6	4	0.025
G2 = 5 5	1.000	1.000	n/a	n/a					5	4	0.256
G3 = 5,6	0.953	1.000	0.165	0.358					13	6	0.000
G4 = 6 5	0.951	0.977	0.531	0.421	0.366	0.465	0.579	0.329	13	7	0.021
G5 = 3,8	0.807	0.750	0.614	0.363					65	85.5	0.256
G6 = 8 3	0.744	0.774	0.849	0.444	0.140	0.034	0.602	0.315	65	86	0.870
G19 = 5,1,5	0.991	0.947	0.621	0.392					34	18	0.151
G20 = 1,5 5	0.944	0.972	0.294	0.289	0.095	-0.310	0.806	0.413	18	23.5	0.517
G21 = 5 1 5	0.961	0.963	0.178	0.217					25.5	11.5	0.043
G22 = 4,2,4	0.908	0.867	0.857	0.447					34	83	0.265
G23 = 4 4,2	0.838	0.938	0.022	0.048	0.000	0.167	0.254	0.151	87	88.5	0.715
G24 = 4 2 4	0.865	0.868	0.528	0.322					53.5	88.5	0.055
G25 = 4,3,4	0.802	0.880	0.258	0.210					89	89	0.835
G26 = 3,4 4	0.840	0.895	0.122	0.174	0.294	0.160	0.616	0.325	79	88.5	0.622
G27 = 4 3 4	0.760	0.858	0.234	0.189					87	90	0.068
G28 = 5,5,5	0.812	0.789	0.772	0.416					84	90	0.062
G29 = 5 5,5	0.843	0.913	0.257	0.243	-0.059	-0.180	0.513	0.278	83.5	90	0.034
G30 = 5 5 5	0.793	0.906	0.054	0.078					86	90	0.012

Table A.5.1 – Results of the control treatment

Game description	Average eff.	% Efficient	% Equal	% LUE	% SC (SC claims)	% (0, 0) (agreed)	NPA
G1 = 5,5	1.000	100.0	100.0	100.0	-	0 (0)	-
G2 = 5 5	1.000	100.0	100.0	100.0	-	0 (0)	-
G3 = 5,6	1.000	100.0	-	100.0	-	0 (0)	-
G4 = 6 5	1.000	100.0	-	100.0	-	0 (0)	-
G5 = 3,8	0.804	80.4	-	80.4	-	19.6 (4.3)	-
G6 = 8 3	0.640	60.9	-	60.9	-	34.8 (10.9)	-
G7 = 1,2,2,2,2,1	0.996	95.7	87.0	87.0	-	0 (0)	-
G8 = 2,2,1 1,2,2	0.978	97.8	84.8	84.8	-	2.2 (0)	-
G9 = 2,1,1 2,2,2	0.978	97.8	87.0	87.0	-	2.2 (2.2)	-
G10 = 2,1 1,2,2,2	0.978	97.8	95.7	95.7	-	2.2 (0)	-
G11 = 1,2,2,1,2,2,1	0.877	76.1	10.9	73.9	-	10.9 (4.3)	-
G12 = 2,1,2 1 2,2,1	0.931	89.1	4.3	87.0	-	6.5 (0)	-
G13 = 2,1,2,1 1,2,2	0.978	97.8	0.0	95.7	-	2.2 (0)	-
G14 = 2,2,2,2 1,1,1	0.929	87.0	6.5	82.6	-	6.5 (2.2)	-
G15 = 4,2,1,4	0.935	93.5	0.0	93.5	-	6.5 (0)	-
G16 = 4 2,1 4	0.933	91.3	0.0	91.3	-	6.5 (0)	-
G17 = 2,4 4,1	0.978	97.8	0.0	97.8	-	2.2 (0)	-
G18 = 2,1 4,4	0.951	93.5	2.2	89.1	-	4.3 (0)	-

Table A.5.1 (continued)

Game description	Average eff.	% Efficient	% Equal	% LUE	% SC (SC claims)	% (0, 0) (agreed)	NPA
G19 = 5,1,5	0.951	89.1	6.5	87.0	-	4.3 (2.2)	-
G20 = 1,5 5	0.982	89.1	8.7	89.1	-	0 (0)	-
G21 = 5 1 5	0.947	84.8	10.9	84.8	-	4.3 (4.3)	-
G22 = 4,2,4	0.843	82.6	2.2	80.4	-	15.2 (2.2)	-
G23 = 4 4,2	0.922	87.0	6.5	87.0	-	6.5 (2.2)	-
G24 = 4 2 4	0.878	82.6	6.5	82.6	-	10.9 (6.5)	-
G25 = 4,3,4	0.830	78.3	6.5	76.1	-	15.2 (6.5)	-
G26 = 3,4 4	0.749	71.7	4.3	65.2	-	23.9 (10.9)	-
G27 = 4 3 4	0.887	76.1	17.4	73.9	-	6.5 (2.2)	-
G28 = 5,5,5	0.732	67.4	8.7	67.4	-	23.9 (15.2)	-
G29 = 5 5,5	0.768	73.9	4.3	71.7	-	21.7 (6.5)	-
G30 = 5 5 5	0.841	78.3	8.7	78.3	-	13 (2.2)	-

Table A.5.2 – Comparison of efficiency in games with the same disc collection (control treatment)

Game	Av. eff.	Game	Av. eff.	Sig. ^a	Game	Av. eff.	Sig. ^a	Game	Av. eff.	Sig. ^a	Game	Av. eff.	Sig. ^a
G1	1.000	G2	1.000	n/a	-	-	-	-	-	-	-	-	-
G3	1.000	-	-	-	G4	1.000	n/a	-	-	-	-	-	-
G5	0.804	-	-	-	G6	0.640	0.560*	-	-	-	-	-	-
G7	0.996	G8	0.978	0.5999	-	-	-	G9	0.978	0.5999	-	-	-
G11	0.877	-	-	-	G13	0.978	0.0061***	G14	0.929	0.2054	G12	0.931	0.1839
G15	0.935	-	-	-	G17	0.978	0.5463	G18	0.951	0.7178	G16	0.933	0.4745
G19	0.951	-	-	-	G20	0.982	0.6790	-	-	-	G21	0.947	0.9595
G22	0.843	-	-	-	G23	0.922	0.405	-	-	-	G24	0.878	0.5762
G25	0.830	-	-	-	G26	0.749	0.3226	-	-	-	G27	0.887	0.5965
G28	0.732	-	-	-	G29	0.768	0.7677	-	-	-	G30	0.841	0.1682

a - Significance level in two-tail Wilcoxon test on total payoffs averaging within matching groups: * = 10** = 5%, *** = 1%.

Table A.5.3 – Comparison of the distribution of LUE agreements in games with the same disc collection (control treatment)

Game	% LUE	Game	% LUE	Sig. ^a	Game	% LUE	Sig. ^a	Game	% LUE	Sig. ^a	Game	% LUE	Sig. ^a
G1	100.0	G2	100.0	n/a	-	-	-	-	-	-	-	-	-
G3	100.0	-	-	-	G4	100.0	n/a	-	-	-	-	-	-
G5	80.4	-	-	-	G6	60.9	0.147	-	-	-	-	-	-
G7	87.0	G8	84.8	0.380	-	-	-	G9	87.0	1.000	-	-	-
G11	73.9	-	-	-	G13	95.7	0.001***	G14	82.6	0.140	G12	87.0	0.070*
G15	93.5	-	-	-	G17	97.8	0.600	G18	89.1	0.142	G16	91.3	0.235
G19	87.0	-	-	-	G20	89.1	0.348	-	-	-	G21	84.8	0.580
G22	80.4	-	-	-	G23	87.0	0.345	-	-	-	G24	82.6	0.420
G25	76.1	-	-	-	G26	65.2	0.301	-	-	-	G27	73.9	0.468
G28	67.4	-	-	-	G29	71.7	0.827	-	-	-	G30	78.3	0.291

a - Significance level in a χ^2 test using matching groups as the unit of observation: * = 10%, ** = 5%, *** = 1%.

Table A.5.4 – Distributions of profitable agreement times (control treatment)

Game description	% of pairs agreeing on profitable allocations by:										Profitable agreements	
	10s	20s	30s	40s	50s	60s	70s	80s	90s	Sig. ^a	%	Sig. ^b
G1 = 5,5	89.1	91.3	95.7	95.7	95.7	95.7	97.8	97.8	100.0	-	100.0	-
G2 = 5 5	93.5	95.7	97.8	97.8	97.8	97.8	97.8	100.0	100.0		100.0	n/a
G3 = 5,6	56.5	71.7	71.7	73.9	76.1	76.1	80.4	82.6	95.7	-	100.0	-
G4 = 6 5	47.8	71.7	76.1	80.4	84.8	84.8	91.3	93.5	97.8		100.0	n/a
G5 = 3,8	8.7	13.0	13.0	17.4	19.6	23.9	28.3	34.8	52.2	-	80.4	-
G6 = 8 3	4.3	13.0	17.4	19.6	23.9	23.9	26.1	30.4	43.5		65.2	
G7 = 1,2,2,2,2,1	32.6	60.9	73.9	82.6	87.0	87.0	87.0	89.1	91.3	-	100.0	-
G8 = 2,2,1 1,2,2	41.3	65.2	71.7	80.4	80.4	82.6	82.6	82.6	93.5		97.8	
G9 = 2,1,1 2,2,2	21.7	56.5	71.7	80.4	84.8	84.8	91.3	91.3	93.5		97.8	
G10 = 2,1 1,2,2,2	15.2	54.3	78.3	80.4	84.8	84.8	87.0	91.3	93.5		97.8	
G11 = 1,2,2,1,2,2,1	23.9	41.3	47.8	54.3	56.5	60.9	60.9	63.0	73.9	-	89.1	-
G12 = 2,1,2 2,2,1	10.9	32.6	45.7	52.2	54.3	63.0	65.2	69.6	78.3		93.5	
G13 = 2,1,2,1 1,2,2	15.2	30.4	47.8	47.8	52.2	54.3	58.7	63.0	78.3		97.8	*
G14 = 2,2,2,2 1,1,1	0.0	21.7	37.0	50.0	50.0	54.3	67.4	67.4	76.1		93.5	
G15 = 4,2,1,4	30.4	54.3	60.9	69.6	78.3	78.3	80.4	82.6	87.0	-	93.5	-
G16 = 4 2,1 4	45.7	54.3	63.0	67.4	71.7	73.9	73.9	73.9	87.0		93.5	
G17 = 2,4 4,1	43.5	58.7	67.4	73.9	80.4	80.4	82.6	82.6	93.5		97.8	
G18 = 2,1 4,4	15.2	41.3	58.7	63.0	65.2	67.4	69.6	69.6	87.0		95.7	

a - Significance level in a two-tail Wilcoxon signed-rank test comparing the distributions of bargaining durations using matching groups as the unit of observation: * = 10%, ** = 5%, *** = 1%. Each game with spatial cues is compared to the corresponding spatially neutral game.

b - Significance level in a χ^2 test using matching groups as the unit of observation: * = 10%, ** = 5%, *** = 1%. Each game with spatial cues is compared to the corresponding spatially neutral game.

Table A.5.4 (continued)

Game description	% of pairs agreeing on profitable allocations by:										Non-conflictual agreements	
	10s	20s	30s	40s	50s	60s	70s	80s	90s	Sig. ^a	%	Sig. ^b
G20 = 1,5 5	37.0	52.2	56.5	63.0	63.0	67.4	67.4	71.7	84.8	-	100.0	-
G21 = 5 1 5	28.3	43.5	43.5	47.8	52.2	52.2	52.2	60.9	78.3		95.7	
G22 = 4,2,4	23.9	37.0	37.0	41.3	43.5	45.7	45.7	45.7	58.7	-	84.8	-
G23 = 4 4,2	10.9	21.7	26.1	26.1	26.1	28.3	32.6	34.8	60.9	*	93.5	
G24 = 4 2 4	19.6	32.6	37.0	41.3	43.5	45.7	45.7	47.8	65.2		89.1	
G25 = 4,3,4	13.0	19.6	21.7	23.9	26.1	28.3	30.4	39.1	56.5	-	84.8	-
G26 = 3,4 4	6.5	15.2	19.6	21.7	26.1	28.3	28.3	37.0	54.3		76.1	
G27 = 4 3 4	6.5	19.6	23.9	34.8	41.3	45.7	47.8	52.2	69.6		93.5	
G28 = 5,5,5	10.9	10.9	17.4	19.6	23.9	28.3	32.6	37.0	56.5	-	76.1	-
G29 = 5 5,5	10.9	17.4	19.6	19.6	21.7	21.7	21.7	26.1	41.3		78.3	
G30 = 5 5 5	13.0	21.7	30.4	34.8	34.8	34.8	41.3	45.7	60.9		87.0	

a - Significance level in a two-tail Wilcoxon signed-rank test comparing the distributions of bargaining durations using matching groups as the unit of observation: * = 10%, ** = 5%, *** = 1%. Each game with spatial cues is compared to the corresponding spatially neutral game.

b - Significance level in a χ^2 test using matching groups as the unit of observation: * = 10%, ** = 5%, *** = 1%. Each game with spatial cues is compared to the corresponding spatially neutral game.

Table A.5.5 – Summary of bargaining outcomes for early agreement interactions (control treatment)

Game description	Obs. (%)	Average eff.	% Efficient	% Equal	% LUE	% SC (SC claims)	% (0, 0) (agreed)	NPA
G1 = 5,5	44 (95.7)	1.000	44	44	44	-	0 (0)	-
G2 = 5 5	45 (97.8)	1.000	45	45	45	-	0 (0)	-
G3 = 5,6	35 (76.1)	1.000	35	-	35	-	0 (0)	-
G4 = 6 5	39 (84.8)	1.000	39	-	39	-	0 (0)	-
G5 = 3,8	12 (26.1)	0.917	11	-	11	-	2.2 (2.2)	-
G6 = 8 3	15 (32.6)	0.697	9	-	9	-	8.7 (8.7)	-
G7 = 1,2,2,2,2,1	40 (87)	1.000	40	36	36	-	0 (0)	-
G8 = 2,2,1 1,2,2	38 (82.6)	1.000	38	36	36	-	0 (0)	-
G9 = 2,1,1 2,2,2	39 (84.8)	1.000	37	37	37	-	0 (0)	-
G10 = 2,1 1,2,2,2	39 (84.8)	1.000	39	38	38	-	0 (0)	-
G11 = 1,2,2,1,2,2,1	29 (63)	0.956	25	3	24	-	2.2 (2.2)	-
G12 = 2,1,2 1,2,2,1	29 (63)	0.994	27	2	27	-	0 (0)	-
G13 = 2,1,2,1 1,2,2	25 (54.3)	1.000	25	0	25	-	0 (0)	-
G14 = 2,2,2,2 1,1,1	26 (56.5)	0.955	23	2	22	-	2.2 (2.2)	-
G15 = 4,2,1,4	36 (78.3)	1.000	36	0	36	-	0 (0)	-
G16 = 4 2,1 4	34 (73.9)	0.997	33	0	33	-	0 (0)	-
G17 = 2,4 4,1	37 (80.4)	1.000	37	0	37	-	0 (0)	-
G18 = 2,1 4,4	31 (67.4)	0.991	30	1	29	-	0 (0)	-

Table A.5.5 (continued)

Game description	Obs. (%)	Average eff.	% Efficient	% Equal	% LUE	% SC (SC claims)	% (0, 0) (agreed)	NPA
G19 = 5,1,5	28 (60.9)	0.955	24	3	24	-	2.2 (2.2)	-
G20 = 1,5 5	31 (67.4)	0.974	26	4	26	-	0 (0)	-
G21 = 5 1 5	25 (54.3)	0.953	22	2	22	-	2.2 (2.2)	-
G22 = 4,2,4	22 (47.8)	0.945	20	1	19	-	2.2 (2.2)	-
G23 = 4 4,2	14 (30.4)	0.929	13	0	13	-	2.2 (2.2)	-
G24 = 4 2 4	22 (47.8)	0.936	19	2	19	-	2.2 (2.2)	-
G25 = 4,3,4	15 (32.6)	0.830	11	2	10	-	4.3 (4.3)	-
G26 = 3,4 4	16 (34.8)	0.778	11	2	9	-	6.5 (6.5)	-
G27 = 4 3 4	22 (47.8)	0.905	17	4	17	-	2.2 (2.2)	-
G28 = 5,5,5	17 (37)	0.725	11	2	11	-	8.7 (8.7)	-
G29 = 5 5,5	12 (26.1)	0.806	9	1	9	-	4.3 (4.3)	-
G30 = 5 5 5	17 (37)	0.902	14	2	14	-	2.2 (2.2)	-

Table A.5.6 – Summary of bargaining outcomes for deadline interactions (control treatment)

Game description	Obs. (%)	Average eff.	% Efficient	% Equal	% LUE	% SC (SC claims)	% (0, 0) (agreed)	NPA
G1 = 5,5	2 (4.3)	1.000	2	2	2	-	0 (0)	-
G2 = 5 5	1 (2.2)	1.000	1	1	1	-	0 (0)	-
G3 = 5,6	11 (23.9)	1.000	11	-	11	-	0 (0)	-
G4 = 6 5	7 (15.2)	1.000	7	-	7	-	0 (0)	-
G5 = 3,8	34 (73.9)	0.765	26	-	36	-	17.4 (2.2)	-
G6 = 8 3	31 (67.4)	0.613	19	-	19	-	26.1 (2.2)	-
G7 = 1,2,2,2,2,1	6 (13)	0.967	4	4	4	-	0 (0)	-
G8 = 2,2,1 1,2,2	8 (17.4)	0.875	7	3	3	-	2.2 (0)	-
G9 = 2,1,1 2,2,2	7 (15.2)	0.857	6	3	3	-	2.2 (2.2)	-
G10 = 2,1 1,2,2,2	7 (15.2)	0.857	6	6	6	-	2.2 (0)	-
G11 = 1,2,2,1,2,2,1	17 (37)	0.743	10	2	10	-	8.7 (2.2)	-
G12 = 2,1,2 2,2,1	17 (37)	0.824	14	0	13	-	6.5 (0)	-
G13 = 2,1,2,1 1,2,2	21 (45.7)	0.952	20	0	19	-	2.2 (0)	-
G14 = 2,2,2,2 1,1,1	20 (43.5)	0.895	17	1	16	-	4.3 (0)	-
G15 = 4,2,1,4	10 (21.7)	0.700	7	0	7	-	6.5 (0)	-
G16 = 4 2,1 4	12 (26.1)	0.750	9	0	9	-	6.5 (0)	-
G17 = 2,4 4,1	9 (19.6)	0.889	8	0	8	-	2.2 (0)	-
G18 = 2,1 4,4	15 (32.6)	0.867	13	0	12	-	4.3 (0)	-

Table A.5.6 (continued)

Game description	Obs. (%)	Average eff.	% Efficient	% Equal	% LUE	% SC (SC claims)	% (0, 0) (agreed)	NPA
G19 = 5,1,5	18 (39.1)	0.944	17	0	16	-	2.2 (0)	-
G20 = 1,5 5	15 (32.6)	1.000	15	0	15	-	0 (0)	-
G21 = 5 1 5	21 (45.7)	0.939	17	3	17	-	2.2 (2.2)	-
G22 = 4,2,4	24 (52.2)	0.750	18	0	18	-	13 (0)	-
G23 = 4 4,2	32 (69.6)	0.919	27	3	27	-	4.3 (0)	-
G24 = 4 2 4	24 (52.2)	0.825	19	1	19	-	8.7 (4.3)	-
G25 = 4,3,4	31 (67.4)	0.830	25	1	25	-	10.9 (2.2)	-
G26 = 3,4 4	30 (65.2)	0.733	22	0	21	-	17.4 (4.3)	-
G27 = 4 3 4	24 (52.2)	0.871	18	4	17	-	4.3 (0)	-
G28 = 5,5,5	29 (63)	0.736	20	2	20	-	15.2 (6.5)	-
G29 = 5 5,5	34 (73.9)	0.755	25	1	24	-	17.4 (2.2)	-
G30 = 5 5 5	29 (63)	0.805	22	2	22	-	10.9 (0)	-

Table A.5.7 – Statistical tests of group heterogeneity in hawkishness (control treatment)

	Number of agreements by 60s	Number of (0, 0) outcomes
Mean	36.26	5.04
Std. dev.	9.46	2.53
Percentiles		
1%	17	1
5%	23	1
10%	23	2
25%	30	3
50%	37	5
75%	44	7
90%	48	7
95%	48	9
99%	55	11
Sig. ^a	***	

a - Significance level in a Kruskal-Wallis test: * = 10%, ** = 5%, *** = 1%.

Table A.5.8 – Statistical tests of learning (control treatment)

Game description	Mean efficiency		Two-tail rank sum test	One- tail robust rank test	Median bargaining duration (secs)		KS test on bargaining durations
	(1-15)	(16-30)			(1-15)	(16-30)	
G1 = 5,5	1.000	1.000	n/a	n/a	5	5	0.585
G2 = 5 5	1.000	1.000	n/a	n/a	5	4	0.737
G3 = 5,6	1.000	1.000	n/a	n/a	12	7	0.367
G4 = 6 5	1.000	1.000	n/a	n/a	11	8	0.727
G5 = 3,8	0.850	0.769	0.498	0.324	89.5	87.5	0.161
G6 = 8 3	0.702	0.583	0.538	0.302	85.5	90	0.534
G7 = 1,2,2,2,2,1	0.992	1.000	0.210	0.332	20.5	13	0.059
G8 = 2,2,1 1,2,2	0.938	1.000	0.171	0.390	12	11	0.850
G9 = 2,1,1 2,2,2	1.000	0.960	0.359	0.411	17	14	0.146
G10 = 2,1 1,2,2,2	1.000	0.950	0.254	0.394	18	18.5	0.321
G11 = 1,2,2,1,2,2,1	0.795	0.921	0.308	0.256	38.5	31	0.961
G12 = 2,1,2 1 2,2,1	0.905	0.953	0.854	0.462	35	35	0.922
G13 = 2,1,2,1 2,2,1	1.000	0.960	0.359	0.411	59	23	0.452
G14 = 2,2,2,2 1,1,1	0.905	0.951	0.866	0.462	33	62	0.467
G15 = 4,2,1,4	1.000	0.875	0.090	0.236	19	24.5	0.386
G16 = 4 2,1 4	0.900	0.960	0.232	0.289	13	15	0.995
G17 = 2,4 4,1	1.000	0.958	0.338	0.406	12.5	11	0.856
G18 = 2,1 4,4	0.897	1.000	0.064	0.223	24	22	0.874

Table A.5.8 (continued)

Game description	Mean efficiency		Two-tail rank sum test	One- tail robust rank test	Median bargaining duration (secs)		KS test on bargaining durations
	(1-15)	(16-30)			(1-15)	(16-30)	
G19 = 5,1,5	0.946	0.955	0.583	0.386	19	43	0.239
G20 = 1,5 5	0.976	0.988	0.684	0.415	34	16	0.548
G21 = 5 1 5	0.941	0.953	0.245	0.239	20	80	0.164
G22 = 4,2,4	0.718	0.958	0.015	0.063	34.5	89.5	0.282
G23 = 4 4,2	0.904	0.939	0.955	0.487	86	87	0.980
G24 = 4 2 4	0.904	0.852	0.454	0.314	39	85	0.078
G25 = 4,3,4	0.846	0.814	0.939	0.479	72	90	0.078
G26 = 3,4 4	0.749	0.749	0.978	0.491	80	86	0.743
G27 = 4 3 4	0.916	0.843	0.556	0.343	63.5	80	0.240
G28 = 5,5,5	0.696	0.768	0.424	0.259	52	88	0.034
G29 = 5 5,5	0.827	0.698	0.300	0.223	85	90	0.053
G30 = 5 5 5	0.976	0.630	0.002	0.027	61.5	90	0.016

Table A.5.9 – Comparison of spatially neutral games between the control treatment and the main treatment

Game description	Average efficiency			Sig. % LUE allocations ^b	Sig. bargaining durations ^c
	Sig. all interactions ^a	Sig. Early interactions ^a	Sig. Deadline interactions ^a		
G1 = 5,5	0.5871	n/a	n/a	0.585	0.998
G3 = 5,6	0.2152	0.5900	0.3087	0.170	0.956
G5 = 3,8	0.7479	0.3986	0.5412	0.889	0.124
G7 = 1,2,2,2,2,1	0.6948	n/a	0.4773	0.935	0.365
G11 = 1,2,2,1,2,2,1	0.0002	0.0332	0.0389	0.000	0.691
G15 = 4,2,1,4	0.9103	0.2840	0.1797	0.312	0.957
G19 = 5,1,5	0.9256	0.6957	0.5556	0.993	0.790
G22 = 4,2,4	0.8102	0.6471	0.3805	0.707	0.904
G25 = 4,3,4	0.9293	0.6232	0.9284	0.955	0.622
G28 = 5,5,5	0.3215	0.5301	0.6960	0.456	0.195

a - Significance in a two-tail Mann-Whitney test on average total earnings using matching groups as the unit of observation.

b - Significance in a χ^2 test using matching groups as the unit of observation.

c - Significance in a Kolmogorov-Smirnov test on bargaining durations using matching groups as the unit of observation.

Figure A.4.1a – Mean efficiency over time (Set I)

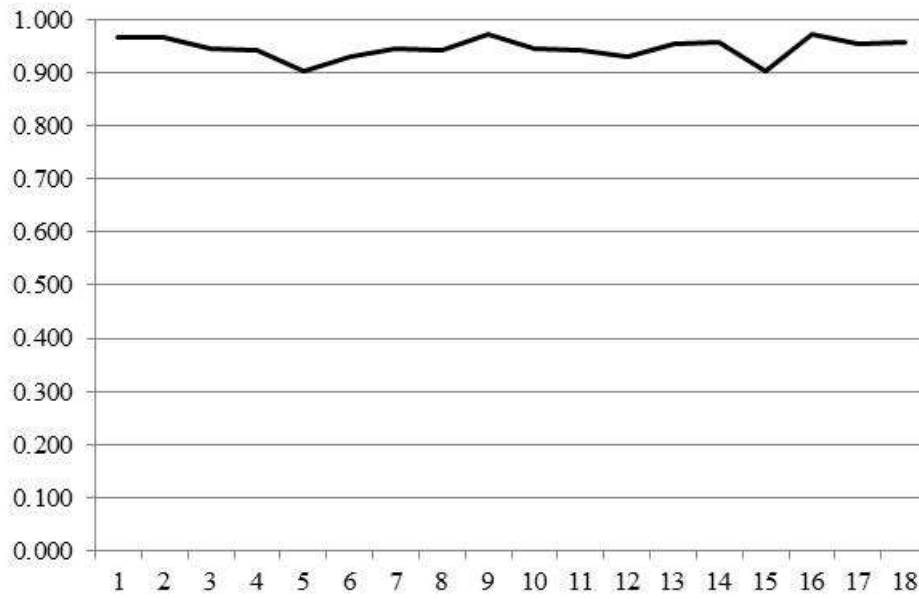


Figure A.4.1b – Mean efficiency over time (Set II)

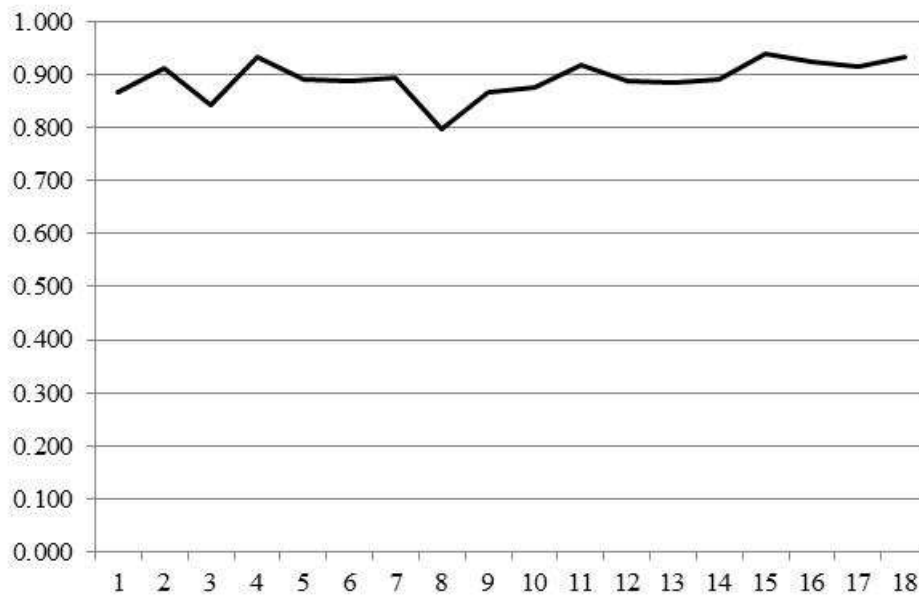


Figure A.4.2a – Percentage of pairs who reached an agreement by 60s over time (Set I)

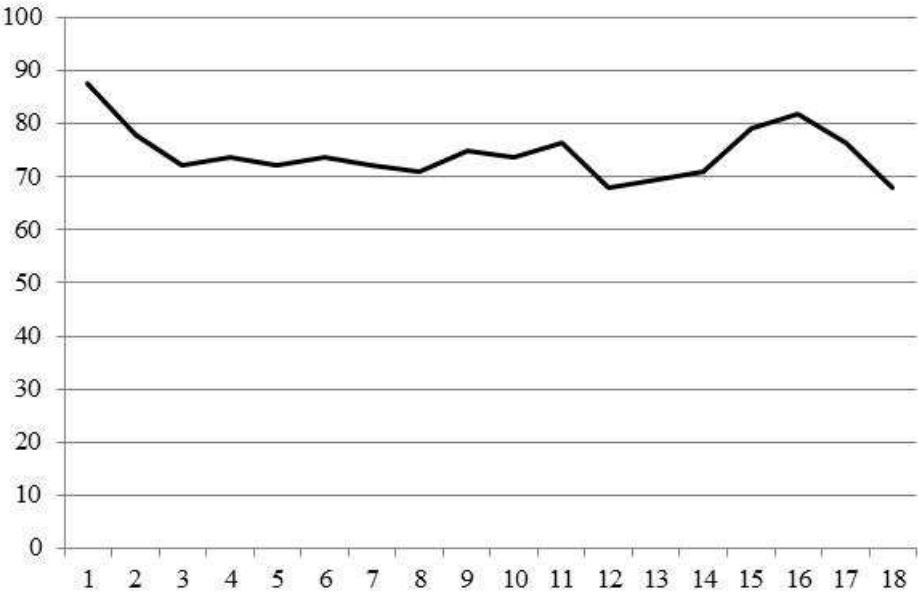


Figure A.4.2b – Percentage of pairs who reached an agreement by 60s over time (Set II)

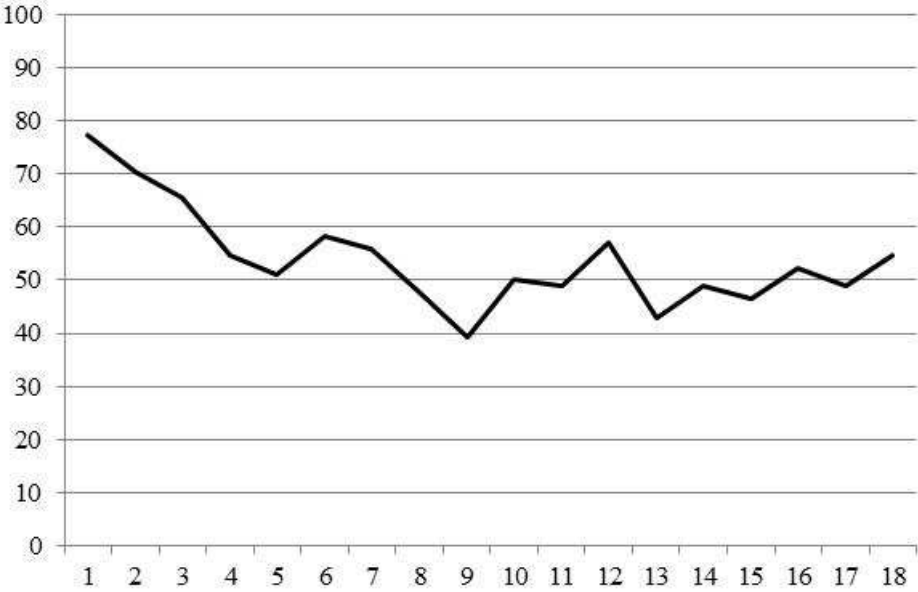


Figure A.5.1 – Mean efficiency over time (control treatment)

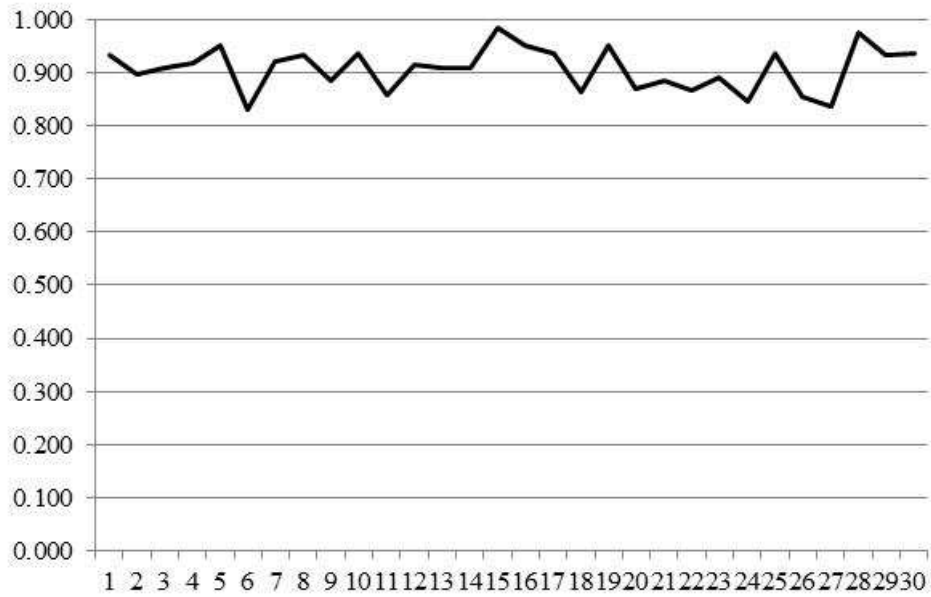


Figure A.5.2 – Percentage of pairs who reached an agreement by 60s over time (control treatment)

