A   Online Appendix (Supplementary Materials for "Fight Alone versus Fight for a Team")

A.1   Experimental Instructions

[Same for all treatments]

Instructions

Welcome to the experiment. Please read these instructions carefully. For participating in this experiment you will receive a £3 show-up fee. In addition you can earn money by completing tasks in two parts of the experiment. You will receive separate instructions before the start of each part.

During the experiment, your earnings are calculated in tokens. At the end of the experiment, every 1000 tokens will be converted to £1 in cash and your cash payment will be the sum of your earnings from both parts, in addition to the show-up fee.

Before we start the experiment, please read and sign the CONSENT FORM on your desks that you are willing to participate in this experiment and consent to the use of your data.

If you have a question, please raise your hand and someone will come to your desk to answer it.

Instructions for Part 1

In this part, you will be asked to work on a computerized ball-catching task for 4 periods. The first period serves as a practice period for you to familiarize yourself with the ball-catching task. The next three periods will be for real and your earnings in this part will be the sum of your earnings in these three paying periods.

Each period lasts one minute. In each period, there will a task box in the middle of the task screen like the one shown below:
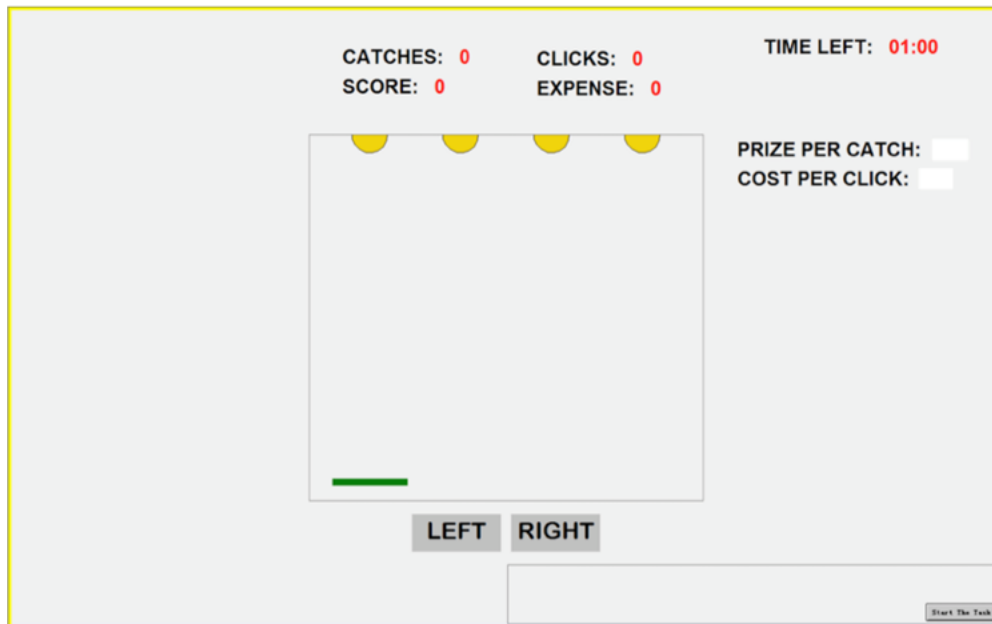
Once you click on the "Start the Task" button, the timer will start and balls will fall randomly from the top of the task box. You can move the tray at the bottom of the task box to catch the balls by using the mouse to click on the LEFT or RIGHT buttons. To catch a ball, your tray must be below the ball before it touches the bottom of the tray. When the ball touches the tray your catches increase by one.

You will receive a prize of 20 tokens for each ball you catch and incur a cost of 10 tokens for each mouse click you make. In each period, the number of balls you have caught so far (displayed as CATCHES) and the number of clicks you have made so far (CLICKS) are shown right above the task box. Also shown above the task box are SCORE, which is CATCHES multiplied by the prize per catch, and EXPENSE, which is CLICKS multiplied by the cost per click.

At the end of the period your earnings in tokens for the period will be your SCORE minus your EXPENSE.

When you are ready, please press the "Start the Task" button at the lower right corner on the task screen.

Instructions for Part 2

[IND_Bo3]

In this part, there are 12 periods. In each period, you will be randomly matched with another participant in this room. The random matching is completed by the computer and has nothing to do with your decisions in previous parts of the experiment.

The whole matching process will remain anonymous throughout the entire experiment.

You will not be told the identities of your matched participants. Also note that the matching will be re-done randomly in each period. It is very unlikely that you will be matched with the same participant twice.

Your Task in Each Period

In each period, you will compete in a best-of-three contest with the other participant for a winner prize of 1200 tokens and a loser prize of 400 tokens.

The competition consists of up to three stages. In the first stage, the computer will randomly determine whether you win or lose the first stage. At the end of the first stage, you will be informed if you won or lost the first stage.

In the second stage, you and your matched participant will independently work on the ball-catching task. The participant who catches more balls at the end of the task will win the second stage. If you catch the same number of balls as your matched participant, the computer will randomly select the winner of the stage. Each mouse click on the LEFT or RIGHT buttons incurs a cost of 10 tokens to you. The number of balls caught so far (displayed as CATCHES) and the number of clicks made so far (CLICKS) will be shown right above the task box on your screen. Also shown above the task box will be EXPENSE, which is CLICKS multiplied by the cost per click. At the end of the second stage, you will be informed if you won or lost the second stage.

If one participant has won both stages, the competition will end and the winning participant will receive the winner prize of 1200 tokens and the losing participant will receive the loser prize of 400 tokens. If each participant has won one of the two stages, the computer will randomly determine whether you win or lose the third stage. The participant who wins in the third stage will receive the winning prize and the participant who loses in the third stage will receive the loser prize.

Your earnings in each period will be (winner or loser) prize minus your EXPENSE.

Your Earnings in Part 2

Your earnings in this part will be the sum of your earnings from all 12 periods.

[TEAM]

In this part, there are 12 periods. In each period, you will be randomly matched with two other participants in this room to form a team. The random matching is completed by the computer and has nothing to do with your decisions in previous parts of the experiment.

Your team will be randomly matched with another team consisting of three other participants in the room. The random matching of two teams is also completed by the computer and has nothing to do with any of the decisions in previous parts of the experiment.

The whole matching process will remain anonymous throughout the entire experiment.

You will not be told the identities of either your team members or the members of the other matched team. Also note that both the matching with two other team members and the matching between two teams will be re-done randomly in each period. It is very unlikely that you will be matched with the same team members and the same other team members twice.

Your Task in Each Period

In each period, your team will compete in a best-of-three contest with the other team for a winner prize of 1200 tokens for each member of the winning team and a loser prize of 400 tokens for each member of the losing team.

The competition consists of up to three stages. You will participate only in one of three stages. The computer will randomly determine your participation order in the competition. You will be told whether you are the First Mover, the Second Mover, or the Third Mover before the start of each period. In the first stage two First Movers, one from each team, will compete. In the second stage two Second Movers will compete and in the third stage, if necessary, two Third Movers will compete. The winning team in each period will be the one that wins two out of three stages. The rule for winning each stage is as follows.

During the first stage, two First Movers will simultaneously work on the ball-catching task. The team whose First Mover catches more balls at the end of the task will win the first stage. If the two First Movers catch the same number of balls, the computer will randomly select the winner of the stage. Each mouse click on the LEFT or RIGHT buttons incurs a cost of 10 tokens to the First Mover who makes the click. For each First Mover, the number of balls caught so far (displayed as CATCHES) and the number of clicks made so far (CLICKS) are shown right above the task box on the First Movers screen. Also shown above the task box is EXPENSE, which is CLICKS multiplied by the cost per click. While the First Movers are working on the task, the other team members should wait quietly and patiently.

At the end of the first stage, all team members of both teams will be informed of which team won the first stage.

The second stage proceeds in the same fashion as the first stage. The Second Movers will participate in this stage while the other team members should wait quietly and patiently. The team whose Second Mover catches more balls at the end of the task will win the second stage. Each Second Mover will also incur an EXPENSE herself by clicking. At the end of the second stage, a similar summary screen will show which team won the second stage.

If one team has won both stages, the competition ends and each member from the winning team will receive the winner prize of 1200 tokens and each member from the losing team will receive the loser prize of 400 tokens. If each team has won one of the two stages, the Third

Movers will compete in the third stage following the same competition rule for the first two stages. The team whose Third Mover catches more balls at the end of the task will be the winning team. At the end of the third stage, a similar summary screen as in the first two stages will be shown.

Your earnings in each period will be (winner or loser) prize minus your EXPENSE. If the third stage is not necessary, the Third Mover earnings will be simply the (winner or loser) prize.

Your Earnings in Part 2

Your earnings in this part will be the sum of your earnings from all 12 periods.

[TEAMCHAT]

In this part, there are 10 periods. In each period, you will be randomly matched with two other participants in this room to form a team. The random matching is completed by the computer and has nothing to do with your decisions in previous parts of the experiment.

Your team will be randomly matched with another team consisting of three other participants in the room. The random matching of two teams is also completed by the computer and has nothing to do with any of the decisions in previous parts of the experiment.

The whole matching process will remain anonymous throughout the entire experiment. You will not be told the identities of either your team members or the members of the other matched team. Also note that both the matching with two other team members and the matching between two teams will be re-done randomly in each period. It is very unlikely that you will be matched with the same team members and the same other team members twice.

Your Task in Each Period

In each period, your team will compete in a best-of-three contest with the other team for a winner prize of 1200 tokens for each member of the winning team and a loser prize of 400 tokens for each member of the losing team.

The competition consists of up to three stages. You will participate only in one of three stages. The computer will randomly determine your participation order in the competition. You will be told whether you are the First Mover, the Second Mover, or the Third Mover before the start of each period. In the first stage, two First Movers, one from each team, will compete. In the second stage, two Second Movers will compete and in the third stage, if necessary, two Third Movers will compete. The winning team in each period will be the one that wins two out of three stages.

Before the start of each period, you will be asked to communicate with your team members via a text chat box on the screen for 60 seconds. You can discuss anything you like,

including what you think is the best approach to win the competition, what you plan to do, or what you would like others to do. However, there are three important restrictions on the types of messages that you may send.

- You may not send a message that attempts to identify you to other team members. Thus, you may not use your real name, nicknames, or self-descriptions of any kind ("Tom Smith here", "I'm the guy in the red shirt sitting near the door", "It's me, Sandy, from French class", or even 'As a woman [Latino, Asian, English, etc.], I think...").

- There must be no use of abusive language, and threats or promises pertaining to anything that is to occur after the experiment ends.

- All of the communication must be in English.

The experimenter will screen your messages. If your message is found to violate any of the rules, you may be excluded from the payment in this experiment.

After the communication, the contest will begin. The rule for winning each stage in the contest is as follows.

During the first stage, two First Movers will simultaneously work on the ball-catching task. The team whose First Mover catches more balls at the end of the task will win the first stage. If the two First Movers catch the same number of balls, the computer will randomly select the winner of the stage. Each mouse click on the LEFT or RIGHT buttons incurs a cost of 10 tokens to the First Mover who makes the click. For each First Mover, the number of balls caught so far (displayed as CATCHES) and the number of clicks made so far (CLICKS) are shown right above the task box on the First Movers screen. Also shown above the task box is EXPENSE, which is CLICKS multiplied by the cost per click. While the First Movers are working on the task, the other team members should wait quietly and patiently.

At the end of the first stage, all team members of both teams will be informed of which team won the first stage.

The second stage proceeds in the same fashion as the first stage. The Second Movers will participate in this stage while the other team members should wait quietly and patiently. The team whose Second Mover catches more balls at the end of the task will win the second stage. Each Second Mover will also incur an EXPENSE by clicking. At the end of the second stage, a similar summary screen will show which team won the second stage.

If one team has won both stages, the competition ends and each member from the winning team will receive the winner prize of 1200 tokens and each member from the losing team will receive the loser prize of 400 tokens. If each team has won one of the two stages, the Third

Movers will compete in the third stage following the same competition rule for the first two stages. The team whose Third Mover catches more balls at the end of the task will be the winning team. At the end of the third stage, a similar summary screen as in the first two stages will be shown.

Your earnings in each period will be (winner or loser) prize minus your EXPENSE. If the third stage is not necessary, the Third Mover earnings will be simply the (winner or loser) prize.

Your Earnings in Part 2

Your earnings in this part will be the sum of your earnings from all 10 periods.

End of Study Survey

[for the team treatments]

Q1. Please indicate which of the following statements best describe yourself in the experiment. a) I clicked more often to catch more balls when my team is ahead by 1:0 than when my team is behind by 0:1 b) I clicked more often to catch more balls when my team is behind by 0:1 than when my team is ahead by 1:0 c) I clicked equally often regardless of whether my team is ahead by 1:0 or is behind by 0:1

Q2. Please explain the reason behind your answer to Q1

Q3. Suppose you were the second mover and your team was ahead by 1:0. You then lost in the second stage and later learnt that your teammate lost in the third stage. From 1 to 10, how disappointed were you in this outcome?

Q4. Suppose you were the second mover and your team was behind by 0:1. You then won in the second stage and later learnt that your teammate lost in the third stage. From 1 to 10, how disappointed were you in this outcome?

Q5. Suppose you were the second mover and your team was ahead by 1:0. You then lost in second stage and later learnt that your teammate lost in the third stage. From 1 to 10, how guilty did you feel for losing your own second stage?

Q6. Suppose you were the second mover and your team was behind by 0:1. You then lost in the second stage. From 1 to 10, how guilty did you feel about losing your own second stage?

Q7. Suppose you were the first mover and you won in the first stage. You then learnt that second mover teammate lost in the second stage and your third mover teammate lost in the third stage. From 1 to 10, how much did you blame the outcome on the second mover? How much did you blame the outcome on the third mover?

Q8. Suppose you were the third mover and you learnt that your teammates lost in the first and second stages. From 1 to 10, how much did you blame the outcome on the first

mover? How much did you blame the outcome on the second mover?

[for the Individual treatment]

Q1. Please indicate which of the following statements best describe yourself in the experiment. a) I clicked more often to catch more balls when I am ahead by 1:0 than when I am behind by 0:1 b) I clicked more often to catch more balls when I am behind by 1:0 than when I am ahead by 0:1 c) I clicked equally often regardless[s of whether I am ahead by 1:0 or am behind by 0:1

Q2. Please explain the reason behind your answer to Q1

Q3. Suppose you were ahead by 1:0 but you lost in the next two stages. From 1 to 10, how disappointed were you in this outcome?

Q4. Suppose you were behind by 0:1. You won in the second stage but then lost in the third stage. From 1 to 10, how disappointed were you in this outcome?

Q5. Suppose you were ahead by 1:0 but you lost in the next two stages. From 1 to 10, how much regret did you feel about losing the second stage?

Q6. Suppose you were behind by 0:1 and you lost in the second stage. From 1 to 10, how much regret did you feel about losing the second stage?

[Sample screenshot for second movers in TEAM and TEAMCHAT]
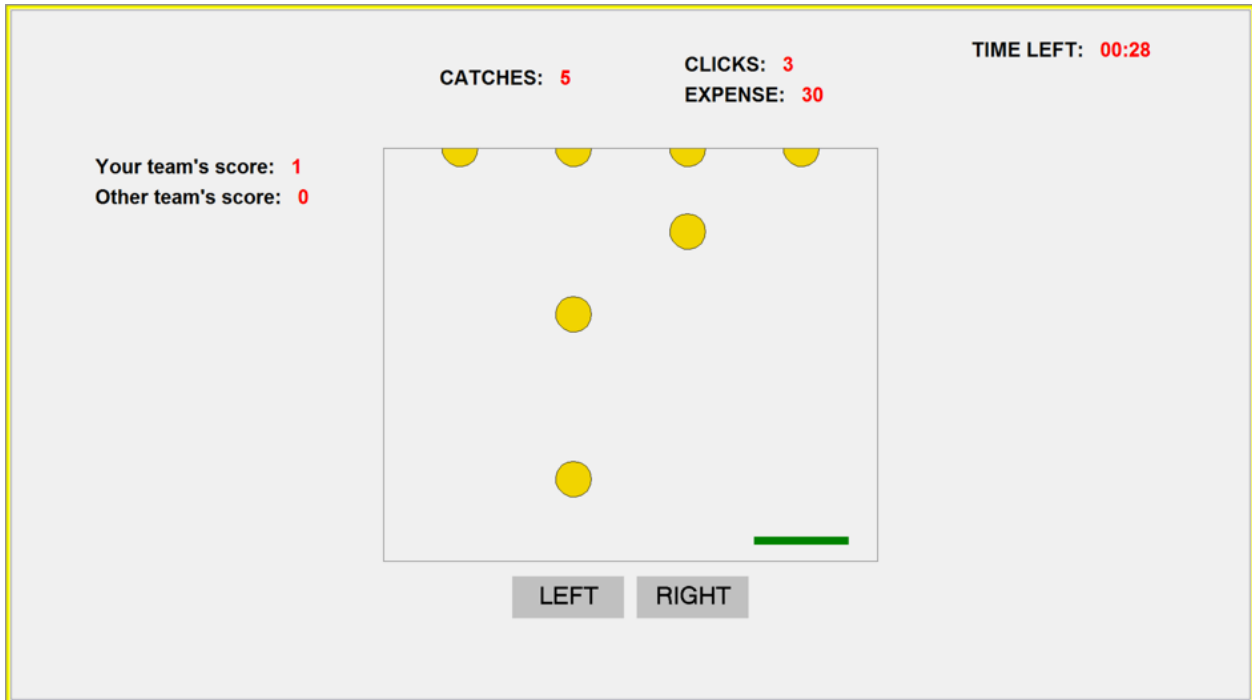
[Sample screenshot for players in IND_Bo3]
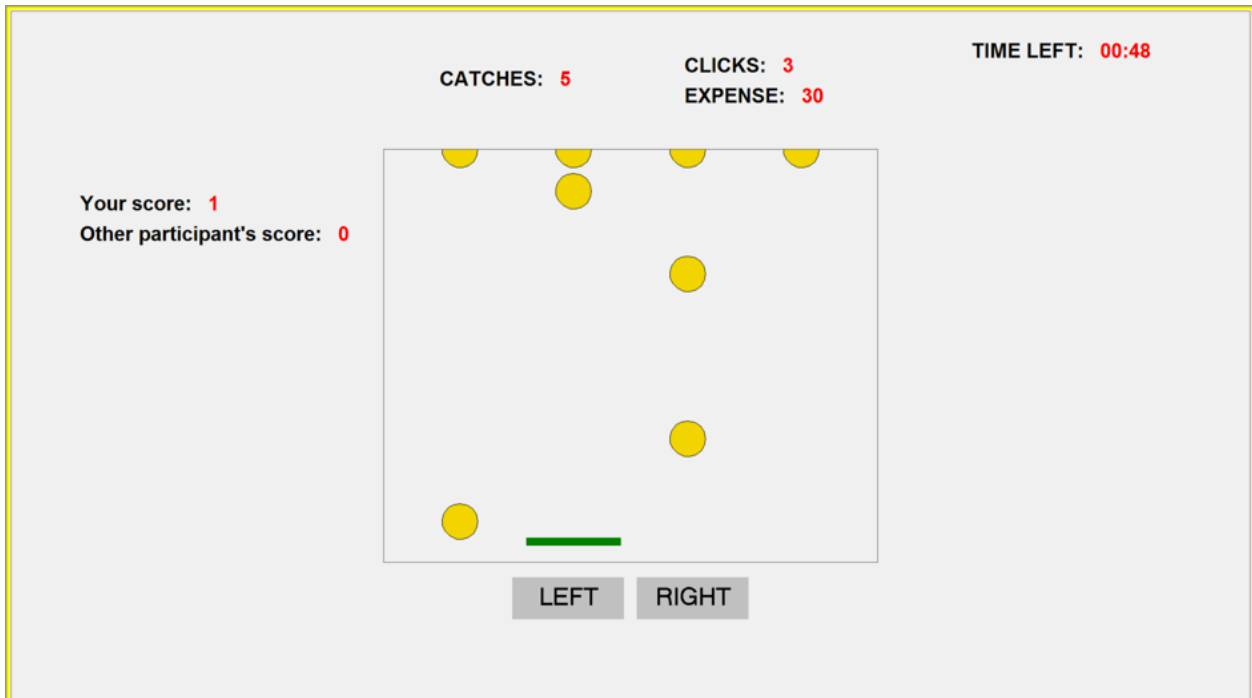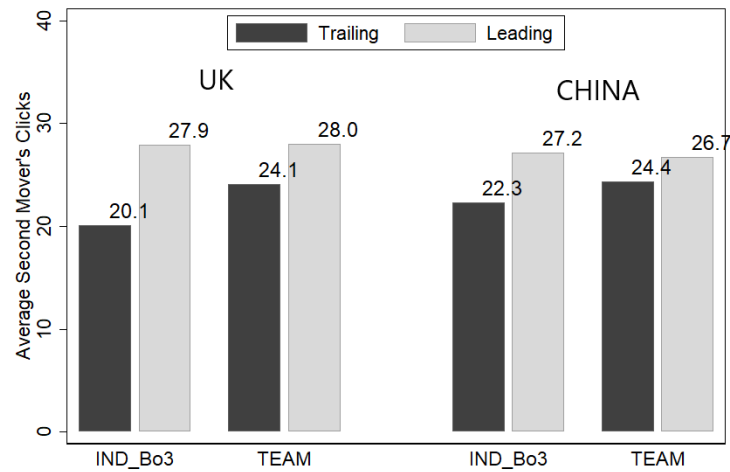
A.2 Additional Tables and Figures

Figure A1: Average Second Mover's Clicks (separately for UK and China sessions).

Table A1: Descriptive Statistics for Second Movers (separately for UK and China sessions)

Treatment	Obs.	Clicks				Catches			
		Mean	SD	Min	Max	Mean	SD	Min	Max
_UK_									
IND_Bo3									
Leading	360	27.93	16.95	0	84	31.52	8.67	8	50
Trailing	360	20.12	16.92	0	70	27.24	10.00	6	49
TEAM									
Leading	360	27.99	17.60	0	76	31.49	8.50	7	49
Trailing	360	24.13	16.85	0	79	30.01	8.92	7	47
China									
IND_Bo3									
Leading	648	27.18	14.53	0	91	33.40	6.95	9	52
Trailing	648	22.29	16.53	0	74	29.82	10.27	4	51
TEAM									
Leading	72	26.69	14.17	0	60	33.29	7.86	7	45
Trailing	72	24.36	16.01	0	66	31.10	9.80	4	44

41

Table A2: Descriptive Statistics for All Movers (separately for UK and China sessions)

Treatment Obs.	Obs.	Clicks				Catches			
		Mean	SD	Min	Max	Mean	SD	Min	Max
UK									
IND_Bo3									
All	720	24.03	17.37	0	84	29.38	9.59	6	50
TEAM									
1st Mover	720	25.58	16.88	0	73	30.18	8.12	6	50
2nd Mover	720	26.06	17.33	0	79	30.75	8.74	7	49
3rd Mover	340	32.22	17.45	0	83	34.16	7.37	8	48
TEAMCHAT									
1st Mover	300	29.29	14.78	0	70	32.18	6.63	0	46
2nd Mover	300	29.43	15.90	0	77	32.60	8.22	0	45
3rd Mover	300	34.23	15.15	0	69	36.44	6.04	10	50
IND_Bo5									
All	360	18.26	18.63	0	80	25.66	10.87	6	47
China									
IND_Bo3									
All	1296	24.73	15.93	0	91	31.61	8.95	4	52
TEAM									
1st Mover	144	27.10	15.60	0	70	32.74	8.54	5	46
2nd Mover	144	25.53	15.11	0	66	32.19	8.92	4	45
3rd Mover	74	32.31	15.73	0	68	35.69	7.09	8	46

Table A3: Random Effect Regressions of Second Mover's Clicks (separately for UK and China sessions)

	UK			China		
	(1) IND_Bo3	(2) TEAM	(3) Pooled	(4) IND_Bo3	(5) TEAM	(6) Pooled
Lead	5.788***	2.775**	2.861**	5.056***	1.616	1.616
	(1.211)	(1.197)	(1.188)	(0.658)	(1.913)	(1.888)
IND_Bo3			−2.862*			−3.237*
			(1.518)			(1.772)
Lead × IND_Bo3			2.859*			3.440*
			(1.669)			(2.011)
Experience	−0.656**	−0.108	−0.449**	−0.183	−0.088	−0.165
	(0.327)	(0.090)	(0.215)	(0.187)	(0.055)	(0.180)
Constant	25.395***	25.136***	26.949***	23.392***	25.144***	26.515***
	(1.192)	(1.588)	(1.787)	(1.817)	(0.191)	(0.992)
σ_ω	11.050	13.512	12.776	10.508	11.385	10.672
σ_u	12.227	10.683	11.597	11.799	11.255	11.755
N(matches)	720	720	1440	1296	144	1440
N(subjects)	60	178	238	108	36	144

Note: Standard errors are bootstrapped and clustered at the session level. σ_ω denotes the square root of the variation due to the persistent unobserved individual characteristics. σ_u represents the square root of the variation due to the transitory unobservables. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A4: Random Effect Regressions of Third Mover's Clicks in Teams (UK sessions)

	(1) TEAM	(2) TEAMCHAT
Lead	−0.098	−2.143
	(1.624)	(2.394)
Experience	−0.464**	−1.195**
	(0.188)	(0.537)
Constant	34.664***	30.045***
	(2.906)	(2.088)
σ_ω	12.763	10.737
σ_u	11.526	9.486
$N(matches)$	340	158
$N(subjects)$	156	80

Note: Standard errors are bootstrapped and clustered at the session level. σ_ω denotes the square root of the variation due to the persistent unobserved individual characteristics. σ_u represents the square root of the variation due to the transitory unobservables. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$
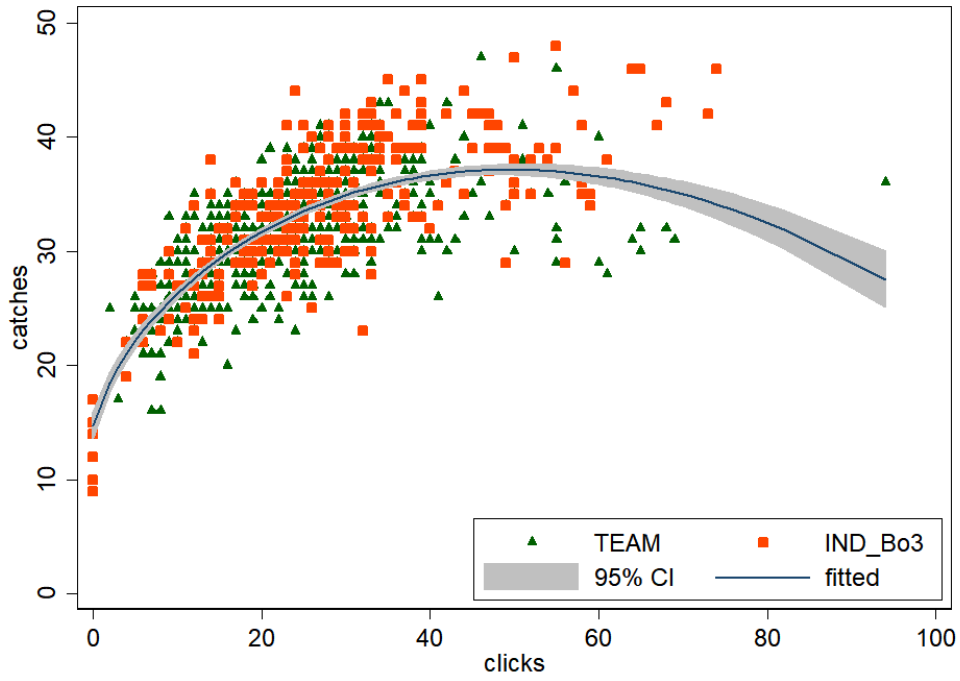
Figure A2: The Relation Between Clicks and Catches and the Estimated Production Functional Form

A.3 Content Analysis of the Chat Data

We developed a coding system for different types of messages based on reading through parts of the conversations to establish empirically relevant categories of argumentation. Two research assistants were independently trained to code the messages in each round, assigning a tick for each of the categories that showed up in the communication stage for each team member.

The messages could be categorized into four main categories:

- Messages of cheering characters are labeled as *Cheer* (e.g. "We are the dream tea," "we are awesome," "good luck!"),

- Messages with a promise to one's team members are labeled as *Promise* (e.g. "I will try my best!" or a response of "OK/ Agreed/ I will" to the statement by a team member, "catch many balls," "try to win," "do your best," etc.),

- Messages urging team members to catch as many balls as possible and disregard the cost of clicks are labeled as *MaxCatches* (e.g. "move as much to catch as much, you win by catching as many balls as possible, I have won 2 games so far with this tactic," "You need to get all the balls - don't worry about the clicks")

- Messages advising team members to try to minimize the expense are labeled as *MinClicks* (e.g. "don't ever move from the first to the last, unless you see two balls coming, only ever move within two spaces," "dont overclick, you will lose tokens if you do").

All other messages were not categorized as they did not deal with the game or the outcome of the game.[14] There were just two instances of messages about strategic effects between battles: third movers urged the first and second movers to do their best so that the outcome did not depend on the third battle, to which the first and second movers responded with "OK" and "will try my best" and these were categorized as Promise. There were no messages pertaining to the strategic situation of second movers or discussion of strategic neutrality. We hence discount the possibility of conscious information sharing and thus learning of the dynamically neutral rational strategy out of team discussion.

The level of agreement between the two coders was assessed by computing the Cohens kappa coefficient.[15] We find a "Moderate" to "Substantial" agreement in all four categories

---

[14]Examples include discussing yesterdays football match, whether they like the experiment or not, or greeting each other.

[15]Cohen's kappa coefficient (k) is a statistical measure of inter-coder agreement used to assess the agreement between two independent coders. $k = \frac{Pr(a) - Pr(e)}{1 - Pr(e)}$ where $Pr(a)$ is the probability of agreement between

Table A5: Observed Frequency of Categories in Chats

	Proportion	Cheer	Promise	MaxCatches
Cheer	0.317***			
Promise	0.114**	(0.000)		
MaxCatches	0.230***	(0.129)	(0.000)	
MinClicks	0.089***	(0.000)	(0.071)	(0.000)

Note: P-values from paired sample sign tests are in parentheses. * Cohen's Kappa coefficient between 0.3 and 0.4. ** Cohen's Kappa coefficient between 0.4 and 0.6. *** Cohen's Kappa coefficient above 0.6.

of messages with the Cohen's Kappa coefficient always greater than 0.50. In our analysis, we use only those messages that both coders agreed on the category. Table A5 reports the level of agreement between the coders per each message category. In this table, we also calculate the proportion of subjects sending each message category. This is the number of times players sent a message of certain category divided by the total number of times players could have sent a message, which is 890 (89 subjects across the ten rounds). For example, if we only had one player sending a cheering message to her team members in all 10 rounds, this would count as 10/890 for the proportion of Cheer. We find that the most frequent message is of cheering nature and the least frequent message is about minimizing clicking: 38.6% Cheer; 16.2% Promise; 30.7% MaxCatches; and 12.0% MinClicks. Pairwise comparisons of proportion of messages sent show significant differences at the 10% level, except we cannot reject the hypothesis that Cheer and MaxCatches messages were sent equally frequently.

In Table A6, we analyze whether the messages exchanged within a team affect second mover's effort and how the type of the message interacts with second mover being on a leading or trailing team. We use the same set of independent variables as in regressions reported in the main text plus dummies for each message category and a variable for the number of message lines exchanged within a second movers team as a measure of team bonding. Column (1) shows that messages of MaxCatches motivate second movers to make 5 more clicks compared to those whose team did not exchange a MaxCatches message. None of the other categorized messages has a significant effect on second mover's clicks. Column (2) additionally controls interactions of category dummies and whether a second mover is on a leading or trailing team. We find that in response to MaxCatches messages, second movers on a trailing team click significantly more often than those on a leading team. Moreover, in response to messages containing promises, second movers on a leading team click significantly

---

coders and $Pr(e)$ is the probability that the agreement is reached by chance. If the coders are in complete agreement, then $k = 1$. If there is no agreement among the coders, other than what would be expected by chance, then $k = 0$. Kappa values between 0.41 and 0.60 are considered a "Moderate" agreement, and those above 0.60 indicate a "Substantial" agreement (Landis and Koch, 1977).

more often than those on a trailing team. Hence, it appears that trailers are more responsive to MaxCatches, whereas leaders are encouraged by Promise.

Table A6: Second Movers Clicks and Messages

	(1)	(2)
Lead	−0.251	−0.814
	(1.504)	(4.276)
Cheer	−2.707	−3.526
	(1.719)	(2.475)
Promise	0.419	−2.591
	(1.609)	(2.177)
MaxCatches	4.954***	8.313***
	(1.860)	(2.569)
MinClicks	−2.375	−3.430
	(1.725)	(2.328)
NumberMessage	0.340	0.345
	(0.227)	(0.229)
Lead × Cheer		1.488
		(3.397)
Lead × Promise		5.946**
		(3.034)
Lead × MaxCatches		−6.009*
		(3.580)
Lead × MinClicks		1.641
		(2.974)
σ_ω	9.814	10.088
σ_u	10.873	10.791
Obs.	293	293

Note: All regressions further include self-reported risk and competitive attitudes, gender, age, nationality, experience dummies, and intercept. Standard errors are in parentheses. σ_ω denotes the squared root of the variation due to the persistent unobserved individual characteristics. σ_u represents the squared root of the variation due to the transitory unobservables. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

A.4 An Extension of the Disappointment Aversion Model

In the main text, we assume that second movers experience emotions of elation/disappointment in relation to the final match outcome. Here, we present an extension to the basic model by additionally letting a leader feel elation if she wins her own *second* battle and letting a trailer feel disappointment if she loses. To see that this does not change our qualitative prediction of the momentum effect under a reasonable assumption, let the loser prize $v = 0$ and the adjustment parameter $k = 1/2$ to keep the model tractable. A leader's valuation of winning the second battle becomes

$$V + g_0(V - Vp_L),$$

where $p_L = p(e_L, e_T)$ is the leader's probability of winning the second battle, g_0 is the elation parameter if the leader wins, and elation is evaluated around the reference point Vp_L which is the leader's expected prize before the second battle starts. Her valuation of losing the second battle is

$$[V + g(V - \frac{V}{2}) + l(0 - \frac{V}{2})]/2,$$

which the leader's prize incentive in relation to the final match outcome and is exactly the same as in our basic model. Therefore, the net prize incentive for the leader to win the second battle is the difference in valuations of winning and losing:

$$V + g_0(V - Vp_L) - [V + g(V - \frac{V}{2}) + l(0 - \frac{V}{2})]/2. \tag{7}$$

Similarly, a trailer's valuation of winning the second battle is

$$[V + g(V - \frac{V}{2}) + l(0 - \frac{V}{2})]/2,$$

which is the trailer's prize incentive in relation to the final match outcome and is exactly the same as in our basic model. Her valuation of losing the second battle becomes

$$l_0(0 - \frac{V}{2}p_T),$$

where p_T is the trailer's probability of winning the second battle, $p_T + p_L = 1$. l_0 is the disappointment parameter if the leader loses, and disappointment is evaluated around the reference point $\frac{V}{2}p_T$ which is the trailer's expected prize before the second battle starts. Therefore, the net prize incentive for the trailer to win the second battle is the difference in valuations of winning and losing:

$$[V + g(V - \frac{V}{2}) + l(0 - \frac{V}{2})]/2 - l_0(0 - \frac{V}{2}p_T), \tag{8}$$

We can verify that the condition for the momentum effect is $\frac{\lambda}{2} > -g_0(1 - p_L) + l_0 p_T/2$. Assuming that $l_0 = 2g_0$ (loss looming twice as large as gain is often used as a rule of thumb), this condition is always satisfied.