Online Appendix

Appendix A. Experimental instructions (English translation)

[The PreventiveWar treatment; NoWar only differs in players' probability of winning in stage 1, and thus is omitted here.]

Welcome! You are taking part in a decision making experiment. You have earned 15 RMB for showing up on time. In addition, you can earn more money in this experiment. The amount of money you earn will depend upon the decisions you make and on the decisions other people make. Your earnings in this experiment are expressed in EXPERIMENTAL CURRENCY UNITS, which we will refer to as ECUs. At the end of the experiment you will be paid IN CASH using a conversion rate of **1 RMB for every 5 ECUs** of earnings from the experiment (final payment will be rounded to the nearest 10 cents). Please do not communicate with each other during the experiment. If you have a question, feel free to raise your hand, and an experimenter will come to help you.

The experiment consists of 20 rounds. At the beginning of each round, you will be randomly matched with another participant in this room. You will be either a Person A or Person B. If you are Person A (or B), the other participant will be Person B (or A). Both the pairing and role will be randomly determined from round to round.

At the beginning of each round, each player receives an endowment of 5 ECUs. Each round has two stages. In each stage, Person A will decide how to split 10 ECUs between herself and Person B. Person B will then decide to either "accept" or "reject". In the following, we will explain their respective decisions in more detail.

Stage 1

Person A will move first and decide how to split 10 ECUs (in integer) between herself and Person B. Person A will also announce her plan of splitting another 10 ECUs in stage 2. But she does not have to execute this plan in stage 2.

After observing Person A's decision for stage 1 and plan for stage 2, Person B will move next and decide whether to "accept" or "reject". If he chooses to "accept", then he will receive the number of ECUs determined by Person A. Moreover, Person B will announce his plan of whether to "accept" or "reject" in response to each of the possible splitting decision made by Person A in stage 2. He also does not have to execute this plan in stage 2. After Person B has made both his decision for stage 1 and plan for stage 2, these decisions will be revealed to Person A. The pair will then proceed to stage 2.

If Person B chooses to "reject", the computer will determine who will receive a prize worth 20 ECUs. **Person A's probability of winning the prize is 20% whereas Person B's probability of winning is 80%.** In addition, each player has to pay 5 ECUs irrespective of the outcome of the competition (they do not need to pay this amount if Person B chooses to "accept"). There will be no stage 2 if the pair competes in stage 1.

Stage 2

Similar to stage 1, Person A will move first and decide how to split 10 ECUs (in integer) between herself and Person B.

Person B will move next and decide whether to "accept" or "reject". If he chooses to "accept", then he will receive the number of ECUs determined by Person A.

If Person B chooses to "reject", the ECUs received in stage 1 will be eliminated and the computer will determine who will receive a prize worth 20 ECUs. **Person A's probability of winning the prize is 70% whereas Person B's probability of winning is 30%.** In addition, each player has to pay 5 ECUs irrespective of the outcome of the competition (they do not need to pay this amount if Person B chooses to "accept").

Payoff

If Person B chooses to "accept" in both stages, the total ECUs (additional to endowment) Person B will receive in the round will be the sum of his shares determined by Person A in both stages. The total ECUs Person A will receive will be the sum of her shares determined by herself in both stages.

If Person B chooses to "reject" in either stage, each player's earnings in the round will NOT depend on A's decisions in either stage and will only depend on whether he/she wins the prize in that stage, subtracted by 5 ECUs. **Note that while Person B will have a higher probability of winning in stage 1, Person A will have a higher probability of winning in stage 2.**

Your total earnings for the experiment will be the sum of the earnings in all rounds.

This completes the instructions. Before we begin the experiment, to make sure that every participant understands the instructions, please answer several review questions on your screen.

[The RP-Commit treatment]

Welcome! You are taking part in a decision making experiment. You have earned 15 RMB for showing up on time. In addition, you can earn more money in this experiment. The amount of money you earn will depend upon the decisions you make and on the decisions other people make. Your earnings in this experiment are expressed in EXPERIMENTAL CURRENCY UNITS, which we will refer to as ECUs. At the end of the experiment you will be paid IN CASH using a conversion rate of **1 RMB for every 5 ECUs** of earnings from the experiment (final payment will be rounded to the nearest 10 cents). Please do not communicate with each other during the experiment. If you have a question, feel free to raise your hand, and an experimenter will come to help you.

The experiment consists of 20 rounds. At the beginning of each round, you will be randomly matched with another participant in this room. You will be either a Person A or Person B. If you are Person A (or B), the other participant will be Person B (or A). Both the pairing and role will be randomly determined from round to round.

At the beginning of each round, each player receives an endowment of 5 ECUs. Each round has two stages. In each stage, Person A will decide how to split 10 ECUs between herself and Person B. Person B will then decide to either "accept" or "reject". In the following, we will explain their respective decisions in more detail.

Stage 1

Person A will move first and decide how to split 10 ECUs (in integer) between herself and Person B. Person A will also announce her plan of splitting another 10 ECUs in stage 2. And she will have to execute this plan in stage 2.

After observing Person A's decision for stage 1 and plan for stage 2, Person B will move next and decide whether to "accept" or "reject". If he chooses to "accept", then he will receive the number of ECUs determined by Person A. After Person B has made his decision for stage 1, it will be revealed to Person A. The pair will then proceed to stage 2.

If Person B chooses to "reject", the computer will determine who will receive a prize worth 20 ECUs. **Person A's probability of winning the prize is 20% whereas Person B's probability of winning is 80%.** In addition, each player has to pay 5 ECUs irrespective of the outcome of the competition (they do not need to pay this amount if Person B chooses to "accept"). There will be no stage 2 if the pair competes in stage 1.

Stage 2

Similar to stage 1, Person A will move first and decide how to split 10 ECUs (in integer) between herself and Person B. And she must split according to the plan made in stage 1 (the computer will automatically implement the decision according to Person A's plan).

Person B will move next and decide whether to "accept" or "reject". If he chooses to "accept", then he will receive the number of ECUs determined by Person A.

If Person B chooses to "reject", the ECUs received in stage 1 will be eliminated and the computer will determine who will receive a prize worth 20 ECUs. **Person A's probability of winning the prize is 70% whereas Person B's probability of winning is 30%.** In addition, each player has to pay 5 ECUs irrespective of the outcome of the competition (they do not need to pay this amount if Person B chooses to "accept").

<u>Payoff</u>

If Person B chooses to "accept" in both stages, the total ECUs (additional to endowment) Person B will receive in the round will be the sum of his shares determined by Person A in both stages. The total ECUs Person A will receive will be the sum of her shares determined by herself in both stages.

If Person B chooses to "reject" in either stage, each player's earnings in the round will NOT depend on A's decisions in either stage and will only depend on whether he/she wins the prize in that stage, subtracted by 5 ECUs. **Note that while Person B will have a higher probability of winning in stage 1, Person A will have a higher probability of winning in stage 2.**

Your total earnings for the experiment will be the sum of the earnings in all rounds.

This completes the instructions. Before we begin the experiment, to make sure that every participant understands the instructions, please answer several review questions on your screen.

Appendix B. Additional tables and figures

Table B1: Random effects regression of final payoff (main treatments)

Dependent Variable: Final payoff	(1)	(2)
β_0: NoWar	2.359*** (0.783)	
β_1: RP-Commit		-0.049 (0.683)
β_2: DP	6.499*** (0.737)	6.489*** (0.729)
β_3: NoWar $\times$ DP	-3.405*** (1.070)	
β_4: RP-Commit $\times$ DP		1.692* (1.000)
Constant	3.682*** (0.525)	3.687*** (0.522)
H0: $\beta_0 + \beta_3 = 0$	$p = 0.004$	
H0: $\beta_1 + \beta_4 = 0$		$p = 0.000$
Observations	3200	3000
Clusters	16	15

*Notes: Standard errors clustered at the session level are in parentheses. RP in PreventiveWar serves as the benchmark. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.*

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Table B2: Random effects regression of final payoff (HighCost and LowCost treatments)

Dependent Variable: Final payoff	(1)	(2)
β_0: HighCost	2.133**	
	(0.926)	
β_1: LowCost		1.161*
		(0.614)
β_2: DP	6.496***	6.494***
	(0.742)	(0.740)
β_3: HighCost × DP	-3.304***	
	(1.068)	
β_4: LowCost × DP		2.335***
		(0.909)
Constant	3.683***	3.684***
	(0.321)	(0.528)
H0: $\beta_0 + \beta_3 = 0$	$p = 0.000$	
H0: $\beta_1 + \beta_4 = 0$		$p = 0.000$
Observations	2400	2400
Clusters	12	12

*Notes: Standard errors are clustered at the session level. RP in PreventiveWar serves as the benchmark. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.*

Table B3: Random effects regression of final payoff (Chat and Repeat treatments)

Dependent Variable: Final payoff	(1)	(2)
β_0: Chat	2.747*** (0.802)	
β_1: Repeat		1.977*** (0.768)
β_2: DP	6.489*** (0.726)	6.524*** (0.746)
β_3: Chat $\times$ DP	-2.557** (1.081)	
β_4: Repeat $\times$ DP		-2.054* (1.108)
Constant	3.687*** (0.520)	3.669*** (0.528)
H0: $\beta_0 + \beta_3 = 0$	$p = 0.586$	
H0: $\beta_1 + \beta_4 = 0$		$p = 0.865$
Observations	3200	3200
Clusters	16	48

*Notes: Standard errors are clustered at the session level for PreventiveWar and Chat, and at the group level for Repeat. RP in PreventiveWar serves as the benchmark. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.*

Table B4: Probit regressions of preventive wars in the Repeat treatment

Dependent Variable: fight in stage 1 = 1	Average marginal effects	
	(1)	(2)
L1. preventive war	0.370***	0.313***
	(0.065)	(0.049)
L2. preventive war		0.297***
		(0.053)
1[RP's stage 1 offer < 9]	0.043	0.059
	(0.058)	(0.050)
Round	-0.004	-0.002***
	(0.003)	(0.002)
Observations	760	720
Clusters	40	40

Notes: Standard errors are clustered at the group level. Average marginal effects are reported. *** p < 0.01.
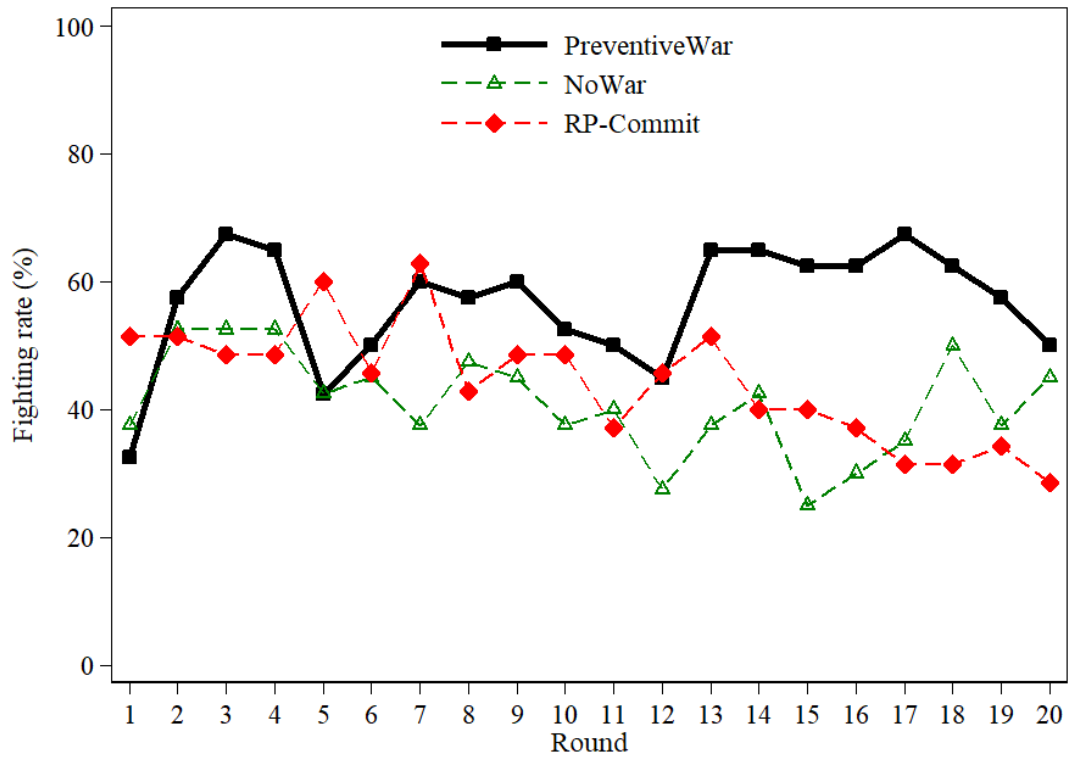
Figure B1: The frequency of preventive wars across rounds (main treatments)
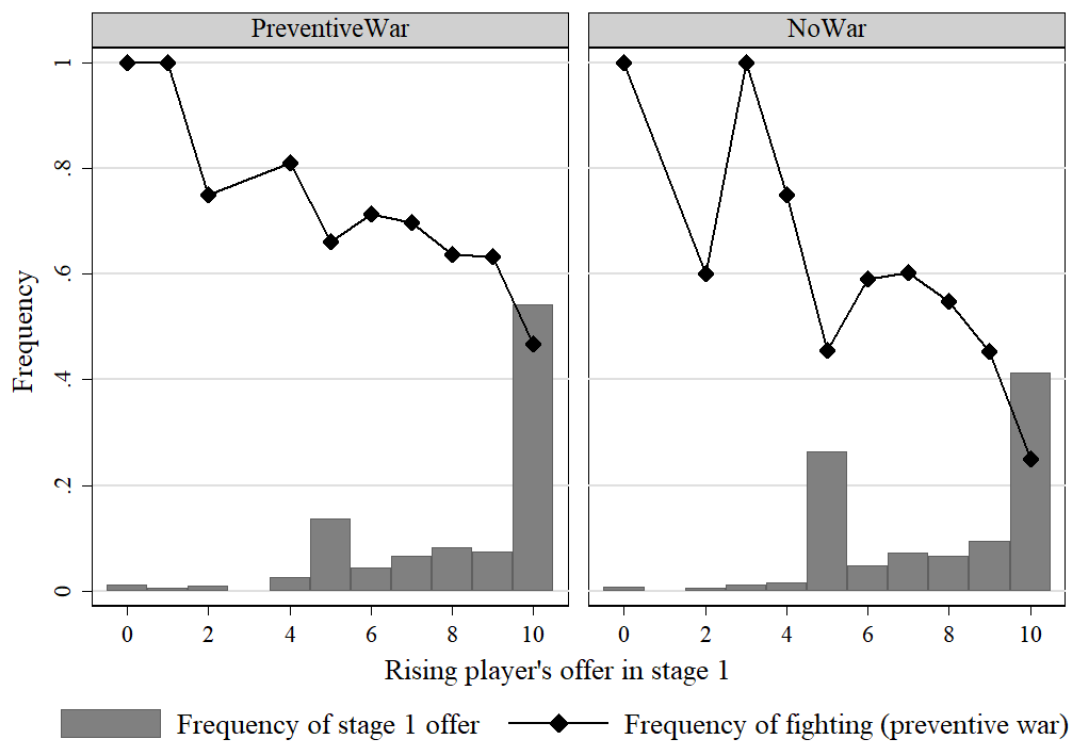
Figure B2: The frequency of preventive wars conditional on the rising player's stage 1 offer (main treatments)
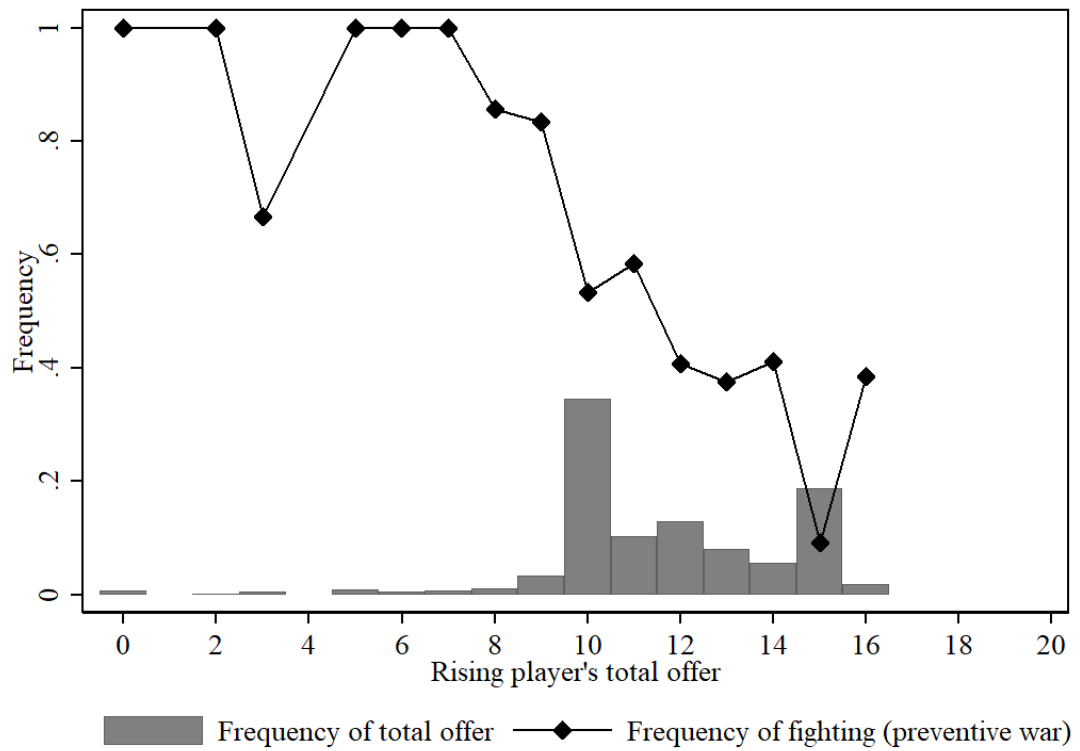
Figure B3: The frequency of preventive wars conditional on the rising player's total offer (RP-Commit treatment)
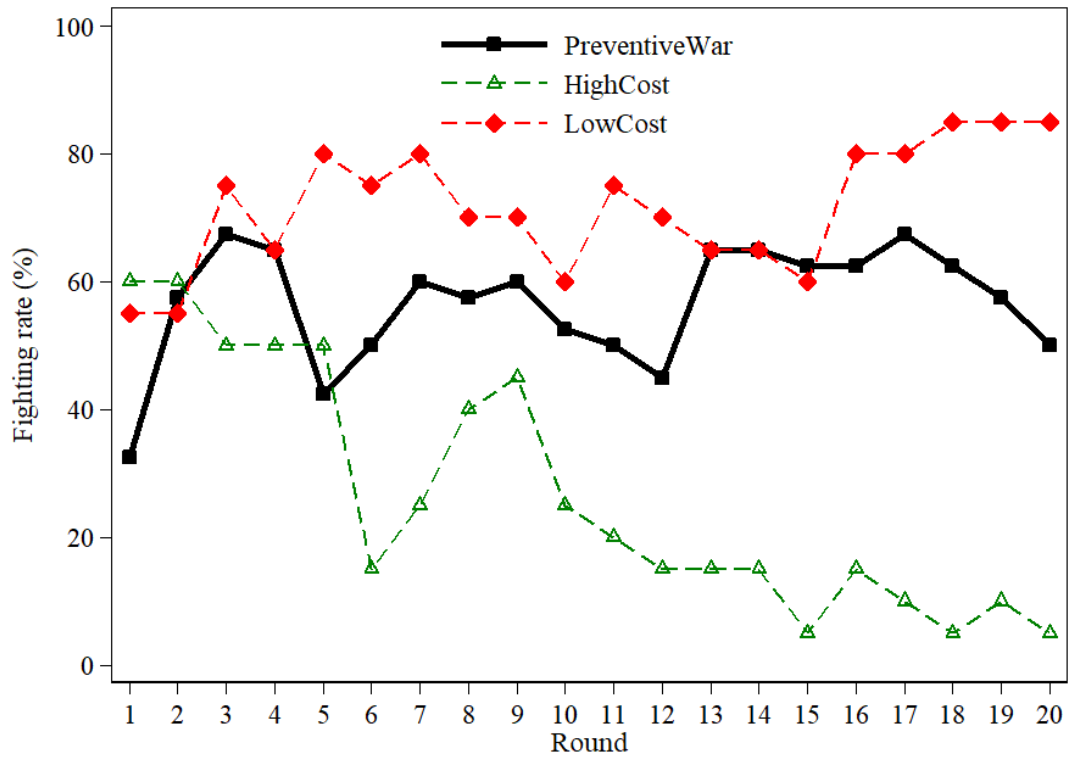
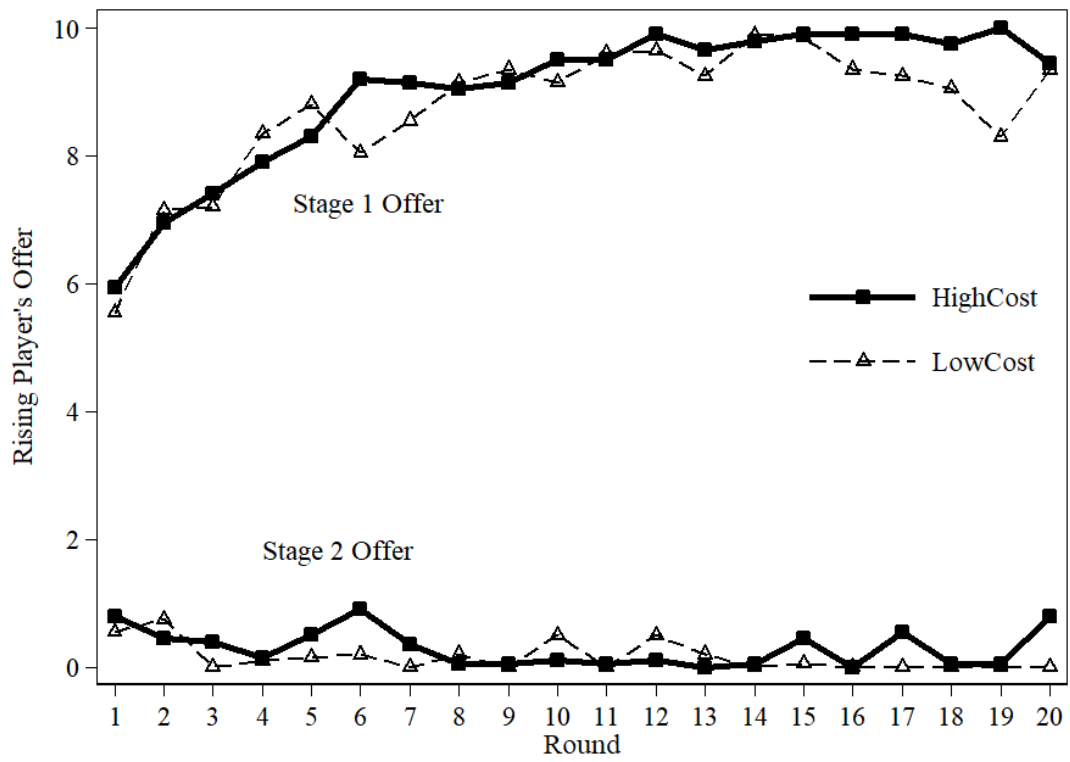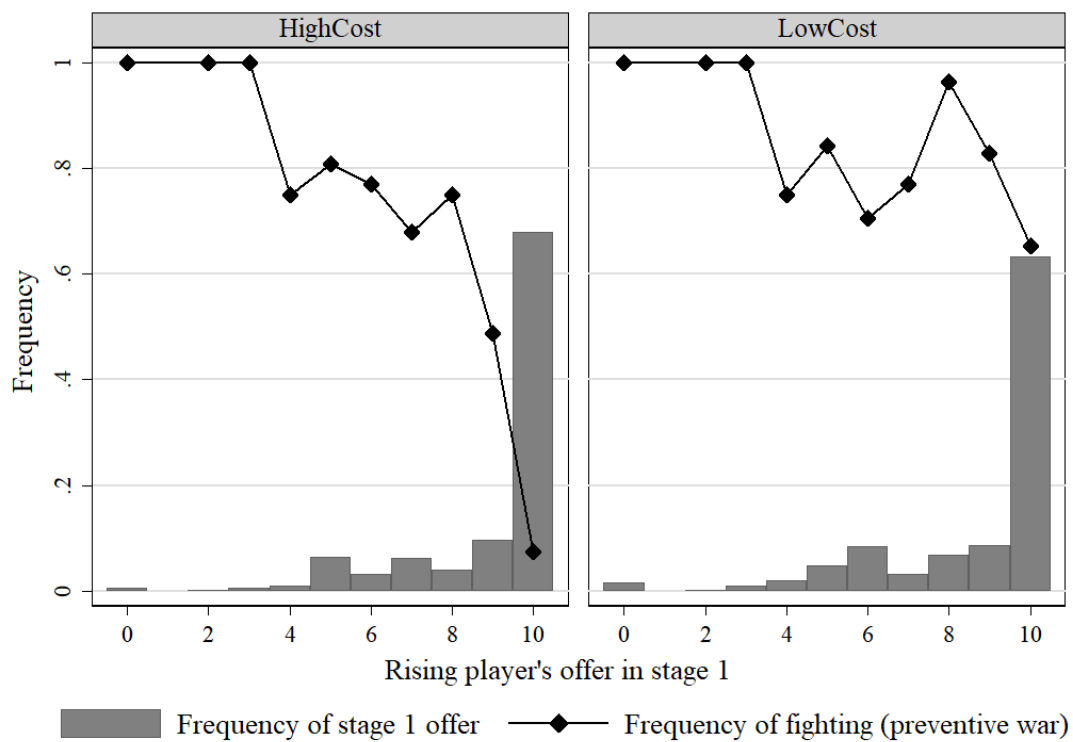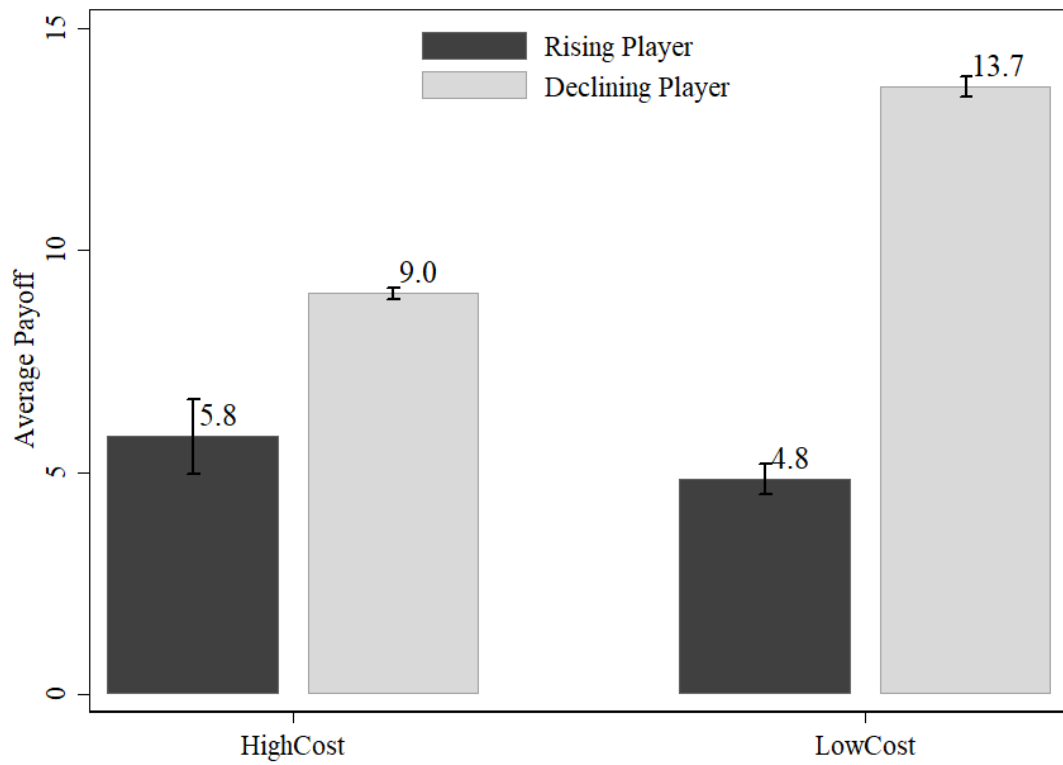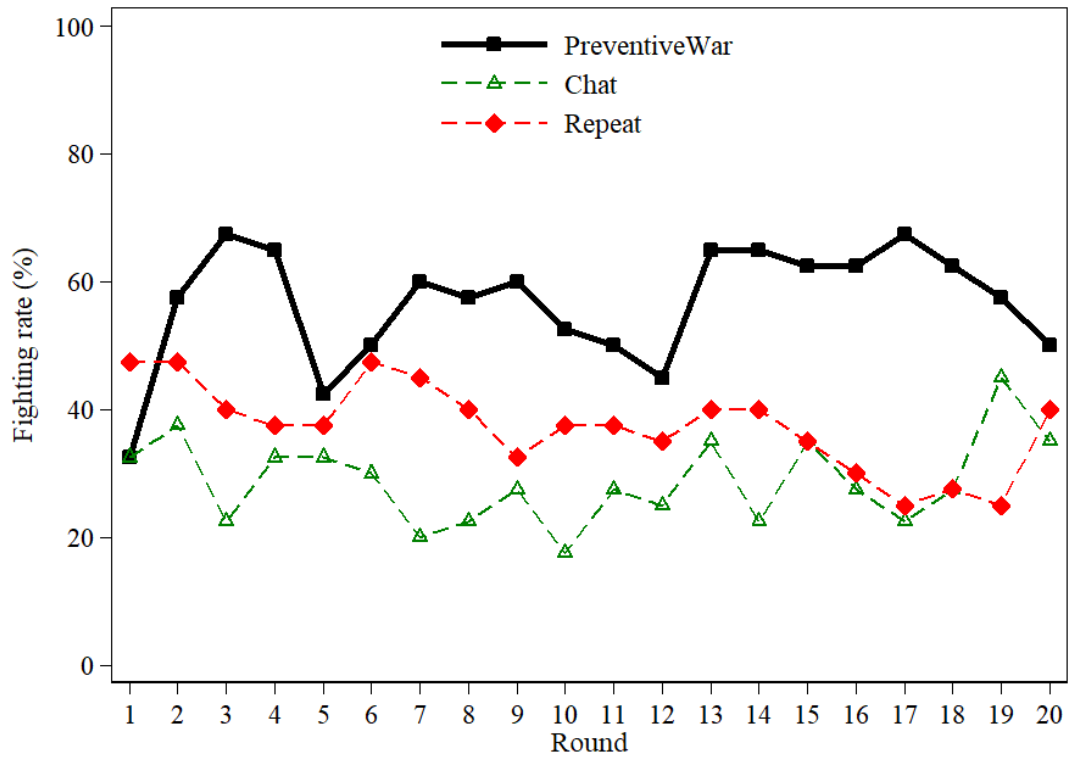**Figure B4:** The frequency of preventive wars across rounds (HighCost and LowCost treatments)

Figure B5: Rising players' offers in both stages over round (HighCost and LowCost treatments)

Figure B6: The frequency of preventive wars conditional on the rising player's stage 1 offer (HighCost and LowCost treatments)

Figure B7: The rising player's and declining player's average payoffs (excluding 5-token endowment; HighCost and LowCost treatments)

Note: Error bars represent one standard error of the mean clustered at the session level.

Figure B8: The frequency of preventive wars across rounds (Chat and Repeat treatments)
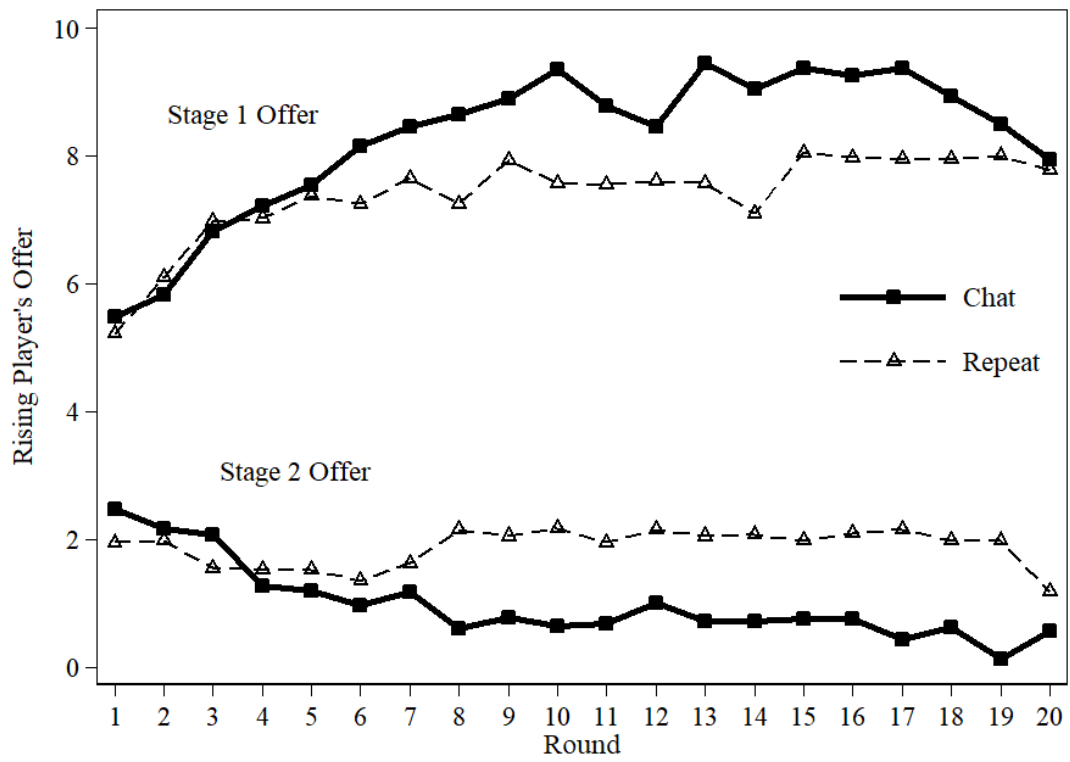
Figure B9: Rising players' offers in both stages over round (Chat and Repeat treatments)
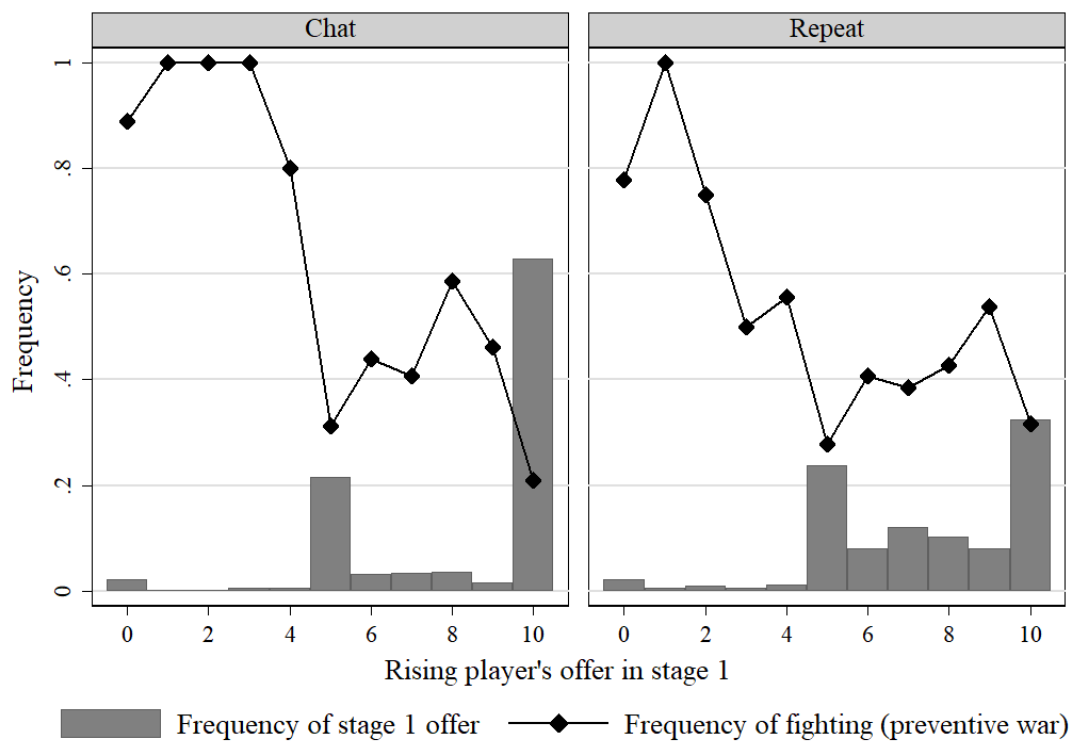
Figure B10: The frequency of preventive wars conditional on the rising player's stage 1 offer (Chat and Repeat treatments)
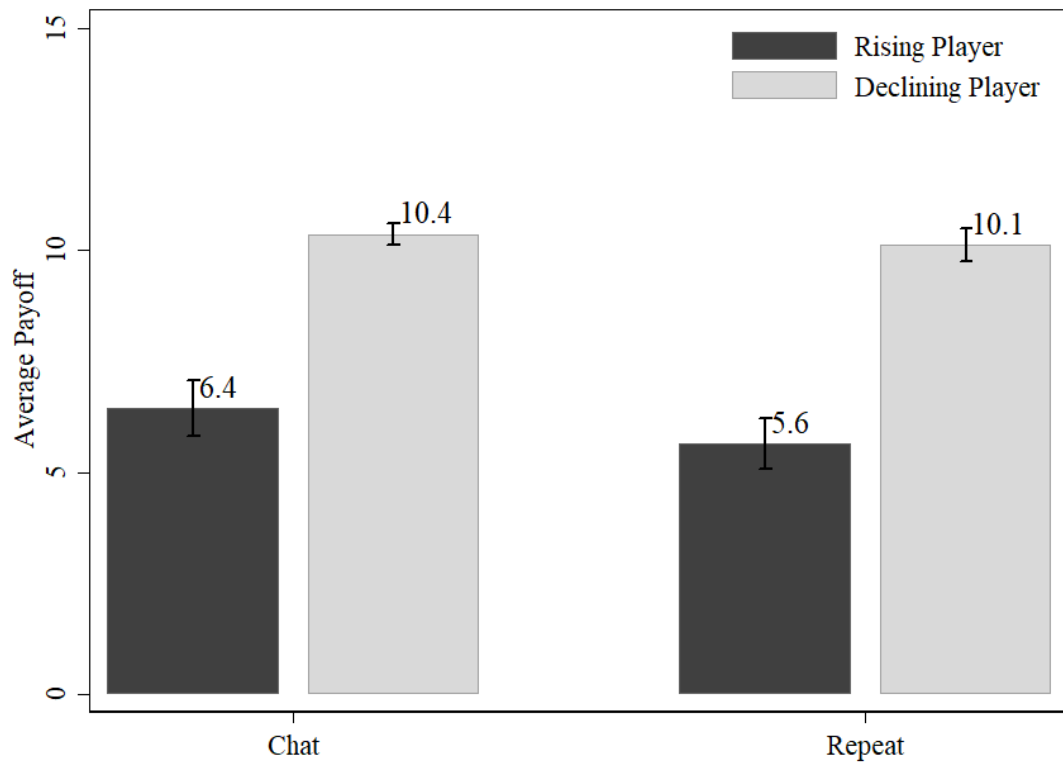
Figure B11: The rising player's and declining player's average payoffs (excluding 5-token endowment; Chat and Repeat treatments)

Note: Error bars represent one standard error of the mean clustered at the session level.