

# Materials for Leadership and Conflict in Simulated International Systems

William Minozzi, Elias Assaf, Christopher F. Gelpi, Andrew S. Rosenberg

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## PARTICIPANT FLOW

All participants will see consent.

Those who agree to participate, will then see scheduling and the pre-survey.

After assignment, participants will receive email with either their time and date, or the information that we could not successfully assign them to a session.

On the morning of the session, participants will get an email with the link to the session.

Thirty minutes before the session, participants will get a second reminder email.

Those who show up to the session will see the Instructions and Quiz, and then play the game.

Those who complete the game will receive an email with compensation within one week.

## NOTES

Variables and placeholders are shown in **<pink>** between single angle brackets.

Conditions are shown in **[blue]**, bolded, and between single square brackets.

Notes to IRB reviewers are shown in **{orange}**, bolded, and between curly braces.

## **CONSENT, SURVEY, AND SCHEDULING**

**Study Title:** Man, the State, and War: An Experimental Approach

**Researcher:** William Minozzi

**Sponsor:** Ohio State University Department of Political Science and the Mershon Center for International Security Studies

**This is a consent form for research participation.** It contains important information about this study and what to expect if you decide to participate.

**Your participation is voluntary.**

Please consider the information carefully. Feel free to ask questions before making your decision whether or not to participate. If you decide to participate, you will be asked to respond “Yes” below.

**Purpose:** You are being asked to participate in this research study to help researchers understand the psychology, judgment, and decision making of actors who bargain with one another.

**Procedures/Tasks:** If you agree to participate, you will be asked to complete a short online survey, and to provide your availability so we can schedule your game with other participants. After coordinating your availability, we will email you with a link to your game, and a date and time when the game will be held. We will also email you on the morning of the game.

Once you start the game, you will read a set of instructions and take a short quiz. You will then play the game itself. In the game, you will be paired with another participant, and the two of you will engage in a series of bargaining rounds.

**Duration:** The survey today will take 5-10 minutes to complete, and the game you complete later will take 45-75 minutes to complete.

You may leave the study at any time. If you decide to stop participating in the study, there will be no penalty to you, and you will not lose any benefits to which you are otherwise entitled. Your decision will not affect your future relationship with The Ohio State University.

**Risks and Benefits:** There are no known risks or discomforts associated with participating in this session. You will not benefit directly from participating in this study.

**Confidentiality:** Your identity will be kept confidential and your responses will be stored in a secure data server. Any report of this research that is made available to the public will not include your name or any other individual information by which you could be identified.

**Incentives:** For showing up to the game on the appropriate date and time, you will receive a \$5 Amazon gift card. You may also earn more by playing the game, which will also be added to the Amazon gift card. The possible additional amount ranges from \$0 to \$15. By law, payments are considered taxable income.

**Participant Rights:** You may refuse to participate in this study without penalty or loss of benefits to which you are otherwise entitled. If you are a student or employee at Ohio State, your decision will not affect your grades or employment status.

If you choose to participate in the study, you may discontinue participation at any time without penalty or loss of benefits. By clicking “Yes”, you do not give up any personal legal rights you may have as a participant in this study.

An Institutional Review Board responsible for human subjects research at The Ohio State University reviewed this research project and found it to be acceptable, according to applicable state and federal regulations and University policies designed to protect the rights and welfare of participants in research.

**Contacts and Questions:** For questions, concerns, or complaints about the study, or you feel you have been harmed as a result of study participation, you may contact William Minozzi at minozzi.1@osu.edu.

For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.

If you agree to participate in this research project, please click "Yes" below and continue to the next screen to provide your availability. Otherwise, please click “no” or just continue to the next screen.

By clicking “Yes,” you affirm the following:

I have read (or someone has read to me) this form and I am aware that I am being asked to participate in a research study. I have had the opportunity to ask questions and have had them answered to my satisfaction. I voluntarily agree to participate in this study.

I am not giving up any legal rights by clicking “Yes”.

Yes  
No

>>

---

[If Yes, take to next screen.]

[Otherwise, end.]

---

Thanks for agreeing to participate!

First, we need to ask you for a few pieces of information to make sure we can contact you and compensate you for your time and effort.

First Name \_\_\_\_\_

Last Name \_\_\_\_\_

Email Address \_\_\_\_\_

>>

---

<Personality Inventory goes here>

{All personality inventories we will use will be existing, published, peer reviewed, and drawn from the extensive literature on personality psychology.}

---

As a general rule, do you think the United States should be ready and willing to use military force around the world, or the United States should be very reluctant to use military force?

Reluctant <SLIDER FROM 1 to 10> Ready and Willing

>>

---

Do you identify as an evangelical Christian?

Yes

No

How often do you attend religious services?

More than once a week

Once a week

A few times a month

A few times a year

Once a year or less

Never

>>

---

MILITARY SERVICE QUESTION

>>

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What is your gender?

Male

Female

Other

Prefer not to answer

What is your year of birth?

---

>>

---

Are you Spanish, Hispanic, or Latino or none of these (select all that apply).

Spanish

Hispanic

Latino

None of these

Please choose one or more races that you consider yourself to be:

White

Black or African American

American Indian or Alaska Native

Asian

Native Hawaiian or Pacific Islander

Other (specify)

>>

---

When it comes to politics, which of the following do you usually think of yourself as?

Very liberal

Somewhat liberal

Closer to liberals

Neither liberal nor conservative

Closer to conservatives

Somewhat conservative  
Very conservative  
Don't know

Generally speaking, do you think of yourself as a...

Democrat  
Republican  
Independent  
Another party, please specify:  
No preference

>>

---

[SHOW ONLY IF DEMOCRAT]

Would you call yourself a...

Strong Democrat  
Not very strong Democrat

[SHOW ONLY IF REPUBLICAN]

Would you call yourself a...

Strong Republican  
Not very strong Republican

[SHOW ONLY IF NOT DEMOCRAT AND NOT REPUBLICAN]

Do you think of yourself as closer to the...

Democratic Party  
Republican Party  
Neither

>>

---

Thanks for completing the survey! Now we just need to know when you're available.

Below is a list of times. Please click all the times you're available. All times are in Eastern Time Zone.

We'll coordinate all participants' availability and email you with your scheduled Session.

All email associated with this project will include the name “OSU Wargames,” so keep an eye out!

<LIST POSSIBLE DATES AND TIMES>

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**{END OF CONSENT, SURVEY, AND SCHEDULING}**



## **TEMPLATE SCHEDULING EMAIL**

Subject: Your Schedule for OSU Wargames

Dear <RECIPIENT>,

Thank you for agreeing to participate in our game! Here are some details about your schedule.

**[ONLY SHOW IF SCHEDULING CONFLICT]** Unfortunately, based on your availability and that of other participants, we could not successfully schedule you. But thanks again for being willing to participate!

**[ONLY SHOW IF SUCCESSFUL SCHEDULING]** Based on your availability and that of other participants, we scheduled you to play our game on <DATE AND TIME>. We will send you an email on the morning of that day that will contain a link to your session. Don't forget: you will earn a \$5 Amazon gift card just for showing up on time! And you have the chance to earn even more by participating in the game that follows!

Thanks,  
OSU Wargames

## **TEMPLATE DAY OF SESSION EMAIL**

Subject: Today's Session with OSU Wargames

Dear <RECIPIENT>,

Thanks again for agreeing to participate in our game! Here's the link to your session later today:

<LINK>

Please click the link promptly at <TIME>.

**[ONLY OSU STUDENT SUBJECT]** Don't forget: you will earn a \$5 Amazon gift card just for showing up on time! And you have the chance to earn even more by participating in the game that follows!

**[ONLY ONLINE SURVEY FIRM SUBJECT]** Don't forget: you will earn a <Amount inserted by survey firm> just for showing up on time! And you have the chance to earn even more by participating in the game that follows!

Thanks,  
OSU Wargames

## **INSTRUCTIONS**

## Welcome!

Thanks for your participation! Just for showing up, you've earned a \$5 Amazon gift card.

You will now play a game where you and your team **earn money** based on how well you play.

***You are the leader of your team.***

You will be playing against the leader of an **opposing** team.

In the game, you will earn **units** that will be converted to real money at the end of the game.

Since your decisions affect how much money your team earns, ***you are also responsible*** for how much money your followers receive at the end of the game.

>>

## Teams and the War Chest

In the game, your team will be matched with an ***opposing team***.

Your team will play against the ***same*** opposing team throughout the game.

Since you are the ***leader***, you will play against the other team's ***leader***.

Each team starts with a ***war chest*** that has 1000 units.

>>

## A Round

The game consists of a set of rounds.

The exact number of rounds is chosen *randomly*.

At the beginning of each round, 100 units will be *added* to your team's *war chest*.

The opposing team will *dispute* your right to keep your new units.

As the leader of your team, you and the leader of the opposing team will then enter *negotiations* over whether you can keep your units.

>>



## Negotiations

At the start of negotiations, the leader of the opposing team may **demand** some of your newly added units.

You may **choose** between **two** possible actions:

**Action 1:** *You may **offer** some of your new units to your opponent.*

- (a) If your offer is **less than or equal to** your opponent's demand, you keep 100 units, minus your offer.
- (b) If your offer is **more than** opponent's demand, there is a **deadlock**, which we describe on the next screen.

**OR**

**Action 2:** *You may **start a war** with your opponent.*

- (a) The winner of the war is determined by **chance**.
- (b) The **winning team** receives **all** 100 units.
- (c) The **losing team** receives **no** units.
- (d) Both teams pay a **cost** of war equal to 20 units.

The **leader of the opposing team may also start a war** instead of making a demand.

>>

## Deadlock

During negotiations, if you offer fewer units than your opponent demands, there is a **deadlock**.

After a **deadlock**, one of two things might happen, each with some chance:

- (1) Negotiations might continue. In this case, you may make a new **offer**, your opponent may make a new **demand**, or either of you could start a **war**.
- (2) A **war** might also start with some chance. We describe war on the next page.

>>

## War

Regardless of how a war starts, the **winner** of a war is determined by **chance**.

The **chances of winning** depend on both teams' **war chests**.

The team with the **larger** war chest is **more likely to win**.

The chance increases based on the **ratio** of war chests.

For example, if team *A*'s war chest is **twice** the size of team *B*'s, *A* is **more likely** to win.

If *A*'s war chest is **three** times the size of *B*'s, *A*'s chance of winning is even greater.

If both teams have the same size war chest, both are equally likely to win.

But each team **always** has **a real chance** of winning a war.

>>

## Resolution of a round

Negotiations continue until a round ends, which can happen in one of three ways:

(1) Successful negotiations.

You **keep** some of the units your team earned, but you **lose** the amount of units you offered to your opponent.

(2) War occurs, and you **win**.

You **keep** all the units your team earned, **but** you also **lose** the cost of war, 20 units.

(3) War occurs, and you **lose**.

You **lose** all 100 units your team earned **and** the cost of war, for a total of 120 units.

The total units you owe are then **subtracted** from your **war chest**.

>>

## Summary of a Round

Everything we've discussed so far constitutes one **round**.

To summarize:

At the beginning of each **round**, 100 units are **added** to your team's **war chest**.

The opposing team **disputes** your claim to those units.

As your team's leader, you enter **negotiations** with the leader of the opposing team.

Negotiations **end** when **either** you offer more units than your opponent demands during a successful negotiation, one team **declares war**, **or** war begins **by chance** after a **deadlock**.

Regardless of how a round ends, your team will **lose** some amount: either the amount you offered during successful negotiations, or the cost of war if there was one, and possibly all 100 units if your team loses the war.

>>

## The Game

Your team plays against the same opposing team ***repeatedly***.

The game has a ***random number of rounds***, and your war chest continues to change throughout the game.

>>

## Compensation

You already earned **\$5** just for showing up, and you now have a chance to earn even more.

At the end of the game, **one round** will be selected at random.

As your team's leader, **you will get 50%** of the units your team earned in that round.

The **your followers will split the remaining 50%**.

If your team's earnings from that round are negative, no one on your team will owe anything. But you will also not earn anything more than the amount for showing up.

Units will be converted to US Dollars at a rate of **\$0.20 per unit**.

All amounts will be rounded to the nearest cent.

>>

## Example of a Round of Play

The next few pages will show you examples of what can happen during a **round**.

This is an **example**, **NOT** a real round.

You will **NOT** win or lose money in this round.

This round is a chance for you to practice and see how the game works.

Please read the instructions and play the game using the steps we give you below.

After this example, there will be a short quiz, and then the game will start.

The **red text** on the following screens are **instructions** for the example round.

***The instructions in red text will not appear during actual play.***

---

>>



## Example of an Offer

*Each round starts with a decision whether to make your opponent an offer or to declare war.*

*In this example round, please offer 50 of your units to your example opponent.*

---

Your team has earned 100 new units. Your total war chest is now 1100 units.

The opposing team disputes your right to keep the new units you have just earned.

As leader of your team, please choose either to offer the leader of the opposing team some of your new units, or to declare war on the opposing team.

**Please select an amount from 0 to 100 :**



**If you select 'declare war' below, no offer will be made, and the offer window will disappear.**

☐ Do Not Declare War, Negotiate   ☐ Declare War

---

*Please select "Do not declare war" below.*

*The negotiation slider appears when you hit the "Do not declare war" button and disappears when you select the "Declare war" button.*

*Please offer your opponent 50 units using the slider.*

---

>>

**{Only valid entry on page is 50.}**

## Example of Agreement

*Here is what would happen if you and your opponent reached an agreement.*

---

The leader of the opposing team demanded 50 of your team's units.

You offered the leader of the opposing team 50 of your team's units.

The amount you offered is greater than or equal to your opponent's demand, so there is an agreement.

Your team will pay 50 units. They have been deducted from your team's war chest.

---

*In this example, you reached an agreement.*

*You will pay the opposing team 50 of your units.*

*If your opponent had demanded more than 50 units, or you had offered fewer than 50, there would have been deadlock.*

*The next page will show you what leads to deadlock.*

---

>>

## Example of Deadlock

This time, please offer your opponent only 20 of your units.

---

Your team has earned 100 units. They have been added to your war chest.

But the opposing team disputes your right to keep those units.

As leader of your team, please choose either to offer the leader of the opposing team some of your units, or to declare war on the opposing team.

Please select an amount from 0 to 100 :



If you select 'declare war' below, no offer will be made, and the offer window will disappear.

☐ Do Not Declare War, Negotiate   ☐ Declare War

---

*For this example, please select "Do not declare war" and offer your opponent 20 of your units.*

---

>>

{Only valid entry on page is 20.}

## Example of Deadlock

*In this example round, you offered 20 units to your opponent, but your opponent demanded 50 units, which is more than you offered.*

---

The leader of the opposing team demanded 50 of your team's units.

You offered the leader of the opposing team 20 of your team's units.

The amount you offered is less than your opponent's demand, so there is deadlock.

---

*The next page will show you what happens after deadlock.*

---

>>

## Example of War Happening by Chance

*This page shows you what **might** happen after a deadlock.*

*Sometimes, after a deadlock, **war may occur by chance**.*

---

Negotiations failed in the last round.

The deadlock has resulted in a war that was not deliberately started by either team.

Your team must pay the cost of war, 20 units.

---

*The next page will show you what happens after a war starts.*

---

>>

**{After deadlock, war occurs based on the following rule. At the beginning of a set of negotiations, a number  $X$  is selected randomly from between 1 and 20. If no agreement has been reached after  $X$  negotiations, then a war starts.}**

## Example of War Outcome

*Wars can happen by chance or when a team leader chooses to start one.*

*Regardless of how a war starts, the winner of a war is determined by chance.*

*The team with more units in their **war chest** is more likely to win, but each team has a chance of winning.*

*In this example, your team wins the war.*

---

Your team has won the war.

Your team will keep all 100 units, but you must still pay the cost of war, 20 units.

The cost of war has been deducted from your war chest.

---

*This war started by chance, after a deadlock.*

*But deadlocks will not always result in a war by chance.*

*Instead, with some chance, you may have the opportunity to continuing negotiations.*

*The next page will show you what renegotiation looks like.*

---

>>

{The probability of winning is given by

$$\text{Pr}(A \text{ wins}) = 1 / (1 + \exp(2.5 - 5 * A's \text{ warchest} / \text{Sum of warchests})).$$

Based on the initial war chest values of 1000 and the maximum amount that teams can win, this probability has a possible range of about [0.2, 0.8].}

## Example of Renegotiation

*This page shows you what happens after a deadlock if a war **does not** occur by chance.*

---

Negotiations failed in the last round.

As leader of your team, you now have a chance to renegotiate with the leader of the opposing team.

Please choose whether to offer the leader of the opposing team some of your units, or declare war.

Please select an amount from 0 to 100 :



If you select 'declare war' below, no offer will be made, and the offer window will disappear.

☐ Do Not Declare War, Negotiate   ☐ Declare War

---

*Renegotiation looks much like the original offer screen.*

*You can make a new offer or declare a war.*

*For this example, please offer your opponent 40 units.*

---

>>

{Only valid entry on page is 40.}

## Example of Renegotiation

*In this example, you offered 40 of your units to your opponent.*

*Let's suppose you and your opponent reach a deadlock and that you have a chance to renegotiate, but instead of making a new offer, you declare war.*

---

The leader of the opposing team demanded 50 of your units.

You offered the leader of the opposing team 40 of your team's units.

The amount you offered is less than your opponent's demand, so there is deadlock.

---

*Just like before, a war might happen by chance after a deadlock.*

*But in this example, war will not happen.*

*Instead, let's see what happens if you declare war.*

*Please go to the next page to see how to declare war on the other team.*

---

>>



## Example of Declaring War

*In negotiations, you always have a chance to either make another offer or to declare war.*

*In this example, let's suppose you declare war.*

---

Negotiations failed in the last round.

As leader of your team, you now have a chance to renegotiate with the leader of the opposing team.

Please choose whether to offer the leader of the opposing team some of your units, or declare war.

Please select an amount from 0 to 100 :



If you select 'declare war' below, no offer will be made, and the offer window will disappear.

☐ Do Not Declare War, Negotiate   ☐ Declare War

---

*Please declare war and continue to the next page.*

---

>>

**{Only valid entry on page is Declare War.}**

## Example of Declared War

*In this example round, you declared war on your example opponent.*

---

You declared war on the opposing team.

Your team must pay the cost of war, 20 units.

---

*Of course, the leader of the opposing team also might declare war on your team.*

*Please go to the next page to see what it looks like when your opponent declares war on your team.*

---

>>

## Example of the Opposing Team Declaring War

*In this example, let's suppose you offer 40 units.*

---

Negotiations failed in the last round.

As leader of your team, you now have a chance to renegotiate with the leader of the opposing team.

Please choose whether to offer the leader of the opposing team some of your units, or declare war.

Please select an amount from 0 to 100 :



If you select 'declare war' below, no offer will be made, and the offer window will disappear.

☐ Do Not Declare War, Negotiate ☐ Declare War

---

*For this example, please select "Do not declare war" and offer your opponent 40 of your units.*

---

>>

{Only valid entry on page is 40.}

## Example of the Opposing Team Declaring War

*In this example round, you declared war on your example opponent.*

---

The leader of the opposing team declared war on your team.

Your team must pay the cost of war, 20 units.

---

*Declared wars are resolved in the same way as those that start by chance.*

*Please go on to the next page.*

---

>>

## **End of Instructions**

You have now seen examples of every page you might get throughout the game.

Please go to the next page to take a short quiz about how the game works.

>>

## QUIZ

<Quiz questions will be shown one per page. Subjects have an opportunity to answer. They are then told whether they selected the correct answer. They are shown the explanation for the correct answer, regardless of whether they selected the correct answer right. Correct answers has \*'s next to them.

Language for correct answers: "You selected the correct answer!"

Language for incorrect answers: "Unfortunately, that's not right.">

---

Will you be matched with a new opponent in every round?

a) Yes

b) No <\*>

<Explanation> You will be matched with the same opponent for several rounds, the exact number of which is selected at random.

---

How many units will you get at the beginning of a round?

a) 50

b) 100 <\*>

c) 150

d) 0

<Explanation> At the beginning of every round, your war chest will increase by 100 units.

---

Offers and demands can be any number in the range...

a) 0 to 100 <\*>

b) 0 to 50

c) 40 to 60

d) There are no limits.

<Explanation> Offers and demands can only be whole numbers between 0 and 100.

---

If you offered your opponent 40 units, and your opponent demanded 30 units, will the round end?

a) Yes <\*>

b) No

<Explanation> A round ends in a successful negotiation when your offer is **more than** your opponent's demand. Since 40 is more than 30, these negotiations would be successful, and the round would end.

---

If a war occurs, the team with the larger war chest...

- a) Wins with certainty
- b) Is more likely to win. <\*>

<Explanation> In war, the team with the larger war chest is always somewhat more likely to win than the team with the smaller war chest.

---

If a war occurs, the team with the smaller war chest...

- c) Has no chance to win
- d) Has some chance to win. <\*>

<Explanation> In war, both teams always have a real chance of winning.

---

During negotiations, what are your choices? (Select all that apply.)

- a) Start a war <\*>
- b) Plead for mercy
- c) Demand some of your opponent's units
- d) Offer your opponent some of your units <\*>

<Explanation> Negotiations involve only two choices: making an offer to your opponent, or declaring war.

---

Suppose that you offered your opponent 40 units, and your opponent demanded 30 units. How many units will you pay your opponent at the end of the round?

- a) 40 units <\*>
- b) 30 units
- c) 35 units
- d) A randomly drawn number of units, between 30 and 40

<Explanation> Successful negotiations require you to pay the full amount you have offered. So, if you offered 40 units, you will pay 40 units.

---

Suppose that a war occurs, and your opponent has twice as many units in their war chest as you have in yours. If you win the war, then... (Select all that apply.)

- a) You pay the cost of war <\*>
- b) You keep all 100 units from the beginning of the round <\*>
- c) Your opponent pays both their cost of war and your cost of war
- d) You get 10% of your opponent's war chest



**<Explanation>** Any time there is a war, both teams must pay the cost of war. The winner of the war also gets to keep the disputed units.

---

Suppose that you offered your opponent 40 units, but your opponent demanded 50 units. What might happen next? (Select all that apply.)

- a) Your opponent offers you some of their units.
- b) A war might happen by chance. <\*>
- c) The round continues with more negotiations. <\*>
- d) The team with the largest war chest wins outright.

**<Explanation>** When you offer fewer units than your opponent demands, you have reached a deadlock. Deadlocks can result either in renegotiation or in a war that happens by chance.

---

At the end of the game, payment is calculated by selecting...

- a) Your total war chest at the end of the game
- b) A random round <\*>

**<Explanation>** Payment is based on how you played in a single, randomly chosen round. **If you had negative units in that round, you will not lose any money.**

---

How many rounds will you play with an opponent in one set of rounds?

- a) 10
- b) 15
- c) 20
- d) A randomly chosen number <\*>

**<Explanation>** The number of rounds will be a random number between 5 and 20.

## EXAMPLES OF GAME SCREENS

*In this section, we include an example of every type participants might see over the course of gameplay. After the instructions, participants will see pages that are produced dynamically based on their choices and those of their partners. The pages will all look similar, but the numbers participants see will vary depending on what their offers are, and the pages that are presented will vary, again, based on gameplay. For example, an agreement will lead to an “agreement” page, and deadlock will lead to the “deadlock” page, etc.*

## Make an Offer or Go to War

---

Your team has earned 100 new units. Your total war chest is now **<AMOUNT>** units.

The opposing team disputes your right to keep the new units you have just earned.

As leader of your team, please choose either to offer the leader of the opposing team some of your new units, or to declare war on the opposing team.

**Please select an amount from 0 to 100 :**



**If you select 'declare war' below, no offer will be made, and the offer window will disappear.**

☐ Do Not Declare War, Negotiate   ☐ Declare War

>>

## Agreement

---

The leader of the opposing team demanded <DEMAND> of your team's units.

You offered the leader of the opposing team <OFFER> of your team's units.

The amount you offered is greater than or equal to your opponent's demand, so there is an agreement.

Your team will pay <DEMAND> units. They have been deducted from your team's war chest.

>>

## Deadlock

---

The leader of the opposing team demanded <DEMAND> of your team's units.

You offered the leader of the opposing team <OFFER> of your team's units.

The amount you offered is less than your opponent's demand, so there is deadlock.

>>

## Make an Offer or Go to War

---

Negotiations failed in the last round.

As leader of your team, you now have a chance to renegotiate with the leader of the opposing team.

Please choose whether to offer the leader of the opposing team some of your units, or declare war.

**Please select an amount from 0 to 100 :**



**If you select 'declare war' below, no offer will be made, and the offer window will disappear.**

☐ Do Not Declare War, Negotiate   ☐ Declare War

>>

## You Declared War

---

You declared war on the opposing team.

Your team must pay the cost of war, 20 units.

>>

## **The Opposing Team Declared War**

---

The leader of the opposing team declared war on your team.

Your team must pay the cost of war, 20 units.

>>



## War Happened by Chance

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Negotiations failed in the last round.

The deadlock has resulted in a war that was not deliberately started by either team.

Your team must pay the cost of war, 20 units.

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## War Outcome

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Your team has <WON OR LOST> the war.

Your team will <KEEP OR LOSE> all 100 units, but you must still pay the cost of war, 20 units.

The cost of war has been deducted from your war chest.

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## Game Finished

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You have finished the game!

Your team's final warchest was **<AMOUNT>** units.

We will follow-up soon with an Amazon.com gift card in the amount of your compensation. The email will have the subject line "OSU Wargames sent you an Amazon.com Gift Card."

Thank you for participating!

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## **TEMPLATE COMPENSATION EMAIL**

Subject: OSU Wargames sent you an Amazon.com Gift Card

Dear <RECIPIENT>,

Thank you for your participation! Here are some details about your compensation.

In addition to the participation fee of \$5, you also earned money based on your team's performance. As you know, a random round is selected for compensation. Today, round <ROUND> was selected.

In round <ROUND>, your team ended up with <AMOUNT1> units. You were the team leader, so you earned 50%, or  $<.5 * \text{AMOUNT1}>$  units. Moreover, you served as a follower for each of your two teammates, who earned <AMOUNT2> and <AMOUNT3> units, for a total of  $<\text{AMOUNT2} + \text{AMOUNT3}>$  units. Followers earn 25% of the total, so you earned  $<.25 * \text{AMOUNT2} + .25 * \text{AMOUNT3}>$  more units.

Adding all these together, your total is  $<\text{TOTAL} = .5 * \text{AMOUNT1} + .25 * \text{AMOUNT2} + .25 * \text{AMOUNT3}>$  units.

**[ONLY SHOW IF TOTAL IS NEGATIVE]** Negative earnings are not counted against you, but unfortunately you also didn't earn any extra money.

**[ONLY SHOW IF TOTAL IS POSITIVE]** Units are converted to US Dollars at a rate of \$0.20, so you earned  $\$<.2 * \text{TOTAL}>$ .

Your total compensation was  $\$<5 + .2 * \text{TOTAL}>$ .

Thanks,  
OSU Wargames