



Instructor's Guide to Bargaining and Conflict

Laboratory implementation, theoretical foundations,
experimental evidence, and variants

Behavioral and Experimental Economics Research Lab
Department of Economics



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<https://beer-lab.org/>

How to use this guide

This guide supports the preparation, implementation, and classroom discussion of the family of bargaining and conflict games prepared for the Behavioral and Experimental Economics Research Lab (BEER Lab) at the Department of Economics of Tecnológico de Monterrey. It is intended for instructors with different levels of familiarity with experimental and behavioral economics.

The document offers three reading paths. The **quick guide** is enough to launch a session. The operational chapters explain each screen used by instructors and students. The conceptual chapters present the theories, predictions, and empirical findings needed to lead the post-game discussion.

Access instructions and common screens are explained once. Each variant then focuses only on what changes relative to the basic game: configuration, group size, decisions, predictions, relevant outcomes, and academic literature.

Author

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For the instructor

This guide follows the English-language interface. Spanish configurations use the same logic. Never project individual codes or connect outcomes to names, student identification numbers, or seats in the room.

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Preparing and running the activity

1.1 Access through the updated laboratory website

Start at <https://beer-lab.org/en/>. Select **CLASSROOM** in the top navigation menu; it opens <https://teaching.beer-lab.org/en/>. In the **Classroom experiments** catalog, use the search box to locate the activity by name. You can also filter by **Topic** or **JEL code**. Clear any filters left from an earlier search before looking for another game.

Each family's card distinguishes **Español** and **English** access links. The **Show extended version** checkbox selects that edition before following a link. Catalog language and session language are separate choices: verify both. Students use the room specified by the instructor; the instructor prepares and monitors the session through this family's own administrative pages.

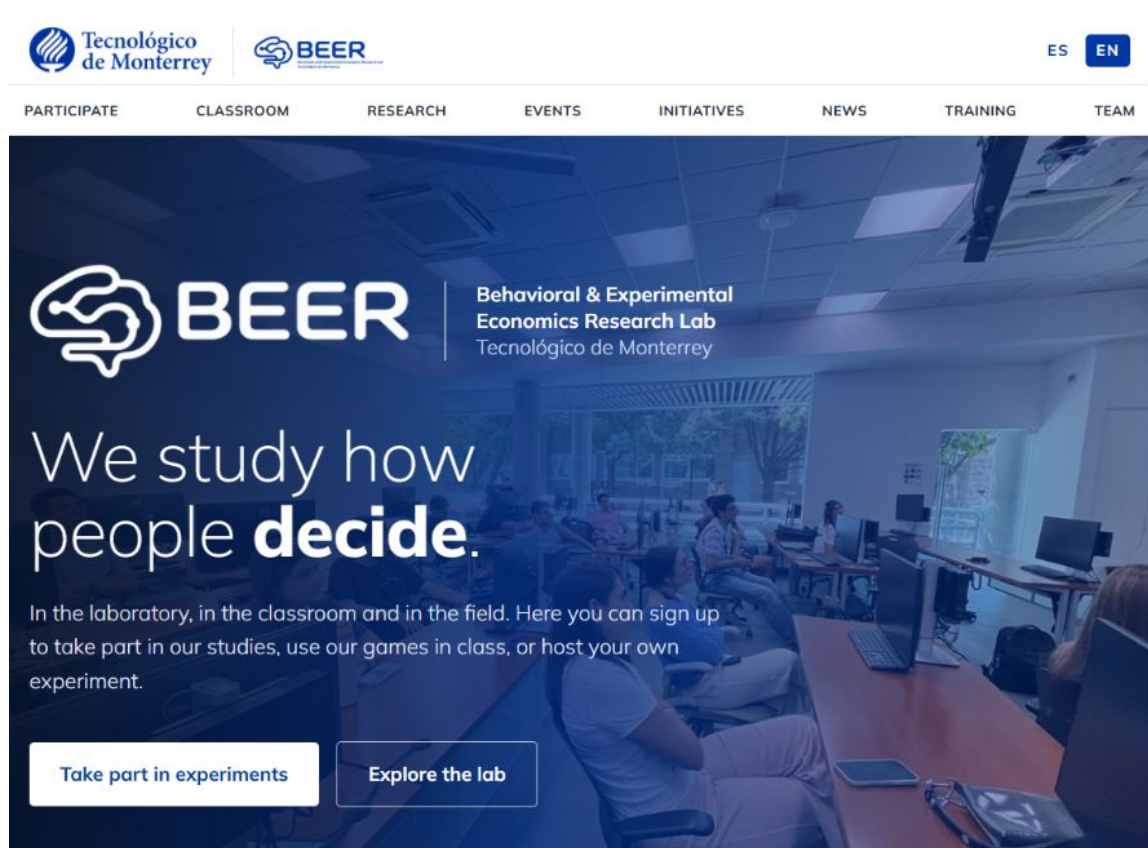


Figure 1.1: Current institutional website. Select **CLASSROOM** in the top navigation menu to open the teaching experiments. Captured on October 7, 2026.



Figure 1.2: Current catalog: search by title, topic, or JEL code. Then locate this family's card and select language and edition. Captured on October 7, 2026.

Checking resources, comprehension, and participant requirements

Before opening the room, check the selected configuration and the number of students present. The session-creation form states the group size and minimum required by that configuration. An individual activity accepts any positive participant count; an interactive activity must satisfy its stated requirement: complete groups when size is fixed, or a minimum participant count when size is flexible. Requirements may change across treatments, for example when adding a third party or changing an institution's size. If you edit a grouping parameter, check the requirement for the edited configuration, rather than relying only on the demo's suggested count.

In the instructions, ensure that students can identify what each role receives, what they can decide, and how the outcome is calculated. An initial account, a distributable budget, and final earnings need not be the same amount. Refer to the resources panel and the example for the selected treatment. Do not carry the basic edition's endowment into a treatment that changes accounts or introduces additional positions.

ECU stands for *Experimental Currency Units*: the activity's unit of account. An outcome of 100 ECU does not automatically equal 100 pesos or 100 dollars. Conversion depends on the session configuration. Before announcing a payment, confirm with the laboratory whether money is paid, the conversion rate, and which decisions count for payment. In hypothetical modules, describe amounts as outcomes in the stated situation.

When a comprehension check is included, an incorrect response receives an explanation beside that question, identifying the submitted answer and the correct answer. Other answers remain in the form. Ask the student to return to the example, locate the relevant rule, and redo the calculation before correcting the response. Avoid revealing answers to the entire class for an individual error, and do not interpret a comprehension mistake as an economic choice in the game.

y conflicto — Referencia, 1, Un encuentro
y conflicto — Referencia, 10, Pareja fija
y conflicto — Referencia, 10, Parejas reasignadas
and Conflict — Baseline, 1, One encounter
and Conflict — Baseline, 10, Fixed pair
and Conflict — Baseline, 10, Reassigned pairs
y conflicto — Extendido — Referencia, 1, Un encuentro
y conflicto — Extendido — Referencia, 10, Pareja fija
y conflicto — Extendido — Referencia, 10, Parejas reasignadas
y conflicto — Extendido — Probabilidades asimétricas, 1, Un encuentro
y conflicto — Extendido — Costo bajo, 1, Un encuentro
y conflicto — Extendido — Costo alto, 1, Un encuentro
y conflicto — Extendido — Costos asimétricos, 1, Un encuentro
y conflicto — Extendido — Mensajes estructurados, 1, Un encuentro
y conflicto — Extendido — Una contraoferta, 1, Un encuentro
y conflicto — Extendido — Recurso indivisible, 1, Un encuentro
y conflicto — Extendido — Repartos en pasos de 25, 1, Un encuentro
y conflicto — Extendido — Proponente adicional, 10, Un encuentro
y conflicto — Extendido — Proponente por sorteo, 1, Un encuentro
y conflicto — Extendido — Pago fijo sin acuerdo, 1, Un encuentro
and Conflict — Extended — Baseline, 1, One encounter
and Conflict — Extended — Baseline, 10, Fixed pair
and Conflict — Extended — Baseline, 10, Reassigned pairs
and Conflict — Extended — Asymmetric probabilities, 1, One encounter
and Conflict — Extended — Low cost, 1, One encounter
and Conflict — Extended — High cost, 1, One encounter
and Conflict — Extended — Asymmetric costs, 1, One encounter
and Conflict — Extended — Structured messages, 1, One encounter
and Conflict — Extended — One counteroffer, 1, One encounter

Negociación y conflicto / Bargaining and Conflict — BEER Lab

Seleccione una variante de este juego. Select a version of this game.

Figure 1.3: Demo contains only the configurations of this game family, in both languages and editions. Continuation 1/2.

BE	y conflicto — Extendido — Costos asimétricos, 1, Un encuentro
	y conflicto — Extendido — Mensajes estructurados, 1, Un encuentro
	y conflicto — Extendido — Una contraoferta, 1, Un encuentro
	y conflicto — Extendido — Recurso indivisible, 1, Un encuentro
	y conflicto — Extendido — Repartos en pasos de 25, 1, Un encuentro
	y conflicto — Extendido — Proponente alternado, 10, Pareja fija
	y conflicto — Extendido — Proponente por sorteo, 1, Un encuentro
	y conflicto — Extendido — Pago fijo sin acuerdo, 1, Un encuentro
	and Conflict — Extended — Baseline, 1, One encounter
	and Conflict — Extended — Baseline, 10, Fixed pair
	and Conflict — Extended — Baseline, 10, Reassigned pairs
	and Conflict — Extended — Asymmetric probabilities, 1, One encounter
	and Conflict — Extended — Low cost, 1, One encounter
	and Conflict — Extended — High cost, 1, One encounter
	and Conflict — Extended — Asymmetric costs, 1, One encounter
	and Conflict — Extended — Structured messages, 1, One encounter
	and Conflict — Extended — One counteroffer, 1, One encounter
	and Conflict — Extended — Indivisible resource, 1, One encounter
	and Conflict — Extended — Allocations in steps of 25, 1, One encounter
	and Conflict — Extended — Alternating proposer, 10, Fixed pair
	and Conflict — Extended — Proposer selected by draw, 1, One encounter
	and Conflict — Extended — Fixed disagreement payment, 1, One encounter

Figure 1.4: Demo contains only the configurations of this game family, in both languages and editions. Continuation 2/2.

Rooms

Current rooms:

[ES] Negociación y conflicto
[EN] Bargaining and Conflict
[ES] Negociación y conflicto — Extendido
[EN] Bargaining and Conflict — Extended

Figure 1.5: Rooms contains the four rooms for this family: basic and extended editions in Spanish and English.



Bargaining and Disagreement · Encounter 1 of 1



Bargaining and Disagreement · Encounter 1 of 1

Instructions

Resources and unit of account

Joint resource per encounter: 100 ECU. A proposes B's share and keeps the remainder if agreement is reached. Each person also has a reserve of 30 ECU.

ECU stands for Experimental Currency Units. It is the unit of account for this activity.

This session does not convert ECU into real money.

Two people, A and B, can agree on the allocation of the resource. The chosen number always represents B's share; A receives the remainder. Each person also keeps their reserve.

Resource to allocate: **100 ECU** · Each person's reserve: **30 ECU**

Probability that A receives the resource without agreement: **50%**

Disagreement cost: A **20 ECU** · B **20 ECU**.

With agreement: A receives reserve + resource – B's share; B receives reserve + B's share. No disagreement cost is paid.

Without agreement: a single draw determines who receives the entire resource. Both people pay their own cost once and keep the reserve.

The person receiving the proposal accepts or rejects it. Rejection ends the encounter without agreement.

Agreement example

B's share: 50 ECU. A: 80 ECU · B: 80 ECU.

One encounter · 1 Encounter.

Continue

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Figure 1.7: Current basic-edition instructions, with initial resources and experimental units.
Continuation 2/2.

Room: [EN] Bargaining and Conflict

Create a new session

Session Config

[EN] Bargaining and Conflict — Baseline, 1, One encounter

Number of participants

Complete groups of 2 participants. Use a multiple of 2; minimum 2.

Create

[Configure session](#) 

App sequence

bargaining_conflict_game (10 rounds)

Bargaining and Conflict / Negociación y conflicto.

Figure 1.8: Session-creation form for the basic English room. Check the selected configuration and participant requirement before creating the session.

Downloading a session with several rounds

For the instructor

Open **Data** within the relevant session and use that session's CSV or CSV-for-Excel download link. The general export has one row per participant and columns for the different rounds. Ten rounds do not necessarily mean ten rows per person. When the family provides its own long-format export, observations may instead be organized by participant and round or another unit defined by the design.

Save the original file together with the configuration name, session code, and active-round count. Check that columns for the last active round are present and that the data belong to the selected session. Empty cells can represent inactive rounds, a pending decision, or a field that does not apply to a role; do not automatically recode them as zeros. To compare learning, preserve round and group identifiers alongside participant identifiers. Share only anonymous aggregates in class, and record session incidents before constructing derived tables.

1.2 A bargaining question for the classroom

The bargaining and conflict game examines how two people can allocate a resource when rejecting an agreement activates a costly outcome. The teaching question is why disagreement occurs when some allocations could be preferable to both parties. The activity starts with neutral rules about A and B. After play, the instructor connects these decisions to international bargaining, conflict costs and the distribution of power. Preserve that order: decisions come first and interpretation follows. Announcing the hypothesis in the instructions can turn a strategic comparison into an exercise in following the instructor's expectations.

The activity does not attempt to represent every feature of war. A draw stands for an uncertain conflict outcome, a fixed cost represents destroyed resources, and a proposal stands for a possible agreement. These three components are intentionally simple. This simplification makes it possible to calculate alternatives, separate efficiency from distribution, and observe responses to different proposals. The application contains no actual countries, national identities, demographic questions or directed historical narratives. An instructor may introduce a historical case during discussion while explaining which features lie outside the mechanism.

By the end, students should be able to calculate each actor's payment with and without agreement, construct a set of mutually acceptable allocations under the reference assumptions, distinguish material power from the advantage of proposing, and evaluate how behavior changes with costs, protocol or divisibility. They should also recognize the limits of a classroom comparison. A rejection records a decision about a particular proposal; by itself it does not identify risk aversion, distributional preferences or an incorrect belief.

For the instructor

Before launching a session, solve the basic example and one variant yourself. During decisions answer questions about rules without recommending a proposal. Save the vocabulary of equilibrium, power and efficiency for the discussion after play.

1.3 Family facts

Purpose	Study allocation and costly conflict under public information.
Experimental unit	Pair per complete encounter; two persistent actors A and B.
Suggested duration	35–50 minutes for one encounter and discussion; 50–70 for ten. Estimates pending a classroom pilot.
Participants	Even number; two per pair. Twenty allow ten distinct partners under reassignment.
Basic edition	One encounter; ten with a fixed pair; ten with reassigned pairs.
Extended edition	Baseline and eleven extensions concerning probabilities, costs, communication, protocol, divisibility and risk.
Decision	Proposal of B's share and acceptance or rejection; messages or a counteroffer where applicable.
Payoff	Reserve plus allocation with agreement; reserve plus drawn resource minus cost without agreement.
Topics	bargaining; international conflict; disagreement costs; bargaining power; indivisibility; communication.
JEL	A22; C78; C92; D74.

This family is a two-participant interactive game. Each encounter is the experimental unit: it contains a proposal, a response and settlement, plus messages or a counteroffer where relevant. A screen is not an independent interaction. The four editions are basic and extended, each in Spanish and English. They share one application and identical payment rules. Language changes the wording, not the mechanism. Extensions were selected by their teaching question and technical specification, without imposing a numerical maximum.

The extended edition also includes the three reference matching modes. An instructor can therefore begin in an extended room and compare the central mechanism with a variant without moving to

another family. Each session has a defined treatment; separate sessions are needed for treatment comparisons. Do not retrospectively combine groups with different configurations as though they faced identical opportunities. Always keep the session parameters with its outcomes.

1.4 From the portal to the session

Institutional navigation begins at <https://beer-lab.org/>. Open the teaching catalog at <https://teaching.beer-lab.org/>, find the Bargaining and Conflict card, and enter the family site. The card should distinguish language and edition and offer the appropriate guides. The canonical family address is <https://bargainingconflict.beer-lab.org/>. This package prepares those routes; institutional publication depends on deployment. The verified local implementation uses <http://localhost:8071/demo>, which is accessible only on this computer.

Instructors use Demo to explore configurations and Rooms to prepare a room. Demo must show only the 34 configurations belonging to this family. Rooms must show exactly four rooms: two basic and two extended. If a different family appears, do not start class with that instance; review isolation with the laboratory coordination. This separation prevents accidental selection of another mechanism and keeps sessions and exports organized.

Basic ES

https://bargainingconflict.beer-lab.org/room/negociacion_conflicto_es

Basic EN

https://bargainingconflict.beer-lab.org/room/bargaining_conflict_en

Extended ES

https://bargainingconflict.beer-lab.org/room/negociacion_conflicto_extendido

Extended EN

https://bargainingconflict.beer-lab.org/room/bargaining_conflict_extended

Instructors enter through <https://bargainingconflict.beer-lab.org/demo>. Basic forms contain three configurations; extended forms contain fourteen. The initial selection matches the room language and edition.

Distinguish a room address from an individual session link. A room provides stable access for distribution, whereas an individual link identifies a place in a particular session. The links screen belongs to the instructor and must never be projected with names or student identifiers. Open the report through the administrative session's Report tab. The report link requires instructor access and should not be sent to participants. A screenshot containing codes from a test session does not replace this privacy rule during an actual class.

1.5 Preparation before students arrive

First choose the comparison you intend to discuss. Use one basic encounter to introduce the bargaining range. Use ten encounters to examine learning or continuing relationships, deciding whether pairs remain fixed. To compare costs and allocation, keep the protocol and change only the relevant parameter. Write down this choice before observing outcomes. Selecting an explanation after seeing the distribution makes persuasive narratives easy but makes it harder to assess what was actually compared.

Count participating places and use an even number. Do not add a fictitious person to complete a pair. With an odd number, invite one person to observe and rotate that role in another activity without combining observation with recorded choices. A fixed pair requires at least two people, but demonstrations and interface validation use four to cover different outcomes. Reassigned-pair

demonstrations use twenty: ten A actors and ten B actors permit ten encounters without repeating a partner within that block.

Reassignment randomizes initial positions and rotates the B set relative to the A set. Partners therefore change, but the algorithm restricts randomness to avoid repetitions while alternatives remain. With fewer than twenty participants, a partner can recur before the tenth encounter. Explain this limitation instead of promising ten new opponents to a four-person class. A and B labels are preserved; the alternating-proposer extension changes who offers, not payment identities.

Open a practice session in the chosen language, review instructions and reach the end with every required place. Confirm that no debugging information appears and that the final page has an explicit completion message without a continue button. Check an empty report, a partial session and a completed session. Reveal and hide controls must work before projection. Keep practice sessions separate from the student session and record the configuration name you will actually use.

Checkpoint

Check even participant count, language, edition, treatment, matching mode and encounter count. Open Demo and Rooms from this family's instance. Distribute fresh session links and confirm that everyone reaches the welcome page before starting.

1.6 Screen sequence and help during the session

The welcome page introduces the laboratory, general rules and a required confirmation. Participants remain silent, decide privately and use only the communication options included in the treatment. They then read instructions, an example and two comprehension questions. One checks B's payment under agreement; the other checks that the disagreement cost is not paid with agreement. An incorrect answer produces an explanation and allows correction. Attempts are recorded to diagnose understanding rather than automatically assign a grade.

Each encounter's opening screen identifies the participant's letter and the person making the first proposal. This screen matters particularly when the proposer alternates or is drawn. A general wait then brings every place together before the encounter begins. In the communication treatment both choose a message and wait until the other person records one. The proposer always chooses B's share, even when B proposes. The receiver sees the allocation and both agreement payments and chooses accept or reject.

In the central game rejection immediately triggers disagreement settlement once both people reach the wait. With counteroffers, initial rejection opens a second proposal by the original receiver and a response by the original proposer. Only rejection of that final proposal triggers conflict. Do not confuse the technical wait with an additional choice or a time cost: this variant does not discount payments for delay. Results show the encounter payment and accumulated total; the block ends with an explicit completion screen.

When someone requests help, approach without announcing their choice. Explain the meaning of B's share, point to the reserve or repeat the draw rule. Do not tell them which offer is rational or which response is preferable. If a question reveals a shared ambiguity, pause progress verbally and give everyone the same clarification. Record that clarification, because the effective instructions include any information the instructor adds.

What participants will see

The interface uses A and B as neutral letters. A proposal of 40 means that B receives 40 of the resource and A receives the remainder; the reserve is added to both. Hypothesis names and other groups' outcomes do not appear on decision screens.

A wait page requires another place's action or the arrival of all participants. If someone leaves, the group can remain blocked. First review the monitor and privately contact that person; do not invent a response or assign zero payment to an unfinished negotiation. If class must end early, the ref doc



Welcome to BEER Lab

The Behavioral and Experimental Economics Research Lab in the Department of Economics at Tecnológico de Monterrey is a space for learning about economic decision making through controlled activities.

You will take part in an allocation activity with another person. Read the rules before deciding.

Laboratory rules

- Remain silent and do not communicate outside the options in this activity.
- Make your decisions individually and privately.
- Follow the instructions on the screen.
- Do not refresh, close, or leave the page.
- If you have a problem, raise your hand or contact staff privately.

☐ I have read and accept the rules.

Start

Figure 1.9: Read and confirm the rules before starting.



Review the marked questions. Each shows your answer and an explanation; your other answers are retained.

Bargaining and Disagreement · Encounter 1 of 1

Check the rules

Resources and unit of account

ECU stands for Experimental Currency Units. It is the unit of account for this activity.

This session does not convert ECU into real money.

B's share: 50 ECU · Each person's reserve: 30 ECU.

How much does B receive if the indicated B share is accepted?

81.0

Your answer: 81. The correct answer is 80. Review the example: B receives the reserve plus their share. With agreement no disagreement cost is paid.

Is the disagreement cost paid when there is agreement?

No

Continue

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Figure 1.10: Current comprehension check with an incorrect answer, its specific explanation, and retained responses.

Bargaining and Disagreement · Encounter 1 of 1

Propose an allocation

You are A

Choose B's share. A's share will equal the resource minus that number.

B's share

Resource to allocate: **100 ECU** · Each person's reserve: **30 ECU**

Probability that A receives the resource without agreement: **50%**

Disagreement cost: A **20 ECU** · B **20 ECU**.

Submit proposal

Figure 1.11: The proposal always specifies B's share.

Bargaining and Disagreement · Encounter 1 of 1

Respond to the proposal

You are B

A's share
50 ECU

B's share
50 ECU

Payments if accepted

A: 80 ECU · B: 80 ECU.

Without agreement: a single draw determines who receives the entire resource. Both people pay their own cost once and keep the reserve.

Your decision

☐ Accept

☐ Reject

Confirm decision

Figure 1.12: The receiver sees both payments before responding.

Bargaining and Disagreement · Encounter 1 of 1

The activity has ended

Your decisions have been recorded. Wait for the instructor's instructions and keep this page open.

Accumulated total: 80 ECU

Figure 1.13: Completion is confirmed without an additional next step.

Payments, agreements and reference predictions

2.1 Define each alternative before comparing it

Let V denote the allocable resource, R each person's reserve, x B's share, p the probability that A obtains the resource without agreement, and c_A, c_B the disagreement costs. Central values are $V = 100$, $R = 30$, $p = 0.5$ and $c_A = c_B = 20$. An offer is an integer between zero and one hundred, except in variants that restrict the feasible set. All this information is public. A and B know the payments and draw rule; there are no hidden types or private signals.

When a proposal is accepted, payments are

$$\pi_A^S = R + V - x, \quad \pi_B^S = R + x.$$

The S superscript denotes settlement. Without agreement, one draw assigns the whole resource to A with probability p and to B with probability $1 - p$. Both pay their costs under either result. The winner is not exempt from the cost, and the loser keeps their reserve net of that cost. The draw is recorded once; reopening the results page does not generate a new winner.

With central values, an A victory pays 110 to A and 10 to B. A B victory pays 10 and 110. The sum is always 120. With agreement the sum is always 160. Conflict therefore destroys 40 ECU regardless of the winner. This joint loss differs from inequality between people. An agreement at 0 produces 130 and 30: it is efficient in avoiding destruction, although very unequal. A conflict outcome does not make the process efficient merely because somebody received a high payment.

The reserve keeps payments nonnegative and makes costs easy to explain. It does not change the bargaining range when added equally to settlement and disagreement. Changing the reserve without changing another parameter shifts all of a person's alternatives equally. Do not interpret a payment-level change as an automatic change in power. Validation requires the reserve to cover each cost and the offer step to divide the resource exactly.

Theoretical foundation

Comparing an offer with the draw requires an assumption about risk valuation. The reference uses linear utility in ECU: the value of a random alternative is its expected payment. This assumption facilitates derivation; it does not claim that every participant shares it.

2.2 Constructing the bargaining range

Expected disagreement payment is $R + pV - c_A$ for A and $R + (1 - p)V - c_B$ for B. A risk-neutral person compares this value with the secure payment from the offer. B weakly prefers acceptance when $x \geq (1 - p)V - c_B$. A weakly prefers that agreement when $x \leq (1 - p)V + c_A$. Cancelling the common reserve gives the range

$$(1 - p)V - c_B \leq x \leq (1 - p)V + c_A.$$

The offer must also belong to the permitted set between zero and V . Mathematical bounds must therefore be intersected with actual constraints. With integer offers, round the lower bound upward and the upper bound downward. With larger steps, check every permitted allocation. A continuous interval does not guarantee that a permitted point exists inside it.

In the central case both expected payments are 60. B needs at least 30 of the resource because their reserve already provides 30. A regards a B share of at most 70 as preferable to conflict because A then retains at least 30 of the resource and 30 of reserve. The range is 30 to 70. A proposal of 50 pays 80 to both and improves each expected payment by 20. A proposal of 30 pays 100 to A and 60 to B: B is indifferent under the reference while A captures the entire additional surplus.

The range represents incentive compatibility under specified assumptions. It is not a list of offers that every person is obliged to accept. At the endpoints there is indifference, and a point prediction needs a tie-breaking rule. The comparisons in this guide assume acceptance when the secure payment equals the disagreement alternative. If rejection at indifference is assumed, an additional integer unit may be necessary. This small difference matters for stating equilibrium and prevents calling someone irrational for rejecting exactly the threshold.

Before clipping at zero and V , the continuous range has width $c_A + c_B$. Costs create opportunities for savings: greater avoidable destruction means that more allocations can outperform conflict. Probability p shifts both limits and changes the compatible distribution without changing that width. This contrast is a central lesson of this game. A greater cost is not the same as greater power for one party, and a greater victory probability does not automatically eliminate gains from agreement.

2.3 From a range to a strategic prediction

An equilibrium specifies decisions at every point where someone can act. In the basic protocol A proposes and B responds. With own-payoff preferences, risk neutrality, full information and acceptance at indifference, B accepts any offer reaching their expected disagreement payment. A anticipates that response and chooses the smallest permitted offer inducing acceptance, provided settlement is at least as attractive as conflict. With central parameters the reference offer is 30, not 50. Equal division lies inside the range, but the protocol does not require splitting the surplus equally.

Backward induction begins at the final decision. Ask what B would accept and only then what A would choose knowing that response. This order separates the existence of agreement from the distribution predicted by a particular protocol. Subgame-perfect equilibrium requires planned responses to remain coherent even for offers not made on the reference path. Saying only that 30 is offered does not describe B's strategy after offers of zero, fifty or one hundred.

When B proposes first, x still denotes B's share. Under the reference B can offer themselves at most 70, leaving A 30 of the resource plus reserve. Changing the proposer reverses who captures the surplus without changing draw probabilities. If A has a higher victory probability but B makes

the proposal, the two elements can point in different directions. Use alternating or randomly selected proposers to show this distinction; do not describe A as the permanent proposer.

With one counteroffer and no costly delay, the initial receiver can reject to gain the advantage of the final proposal. If A proposes first, B can offer themselves 70 at the last stage. A must therefore offer 70 initially to match that continuation. If B proposes first, A can leave B 30 at the last stage, and that is the reference B share from the initial stage. This is a derivation for this game's finite protocol; it does not reproduce Rubinstein's (1982) infinite discounted model.

Feedback script

Ask: which payments could both parties secure, who had the final opportunity to propose, and what could the receiver obtain by rejecting? Build the answer in that order. Then compare the prediction with the observed distribution and request compatible explanations without claiming that one statistic identifies a motive.

2.4 Risk, social preferences and the scope of evidence

Attention

Do not describe a classroom session as an exact paper replication or a causal test of an international theory. Sources support mechanisms and comparisons; this game is a teaching adaptation with public information, finite parameters and ECU payments.

Risk neutrality makes a secure amount comparable with a lottery through its average. A risk-averse person may value the draw below that average, enlarging their opportunities for agreement; a risk-seeking person may require greater compensation. The fixed-payment variant keeps expected payments and removes draw variation. This is useful but is not a complete measurement of risk preferences: it also changes the experience of winning or losing and may alter disagreement salience.

Social preferences add another dimension. A person may reject because they regard an allocation as unfair even when it exceeds their expected monetary alternative. Another may offer more to prevent such rejection or because they directly value the other person's payment. Offers near 50 are compatible with several mechanisms. Distinguishing those mechanisms would require additional elicitation or designs. The game records choices and comprehension but neither measures beliefs nor estimates utility parameters. Preserve this distinction when interpreting distance from the monetary equilibrium.

The literature provides foundations and related evidence, not a guaranteed result for this class. Fearon (1995) formulates the puzzle of agreements preferable to costly conflict; Powell (2002) organizes international bargaining theory. Güth, Schmittberger and Schwarze (1982) show why ultimatum bargaining deserves experimental study beyond a purely monetary solution. Their design does not contain this game's lottery. Tingley and Walter (2011) find effects of cheap messages in deterrence; they do not study this allocation protocol either. These differences remain explicit.

Quek (2017, first published online in 2015) experimentally studies information and commitment under shifting power. The reported commitment result does not mean that every rejection in this game reflects a commitment problem. Here a person cannot accept and subsequently renege: acceptance implements the allocation. Private information and future power changes require different mechanisms and are studied in the games on private information and on power shifts and commitment. This decision reflects the product's conceptual unit rather than a cap on extensions.

Extensions and teaching comparisons

3.1 Selecting a comparison

The eleven extensions change different components of the same encounter. They do not all need to be run in one class. The complete package retains them so each instructor can select a comparison appropriate to the course. Costs and probabilities change material alternatives; messages change communication; counteroffers and proposer rules change protocol; divisibility changes feasible allocations; fixed payment changes disagreement uncertainty. An extension is not a conclusion: its outcomes are still choices requiring explanation.

The report displays the monetary range for actual parameters, including allocation constraints. Use this reference after play without projecting it before students decide. For a comparison across sessions, hold language, encounter count and matching mode constant unless the question concerns those dimensions. Record unavoidable differences. A small group may produce a different distribution because of composition even when rules are identical.

References support mechanism families. Parameter variants are exercises derived from costly bargaining rather than attributed to particular experiments using exactly these numbers. The counteroffer variant adapts backward induction to two proposals without discounting. Communication draws on related evidence about messages, using a structured repertoire created for this activity. Removing the draw is a teaching control for expected payments. These adaptations prevent presenting a classroom design as a historical replication.

3.2 Asymmetric probabilities

The question is how the compatible allocation changes when A has a greater chance of obtaining the resource through disagreement. This extension sets $p = 0.7$, retaining costs of 20 for both. Expected payments are 80 for A and 40 for B, including reserve. Compatible B shares range from 10 to 50. If A proposes, the reference offer is 10, paying 120 to A and 40 to B. If B proposes, B can offer themselves 50, paying 80 to each.

Flow is identical to the basic game: all information appears before the proposal and a final rejection activates one draw. Higher probability does not guarantee an A victory in a particular session. Inspect offers, responses and letter-specific payments in the report; do not replace p with the winner proportion from a tiny sample. The relevant prediction concerns a shifted range rather than a mechanical conflict rate.

Fearon and Powell provide the foundation connecting conflict alternatives with bargaining. Numbers are a classroom adaptation. Ask why width remains 40 and why equal division moves from the interior to the upper endpoint. The answer separates material advantage from a reduction in

available surplus.

3.3 Low cost

This comparison asks whether reducing destruction makes a compatible allocation harder to locate. Both costs are 5, probability remains one half and reserve remains 30. Disagreement pays 125 to the winner and 25 to the loser; expected payment is 75 each. B's bargaining range narrows to 45–55. With A proposing, the reference offer is 45, producing 85 for A and 75 for B. The joint saving from agreement is only 10.

Roles, decisions and waits remain unchanged. Emphasize that both people's costs change while reserves do not. Rejection of a proposal of 40 occurs below B's expected threshold; it is not direct evidence of rejecting a monetarily attractive offer. In the report examine concentrations near 45 and 50 and acceptance conditional on offer size.

The mechanism is derived from costly bargaining with parameters chosen for teaching. Ask whether more observed conflict would prove that students value peace less. A correct response identifies that the monetary advantage of agreement also changed. This comparison separates a moral disposition from the available material incentives.

3.4 High cost

High costs are 30 for each actor. With reserve of 30, losing disagreement pays zero and winning pays 100; expected payment is 50. B's range is 20–80 and joint savings are 60. An accepted offer of 20 pays 110 to A and 50 to B. The proposer can capture more surplus because the receiver loses more by rejecting, even though both have identical probabilities of obtaining the resource.

Protocol is unchanged and validation keeps payments nonnegative. Do not raise a cost above reserve without revisiting the complete design: the application rejects that configuration. Compare offers with the expanded range. A high cost can induce low offers and greater acceptance; these movements are not contradictory. The first describes distribution and the second describes responses to a costlier alternative.

This is a parameter comparison derived from Fearon and Powell's foundation. It does not guarantee more agreements in a high-cost class because social preferences and mistakes can intervene. For discussion, calculate an identical proposal of 25 under low and high costs. B receives 55 in either agreement, but the alternative changes from 75 to 50. Acceptance becomes more attractive without changing the offered allocation.

3.5 Asymmetric costs

This extension retains equal probabilities and sets A's cost to 5 and B's to 30. Expected disagreement payments are 75 and 50. B's range runs from 20 to 55, with width 35. With A proposing, an offer of 20 pays 110 to A and 50 to B. An actor with a lower disagreement cost retains a more attractive alternative, while the higher-cost actor can accept a smaller share.

Both costs are known to everyone. Do not call a difference private information when it appears in the instructions. The basic flow and draw remain, but joint loss is now 35. The report separates A and B payments using the interface's consistent labels and colors. Compare offers with both bounds rather than only with equal division. Different average payments do not identify discrimination: monetary alternatives also differ.

The variant adapts conflict-option analysis to actor-specific costs. Ask what changes if costs are exchanged while A remains proposer. The expected answer reverses bounds to 45–80 and raises the smallest compatible offer. This exercise can be solved on paper without creating another variant solely to enlarge the catalog.

3.6 Structured messages

The question is whether an authorized communication channel changes proposals or responses while payments and material information stay constant. Before proposing, both people choose no message, a preference for equality, willingness to consider agreement, or a statement that the decision depends on the allocation. Choices are simultaneous, synchronized through a wait and displayed to the other person. No message is binding and none changes payment formulas.

The monetary reference allows messages without verifiable material content to be ignored, but norms, expectations and expressive commitments may generate other behavior. Tingley and Walter (2011) provide evidence of cheap-message effects in deterrence, a different environment. This game uses a restricted bilateral repertoire and does not reproduce their threats or entry game. Do not announce that the treatment must improve cooperation: content can generate different effects.

Compare offer distributions and acceptance with baseline. Messages remain in private exports, allowing response-by-message tables later. The initial report does not causally identify the effect of each chosen message because message selection is endogenous. Ask whether an association between equality messages and offers of 50 reflects message influence or the sender's prior preferences. Those explanations must be distinguished.

3.7 One counteroffer

The question is how proposal power changes when rejection does not immediately end bargaining. After initial rejection, the original receiver proposes a new allocation and the original proposer accepts or rejects. Accepting the first offer avoids stage two. Accepting the counteroffer implements that allocation. Rejecting both activates the same costly disagreement as baseline. There is no delay charge and no third proposal.

Backward induction predicts that the last proposer captures the monetary surplus under acceptance at indifference. With A first, B can secure 70 of the resource in the second proposal; A must offer that amount initially to match continuation. The final range remains 30–70. The reference changes because of protocol rather than greater destruction or new probabilities. Rubinstein's infinite model provides the sequential-bargaining foundation; this finite, undiscounted implementation is an explicit adaptation.

The report counts first proposals, initial responses, counteroffers and final agreements separately. Low initial acceptance can coexist with many final agreements. Ask which denominator belongs to each rate. Do not equate initial rejection in this variant with conflict in the basic game. Retain both proposals in the export to analyze revisions and which letter acted at each stage.

3.8 Indivisible resource

Only B shares of 0 or 100 are permitted. Agreement must allocate the whole resource to one person; no side payment is available. Probabilities, costs and reserve remain central. The continuous range 30–70 exists, but no permitted allocation lies within it. When a proposal gives everything to

Bargaining and Disagreement · Encounter 1 of 1

Propose the final allocation

You are B

Choose B's share. A's share will equal the resource minus that number.

B's share

Resource to allocate: **100 ECU** · Each person's reserve: **30 ECU**

Probability that A receives the resource without agreement: **50%**

Disagreement cost: A **20 ECU** · B **20 ECU**.

Submit proposal

Figure 3.1: The initial receiver proposes after rejection.

Bargaining and Disagreement · Encounter 1 of 1

Respond to the proposal

You are A

A's share 50 ECU	B's share 50 ECU
----------------------------	----------------------------

Payments if accepted
A: 80 ECU · B: 80 ECU.

Without agreement: a single draw determines who receives the entire resource. Both people pay their own cost once and keep the reserve.

Your decision

☐ Accept

☐ Reject

Confirm decision

Figure 3.2: The initial proposer answers the final proposal.

the proposer, the receiver gets only reserve and prefers expected disagreement payment. Giving everything to the receiver does not improve the proposer's alternative either.

Under the own-payoff, risk-neutral reference, no permitted agreement is preferable to conflict for both. This demonstrates how an institutional restriction can eliminate available options even though disagreement remains costly. Indivisibility connects with Fearon's foundation, with the qualification that the exercise imposes the restriction rather than claiming every international resource is naturally indivisible.

The application rejects intermediate proposals and instructions list both permitted values. Inspect agreements and conflicts while remembering that a person may accept for nonmonetary reasons. For discussion suggest time-sharing, an agreed allocation lottery or side transfers verbally; do not claim these options are implemented here. Each additional institution would require its own information, payments and decisions.

3.9 Allocations in steps of 25

This extension provides an intermediate comparison between integer divisibility and complete indivisibility. B's permitted shares are 0, 25, 50, 75 and 100. With central values, only 50 belongs to the 30–70 range. Either actor as proposer therefore has reference offer 50, paying 80 each. The basic protocol remains, but the constraint prevents fully exploiting the distributive advantage of making the offer.

The server validates the set and the interface displays permitted values. A numeric field with a visual increment is insufficient: any integer outside the set must be rejected. Compare this session with the indivisible variant to discuss when a constraint removes all agreements and when it leaves a compatible focal point. The difference is not necessarily greater generosity in the latter; the available choices change.

The foundation is the intersection of a theoretical interval with a discrete feasible set. Steps of 25 are a teaching adaptation. Ask what would happen with steps of 20: 40 and 60 would be feasible, and A would choose 40 under the reference. This exercise teaches students to calculate constraints before reading a histogram and prevents treating a mechanical concentration at 50 as sufficient evidence of an equality norm.

3.10 Alternating proposer

Ten fixed-pair encounters alternate the first proposer: A in odd encounters and B in even encounters. Economic identities remain, and the proposed share always belongs to B. A's probability is not exchanged with B's and costs do not change. With symmetric values, reference x alternates between 30 when A proposes and 70 when B proposes. Each actor has five initial opportunities.

The objective is to separate protocol advantage from persistent personal characteristics. Mean offers of 50 can arise from alternating offers of 30 and 70 without any negotiation dividing the resource equally. Read the encounter trend and export proposer identity before interpreting the overall average. Alternating positions offers a within-pair comparison but also allows learning and order effects.

The extension adapts sequential bargaining and role comparison to a finite session. It is not independent random assignment at every encounter. Ask whether similar accumulated payments prove there is no proposing advantage. The answer separates within-encounter advantage from compensation across encounters. Do not promise equal final totals beforehand: choices can differ from predictions and conflicts introduce draws.

3.11 Proposer selected by draw

This variant draws the proposer when each encounter is created, assigning equal probability to A and B. The probability of obtaining the resource through conflict retains its separate parameter. One draw assigns a procedural position and another, only after final rejection, assigns the resource. The application records the initial position so both events can be reconstructed. The role screen announces the first draw before choices.

The teaching question is whether allocation of proposal rights changes distribution or perceived legitimacy. The exercise measures behavior; it contains no legitimacy question and cannot directly infer that perception. With full information, the prediction conditional on proposer identity is identical to baseline. An unconditional average may mix both equilibria. Equal probability does not necessarily produce equal numbers of A and B proposers in a small sample.

The variant adapts protocol comparison, grounded in sequential bargaining without claiming an exact experimental precedent. Compare actors and proposers, then contrast with alternation: alternation guarantees five opportunities each, while the draw guarantees equality only ex ante. Ask which property an institution needs and why the two are not interchangeable.

3.12 Fixed disagreement payment

This comparison removes the final draw and pays each actor their expected disagreement value. With central values each receives 60 without agreement. Accepted payments stay identical to baseline and the monetary range remains 30–70. Joint cost remains 40: fixed payment does not restore destroyed resources. Results do not name a winner because no random allocation occurs.

The question is what changes when payment variation is removed while its average is preserved. Under risk neutrality the offer and acceptance prediction does not change. Observed differences may be compatible with risk preferences, attention to extreme outcomes or the experience of a draw. Without additional measures those explanations cannot be distinguished. This comparison is a teaching control derived from payments, not a replication of a risk-neutral-preference induction procedure.

Inspect offers and responses alongside payment variation by actor. Fixed disagreement removes winner-loser differences but rejections can persist. Ask why a social loss remains when nobody faces uncertainty. Costs and risk are different dimensions. This control closes that distinction without attributing all conflict behavior to the appeal of a lottery.

Report, discussion and operation

4.1 Progress, samples and revelation

On opening Report, the instructor sees participant count, completed encounters relative to planned encounters, pending encounters and recorded first proposals. These indicators support monitoring without showing aggregate choices. Reveal aggregates displays available data; Hide aggregates conceals it again. The state persists in the administrative tab's browser session. Closing that context and opening another requires checking visibility again before projection.

A proposal may exist before its receiver responds. Recorded offers can therefore exceed completed encounters. The histogram and mean first offer use all recorded proposals. Final agreement rate, actor payments and joint loss instead use settled encounters only. The initial-acceptance denominator includes recorded initial responses even if a counteroffer or its response is still pending. These rules retain partial information without turning it into final outcomes.

Each pair in each encounter is counted once for joint outcomes. Exports contain two participant rows per encounter, so the instructor must distinguish personal-payment analysis from pair analysis. Using both rows to count conflict doubles observations. Ten encounters involving twenty people produce one hundred pair observations, not two hundred independent negotiations. Repetition and matching also introduce dependence among these observations.

Do not reveal during choices if exposure could alter the behavior of people still playing. The control permits incomplete-data inspection for diagnosis, but a clean teaching comparison normally waits until the block ends. If class must end early, state that analysis uses partial data and display pending encounters. Zero agreements with zero completed encounters does not mean no cooperation; indicators without a denominator therefore use a dash.

4.2 Reading order and questions for each chart

Start with the sample: how many encounters ended and how many offers or responses feed each indicator. Continue with the offer distribution. The histogram groups B's share into ten percentage intervals of the resource; the final interval includes one hundred percent. With resource 100, an offer of 30 belongs to 30–39. The mean summarizes level, the median locates the center of the ordered distribution, and bars reveal concentrations that either summary can hide.

Next examine initial acceptance by proposal size. The numerator is acceptances within a bin and the denominator is recorded responses within the same bin. Two offers in a bar do not imply two responses. When responses are absent, the rate is undefined and displays a dash. Compare the theoretical range with the distribution as well: offers outside the range, offers on its boundaries and central offers pose different questions about incentives, comprehension and norms.

Final agreement rate asks whether an encounter ended with an accepted allocation. In the counteroffer treatment that rate combines settlements from both stages. Mean A and B payments describe distributive consequences but include conflict draws. A large difference may reflect probabilities, proposer positions or a few favorable draws. Mean joint loss is measured against $V + 2R$: zero with agreement and $c_A + c_B$ without agreement. This compares efficiency without confusing it with the winner's success.

The trend shows completed count, mean first proposal and final agreement rate by encounter. With fixed pairs it can combine adaptation to one person with general learning. Reassigned pairs reduce bilateral continuity but do not eliminate learning or dependence within the cohort. Compare sessions using identical scales and parameters. The report labels matching mode; it does not invent a comparison group when the session contains only one mode.

Feedback script

First state what was observed: distribution, rate and sample size. Then ask which mechanisms are compatible. End by identifying the missing information needed to distinguish them. When a result is surprising, recalculate alternatives before suggesting a psychological explanation.

Instructor report: bargaining and conflict

Basic · Baseline · One encounter

Participants

4

Completed encounters

2 / 2

Pending encounters

0

Recorded first proposals

2

Aggregate results are hidden. You may reveal available data; pending encounters are excluded from final outcomes.

Reveal aggregates

Figure 4.1: Monitor progress before revealing choices.

4.3 A usable class plan

For an introductory session of about fifty minutes, reserve five for access and rules, ten for reading and comprehension, ten for choices and completion, fifteen for report and derivation, and ten for a comparison exercise. These are planning estimates, not timings validated with a teaching cohort. Allow additional time for connection or reading problems. Ten encounters require more decision time; do not retain every theoretical topic if doing so prevents careful discussion of outcomes.

Before choices, verbal intervention can be limited to reading instructions, remaining silent, using the help option and checking the actor letter at each encounter. After completion, ask students to

Instructor report: bargaining and conflict

Basic · Baseline · One encounter

Participants

4

Completed encounters

2 / 2

Pending encounters

0

Recorded first proposals

2

Hide aggregates

Agreements / completed encounters

50%

Mean first B share

50 ECU

Median first B share

50 ECU

Mean A payment

95 ECU

Mean B payment

45 ECU

Mean joint loss relative to agreement

20 ECU

Reference bargaining range

30–70 ECU

The range uses expected payments, risk neutrality and own-payoff preferences. It is not a decision instruction. With counteroffers, the person capturing the surplus changes.

Figure 4.2: Distinguish payments, agreements and losses with their denominators.

Distribution of first proposals

Observations: 2 · B share / percent of resource



Figure 4.3: Distribution and conditional responses complement the mean.

calculate expected conflict payments individually. Collect answers before displaying the report's range. This sequence helps determine whether a surprising result reflects a calculation difficulty or a choice made with understood incentives.

When revealing, ask three connected questions. First, which proposals were made and accepted? Second, which alternatives did people rejecting offers face? Third, what changed when a cost, probability or constraint changed? Avoid asking who was selfish or who prevented peace: those labels personalize choices and make analysis less precise. Encourage answers using quantities, rules and denominators.

A second class can compare two treatments assigned to separate sessions with different groups. Having the same people play both facilitates within-person comparison but introduces order and learning effects. If using that option, alternate order across subgroups and retain the order record. Do not present the second-block change as a pure treatment effect. For follow-up work, request one page separating outcome description, compatible hypotheses and limits of inference.

4.4 Solved exercises and answer guidance

Use these exercises to check calculations and explain assumptions. Each solution distinguishes recorded choices from interpretations requiring additional information.

Exercise 1: rejecting a monetarily attractive offer

At baseline A proposes 45 and B rejects. Agreement would pay 85 to A and 75 to B; B's expected disagreement payment is 60. B's secure gain is 15. If B understood the rules, rejection departs from the risk-neutral, own-payoff reference. It does not identify a unique motive. A complete answer mentions distributional preferences, different lottery valuation or undetected errors, then states which additional measurement would distinguish them.

Exercise 2: a partial sample

Ten encounters are planned. Six proposals, four initial responses and three settled encounters are recorded, with two agreements. The histogram contains six offers. Final agreement rate is two out of three, approximately 66.7 percent. Seven completed encounters remain pending; two out of ten should not be reported as an estimate of final cooperation. Initial acceptance requires knowing how many of the four responses were accept. It cannot automatically be inferred from final agreements when counteroffers exist.

Exercise 3: cost versus probability

With $p = 0.7$ and costs of 20, compatible B shares run from 10 to 50. Raising both costs to 30 moves the bounds to 0 and 60 before applying the zero-to-one-hundred constraint. Probability changes shift the center; cost changes widen the interval. The solution must display both inequalities rather than infer bounds from a phrase such as A is stronger.

Exercise 4: a misleading average

A pair alternates proposers and agrees on B shares of 30, 70, 30 and 70. Mean share is 50 and each person's accumulated payment is 320. Yet each proposer gets 100 on their turn and the receiver gets 60. Equal accumulated totals arise from alternating positions rather than splitting every resource equally. A correct answer uses the sequence and distinguishes encounter observations from block outcomes.

Exercise 5: two different rejections

With counteroffers B rejects 30, proposes 70, and A accepts. There is initial rejection but final agreement. Payments are 60 to A and 100 to B; joint loss is zero. If A also rejects, loss is 40 and one draw occurs. This exercise checks that students neither add two conflict costs because there were two responses nor count the counteroffer as another independent encounter.

Exercise 6: no feasible allocation

With costs of 5 and steps of 25, the continuous 45–55 range contains only the permitted allocation 50. With steps of 100 it contains none. The first case predicts agreement at 50; the second has no monetarily compatible agreement for both. The solution intersects the interval with the feasible set rather than arbitrarily rounding 45 to zero or one hundred.

Ask students to write at least one limitation for each answer. Exercise one concerns identifying preferences; two concerns incomplete data; three concerns valuation assumptions; four concerns aggregation; five concerns the experimental unit; six concerns feasibility. This variety assesses mechanism understanding without reducing the activity to memorizing an optimal offer.

4.5 Data, operation and continuation

4.5.1 Export and privacy

Private export records configuration, language, edition, treatment, encounter, group and actor together with economic parameters, initial proposer, messages, offers, responses, agreement, draw,

winner and payment. It also contains a participant code for reconstructing repeated choices. That code supports administration and longitudinal analysis but does not belong in the projected report. Keep exports in restricted storage and produce an aggregated version before sharing results with the course.

For pair analysis retain one row per group and encounter after checking that both participant rows agree on joint decisions. For individual-payment analysis retain both rows and distinguish actor from proposer. Initial and final offers can differ with counteroffers; do not silently substitute one for the other. Winner and draw are empty following agreement or fixed disagreement payment. An empty field in these cases is not applicable rather than missing data.

Teaching assessment can use anonymous answers to the subsequent exercise without tying grades to strategic decisions. Do not grade cooperation or reward acceptance of a particular offer as the uniquely correct behavior. The activity discusses assumptions and alternatives; turning a private choice into a normative examination changes incentives. If real monetary incentives are planned, define conversion rates, budget and encounter-selection rules beforehand: this delivery uses ECU and teaching accumulation without currency conversion.

Guides and test screenshots contain no real class cohort. Outcome examples are calculations or automated sessions verifying functionality, not estimates of student behavior. A technically verified implementation still needs a teaching pilot to observe timing, questions and usability. Record that pilot separately from domain publication. A public site does not establish that the game has worked satisfactorily in a class.

4.5.2 Troubleshooting and operational closure

If someone sees a nonexistent link, check that it belongs to the current session. Recreating a database invalidates old links; do not add fictitious users to repair the route. Create and distribute a new session only when appropriate. Restarting the server to load code does not require deleting the database. Identify a local process's family and port before stopping it so other game instances remain available.

If a valid-looking offer does not advance, check whether it belongs to the feasible set and whether required choices are complete. Indivisibility permits only endpoints. B's share keeps its meaning in counteroffers even when B proposes. Resolve interpretive difficulties through instructions rather than changing formulas during a session. If the report looks empty from the final technical period, check active encounter count: the application explicitly aggregates active periods, including a single interaction.

When the report shows pending encounters, consult the monitor before calculating final rates. A closed window is not rejection. Returning to the same link must retain the stage and recorded settlement. The final page has no continue button: it confirms completion and asks participants to wait for the instructor. Ending class verbally and settling an encounter in the database are different actions; record any interruption.

At the end retain configuration, parameters and notes about clarifications; download data under instructor access; prepare only aggregates for sharing; and document whether the block completed. Git integration and local availability support technical review. Upload to GitHub and public deployment are subsequent steps requiring specific authorization. The catalog reads repository metadata and should not be corrected by manually editing generated HTML.

4.5.3 Available configurations

Each identifier corresponds to a session with constant rules. Equivalent configurations in the other language use identical parameters. Internal codes support deployment; participants do not need to interpret them.

Configuration	Number	Matching
bargaining_conflict_en_1_round	1	one
bargaining_conflict_en_10_fixed	10	fixed
bargaining_conflict_en_10_random	10	reassigned
bargaining_conflict_extended_1_round	1	one
bargaining_conflict_extended_10_fixed	10	fixed
bargaining_conflict_extended_10_random	10	reassigned
bargaining_conflict_extended_asymmetric_power	1	one
bargaining_conflict_extended_low_cost	1	one
bargaining_conflict_extended_high_cost	1	one
bargaining_conflict_extended_asymmetric_cost	1	one
bargaining_conflict_extended_communication	1	one
bargaining_conflict_extended_counteroffer	1	one
bargaining_conflict_extended_indivisible	1	one
bargaining_conflict_extended_coarse_grid	1	one
bargaining_conflict_extended_role_rotation	10	fixed
bargaining_conflict_extended_random_proposer	1	one
bargaining_conflict_extended_deterministic	1	one

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- American Economic Association. JEL Classification System. A22: Undergraduate; C78: Bargaining Theory, Matching Theory; C92: Laboratory, Group Behavior; D74: Conflict, Conflict Resolution, Alliances, Revolutions. Accessed: 4 October 2026. <https://www.aeaweb.org/econlit/jelCodes.php?view=jel>.