

# TAKE IT OR LEAVE IT

This activity is based on game theory and social psychology research, and is designed to focus players on how they think about issues involving fairness and trust and how they predict the behaviors of others. The activity has two phases. In the first phase, Dictator, some players simply make a decision about how much of a sum of money they wish to share with another. Here, the primary focus is on the Sharer who makes the decision—and holds all of the power. In the second phase, Ultimatum, some power shifts to the person on the receiving end. Here, the Sharer makes an offer; if the Receiver refuses the offer, neither player gets any money at all.

Each phase can be played in just a few minutes, with minimal materials and little setup time. It can work with groups of nearly any size.

## PROCEDURE

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### MATERIALS

- Paper and a pencil or pen for each pair of players.
- A black/whiteboard to display results.

### PREPARATION

Divide the class into pairs. If the class has an uneven number of students, the facilitator should pair up with someone.

### INSTRUCTIONS

#### *Dictator Phase*

Tell the class that each pair should decide who is the Sharer and who is the Receiver. (You could also determine this in advance, by assigning the Sharer role to the person whose name appears first alphabetically, etc.)

Now tell the class:

“ This part of the game is called Dictator. In this game, each Sharer has been given \$10. Each Sharer has a decision to make: How much do I give to the Receiver? Sharers, you can give as much or as little of the \$10 to the Receiver as you wish, including nothing at all. Your choices will be anonymous. Take 30 seconds to think about your decision, then write down the amount you wish to share on a piece of paper. Don't let the Receiver see what you write! ”

When all Sharers have written down their amounts, collect the papers. Then either read each amount aloud or write each amount shared on the blackboard. *Do not identify specific students.*

Take a moment to discuss the range of responses.

## PROCEDURE (CONT'D)

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### *Ultimatum Phase*

Tell the class:

“ Now we’re going to play a very similar game called Ultimatum, but there’s an important difference. Each Sharer has again been given \$10 and has to decide how much to give to the Receiver. Sharers, you can offer as much or as little of the \$10 to the Receiver as you wish, including nothing at all. Your choices will be anonymous. However, in this game, Receivers can either accept the offer or reject the offer. If a Receiver accepts the Sharer’s offer, the pair splits the money according to that offer. But if a Receiver rejects the offer, neither of you gets anything at all.

Sharers, take 30 seconds to think about your decision, and remember that the Receiver now has some control over what you both get. Then write down the amount you wish to share on a piece of paper and give it to the Receiver.

Receivers, now you have a decision to make: Do I accept or reject the offer? Take 30 seconds to think about it, then write YES (if you accept the offer) or NO (if you reject) next to the amount on the paper. Don’t let the Sharer see what you write! ”

When all Sharers have written down their amounts, collect the papers. Then either read each amount aloud or write each amount shared on the blackboard. Also read or write whether each offer was accepted or rejected. *Do not identify specific students.*

Now review the amounts shared in the Dictator and Ultimatum phases. Are they similar, or did players tend to share more in one of the two phases? Which one? Is that what the group expected?

## DISCUSSION QUESTIONS

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- Sharers, how did you make your decisions in the Dictator phase of the game? Did that change in the Ultimatum phase of the game? Why do you think so?
- Receivers, did you feel differently in the first and second phases of the game? Why? How did you decide whether to accept or reject an offer in the Ultimatum phase? If you rejected an offer, why?
- Suppose instead of \$10, we were talking about \$1,000, or \$1,000,000. Would that change the way you made your decisions? Why?
- Would you expect the kinds of offers made in the Ultimatum phase to be different from those in the Dictator phase? Why or why not?
- What exactly does it mean to be “fair” to others? Does it mean that you have to split the \$100 equally, or could an uneven split still be “fair”? Is there some rule that determines what a “fair” offer is?
- Where do your ideas of what is or isn’t fair come from? Do you think fairness comes from our genes or is it something we learn? Do different groups or cultures have different definitions of “fairness”? Can you give some examples to support your view?

## VARIATIONS

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- Switch roles: After the Dictator phase, Sharers become Receivers and vice versa.
- Try the game with a tangible asset: Fake money, beans or pebbles, stickers, etc. Does this make the activity more compelling or change the way people respond?
- Change the name of the activity. For example, you might divide the class into two halves and have each play the game the same way, but with a different name: One group plays Take it or Leave it! (with phases entitled Dictator and Ultimatum), and the other plays The Fairness Game (Giving/Sharing). Psychological research on *framing effects* suggests that offers might be more generous with the second set of titles.
- Lessen the amount of time players have to make their decisions to 5 seconds. Do offers become more or less generous under time pressure? With more time, players might weigh more abstract concepts like fairness, the Golden Rule, or even karma.
- Play with anonymity and privacy: for example, ask players to state their decisions aloud, either to their partner or the whole class. Does this lead to more generous offers? Alternatively, you could conceal Sharers’ identities by pairing players who don’t know who their partner is. How does this change offers and responses? You could even help students set up a version of the activity on social media. What are students’ predictions about the kinds of offers an online version would generate?

## RESOURCES

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### ***Rock, Paper, Scissors: Game Theory in Everyday Life (2008)***

Len Fisher's easy-to-read guide outlines the core concepts of game theory and how they apply to many everyday situations.

### ***Thinking Fast and Slow (2013)***

Nobel-winning psychologist Daniel Kahneman discusses research suggesting that we have two ways of processing information—a quick, intuitive, often unconscious method and a slower, more deliberative method.

### ***Moral Tribes: Emotion, Reason, and the Gap Between Us and Them (2013)***

In this thought-provoking book, Harvard psychologist Joshua Greene reviews research on how people do and don't work together to solve common problems and discusses the implications for human societies.

### **Ultimatum Game**

[en.wikipedia.org/wiki/Ultimatum\\_game](http://en.wikipedia.org/wiki/Ultimatum_game)

An introduction to the core ideas behind the Ultimatum Game.

### **Game Theory**

[gametheory.net](http://gametheory.net)

A site devoted to concepts and activities that educators can use to illustrate key concepts in game theory.

### **Framing Effect (Psychology)**

[en.wikipedia.org/wiki/Framing\\_effect\\_%28psychology%29](http://en.wikipedia.org/wiki/Framing_effect_%28psychology%29)

A description of research on framing effects.



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