



Globalization Day 2 Reading about Comparative Advantage

Grade level: 9–12

Time estimate: 1 50–70 minute class period

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Lesson Overview

Students will revisit concepts from the Spheradell globalization simulation in order to explore production possibilities, opportunity cost, and comparative advantage. Students will read sections of an essay about comparative advantage and cooperate to create a class acrostic poem about comparative advantage before creating personal pyramid summaries. After reading, students will apply what they have learned about comparative advantage to the situation in Spheradell and to their own lives.

Objectives

- Explain how comparative advantage makes trade beneficial for both sides
- Summarize and synthesize a policy essay about comparative advantage
- Apply the concepts of opportunity cost, comparative advantage, and mutually beneficial trade to multiple contexts

Vocabulary

- Production possibilities
- Absolute advantage
- Opportunity cost
- Specialization
- Comparative advantage
- Mutually beneficial trade

Materials

- Warm-up worksheet
- Warm-up application
- Spheradell example applications worksheet
- Five essay segments with acrostic assignments
- Pyramid summary worksheet
- Exit ticket

Pework (if applicable)

Teachers and students must have completed the Globalization Day 1 simulation for the Spheradell references in this lesson to be most effective. Students should have some knowledge of production possibilities and opportunity cost. Place desks in 5 groups. If you completed the Day 1 simulation, you may want to leave desks in this 5-group arrangement for the entire week.

Warm-Up

Have students complete the warm-up worksheet by addressing the simulation as follows:

- You and your best friend have all the same teachers. You have straight A's; your friend is not as academically inclined and gets B's and C's. There is a carnival tonight, and you both want to go, but your English teacher and your math teacher have conspired to make it impossible. Your English teacher has assigned every student a different poem with 10 reading comprehension questions. Your math teacher has assigned you to do the 30 algebra problems on page 12, and they assigned your friend 30 different algebra problems on page 15. You can accurately complete 4 reading comprehension questions per hour, and your friend can complete 2 reading comprehension questions per hour. You can accurately complete 15 algebra questions per hour. Your friend can accurately complete 10 algebra questions per hour. Your friend has suggested that one of you should do the English homework and one of you should do the math.
- Should you each do your own homework, or should each of you specialize in one subject? Why? (Since this is a warm-up, any answer is fine here as long as there is reasoning. You might even give the ethical answer that each should do their own homework because it is the honest option. The economically correct answer is that you and your friend should specialize.)
- Who is better at reading comprehension? How can you tell? (Students should answer that they are better at reading comprehension than their best friend is. Students can

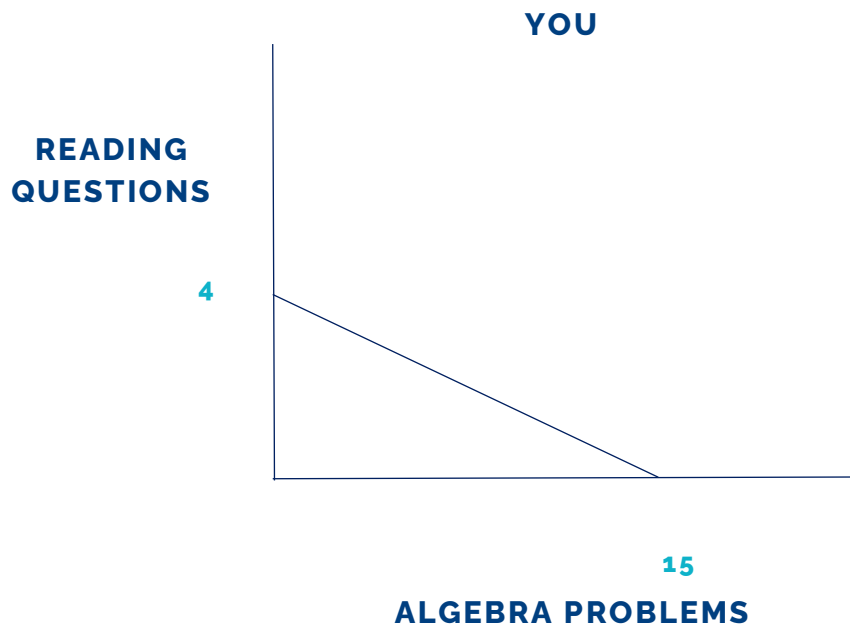
calculate this by answering that they can complete 5 reading comprehension questions in an hour but that their friend can complete only 2.)

- Who is better at algebra? How can you tell? (Students should answer that they are better at algebra than their best friend is. Students can calculate this by answering that they can complete 15 algebra questions in an hour but that their friend can complete only 10.)
- How long would it take you to complete your homework alone? (According to the text, the student should take 4 and a half hours to complete the homework alone.)
- How long will it take your friend to complete the homework alone? (According to the text, the student's best friend will take 8 hours to complete the homework alone.)
- Your best friend begs you to specialize and trade. Which task should you do? Why? (Again, since this is a warm-up and students may not think to calculate opportunity cost, any answer with reasoning is acceptable. The correct answer is that the student should do the reading comprehension questions and that their best friend should do the math.)
- Discuss answers with students and hand out the warm-up, follow-up, and Spheradell example calculations.

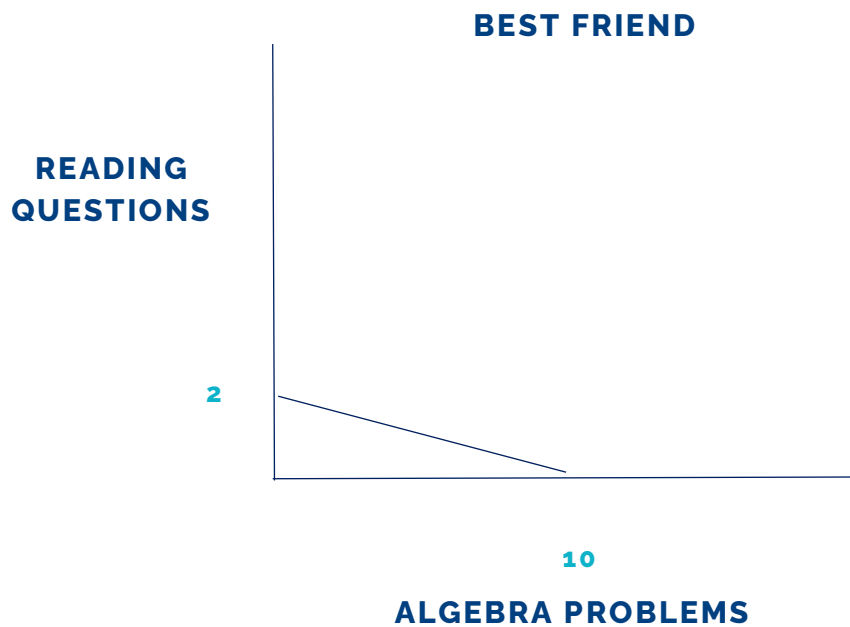
Lesson Activities

Have students work as a whole class through the reading and the worksheet detailing production possibilities, absolute advantage, opportunity cost, and comparative advantage.

- Production possibilities, or the amount of two different goods or services that can be produced in a given time, can be represented by a simple graph, with one product or service on the x-axis and the other on the y-axis. Use the graphs below to illustrate the production possibilities for you and your best friend from the warm-up. (Note that in these examples, the production-possibilities frontier is represented as a straight line. Economists rarely draw it this way, as opportunity cost is rarely consistent. Few products require all the same natural, human, and capital resources combined in exactly the same way. Typically, the production-possibilities frontier is curved. For our purposes, we are going to keep opportunity cost consistent.)
- The graph for you should look like this:



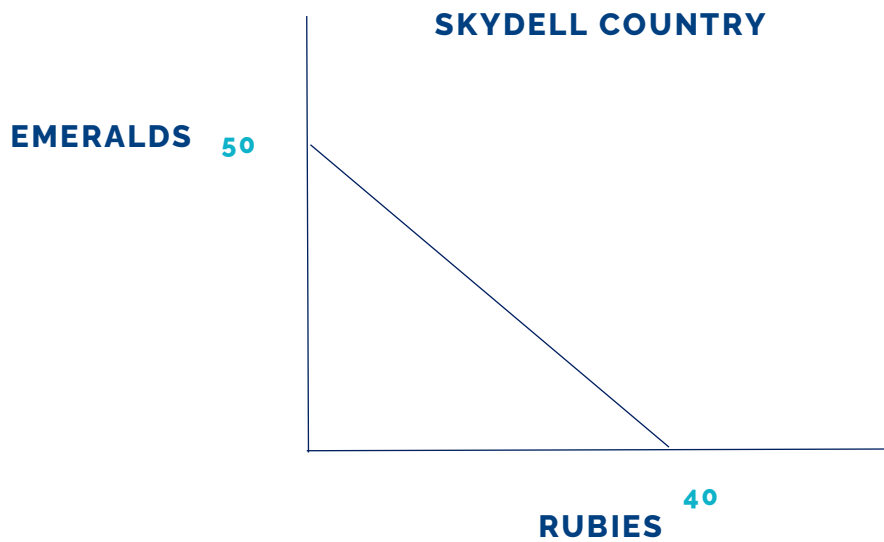
- The graph for the best friend should look like this:



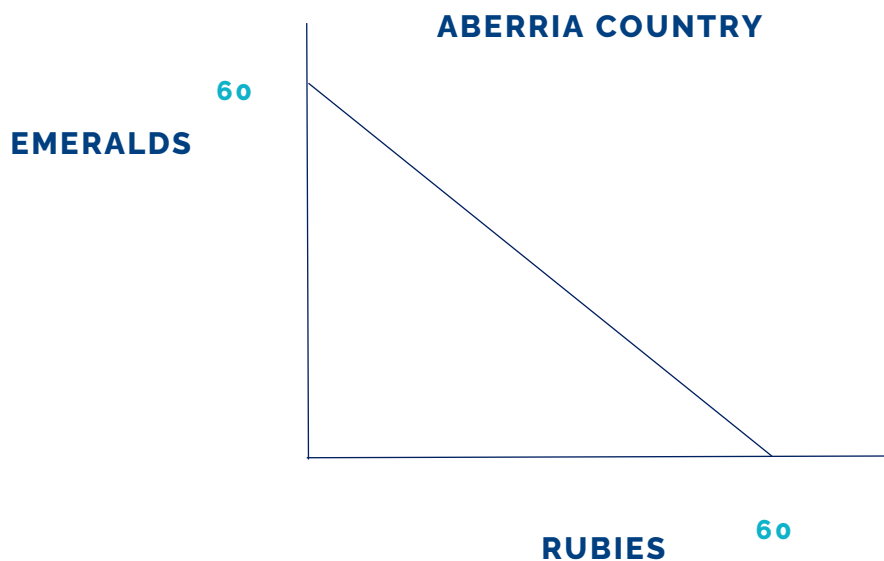
- A producer has an “absolute advantage” when it can produce more of both possible products than can its trade partner. In the warm-up example, who has an absolute advantage? Why? (The student—you—can produce more reading questions and algebra problems than their best friend.)

- Economists use the concept of opportunity cost, the next-best option, to determine which producer has a comparative advantage. Use the warm-up to answer the following:
 - What is your opportunity cost for each reading comprehension question you answer? Divide the number of algebra problems you can do in an hour by the number of reading comprehension problems you can complete in the same time. (Each reading comprehension question costs 3.75 algebra problems.)
 - What is your opportunity cost for each algebra problem you answer? Divide the number of algebra problems you can complete in an hour by the number of reading comprehension questions you can answer in the same time. (Each algebra problem costs 0.27 reading comprehension questions.)
 - What is your best friend's opportunity cost for each reading comprehension question? Divide the number of algebra problems your friend can do in an hour by the number of reading comprehension questions your friend can answer in the same time. (Each reading comprehension question costs 5 algebra problems.)
 - What is your best friend's opportunity cost for each algebra question? Divide the number of algebra problems your friend can complete in an hour by the number of reading comprehension questions your friend can answer in the same time. (Each algebra problem costs 0.2 algebra problems.)
- Comparative advantage refers to the producer who can produce the product at the lower opportunity cost.
 - Who has the comparative advantage in reading comprehension questions? (The student—you—produces reading comprehension questions at an opportunity cost of 3.75 algebra problems, while the best friend produces them at the opportunity cost of 5 algebra problems. You have the comparative advantage.)
 - Who has the comparative advantage in algebra problems? (The best friend produces algebra problems at an opportunity cost of 0.2 reading comprehension questions, while you produce them at an opportunity cost of 0.26, giving the best friend the comparative advantage.)
- If you and your best friend each specialize in the task for which you have the comparative advantage, and you work simultaneously, how long will it take you to complete your homework so that you can go to the carnival? (It will take you 5 hours to complete the reading comprehension question, and your friend will be done in 6 hours. Since you are waiting until everything is done, the total time will be 6 hours, which is less time than it would have taken to wait for your friend to complete all of their tasks on their own.)
- How do you and your friend benefit from specialization and trade? (You get to spend an extra 2 hours at the carnival.)
- Spheradell example applications:

- Spheradell is looking to bring more color to the Glintopolis! In its new buildings, it will use both emeralds and rubies. Skydell Country and Aberria Country mine precious gems. Within a year, Skydell Country can produce 50 pounds of emeralds or 40 pounds of rubies. Aberria Country can produce 60 pounds of emeralds or 60 pounds of rubies.
 - Which country has the absolute advantage? Why? (Aberria Country has the absolute advantage because it can produce more emeralds and more rubies.)
 - Graph the production-possibilities frontiers.
- Skydell Country



- Aberria Country



- Opportunity Cost

Country	Opportunity Cost of Emeralds	Opportunity Cost of Rubies
Skydell Country	.8	1.25
Alberria Country	1	1

- Which country has the comparative advantage in emeralds? (Skydell Country)
- Which country has the comparative advantage in rubies? (Aberria Country)
- Based on what you have learned so far, put the following paragraph into your own words:
 - Comparative advantage, like language, is ubiquitous. No one who interacts with anyone can escape its operation, which occurs every moment of every day to everyone everywhere. Also like language, comparative advantage was not invented; it arises naturally whenever humans interact with each other. Nor can its array of vast details be reengineered at will to achieve some visionary's dream. And each of us uses comparative advantage to our benefit without being aware that we're doing so. Except for a handful of economists, almost no one knows about comparative advantage, and therefore, almost no one can describe it or articulate its logic.
 - Student answers will vary, but expect that students will say that we naturally trend toward doing the things at which we excel and trading with others for things with which we struggle. Even when we are better than our friends at everything, our time is scarce, and it becomes beneficial for us to farm out certain tasks to save ourselves time.

Reading comprehension and summarization strategy:

- Hand each individual in the 5 groups a copy of an essay excerpt with an acrostic on the back.
- Each group is to read the essay section it is given and create an acrostic summary using the word on the back of the page. For each letter of the given word, the group will write a sentence that helps to summarize the piece as a whole. For example, if I had to summarize the instructions in an acrostic poem, it would be as follows:

- Read the section.
- Elucidate the meaning of the text.
- Address the concept as a whole.
- Determine the most important parts.
 - i. Group 1 (Glintopolis) will read “What Is Comparative Advantage? (Part 1)” and write an acrostic summary using the word “Comparative.”
 - ii. Group 2 (Skydell Country) will read “What Is Comparative Advantage? (Part 2)” and write an acrostic summary using the word “Advantage.”
 - iii. Group 3 (Scarlowe Country) will read “What Are Some Comparative Advantage Surprises? (Part 1)” and write an acrostic summary using the words “Makes Trade.”
 - iv. Group 4 (Aberria Country) will read “What Are Some Comparative Advantage Surprises? (Part 2)” and write an acrostic summary using the word “Mutually.”
 - v. Group 5 (Brindlebrook Country) will read “How Does Comparative Advantage Apply to International Trade?” and “Conclusion” and write an acrostic summary using the word “Beneficial.”
 - vi. For further information, the entirety of the essay can be found here: <https://www.cato.org/publications/comparative-advantage#what-are-some-comparative-advantage-surprises>. Sections on government interventions and subsidies should be withheld until after the Day 3 simulations.
- Give students 20–25 minutes to work together on summaries before having each group report out and read the class “poem” about comparative advantage. If you have a display wall for student work, it might be helpful to post the most readable examples on the wall in the order of the sentence it creates. This will provide an important reminder about the concept of comparative advantage throughout the remainder of the unit.
- Create jigsaw groups consisting of 1 member of each country of Spheradell and hand each student a pyramid summary sheet. Instruct students that they are going to summarize the findings of all 5 groups into a pyramid. The top line should contain 1 word that captures the theme of the article. The second line should have 2 words that are important to the understanding of the text. The third line should have 3 vocabulary words that are important for the understanding of comparative advantage. For lines 4–7, students should be writing complete sentences with the requisite number of words. Here is an example:
 - i. Trade
 - ii. Comparative advantage
 - iii. lower opportunity cost
 - iv. Trade is mutually beneficial

- v. Both countries benefit from trade
- vi. Each produces the lower-cost item
- vii. Production is more efficient when countries trade

Exit Ticket

Hand students exit ticket worksheet and allow time to repeat and share out if possible.

- Describe the concept of comparative advantage in your own words. (Students should be describing a system in which an economy produces whatever it can produce at the lowest opportunity cost and trades for what it would be able to produce at a higher opportunity cost.)
- Think back to the Spheradell simulation. What did your country produce at the lowest opportunity cost? Why might this have been true? (This answer is going to vary for students in different groups based on which country they were in for the simulations. For Glintopolis, this was ovens; for Skydell Country, it was elderbloom fruits; for Scarlowe Country it was copper cups; for Aberria Country it was wheat; and for Brindlebrook Country it was skybloom flakes.) Students might come to the conclusion in the first round of the simulation that their country was producing something that was already native to the country or that was already easiest to produce.
- What do we mean when we say that trade is mutually beneficial? (Students should indicate that when 2 people or 2 countries trade, both sides benefit from that trade.)
- Describe a time you made a trade that was mutually beneficial. What did you give? What did you get? Why was it mutually beneficial?

Globalization Day 2 Reading about Comparative Advantage

Warm-Up

You and your best friend have all the same teachers. You have straight A's; your friend is not as academically inclined and gets B's and C's. There is a carnival tonight and you both want to go, but your English teacher and your math teacher have conspired to make it impossible. Your English teacher has assigned every student a different poem with 10 reading comprehension questions. Your math teacher has assigned you to do the 30 algebra problems on page 12, but he assigned your friend 30 different algebra problems on page 15. You can accurately complete 4 reading comprehension questions per hour, and your friend can complete 2 reading comprehension questions per hour. You can accurately complete 15 algebra questions per hour. Your friend can accurately complete 10 algebra questions per hour. Your friend has suggested that one of you should do the reading questions and the other should do the math.

Should each of you do your own homework, or should each of you specialize in one subject? Why?

Who is better at reading comprehension? How can you tell?

Who is better at algebra? How can you tell?

How long would it take you to complete your homework alone?

How long will it take your friend to complete the homework alone?

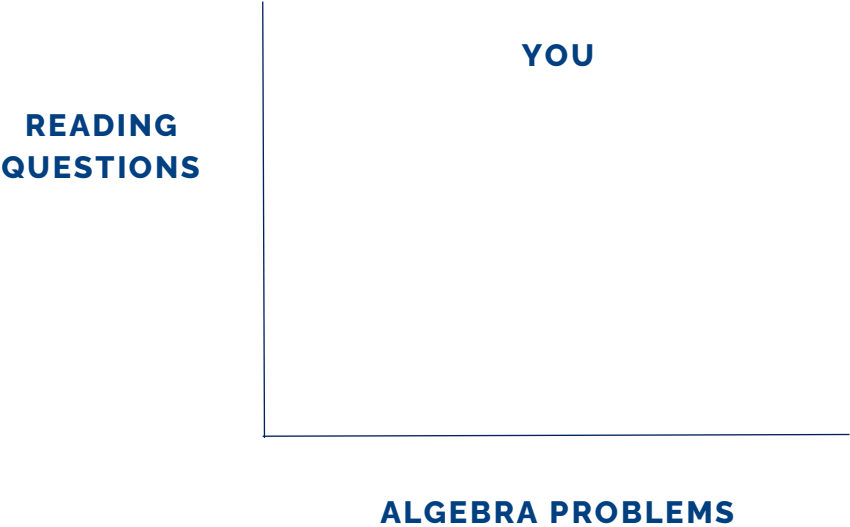
Your best friend begs you to specialize and trade. Which task should you do? Why?

Globalization Day 2 Reading about Comparative Advantage

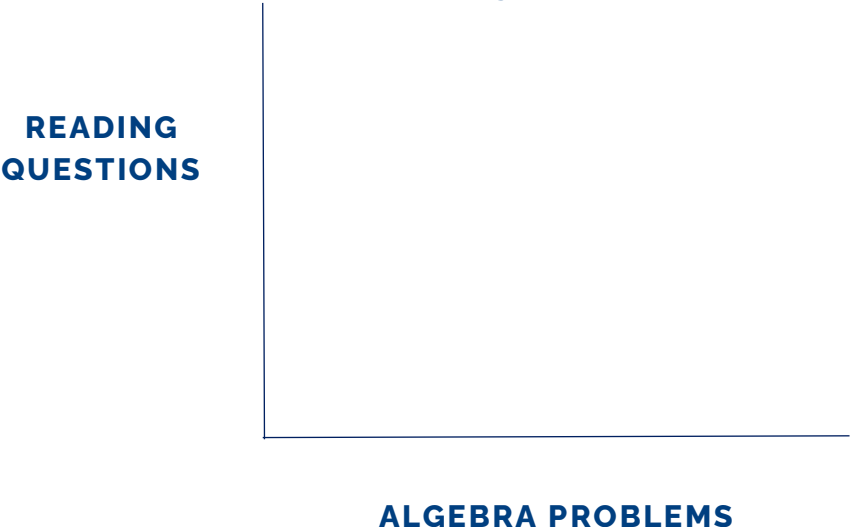
Warm-Up Application

Production possibilities, or the amount of 2 different goods or services that can be produced in a given time, can be represented by a simple graph with 1 product or service represented on the x-axis and 1 on the y-axis. Use the graphs below to illustrate the production possibilities from the warm-up for you and your best friend.

A.



b.



A producer has an "absolute advantage" when it can produce more of both possible products than can its trade partner. In the warm-up example, who has an absolute advantage? Why?

Economists use the concept of opportunity cost, the next-best option, to determine which producer has a comparative advantage. Use the warm-up to answer the following:

What is your opportunity cost for each reading comprehension question you answer? Divide the number of algebra problems you can do in an hour by the number of reading comprehension problems you can complete in the same time.

What is your opportunity cost for each algebra problem you answer? Divide the number of algebra problems you can complete in an hour by the number of reading comprehension questions you can answer in the same time.

What is your best friend's opportunity cost for each reading comprehension question? Divide the number of algebra problems your friend can do in an hour by the number of reading comprehension questions your friend can answer in the same time.

What is your best friend's opportunity cost for each algebra question? Divide the number of algebra problems your friend can complete in an hour by the number of reading comprehension questions your friend can answer in the same time.

“Comparative advantage” refers to the producer who can produce the product at the lower opportunity cost.

Who has the comparative advantage in reading comprehension questions?

Who has the comparative advantage in algebra problems?

If you and your best friend each specialize in the task for which you have the comparative advantage, and you work simultaneously, how long will it take you to complete your homework so that you can go to the carnival?

How do you and your friend benefit from specialization and trade?

Globalization Day 2 Reading about Comparative Advantage

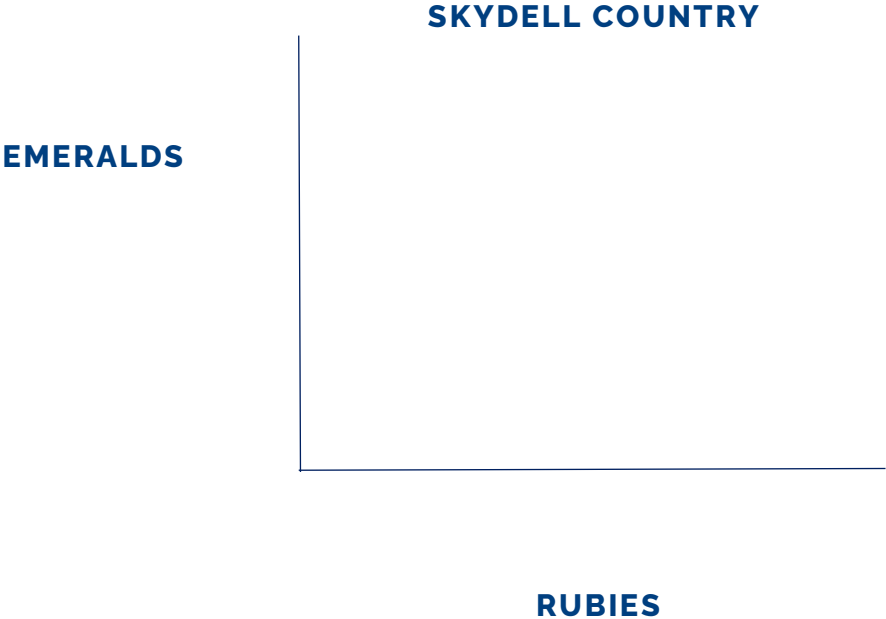
Spheradell Example Applications

Spheradell is looking to bring more color to the Glintopolis! In its new buildings, it will use both emeralds and rubies. Skydell Country and Aberria Country mine precious gems. Within a year, Skydell Country can produce 50 pounds of emeralds or 40 pounds of rubies. Aberria Country can produce 60 pounds of emeralds or 60 pounds of rubies.

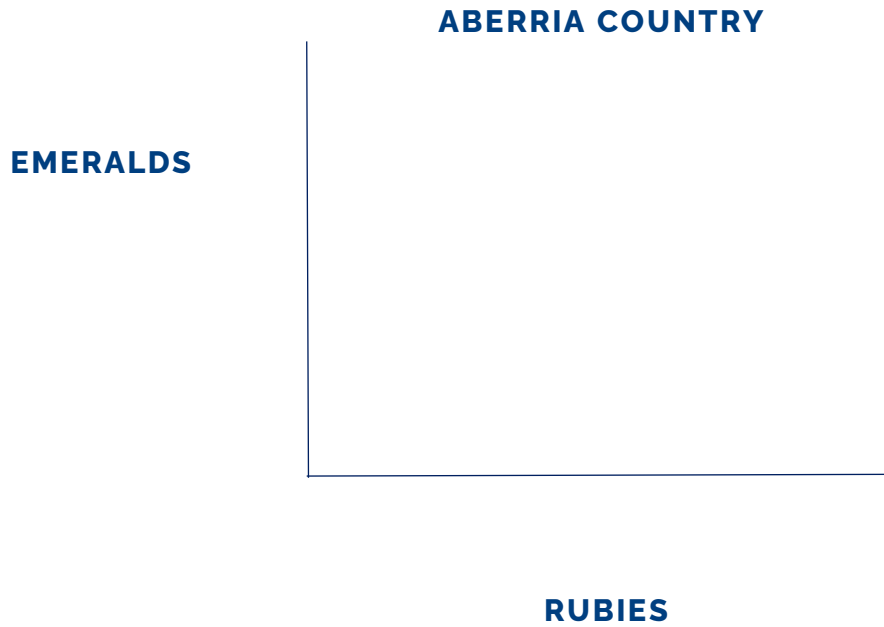
Which country has the absolute advantage? Why?

Graph the production-possibilities frontiers.

a.



b.



Calculate the opportunity cost for each country.

Country	Opportunity cost of emeralds	Opportunity cost of rubies
Skydell Country		
Aberria Country		

Which country has the comparative advantage in emeralds? _____

Which country has the comparative advantage in rubies? _____

Based on what you have learned so far, put the following paragraph into your own words:

“Comparative advantage, like language, is ubiquitous. No one who interacts with anyone can escape its operation, which occurs every moment of every day to everyone everywhere. Also like language, comparative advantage was not invented; it arises naturally whenever humans interact with each other. Nor can its array of vast details be reengineered at will to achieve some visionary’s dream. And each of us uses comparative advantage to our benefit without being aware that we’re doing so. Except for a handful of economists, almost no one knows about comparative advantage, and therefore, almost no one can describe it or articulate its logic.”

Globalization Day 2 Reading about Comparative Advantage

Group 1 Reading

What Is Comparative Advantage? (Part 1)

Most simply, comparative advantage refers to a person's ability and willingness to supply other people with a good or service that these other people cannot otherwise acquire at a lower cost. Described this way, comparative advantage appears trite: To say that Ann has a comparative advantage at supplying fish to Bob is to say only that, at least for Bob, the lowest-cost supplier of fish is Ann. If, therefore, Bob wants to acquire fish and have as much income remaining as possible to buy other things, he'd best buy fish from Ann. Nothing about such a relationship is remarkable or even interesting.

Yet, while the previous paragraph is accurate, it's the tip of the iceberg. The great bulk of the reality and significance of comparative advantage lies beneath the surface, with unseen surprises.

The chief nontrivial insight gained from understanding comparative advantage is this: An economic entity's technical ability to produce a product is, by itself, irrelevant for determining if that entity should produce that product itself or acquire that product by first producing something else and then trading that something else for the desired product.

A simple example: You want a new deck and are willing to pay up to \$21,000 for it, but you're also an excellent carpenter. If you work full time to build the deck yourself, you can build it in 1 month. Your neighbor Jones, however, offers to build you a deck of identical quality, but because his carpentry skills are not as good as yours, it will take Jones 2 months to complete the job. Clearly, if technical ability were all that mattered, you should build your own deck.

But an understanding of comparative advantage reveals that this reality is insufficient to economically justify your building the deck. Your building the deck would be worthwhile only if your *cost* of doing so were less than the cost of having someone else, such as Jones, build it for you.

How can it be that Jones could build the deck for you at a lower cost? According to comparative advantage, your being a better carpenter than Jones tells us nothing about whether you are economically a more efficient deck builder than Jones. What matters economically is the opportunity cost to you to personally build your deck *compared to* the opportunity cost to you of having Jones build the deck for you. That you possess better skills for building decks than Jones doesn't guarantee that the cost to you of building the deck is less than the cost to Jones.

Globalization Day 2 Reading about Comparative Advantage

Group 1 Acrostic

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M

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T

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V

E

Globalization Day 2 Reading about Comparative Advantage

Group 2 Reading

What Is Comparative Advantage? (Part 2)

If you work as a radiologist and earn an annual salary of \$240,000, taking a month off work to build your deck would cost you a month's worth of income, or \$20,000. Because you value the deck at \$21,000, if the only way for you to acquire the deck would be for you to build it yourself, you'd find it worthwhile to spend your time building the deck.

Fortunately, you have a better option. Your neighbor Jones works as a bookkeeper. His annual salary is \$84,000, or \$7,000 per month. If Jones were to take 2 months off his job to build your deck, he'd forgo an income of \$14,000. Clearly Jones can build the deck at a cost \$6,000 lower than the cost you'd incur to build it yourself. So you hire Jones for 2 months at the competitive wage, paying him \$14,001 to build your deck.

Had you personally built your deck, you'd have denied yourself \$20,000 of income and \$20,000 worth of radiology services for others. In contrast, by employing Jones to build your deck, the value of the services denied others is only \$14,000.

You're technically a more proficient deck builder than Jones, but economically this is irrelevant. What's relevant are opportunity costs. Because Jones's opportunity cost of building the deck is lower than yours, Jones is economically a better deck builder than you—by \$6,000. Jones has a *comparative* advantage over you at building decks. Table 1 summarizes this example.

Table 1

While you are better at building a deck than Jones, paying him to build it benefits you and the economy

Scenario A: You build the deck yourself

	\$ Value
Your earnings from building the deck	\$0
Your opportunity cost of building it*	\$20,000
Jones' income at his job (because he is not building)**	\$14,000
Net outcome: You lose by building yourself rather than employing Jones for \$14,001	-\$5,999

Scenario B: You hire Jones to build the deck

	\$ Value
Jones' earnings from building the deck (i.e., what you pay him)	\$14,001
Jones' opportunity cost of building it**	\$14,000
Total income you earn at your job (because you hired Jones)*	\$20,000
Cost to you of hiring Jones	\$14,001
Net outcome: Your savings from employing Jones to build	\$5,999

*Your opportunity cost is the income you earn at your regular job as a radiologist over the course of a month (i.e., the amount of time it would take you to build the deck).

**Jones' opportunity cost is the income he earns at his regular job as a bookkeeper over the course of two months (i.e., the amount of time it would take him to build the deck).

The lesson is that if the goal is maximum possible economic gain, the determination of what an economic entity should or shouldn't produce cannot be made according to that entity's technical proficiency. What matters economically is the cost to the entity of acquiring the desired output by producing the output itself compared to the cost of producing something else, earning income from the sale of that something else and then using that income to buy the desired output from another producer—that is, compared to the cost of trading for the desired output.

This reality is not affected by the political jurisdiction in which the different parties live. You and Jones might be neighbors in the United States, or Jones might live across the border in Canada. Either way, it's worthwhile for Jones to build your deck. And it's better for the economy: If you build the deck, you would deny the economy \$20,000 worth of economic output from your regular job; if Jones builds it, the economy loses only \$14,000 from his regular job. Nothing—not even government subsidies—alters this conclusion, at least not for citizens of the home country.

Globalization Day 2 Reading about Comparative Advantage

Group 2 Acrostic

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Globalization Day 2 Reading about Comparative Advantage

Group 3 Reading

What Are Some Comparative Advantage Surprises? (Part 1)

The scholar, financier, and statesman David Ricardo (1772–1823) is credited with first clearly identifying comparative advantage. He did so in Chapter 7 (“On Foreign Trade”) of his 1817 treatise, *On the Principles of Political Economy and Taxation*. Ricardo used a simple example to show that under reasonable assumptions, even if the Portuguese were technically superior to the English at producing both wine and cloth, if the Portuguese’s superiority over the English at producing wine was greater than their superiority over the English at producing cloth, both the English and the Portuguese would gain if the English specialized at producing cloth, the Portuguese specialized at producing wine, and then each country freely traded with the other.

Ever since Ricardo offered his explanation of what still appears to many people to be a surprising conclusion, the case for free trade has regularly been said to rest on comparative advantage. While correct, the common interpretation of this fact misses an important reality. This common interpretation holds that a pattern of comparative advantage exists and *then* gives rise to the pattern of specialization and trade that reflects the pre-existing comparative advantages. This sequence often happens in the real world, but not always.

Adam Smith (1723–1790), whose 1776 *Inquiry into the Nature and Causes of the Wealth of Nations* was published 41 years before Ricardo’s treatise, demonstrated that specialization is advantageous even *without* a pre-existing pattern of comparative advantage. For Smith, specialization improves workers’ or businesses’ technical proficiency in producing the goods and services in which they specialize. By concentrating on doing a particular task, each producer over time becomes better at performing that task. That is, by specializing, each producer creates for itself a comparative advantage. For Smith, specialization is the *source* of comparative advantage (although Smith was unaware of this principle’s full reality); for Ricardo, specialization is the *result* of comparative advantage.

Both Smith and Ricardo are correct. Taken together, their analyses identify a virtuous cycle of improvement in economic productivity. Specialization begets greater comparative advantages, while greater comparative advantages increase the benefits of specialization. This is one surprise; combining Smith’s analysis with Ricardo’s reveals others.

By concentrating productive efforts on a particular task, a specialized producer further improves their skills at doing the task for which that person has a comparative advantage, thereby becoming an economically *worse* performer of other tasks.

Globalization Day 2 Reading about Comparative Advantage

Group 3 Acrostic

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Globalization Day 2 Reading about Comparative Advantage

Group 4 Reading

What Are Some Comparative Advantage Surprises? (Part 2)

Consider the deck-building example. Despite your being technically better at carpentry than Jones, it pays to employ Jones to build your deck. Suppose, as Adam Smith predicts, your concentrating your time working as a radiologist improves your radiology skills and causes your annual salary to rise to \$252,000. At your higher salary, building the deck yourself would cost you \$21,000 rather than \$20,000. Your becoming a better radiologist makes you, economically, a worse—that is, more costly—deck builder even though your proficiency at carpentry hasn't declined.

More surprisingly, your becoming a better radiologist makes Jones, compared to you, an economically better deck builder—even if Jones's technical proficiency at carpentry remains unchanged. His cost of building the deck (\$14,000) was 70 percent of your cost of doing so (\$20,000) at your previous wages. Now that your radiology skills have improved and your wages are higher, however, Jones's cost of building the deck is only 66.7 percent of your new cost of doing so (\$21,000). Your improved radiology skills economically improve Jones's carpentry skills *in comparison to yours*. Put differently, the improvement in your comparative advantage at radiology improved Jones's comparative advantage at building decks.

You're obviously made better off by becoming a better radiologist. But is Jones made better off by the resulting improvement of his comparative advantage at building decks? Possibly, but not necessarily. If the amount that you pay Jones to build your deck isn't increased by your improved skills at radiology, Jones reaps no benefit from your improved radiology skills (unless he finds himself in need of the services of a radiologist, but that's a different story). But two facts here are worth noting. First, Jones isn't harmed by your becoming a better radiologist. Second, Jones is *potentially* made better off by your becoming a better radiologist.

Before the improvement in your radiology skills, you would have been willing to pay Jones up to \$20,000 to build the deck, but not a cent more. Had Jones earlier demanded to be paid, say, \$20,500, you would have refused, and he would have had no hope of changing your mind. The reason, of course, is that earlier you could have built the deck yourself for \$20,000. But since your radiology skills have improved, you're now willing to pay him as much as \$21,000 to build the deck.

Obviously, you want to pay Jones as little as possible. Whether or not your improved comparative advantage at radiology—meaning also Jones's improved comparative advantage at building decks—redounds to Jones's benefit depends on how many people

are competing for Jones's services as a producer. The more intense this competition, the more likely it is that market forces will drive you to share with Jones some of the benefits you reap from your improved radiology skills.

The question of whether and by how much you would be driven by market forces to share with Jones the benefits of your enhanced comparative advantage at radiology can be answered only by investigating the structure and competitiveness of markets—chiefly, the number of buyers and suppliers of deck-building services. Such an investigation is beyond this essay's scope. It's enough here to demonstrate the surprising and important fact that when the comparative advantage of party A improves, the comparative advantage of party A's trading partner—party B—also improves, thus at least *potentially* increasing party B's welfare in addition to the certain improvement of party A's welfare.

Globalization Day 2 Reading about Comparative Advantage

Group 4 Acrostic

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Globalization Day 2 Reading about Comparative Advantage

Group 5 Reading

How Does Comparative Advantage Apply to International Trade?

Comparative advantage ultimately exists at the level of individuals and firms: No country *as such* has comparative advantages or disadvantages. Nevertheless, patterns of international trade reflect the international pattern of comparative advantage. If, for example, producers in the United States have a comparative advantage over producers in Mexico and Sweden at producing pharmaceutical products, the United States would export pharmaceutical products to Mexico and Sweden and import goods from these countries that they produce at a comparative advantage over the United States. If, say, Mexico has a comparative advantage at producing prefabricated buildings while Sweden's comparative advantage is producing fish, Americans would export pharmaceutical products and import prefabricated buildings from Mexico and fish from Sweden. And Mexico and Sweden would similarly produce and trade based on their comparative advantages.

Talking of countries trading with each other can be a useful shorthand as long as it's kept in mind that individuals and firms, not countries, trade and that comparative advantages and disadvantages exist only at the level of the specific producer units, meaning individuals and firms. Observed patterns of international trade reflect the patterns of comparative advantages that exist across the different producer units in each country.

Conclusion

By the nature of comparative advantage, it will exist as long as humanity exists. And as long as comparative advantage exists, there will also exist possibilities for mutually advantageous trade. This reality is unaffected by political borders. Gains from specialization and trade inspired by comparative advantage are the same regardless of whether the trading parties are citizens of the same country. Therefore, obstructing international trade with the goal of improving citizens' economic welfare worsens that welfare, as it prevents citizens from taking full advantage of the opportunities to specialize and trade according to their comparative advantages.

This conclusion holds even if (as is almost always the case) foreign governments interfere with their citizens' freedom to trade. When a government grants special privileges, such as tariff protection or subsidies, to particular producers within its country's borders, the bulk of the burden of these privileges falls on that government's citizens. As a result, that country is made poorer, not richer. And the home country only worsens its own economic performance if it retaliates with **tariffs and subsidies** of its own. Further, in the case of export subsidies, there is also an unambiguous *gain* for citizens of the countries that

purchase those exports. From the perspective of citizens of the home country, export subsidies paid by foreign governments are sources of benefits identical to those that would be enjoyed if producers in foreign countries had improved their comparative advantages.

Globalization Day 2 Reading about Comparative Advantage

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Globalization Day 2 Reading about Comparative Advantage

Pyramid Summary

Globalization Day 2 Reading about Comparative Advantage

Exit Ticket

Describe the concept of comparative advantage in your own words.

Think back to the Spheradell globalization simulation. What did your country produce at the lowest opportunity cost? Why might this have been true?

What do we mean when we say that trade is mutually beneficial?

Describe a time you made a trade that was mutually beneficial. What did you give? What did you get? Why was the trade mutually beneficial?
