

The teachFASTly.com resources are not intended as a complete curriculum. The activities are designed to be woven into your existing teaching. This Quick Stop Lesson Plan is therefore not a single lesson plan, but rather a quick way of exploring the themes of an Activity Map. It includes one Discover activity, one Delve activity, and one Debrief activity. Together, these may take more than a class period, and you may want to add other activities between them. For more information, visit www.teachfastly.com.

God and Natural Causes

Do you ever find yourself associating God with things that we cannot yet explain, or suggesting that because something seems miraculous it must be the work of God? Do you ever have a sense when science offers an explanation for something that was formerly understood in terms of faith that faith has been undermined or has to give ground?

A great deal of popular discussion about faith and science works with an implicit assumption that God's engagement with the world and scientifically describable natural causes are alternatives—things we must choose between. This opposition does not actually sit well with Christian theology, which sees God as active in all things, mysterious or ordinary, nor with the language of the Bible, which often sees natural and supernatural causes as happily coexisting.

This Activity Map offers a selection of activities intended for Bible class (though some could be used in a science course, if desired), that seek to help students think through how God might relate to natural causes and scientific explanation. It aims to help students see the relationship between the Bible and science as rich and complex, and not simply a battle between competing explanations. It tries to engage them in thinking carefully about God's action in the natural world, and our ability to describe that world.

You can find further resources connected to this idea in the Activity Map on Newton's Laws, which explores in more detail the relationship between miracles and natural laws.

This Quick Stop Lesson Plan on **God and Natural Causes** contains the following activities and attachments from www.teachfastly.com, which are combined for your ease of use in a downloadable ZIP file:

DISCOVER Activity: Boil the Water

DELVE Activity: Why Not Both?

Activity Attachment

- *Why Not Both? Handout*

DEBRIEF Activity: Iron Chariots

Activity Attachment

- *Iron Chariots Handout*

DISCOVER

Activity: Boil the Water

Time: 10 Minutes

In Brief

This is a short starter activity intended to get students thinking about whether events can have multiple causes. Using the example of boiling water, you will encourage students to explore all possible angles of causation. This activity offers a quick introduction to the more substantial exploration of what multiple causality has to do with the Bible and science in the activity *Why Not Both?* (see the “Delve” section below for this activity).

Goals

Students will understand that the same event can be seen as having multiple causes, depending on the level of description.

Students will understand that the idea of multiple causes is relevant to questions about how God relates to natural processes and how faith relates to science.

Thinking Ahead

Discussions of faith and science online often exhibit a common pattern: faith is pitted against science, and they are assumed to be competing explanations of the same phenomena. For instance, there might be debate about whether some phenomenon is inexplicable in natural terms and, therefore, must involve God. Alternatively, there might be a question of whether a phenomenon can be given a scientific explanation, thus removing the need to think of God as having anything to do with it at all. Similarly, research on what happens in the brain during prayer might be presented in a way that implies that *either* something spiritual is happening *or* it's a chemical reaction in the brain.

This activity, along with the later activity *Why Not Both?*, opens space to question this binary pattern of thinking. Consider your own verbal practices in the classroom—do you ever speak of things as *either* scientific and naturally caused *or* spiritual and involving God? Do you model a way of seeing in which both could be true?

This activity focuses on establishing that there can be different kinds of causation at the same time. It paves the way for the more direct focus in later activities on divine and natural causation.

(If you would like to explore ideas about causation further, you could introduce students to Aristotle's influential schema of four kinds of cause, summarized in various online resources [for example, <http://art3idea.psu.edu/boundaries/bolagrams/aristotle.html>]).

Preparing the Activity

Needed:

- Water
- A saucepan or kettle
- Heat source
- Coffee or tea
- A cup
- A spoon
- Or, alternatively, an image of boiling water

Teaching the Activity

Boil some water in a kettle or saucepan at the front of the room as the class begins. Make yourself a cup of tea or instant coffee using the boiled water. (If this is not possible, show an image of boiling water and adjust the following discussion accordingly.) Then address the students, drawing their attention to the boiling water, and describe it using very neutral, descriptive language:

“Did you notice that the water in this container started to make a noise, move around, and give off vapor just before I poured it out? I am told this is called ‘boiling,’ but I am not sure I really understand what makes it happen. Maybe you already learned about this in school?”

Write on the board: “Why did the water boil?” Ask students to help you out, working in pairs or small groups to write a short paragraph explaining what caused the water to boil. Be careful not to specify the kind of explanation (e.g., scientific, philosophical) that you want them to produce.

After allowing a few minutes for this, ask students to share their answers. Continue to feign ignorance and encourage them to flesh out their accounts. If all of the answers are basically scientific in approach, ask the class, after several answers have been shared, why they chose to answer scientifically, since you did not tell them to do that when you asked the question. Ask if there are other valid explanations for why the water boiled. If students offer different kinds of explanation, express interest in the differences and move on to the next part of the discussion.

If students do not arrive at it themselves, offer the explanation that the water boiled because you were thirsty and wanted a cup of tea or coffee, so you turned on the kettle. This may elicit groans, but ask students to pursue it as a serious explanation. Would the water have boiled if you had not wanted a cup of tea? Suggest that you all sit and watch the kettle to see if it boils again on its own, now that you already have your tea. It seems that you were, in fact, in some sense, the cause of the water boiling.

Ask students to think about the relationship between two kinds of explanations, one involving natural processes that can be described and predicted by science, and the other involving the intentions of an agent that are not scientifically predictable (i.e., you could have waited until after class for your drink, or you could have chosen to drink juice).

- Is one kind of explanation better than the other?
- Can either of them fully explain on its own, without the other, what happened at the start of class?
- What does each kind of explanation help us to explain?
- Can we do without one or the other of them?

Conclude by drawing a parallel to questions about faith and science. Ask students to consider whether the idea of multiple levels of valid explanations can help us think about questions such as:

- whether God caused an event, or whether it was caused by a natural process that science can describe
- whether religious experience is an encounter with God, or a release of chemicals in the brain

Tell students that they will explore this idea further in subsequent activities such as Why Not Both? found below.

DELVE

Activity: Why Not Both?

Time: 45 Minutes

In Brief

This activity introduces students to the concept of multiple causality. In biblical theology, multiple causality can be used to describe how the Bible presents the causes of events. It is also relevant when thinking about faith and science because of its connection to the question of whether an event can have both divine and natural causes. This activity engages students in investigating biblical texts with a focus on the students' implicit view of causation, and then transferring that learning to a consideration of an online discussion of brain science.

Goals

Students will understand the concept of dual causality as it relates to interpreting the Bible.

Students will understand how the Bible's approach to dual causality can inform how we think about faith and science.

Students will understand that neuroscientific accounts of brain functioning are not necessarily at odds with faith.

Thinking Ahead

This activity helps students see that in many biblical texts, there is more than one account of what caused things to happen. It also helps students make the complex and sometimes unexpected connections between faith and science.

The Absalom story may not seem to have much to do with brain science, but in the biblical texts studied, divine, human, and natural causes are all present, and are not viewed as providing competing explanations, but are viewed, rather, as all being involved at once. God is not just involved when there is a mystery; God is involved within all of the natural processes that are presented. Identifying a political or social cause does not mean that God's involvement has been explained away. Similarly, in discussions of brain science, scientific explanations of what happens in the brain when we pray, for example, do not in themselves imply that God might not be involved when we pray. We may not have to choose, or fight, over one explanation or the other.

As you prepare to teach this activity, be sure to read through the passages to gain a clear sense of the different strands of causal explanation in them. You might also consider whether there are any aspects of your existing verbal practices in the classroom that might challenge students' grasp of this issue. For example:

- Do you contrast things that have a natural, scientific explanation with things that must be caused by God because they do not have such explanations, implying that we can only see God at work where there is no other explanation available?
- Do you tend to associate God with the mysterious and miraculous, but not with the normal and everyday?

Take some time to consider how you might align your own speaking habits with what students are to learn in this activity.

Preparing the Activity

Needed:

- Bibles
- Copies of the first page of the **Why Not Both? Handout** for half the class, and copies of the second page for the other half of the class

Teaching the Activity

Do not announce the larger theme of the activity yet, but inform students that they are going to investigate the causes of the temporary success and later failure of Absalom's rebellion.

Divide the class into groups of four, and then ask each group to divide into two pairs. Tell students that each pair is going to work on a task and compare their results. Each pair should receive one of the two versions of the **Why Not Both? Handout**, so that each group of four has one pair working on one version and one pair on the other. Both versions cover the same large textual unit, but each focuses student attention on different sections of the text. Ask students to investigate the causes of success and failure for individuals in the story. The main points that students will find are listed below:

Version A, unlabeled first page of the handout (focuses on human causation):

1. 2 Samuel 14: 25-27 – Absalom is widely admired as the most handsome man in Israel.
2. 2 Samuel 15: 1-13 – Absalom has worked to build popularity among the people, and they are on his side.
3. 2 Samuel 16:20-23 – Absalom has a wise counselor to give him instructions.
4. 2 Samuel 17:15-16 – Hushai leaks information from Absalom's inner circle to David.
5. 2 Samuel 18: 6-9, 14 – Absalom's army is defeated, and Absalom accidentally gets caught by his hair in a tree.
6. 2 Samuel 19: 9-15 – The king delivered the land from Absalom.

Version B, unlabeled second page of the handout (focuses on divine causation):

1. 2 Samuel 15:21-30 – Everything will happen as the LORD decides, and the king submits to God's will.
2. 2 Samuel 16: 5-13 – David is under a curse from the LORD because of his involvement in past bloodshed.
3. 2 Samuel 17:14 – The LORD has decided to confound Ahithophel's advice.
4. 2 Samuel 18: 9, 14, 19-20 – The LORD has vindicated the king before his enemies.
5. Psalm 3: 1-8 – The LORD is a shield that protects David, and the LORD strikes the wicked.

Once pairs have had enough time to work through the texts, ask them to return to their groups of four and compare their findings.

At this point, at the latest, students will discover that they have been studying different texts and have arrived at a different list of causes.

After some time for groups to compare notes, draw the class together, and ask what students have learned about the way this story talks about the causes of events. Elicit that the text does not seem embarrassed by offering both divine and natural causes for the same event.

Draw students' attention to 2 Samuel 16:18:

Hushai replied to Absalom, "No, I will be loyal to the one whom the Lord, these people, and all the men of Israel have chosen." (NET)

Hushai is not speaking honestly here, but his utterance implies a way of thinking about Absalom's success in which it is not strange to think of both divine and human causes simultaneously. This way of speaking seems to be intended to make natural sense to his hearers. His insincerity with regard to the Lord really being with Absalom does not change this.

Now introduce the notion of dual causality, and explain to students that theologians have used this idea to explain the Bible's way of speaking of events as having both divine and natural causation, without one cancelling out the other. Point out that this is different from a common assumption that causes have to cancel each other out. For example, when someone says that something that happened must have been caused by God because there was no apparent human cause, or conversely, that something did not involve God because its human cause has become known or understood.

(If students are interested in taking this theological discussion further, you could invite them to think about how the Bible's view of the coexistence of divine and natural causes is related to the logic of creation—if God is the creator of all, and not a thing like other things within the universe, then God does not compete for space with natural things and processes; rather God creates and sustains them.)

Next, ask students how this view of causation in the Bible might be relevant to conversations about faith and science. It may be helpful to allow a few minutes to let students discuss this in pairs, to seed the class discussion. Take suggestions from students. It does not matter if students' ideas are unclear at this point.

After a few minutes for discussion, read and/or display Exodus 14:21:

Moses stretched out his hand toward the sea, and the Lord drove the sea apart by a strong east wind all that night, and he made the sea into dry land, and the water was divided. (NET)

Ask students to identify the story and then to name the cause of the waters falling back. The text says it is the Lord *and* a strong east wind.

- Do the two explanations contradict one another?
- If an observer had been able to describe scientifically how the wind caused the waters to recede, would that mean that we could not also say that the Lord was involved in this event? Is this still a "miracle" if both explanations are true?

Similar questions can be asked a few verses later, in verse 25:

He jammed the wheels of their chariots so that they had difficulty driving, and the Egyptians said, "Let's flee from Israel, for the Lord fights for them against Egypt!" (NET)

- Why was it hard to drive?
- What if an observer had noticed this involved very high wind and mud and panic on the part of the Egyptians?

Finally, move to a current topic in debates about faith and science: the relationship of prayer to brain science. Since students have been reading intensively for the earlier parts of this activity, it will be a good change of pace and mode of engagement if you switch now to a different approach.

Write the word "God" at one end of your blackboard or white board, and the word "Brain" at the other end. Tell students that you are going to present an actual example of an online discussion about brain science and faith.

(Source: <http://www.abovetopsecret.com/forum/thread830390/pg1%5d>, retrieved Wednesday, October 12, 2016)

Explain that an agnostic person who was experiencing a stressful time reported on a discussion board that he/she had been turning to prayer and meditation as a stress reliever. After a while, this person suddenly experienced the conviction that he/she was not just engaging in an exercise to make himself/ herself feel calmer, but was communicating with God. This person experienced a sense of God's presence as he/she prayed, and his/her question to the discussion board was: Does this mean that God (whatever God might be) is real, or does it just mean that my brain is tricking me?

Act out the two kinds of responses that arose in the online discussion that followed. As you give voice to one set of arguments, stand at the "Brain" end of the board; for the other set move to the "God" end of the board. You may also wish to use different voices (without making either voice ridiculous), or wear different hats for the two sides—the goal is simply to make the two positions clear and visually distinct.

Present both sides as measured, intelligent views, despite their flaws, to avoid implying that one or the other should simply be dismissed.

Share the following arguments in your own words (they are loosely paraphrased from several posters' comments).

Brain

- What you experienced has nothing to do with God. It's just your brain being trained by the repetition of your praying. What is causing your feeling that God is real, and that you are talking to God, is just chemicals being released in your brain. It's scientific. Neuroscience is telling us that the practices in which we engage can rewire our brains, and that having a belief can give us a feeling of euphoria. Our brain generates beliefs that make us feel good. You'd have to be a sadly misinformed and ignorant person, or just plain crazy, to think this means God is there, especially in a scientific age, because we know now that the brain causes those feelings. Talk to yourself long enough and you go crazy.

God

- Brain science doesn't disprove God. You are experiencing God's presence. People who invoke science as if it disproved God are just appealing to vague authority, and not respecting people's faith. Blind belief in science is ignorant. Prayer is spiritual and you need to humble yourself and open yourself up so God can speak to you. When I have prayed, I have seen God do miracles, and that makes me believe prayer is really connecting to God. Once you stop praying, you might as well be a robot; there's no hope. Believing as a result of prayer is not a trick of the brain; it's how we find the truth.

Move back to the middle of the board and discuss the following questions with students:

- How would you respond to these views in light of what you have learned about the view of causality that is implicit in the Bible?
- How might the idea of dual causality help clarify this discussion?
- Does acceptance of the findings of science force us towards one answer or the other?

The key question here is: Could a spiritual experience be caused both by brain functions *and* by a real encounter with God? Considering this possibility suggests that there may be flaws in both of the positions just enacted. Draw out the following:

- If prayer connects us to spiritual realities, to hope, and to God, would we expect it to do us good? Would we expect it to be connected to brain mechanisms that help generate good feelings?
- If neuroscience tells us that various kinds of experiences reshape the brain, does this mean we should start doubting that other things we experience are real, once we start seeing how they affect the brain? Are changes in the brain the cause of making things up, or are they responses to something real?
- If God made us with brains that support the practice of praying, wouldn't we expect processes in the brain to play a role in prayer?

As you debrief this activity with students, be sure to clarify what might and might not follow—this kind of account does not prove that God *is* involved in any particular process. It simply means:

- that it is not the Bible's view that investigating natural causes and claiming God's involvement are alternatives to be fought over so that science or faith can win. A biblical perspective suggests that often both may be true at once.
- that when a natural explanation is provided for a phenomenon, this need not count as a reason for quickly concluding that God could not have been involved.
- that investigating scientific causes for things is not necessarily in tension with belief in God, and belief in God need not mean discounting scientific findings.

Optional Extra

You may wish to extend the discussion by introducing the idea of the “God of the gaps,” and letting students explore its weaknesses. This is the common way of speaking about God’s agency, as if God is only involved when we cannot find any natural cause for some event, so we therefore view it as a miracle.

One problem with this view is that God’s role tends to get smaller as more things are studied. Another is that it is not how the Bible portrays God’s involvement in the world; God is involved in sustaining normal, everyday processes. You can find further resources connected to this idea in the Activity Map on Newton’s Laws, which explores in more detail the relationship between miracles and natural laws. Consider collaborating with a science colleague to explore this idea in parallel in science and Bible classes in order to extend and reinforce learning.

Another way of extending this theme might be to explore other biblical episodes where the question of different kinds of causes and processes might arise. For instance, you could explore with students the New Testament’s account of who was responsible for Jesus’s death (various passages point to roles for Judas, Pilate, the crowds, the soldiers, God, and Jesus himself). Another kind of example (and also a briefer one) is a passage such as Acts 13:1-3—what kinds of processes might we consider to have been part of the Holy Spirit speaking to the church at Antioch? If the church members, for instance, noticed gifts in Barnabas and Saul as they served together, would that be at odds with the claim that the Holy Spirit spoke?

DEBRIEF

Activity: Iron Chariots

Time: 20 Minutes

In Brief

This activity offers a briefer assessment of students' understanding of the idea of multiple causality in biblical narrative explored in the activity Why Not Both? (found above). It asks students to apply those ideas to a fresh passage.

Goals

Students will show that they have understood the concept of multiple causality in biblical narratives.

Thinking Ahead

This activity asks students to apply what they learned in their study of the Absalom story in the activity Why Not Both? (found above) to a passage from Judges, offering a chance to reinforce and assess understanding of multiple causality in biblical narrative. In the passage, Israel is oppressed both because of God's response to its evil deeds, and because of the superior power and technology of its oppressors.

Preparing the Activity

Needed:

- For students, Bibles or copies of the **Iron Chariots Handout**

Teaching the Activity

Briefly review with students the concept of multiple causality as explored in the activity Why Not Both? (found above). Have students read Judges 4 and write a paragraph responding to the following questions:

- What are the natural causes presented in this chapter for Israel's initial slavery and eventual victory?
- What are the divine-agent causes presented in this chapter for Israel's initial slavery and eventual victory?
- How does the chapter see the relationship between the two sets of causes?

You could also handle this activity as an oral class discussion and bring in Judges 1:19-21 for comparison.

In Judges 4, verses 1-2 and 23 suggest that the key issues were whether Israel sinned and whether God was on their side. Verse 3 implies that the Israelites' crying out was a factor in the situation changing. Verses 3 and 24 suggest that the reason Israel was unable to overcome Jabin was his superior technology, but that later the Israelites became more powerful. The interlude with Jael suggests that individual initiative and deception also played a role. The narrative does not present these strands at odds with one another—God works in and through social processes and human initiative.