

9.3.1

Lesson 4

Introduction

In this lesson, students will read and analyze pages 14–16 of *Animals in Translation* (from “The other major contribution behaviorists made” to “no one had ever seen before”). Students will continue to examine Grandin’s analysis of behaviorism and ethology, and consider how this portion of text further refines and develops her central idea that autism has made understanding animals easy.

Students will continue to record, discuss, and track potential topics for research. They will also generate inquiry questions based on topics they have identified in the text to guide their research. Students will share these questions in small groups and discuss similarities and differences between questions on the same topic. The lesson assessment is an independent writing prompt that asks students to demonstrate how the central idea in this text is further developed and refined in pages 9–16. For homework, students will continue to conduct research based on the inquiry questions they have developed in class and identify three areas of interest within the topic.

Standards

Assessed Standard(s)	
RI.9-10.2	Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.
Addressed Standard(s)	
RI.9-10.1.a	Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. a. Develop factual, interpretive, and evaluative questions for further exploration of the topic(s).
RI.9-10.4	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).
SL.9-10.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.

Assessment

Assessment(s)

The learning in this lesson is captured through a Quick Write at the end of the lesson. Students answer the following prompt based on the close reading (citing text evidence and analyzing key words and phrases) completed in the lesson.

- How does Grandin further develop and refine the idea that her autism provides a unique perspective on animal behavior in pages 9–16?
- ① This assessment will be evaluated using the Short Response Rubric.
- ① Although students read pages 14–16 in this lesson, this assessment focuses on the comprehensive development and refinement of Grandin’s central idea over pages 9–16. This will help prepare students for the End-of-Unit Assessment.

High Performance Response(s)

A high performance response may include the following:

- Grandin says, “In my student days even though everyone was against anthropomorphizing animals, I still believed it was important to think about the animals’ point of view.” Grandin has a “pretty good grounding in ethology” and this allowed her to recognize that instincts were an example of something that “had nothing to do with the environment.” She also uses ideas from behaviorism: “Until behaviorism came along, probably no one understood how important the environment is.” Grandin explains that behaviorists and most ethologists considered looking from the animal’s point of view to be illegal. As a result “neither group looked inside the animal’s head.” Because she is autistic, Grandin knows how important studying the brain is, and says that “the brain is pretty powerful, and a person whose brain isn’t working right knows just how powerful.” Through all of this understanding she came to the conclusion that understanding an animal’s perspective is important to understanding their behavior. This further develops her central idea that her autism proves a unique perspective on animal behavior.

Vocabulary

Vocabulary to provide directly (will not include extended instruction)

- contribution (n.) – the part played by a person or thing in bringing about a result or helping something to advance
- environmentalists (n.) – people who consider that environment is the primary influence on the development of a person, group, or animal

Vocabulary to teach (may include direct word work and/or questions)

- anthropomorphize (v.) – to attribute human form or behavior to an animal, object, etc.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards & Text:	
<ul style="list-style-type: none"> Standards: RI.9-10.2, RI.9-10.1.a, RI.9-10.4 Text: <i>Animals in Translation</i> (pp. 14–16) 	
Learning Sequence:	
1. Introduction of Lesson Agenda	1. 5%
2. Homework Accountability	2. 10%
3. Pages 14–16 Reading and Discussion	3. 40%
4. Generating Inquiry Questions	4. 30%
5. Quick Write	5. 10%
6. Closing	6. 5%

Materials

- Student copies of the **Topic Tracking Tool** (refer to 9.3.1 Lesson 2)
- Student copies of the **Posing Inquiry Questions Handout** (refer to 9.3.1 Lesson 3)
- Student copies of the **Short Response Checklist and Short Response Rubric** (refer to 9.3.1 Lesson 1)

Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>
▶	Indicates student action(s).
☞	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda

5%

Begin by reviewing the agenda and assessed standard for this lesson: RI.9-10.2. Explain that in this lesson students continue to read pages 14–16 of *Animals in Translation*, track potential research topics, generate inquiry questions, and examine how this section of text further develops and refines Grandin’s central idea.

- ▶ Students look at the agenda.

Activity 2: Homework Accountability

10%

Instruct students to form pairs and do a Turn-and-Talk about the area of interest they identified and the inquiry question that led to that area of interest.

- 🗨 Student responses will vary based on the individual research they conducted. Look for students to use language such as:
 - A topic I identified in the Grandin text was behaviorism. She wrote a lot about behaviorists and how they study animals and people.
 - One of the inquiry questions I came up with in class was, “What are important discoveries behaviorists have found when observing animals?”
 - I consulted the media specialist at the library and gave me guidance on how to find reliable information online for this topic. I found information about understanding animal behavior and training animals.
 - An area of interest I have is animal behavior, and how that can help people train them.

Activity 3: Pages 14–16 Reading and Discussion

40%

Introduce and display the Quick Write assessment prompt (How does Grandin further develop and refine the idea that her autism provides a unique perspective on animal behavior in pages 9–16?). Explain to students that this is the lesson assessment and the focus for today’s reading.

- ▶ Students read the assessment and listen.

① Display the Quick Write assessment for students to see.

Instruct students to take out their Topic Tracking Tool for the purpose of recording potential research topics. Instruct students to form pairs and read pages 14–15 from “The other major contribution behaviorists made” to “At least that’s what I was trying to do.” Instruct student pairs to discuss the following questions and then record their responses in writing. Explain that an important vocabulary

word in this section is *contribution*, “the part played by a person or thing in bringing about a result or helping something to advance.” Display the following questions for students.

① For potential student topics for this reading, see the Model Topic Tracking Tool at the end of this lesson.

- ▶ Student pairs take out their Topic Tracking Tool, read, discuss, track topics, and record responses to the following questions.

What does being a “close observer” of behavior allow Grandin to do?

- 🗨️ Being a close observer allows her to “spot tiny changes in an animal’s behavior quickly, and connect the changes to something in the environment.”

What do ethologists and behaviorists agree on?

- 🗨️ Ethologists and behaviorists both “study animals in their natural environment” and both agree that “anthropomorphizing an animal is wrong.”

Why were “behaviorist principles” (general laws or truths from which others are derived) important for John Ross to remember?

- 🗨️ Behaviorist principles were important because John Ross should have thought about “Jason’s environment instead of about his ‘psychology.’” Behaviorists wouldn’t have made the mistake of thinking the dog was ashamed.

What details from the story of John Ross and Jason can help make meaning of the word *anthropomorphize*? What does it mean to *anthropomorphize* an animal?

- 🗨️ Grandin writes that John Ross said he was being anthropomorphic when he saw his dog Jason “take off running” whenever there was garbage on the floor. He assumed the dog had human characteristics like shame. “Mr. Ross thought...Jason knew that strewing garbage clear across the kitchen was wrong, and ran away because he felt bad.” To *anthropomorphize* an animal means to think of that animal as if it is human.
- ① **Differentiation Consideration:** If students struggle to define *anthropomorphize* through context, consider explaining that this is a word that could also be defined using vocabulary definition skills such as taking the root word “anthro,” and connecting it to other words that have the same root such as “anthropology,” which is the study of humans; thus, a word that also starts with “anthro” will also involve thinking about humans in some way.

Why does Grandin believe *anthropomorphizing* animals can be dangerous to them?

- Grandin believes *anthropomorphizing* animals can be dangerous to them because animals think differently from humans, and attributing human thoughts and motivations to animals means misunderstanding how animals think. Grandin uses the example of a lion that ate a pillow because its owner thought the lion would want a pillow to lie on, but instead the lion died.

What does Grandin mean by “I wasn’t looking at the lion as a person, but as a lion”? How does this statement further develop her central idea?

- Grandin makes the point that “well, no, he doesn’t want a pillow, he wants something soft to lie on, like leaves and grass.” So the intention to give the lion something comfortable to sleep on was correct, but “looking at the lion...as a lion” means that you would give the lion what they would usually use to lie on, like grass, instead of something humans use, like a pillow. This further develops her central idea because it is an illustration of how her autism allowed her to think from an animal’s perspective and ultimately (through her work) understand animals and keep them out of distressing situations and environments.

Instruct student pairs to continue reading pages 15–16 from “That kind of thinking was illegal for behaviorists” to “started developing complex behaviors no one had ever seen before.” Direct student pairs to continue to record topics, discuss their responses to the following questions, and then record their responses in writing. Explain that an important vocabulary word in this section is *environmentalists*: people who consider environment to be the primary influence on the development of a person, group, or animal. Display the following questions for students.

- ▶ Student pairs read, discuss, track topics, and record responses to the following questions.

Why did Grandin not endorse the experiments at her university?

- Grandin was opposed to these experiments because they were “nasty experiments” and she did not understand what the psychologists were learning from them. Grandin also believes that since the environment in a lab is “totally artificial” it is not an effective way to learn about animals.

How does Grandin include behaviorist and ethologist thinking in her perspective? What makes her perspective distinct from both fields of study?

- Grandin has a “pretty good grounding in ethology” and this allowed her to recognize that instincts were an example of something that “had nothing to do with the environment.” She also uses ideas from behaviorism: “Until behaviorism came along, probably no one understood how important the environment is.” Grandin’s perspective is unique because she decided to try and view the animal’s perspective, “neither group looked inside the animal’s head.”

Activity 4: Generating Inquiry Questions

30%

Explain to students that they will continue to generate inquiry questions about the possible research topics they have identified in the text. Instruct students to refer back to the Posing Inquiry Questions Handout from the previous lesson. Remind students that inquiry questions guide the research process and develop further pathways for exploration. Explain that at this stage it is helpful to think of as many questions as possible and that in the following lesson they will focus on refining their inquiry questions. Inform students they will be placed into groups of four to five students that work together throughout the module. First, this group decides on a topic identified in this portion of text. Then, the students break into subgroups of two or three. These subgroups generate and record five inquiry questions before rejoining their larger group and sharing their questions. Explain to students that in this lesson, they will continue the work of collaborative discussion outlined in SL.9-10.1, to which students were previously introduced. Remind students these discussion strategies have been taught in previous modules.

- ① Consider reminding students of the skills inherent in the sub-standards of Standard SL.9-10.1, to which students were previously introduced.
- ① Remind student groups that it is important to discuss which questions they have identified are similar and which ones are different. Also, students should discuss if there are any questions that would be broader and lend themselves to a rich understanding of the topic.
- ① Place students in heterogeneous groups of four to five that will remain consistent throughout the module. Consider forming groups ahead of time to maximize the range of different research topics and questions within each group. The goal of these groups is to create small communities of inquiry/research teams that provide support and accountability to each other. Students should know about their teammates' topics, research questions, central claims, etc. Students should share claims and evidence that arise from their individual inquiry and learn from each other's research processes, which they may use to refine their own inquiry topics and questions.
 - ▶ Students form groups of four or five students to decide on a topic.
 - 🗨 Student topics will vary.
 - ▶ Students form subgroups of two or three students, and generate five inquiry questions in pairs.
 - 🗨 Student responses will vary based on their individual potential research topics. Student responses may include the following:
 - Topic: Laboratory experiments on animals
 - Potential inquiry questions may include:
 - What are the benefits of experimenting on animals?
 - Why are people critical of laboratory experiments on animals?

- What is the worst experiment ever done on an animal in a laboratory?
- Who is the most famous laboratory animal?
- Which animals are used most often in laboratory experiments?

Instruct student subgroups to rejoin their groups after generating five inquiry questions and to discuss their questions within their groups. Ask students to independently record the five inquiry questions generated by the other subgroup in their group. Explain that these inquiry questions as well as the ones they generated yesterday will help guide their searches for homework.

- ▶ Students follow along and record five inquiry questions based on group discussion.

Activity 5: Quick Write

10%

Instruct students to respond briefly in writing to the following writing prompt:

How does Grandin further develop and refine the idea that her autism provides a unique perspective on animal behavior?

Remind students to use the Short Response Checklist and Short Response Rubric to guide their written responses.

① Display the prompt for students to see, or provide the prompt in hard copy.

- ▶ Students independently answer the prompt using evidence from the text.
- 🗨 See the High Performance Response at the beginning of the lesson.

Activity 6: Closing

5%

Display and distribute the homework assignment. For homework, instruct students to continue researching unknown topics gathered from this lesson’s reading and use inquiry questions generated in their groups to guide their searches. Remind students to consult media specialists, books, the Internet, or any other available resource. The purpose of exploring a topic at this stage is to identify areas of interest within the topic and to explore the dimensions of a topic. Instruct students to identify three areas of interest within the topic using the inquiry questions.

Additionally, ask students to preview and annotate *Animals in Translation*, pages 16–20 (from “The only research I was interested in doing” to “Why couldn’t they see what they were doing wrong?”) and be prepared to discuss 3–4 annotations in the following lesson.

- ▶ Students follow along.

Homework

Based on your inquiry questions from this lesson, continue exploring various dimensions of a topic. Use your inquiry questions to guide your research. Using inquiry questions from the lesson, identify three areas of interest within your topic.

Also, preview and annotate *Animals in Translation*, pages 16–20 (from “The only research I was interested in doing” to “Why couldn’t they see what they were doing wrong?”) and be prepared to discuss 3–4 of your annotations in the following lesson.

Model Topic Tracking Tool

Name:		Class:		Date:	
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Topic	Page Number(s)	Key Information About the Topic from the Text
Anthropomorphizing animals	14–15	In this portion of text Grandin writes a lot about anthropomorphizing animals, or giving them human attributes. Grandin writes that both behaviorists and ethologists think it can be dangerous to animals: “everyone was against anthropomorphizing animals.”
Dog training	14–15	Grandin writes briefly about how anthropomorphizing can be a problem when training a dog to behave. “He wasn’t running away because he felt guilty...he felt scared.”
John Ross	14–15	John Ross is mentioned in this portion of reading as a professional trainer as well as an author of the book “Dog Talk.”
Ron Kilgour	15	Grandin writes about “a great animal psychologist out of New Zealand named Ron Kilgour.” This is the only ethologist Grandin mentions by name in this portion of reading.
Laboratory experiments on animals	16	When Grandin was in university there were a lot of scientists doing “nasty experiments” on monkeys. Grandin believes that there should be something clear that can be learned if experiments that harm animals are going to happen.

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