THE CAMERA DOES LIE

Article by Meg Moss

ESSENTIAL QUESTION:
What can blur the lines between what's real and what's not?
QUICK START
Can you always trust what you see with your own eyes? Does seeing mean believing? Describe to a partner the last time you saw something that made you think that seeing isn’t always believing.

DETERMINE AUTHOR’S PURPOSE
An author’s purpose is the reason the author wrote a particular work. In other words, it’s what the author wants to do for you, the reader. This chart shows common purposes for writing different types of texts.

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<th>Author’s Purpose</th>
<th>Examples</th>
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<td>Inform or Explain</td>
<td>- encyclopedia entries</td>
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<td>- informational articles</td>
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To determine an author’s purpose in an informational text, examine the kinds of facts and examples the author presents. Realize, too, that an author may have not only a main purpose for writing but also some additional purposes.

CITE EVIDENCE
When you draw conclusions, you make judgments or take a position. To reach a conclusion, you must evaluate details in a text to determine the key ideas. You can then combine this evidence with your own experience. Consider this example from “The Camera Does Lie.”

While some people still debate whether the Bigfoot film is real, it looks plenty bogus compared to today’s slick videos. The best modern fakers spare no expense or sleight of hand.

The author makes a comparison to older, “bogus” videos, and she uses the terms spare no expense and sleight of hand. In addition, you probably have seen many recent videos—perhaps including some fake ones. You can conclude that today’s fake videos are made to look so real that it is hard to tell that they are not real.
GET READY

CRITICAL VOCABULARY

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<td>bogus</td>
<td>elaborate</td>
<td>accelerate</td>
<td>hoax</td>
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<td>obsess</td>
<td>continuity</td>
<td>ruse</td>
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To see how many Critical Vocabulary words you already know, use them to complete the sentences.

1. At first, I trusted the "UFO expert," but he was totally _________.
   His UFO video wasn't real; it was a complete _________.

2. My family made up a(n) _________ plan to throw me a party. I saw through their _________, but I acted surprised anyway.

3. It's lucky that my sister likes to _________ over camera equipment.

4. The actor wore a different shirt in the second take, which caused _________ problems. Also, a falling object in the film did not _________ at a constant rate between the takes.

LANGUAGE CONVENTIONS

Correlative Conjunctions In this lesson, you will learn how to use correlative conjunctions in writing. A correlative conjunction is a pair of conjunctions that connects words used in the same way. Correlative conjunction word pairs must be used together. See how two subjects are connected in this sentence based on "The Camera Does Lie."

Both young and old have been fooled by fake videos.

ANNOTATION MODEL

As you read, note how the author expresses her purpose or purposes for writing. You can also mark up evidence that supports your conclusions.

In the model, you can see one reader's notes about "The Camera Does Lie."

1. Let's face it: the Internet is a wonderful place. Where else can you read all the works of Shakespeare without leaving home? Or catch up on the news around the world with only a few clicks? See eagles snatching children! Witness men flying with homemade bird wings! Cheer for pigs saving goats!

2. Whoa. If you think those last three sound sketchy, you should...
BACKGROUND

"The camera doesn't lie" is an old saying from the time when photos were shot on film and were hard to alter. Digital technology has changed all that—and altered images can be posted online and go viral in a few hours! The author of this magazine article, Meg Moss, writes on a variety of topics, and she especially enjoys making complicated topics easy to understand. Here, she shares information to help readers understand why we can't always believe what we see.

THE CAMERA DOES LIE

Article by Meg Moss

SETTING A PURPOSE

As you read, think about what the author means by the term video conartistry (paragraph 2). Look for facts and examples that give you more information about that term.

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Whoa. If you think those last three sound sketchy, you should. There's a whole world of video conartistry out there, and the Internet loves it. Besides ordinary pranksters and video artists, there are even corporations getting into the act, faking videos to sell products.

What's a trusting person to do? Learn to call out the fakes.

The Camera Does Lie 115
Ye Olde Fakeroo

4 There's nothing new about faking images. Falsified pictures of ghosts, unidentified flying objects (UFOs), and monsters have been around for years.

5 In the 19th century, “spirit photography” captured the public’s imagination. Clever photographers created portraits of living people alongside ghostly versions of their deceased relatives or friends. (Fakers still love to record “paranormal activity” with cell phones and handheld video recorders.) “Photographing” UFOs became popular after World War II and remains so today.

6 Perhaps the most famous fake photograph ever was taken in 1934 at Loch Ness in Scotland. Gray and grainy, it supposedly shows the head and neck of Nessie, the dinosaur-like monster of the lake. And you can still view the first moving images of “Bigfoot,” shot in 1967, on YouTube.

Fooled You Once

7 While some people still debate whether the Bigfoot film is real, it looks plenty bogus compared to today’s slick videos. The best modern fakers spare no expense or sleight of hand.¹

8 A few years back, you may have watched a video of a pig saving a drowning goat (all together now: awwww!). That 30-second scene took days to make. Legions of animal trainers participated (and were sworn to secrecy). An elaborate track was built for the pig to follow in the water. With millions of hits, the really good videos—like this one—go viral, spreading like wildfire and keeping the whole world guessing.

9 One person who’d rather not guess is Rhett Allain, an associate professor of physics at Southeastern Louisiana University and author of the Wired Science blog Dot Physics. Allain enjoys analyzing online videos. He smacks down those that don’t live up to the rigors of physics and obsesses about those he suspects but can’t pin down.

10 Allain explains that when he looks at fishy videos, he asks, “Is this video physically possible?” Then he uses “known physics models to see if I could come up with a way to get the video to be real.”

¹ sleight of hand (slit úv hænd): a trick, such as a magic trick or card trick, performed so quickly and skillfully that no one notices it.
Fooled You Twice

11 A viral video in 2012 showed an eagle snatching a small child in its claws, then dropping the kid safely on the ground. Very convincing—until you do the math.

12 The best way to start your analysis is to ask questions like, "Could an eagle lift and carry a child that size?" The larger the bird is, the larger its wingspan must be to get it off the ground and keep it airborne. Doing a little research, Allain discovered that the golden eagle needs a 7.5-foot (2.3-meter) wingspan just to lift its own body weight of about 14 pounds (6.4 kilograms)—and perhaps some small prey. Estimating the size of the child in the video at about 28 pounds (13 kilograms) means the eagle is lifting almost twice its own weight. This would take a wingspan of about 33 feet (10 meters)!

13 In a video like this one, Allain also measures the way things move, accelerate, and fall to see if they obey natural laws. He asks more questions: At what angle does the child fall? How does the child move through the air as the eagle lifts him or her up? Does the child accelerate constantly through the fall like a falling object should? In the eagle video, none of these adds up.

Fake Shake

14 One of Allain’s favorite techniques is to analyze camera shake—you know, that quaking picture people get from holding a camera in their hand instead of using a tripod.

15 Allain explains, "To make editing easier and the video more realistic, some people use a tripod for their camera to record the video. They then add fake shake to make it look like the camera was handheld." Voilà—the jerking and unsteady motion of a camera in the hands of someone walking. There’s software that lets you graph camera shake by analyzing the movement of the background. If there’s a pattern to the jumpiness, it’s a fake. Real shake is random.

16 Of course, there are also some simple, common-sense ways to spot an imposter just by looking.
One factor to check is “continuity.” Is everybody wearing the same thing throughout a video that is supposedly a single take? In a 2009 slip-and-slide video called “Megawoosh,” a daredevil barrels down a giant water slide, off a launch pad, and into a tiny kiddie pool over 100 feet away. Amazing! ... Until someone noticed that as he flies through the air, the jumper’s helmet seems to be missing. The video was actually made in three segments and edited together; the middle section is an animation. The elaborate hoax turned out to be an ad for Microsoft Germany.

**Faux Flight**

As technology improves and fakers become more determined (with bigger budgets), it gets harder to weed out the hoaxes. Sometimes, a little old-fashioned research goes a long way.

When he watched the video of the Dutch “birdman” flying like a bird with gigantic artificial wings, Rhett Allain was on the fence. The fake was so good, even his scientific analysis couldn't...
debunk it. But when journalists began looking into the résumé of the supposed birdman, nothing checked out. He didn't exist.

Finally, the person behind the hoax confessed. Dutch filmmaker Floris Kaayk admitted that it took eight months to achieve his near-perfect ruse.

People love to be entertained—and fooled. We are drawn to amazing feats and want to believe that they're real. With a willing audience, and social media making it easier all the time to reach us, there's no reason to think the fakers will quit anytime soon.

CHECK YOUR UNDERSTANDING

Answer these questions before moving on to the Analyze the Text section on the following page.

1. The author included the section Ye Olde Fakeroo in order to —
   A. entertain readers with stories of the Loch Ness monster
   B. explain that faking images is not a recent development
   C. persuade readers that images of Bigfoot and UFOs are fake
   D. share her opinion of people who create fake images

2. In paragraph 17, the writer describes the "Megawoosh" video in order to —
   F. provide a specific example of a continuity problem
   G. explain how different film segments can be edited together
   H. entertain readers with a funny story about a daredevil
   J. show how video continuity problems can be avoided

3. Which evidence most strongly supports the conclusion that the video of the eagle snatching the child was forged?
   A. A golden eagle weighs only about 14 pounds.
   B. A falling child would accelerate at a constant rate.
   C. The child probably weighs roughly 28 pounds.
   D. Lifting 28 pounds would require a 33-foot wingspan.
RESEARCH TIP
When you are doing research, be sure to stay on topic. With a topic such as photographic or video hoaxes, it would be easy to get distracted and to spend your time looking at example after example. Remember that your topic is not just the hoax itself but also how it was made.

ANALYZE THE TEXT
Support your responses with evidence from the text.

1. **Infer** Reread each of the section headings. What do they suggest about one of the author's purposes for writing?

2. **Cite Evidence** How does graphing camera shake reveal fake videos? Cite evidence from the text in your answer.

3. **Synthesize** Review paragraphs 2 and 21. What reasons does the author provide for why fake videos are made and why some become viral?

4. **Interpret** Reread the last sentence of "The Camera Does Lie." Why might the author have spent time talking about ways to tell whether a video is real? Cite evidence to support your response.

5. **Notice & Note** In paragraph 2, how does the author highlight the contrast or contradiction between two examples of reliable information found on the Internet and three sketchy examples?

RESEARCH
Uncover another example or two of a photographic or video hoax. Also find an explanation of any techniques used to create such a deceptive image. In the following chart, record what you learn in your research.

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<th>HOAX</th>
<th>DECEPTIVE TECHNIQUES</th>
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**Connect** In paragraphs 11–20, the author describes several ways that people analyze videos to determine whether they are authentic—that is, if the videos depict things that actually could happen. With a small group, take turns describing the video hoaxes you researched. Discuss ways that you could analyze those videos to expose them as hoaxes.
CREATE AND DISCUSS

Write an Opinion Essay  Write a three- to four-paragraph essay in which you express your opinion about why fake images or videos fascinate people.

☐ Introduce the topic and state your opinion clearly.
☐ Provide reasons that support your opinion. Support each reason with facts, examples, and other details from the text and from additional research. Use transitions to connect ideas.
☐ In your final paragraph, state your conclusion about the topic.

Create a Multimodal Presentation  A multimodal presentation is one that includes different modes of communication, such as writing, speech, and visuals (such as time lines, maps, or photos). With a partner or group, create a storyboard and make a brief multimodal presentation about forged images and video.

☐ Each As a group, locate examples of images and video that seemed designed to be authentic but are not.
☐ Review the article for ways to detect fakery. Use those methods (and others, if appropriate) to analyze the images or video you located.
☐ Consider the information you discover and then work together to plan and organize your presentation.
☐ Present your findings to the class. Speak clearly and use eye contact and hand gestures to hold the audience's attention.

RESPOND TO THE ESSENTIAL QUESTION

What can blur the lines between what’s real and what’s not?

Gather Information  Review your annotations and notes on “The Camera Does Lie.” Then, add relevant details to your Response Log. As you determine which information to include, think about:

• the seeming "realness" of faked images
• how knowing about faked images might affect the way we think about all images, real or not

At the end of the unit, you can use your notes to help you create a multimodal presentation.

ACADEMIC VOCABULARY

As you write and discuss what you learned from the magazine article, be sure to use the Academic Vocabulary words. Check off each of the words that you use.

☐ abnormal
☐ feature
☐ focus
☐ perceive
☐ task
CRITICAL VOCABULARY

Practice and Apply On separate paper, complete each sentence in a way that shows the meaning of the Critical Vocabulary word.

1. People who analyze fake videos obsess over . . .
2. I knew that the advertiser's claims were bogus because . . .
3. Filmed objects should accelerate . . .
4. There are many hoaxes on the Internet because . . .
5. They made an elaborate plan for the animal video; in fact, . . .
6. To create a funny video, I arranged a ruse in which . . .
7. To check the continuity of a film, you can . . .

VOCABULARY STRATEGY:
Reference Resources

A dictionary is a valuable resource for those who want to check definitions and expand their vocabulary. The searching and browsing methods differ for print and digital dictionaries, but users can find the same basic information about each entry word.

- pronunciation
- part of speech label
- one or more definitions
- etymology (word origin or history)

**analysis** (ə-nəlˈə-səs) n. 1. The separation of an intellectual or material whole into its constituent parts for individual study. 2. Chemistry The separation of a substance into its constituent elements to determine their nature. 3. Mathematics A branch of mathematics principally involving differential and integral calculus, sequences, and series and concerned with limits and convergence.

[Medieval Latin, from Greek *analusis*, a dissolving < *analūein*, to undo]

Practice and Apply Review paragraph 9 of “The Camera Does Lie” and locate the sentence that contains the phrase rigors of physics. Look up the words rigors and physics in a print or digital dictionary. Note word meanings and parts of speech. Think about the origin of each word, too. Then, use your own words to tell what the sentence means.
LANGUAGE CONVENTIONS:
Correlative Conjunctions

Writers rely on such single-word conjunctions as and, but, and if to link ideas. **Correlative conjunctions** are pairs of words that connect words, phrases, and clauses.

Here is a list of commonly used correlative conjunctions:

- either / or
- neither / nor
- both / and
- no sooner / than
- whether / or

In using correlative conjunctions to construct sentences, be aware the two parts of the conjunction need to connect similar parts of speech, phrases, or clauses. The connected elements must be grammatically equal. For example, nouns must connect to nouns, a prepositional phrase must connect to a prepositional phrase, and so on. Using the word pairs in this way helps to maintain a **parallel structure**.

Notice how in the example below, two nouns are connected by the correlative conjunction either ... or.

> It was either a trick or a fake photograph.

It is also important to maintain pronoun-antecedent agreement when using correlative conjunctions, as shown in these examples.

**INCORRECT:** Neither Kenzo nor his friends understood how he had been fooled.

**CORRECT:** Neither Kenzo nor his friends understood how they had been fooled.

In the incorrect sentence, the word **friends** is plural. Therefore, the singular pronoun **he** is not in agreement with the second antecedent **friends**. Replacing the singular pronoun **he** with the plural **they** is correct. Similarly, subject-verb agreement must be maintained when using correlative conjunctions. In the correct sentence, the verb **understood** agrees with the subject nearer to it—the word **friends**.

**Practice and Apply** Work with a partner to write sentences using correlative conjunctions. Use the examples above as models. Your sentences can be about funny videos or photographs you've seen, or they can be on another topic. When you have finished, share your sentences with another pair and review whether the sentences maintain pronoun-antecedent and subject-verb agreement. Apply what you have learned the next time you proofread your writing.