33.1 Animal Behaviors

Biology

Summarize main points from each video.

Video Title / topic _____

Video Title / topic _____

Video Title / topic _____

Topic Introduction

Summarize your understanding of each paragraph.

Ethology is the scientific and objective study of animal behavior, usually with a focus on behavior under natural conditions, and viewing behavior as an evolutionarily adaptive trait.

Understanding ethology or animal behavior can be important in animal training. Considering the natural behaviors of different species or breeds enables the trainer to select the individuals best suited to perform the required task.

Along with ethologists, many biologists, zoologists, primatologists, anthropologists, veterinarians, and physicians study ethology. They also study related fields such as animal psychology, animal cognition and animal welfare science.

As you study ethology, the following topics may be encountered. You may want to research further into the meaning of each of these: Associative learning; Cultural learning; Habituation; Imprinting; Social transmission; Stimulus and local enhancement; Teaching.

Read/Summarize Text

1. **Read the passage.**
2. **Underline key expressions in each sentence.**
3. **Re-write each word (or expression) you underlined.**
4. **Summarize the passage.**

Tinbergen's four questions for ethologists.

1

Niko Tinbergen argued that ethology always needed to include four kinds of explanation in any instance of behavior:

2

Function – How does the behavior affect the animal's chances of survival and reproduction? Why does the animal respond that way instead of some other way?

Causation – What are the stimuli that elicit the response, and how has it been modified by recent learning?

Development – How does the behavior change with age, and what early experiences are necessary for the animal to display the behavior?

Evolutionary history – How does the behavior compare with similar behavior in related species, and how might it have begun through the process of phylogeny?

https://en.wikipedia.org/wiki/Ethology

Re-write words you underlined

3

Using a complete sentence, summarize or rephrase the passage

4

Read Text for Comprehension

Read this article for deeper understanding. No summary is required, although you may want to circle, underline, or mark key ideas and words.

Living in groups

Several animal species, including humans, tend to live in groups. Group size is a major aspect of their social environment. Social life is probably a complex and effective survival strategy. It may be regarded as a sort of symbiosis among individuals of the same species: a society is composed of a group of individuals belonging to the same species living within well-defined rules on food management, role assignments and reciprocal dependence.

When biologists interested in evolution theory first started examining social behavior, some apparently unanswerable questions arose, such as how the birth of sterile castes, like in bees, could be explained through an evolving mechanism that emphasizes the reproductive success of as many individuals as possible, or why, amongst animals living in small groups like squirrels, an individual would risk its own life to save the rest of the group. These behaviors may be examples of altruism. Of course, not all behaviors are altruistic, as indicated by the table below. For example, revengeful behavior was at one point claimed to have been observed exclusively in Homo sapiens. However, other species have been reported to be vengeful including chimpanzees, as well as anecdotal reports of vengeful camels.

Classification of social behaviours

Type of behaviour	Effect on the donor	Effect on the receiver
Egoistic	Increases fitness	Decreases fitness
Cooperative	Increases fitness	Increases fitness
Altruistic	Decreases fitness	Increases fitness
Revengeful	Decreases fitness	Decreases fitness

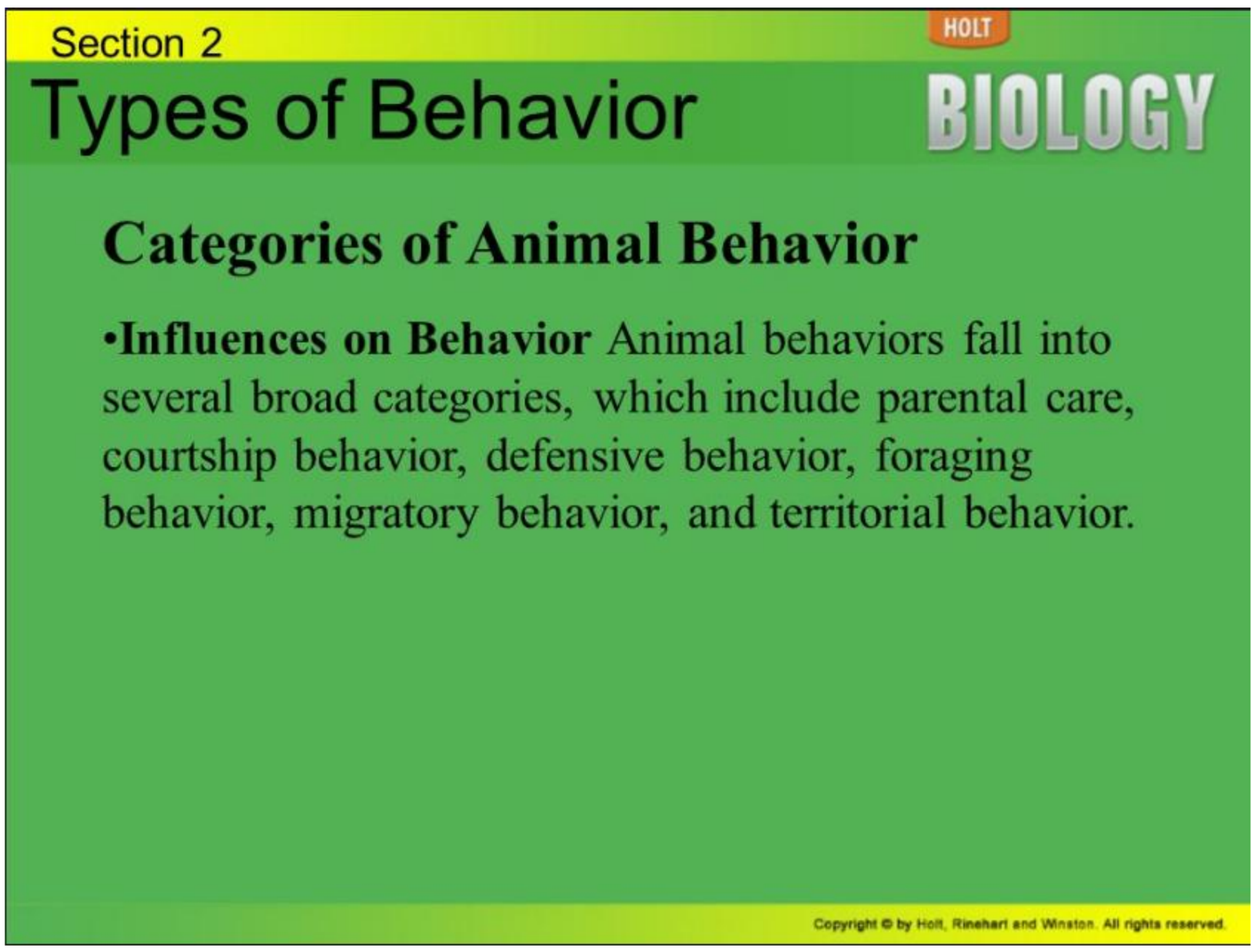
One advantage of group living can be decreased predation. If the number of predator attacks stays the same despite increasing prey group size, each prey may have a reduced risk of predator attacks through the dilution effect. Additionally, a predator that is confused by a mass of individuals can find it more difficult to single out one target. For this reason, the zebra's stripes offer not only camouflage in a habitat of tall grasses, but also the advantage of blending into a herd of other zebras. In groups, prey can also actively reduce their predation risk through more effective defense tactics, or through earlier detection of predators through increased vigilance.

Another advantage of group living can be an increased ability to forage for food. Group members may exchange information about food sources between one another, facilitating the process of resource location.

https://en.wikipedia.org/wiki/Ethology

Draw Illustration

Copy and Label the Illustration in the Space Provided



http://slideplayer.com/slide/8485182/

Draw (Copy) the Illustration Here

Interpret a Graph

Write the title of the graph _____

Circle the type of chart this represents

Bar Chart *Line Chart* *Pie Chart* *Other*

If applicable,

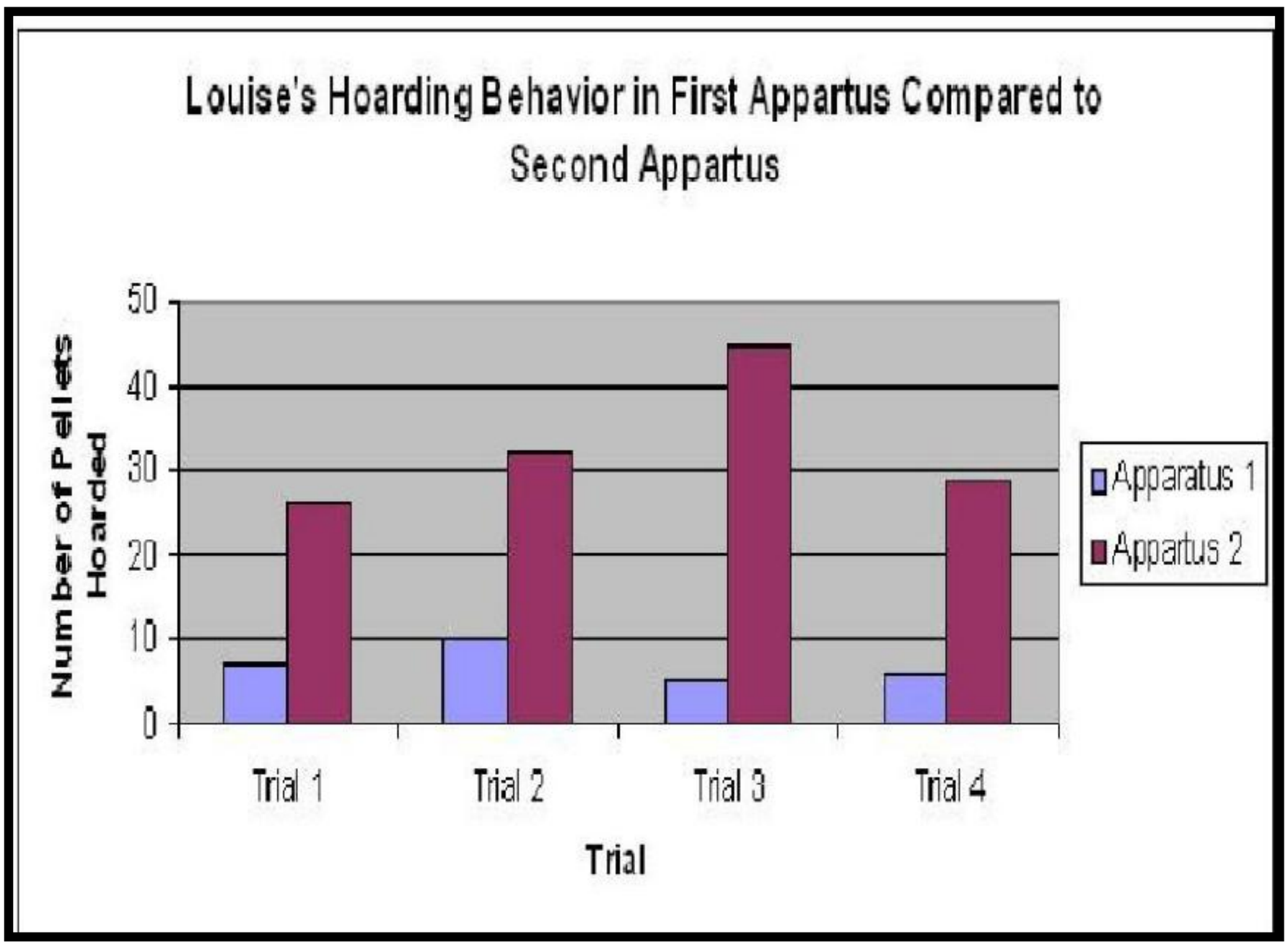
What does the X-axis represent _____

What does the Y-axis imply _____

Summarize what this graph represents or conveys

_____

https://erikacarly.wordpress.com/2008/11/13/success/



Show-Off Your Smarts!

Instructions

- Complete as an individual or small group.
- Discuss your ideas/answers/responses in a small group.
- Select one person to present your responses to the class.

Q1. How can this information be applied to a young-person's life?

Q2. How does this information apply to (or impact) communities?

Q3. When do scientists need to apply this information? How?

Q4. How would a person from 100 years ago view this information?

Q5. How does this topic connect to other science topics or math?

Write down at least three words introduced or covered by this topic.

1.
2.
3.
4.
5.
6.

Make a Poster

In the space provided here, create/draw a poster which conveys the concepts you have learned on this topic.