### **Episode I: Schemas**

Zoom ID: 983 7336 6583

#### **Unconscious and Automatic Processes**

- How do "all you can eat" buffets make a profit?
- Illusions
- Good sign designs and control mechanisms
- Bad sign designs
- Ambiguity in language is reduce by context
- Context Influences Perception

#### **Schemas**

- Demonstration
- Schemas help us interpret information
- Schemas and memory

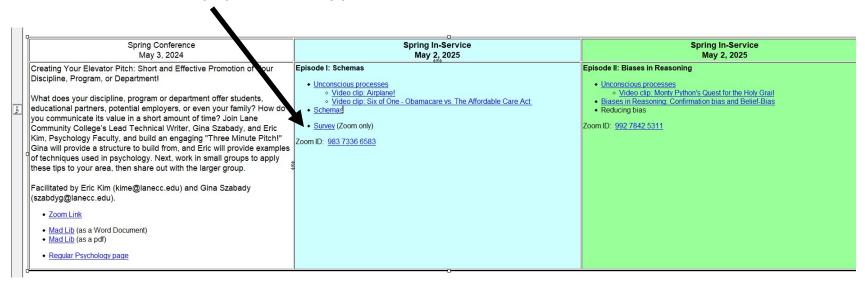
### **Group work**

- Where do you find examples of schemas in your personal life or career?
- Share examples of schemas in your personal life or career.

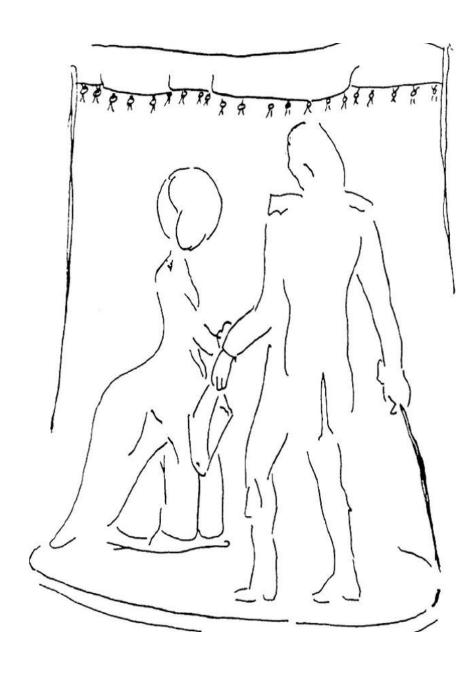
#### For those participating remotely visit

- <a href="https://media.lanecc.edu/users/kime">https://media.lanecc.edu/users/kime</a> or
- Search for Eric Kim Lane Index

### Click on the Survey (Zoom only) link



- This is an individual exercise.
- Read the instructions TO YOURSELF. Do not turn it over.



# In the picture, was there:

	Yes	Yes	
1. an automobile?			1. an automobile?
2. a man?			2. a man?
3. a woman?			3. a woman?
4. a child?			4. a child?
5. an animal?			5. an animal?
6. a whip?			6. a whip?
7. a sword?			7. a sword?
8. a man's hat?			8. a man's hat?
9. a ball?			9. a ball?
10. a fish?			10. a fish?

#### What does this mean?

Perception doesn't occur in a vacuum. To interpret "reality", we <u>actively</u> <u>construct</u> reality from cues from the social environment. Different cues from the social environment, can lead to different interpretations of reality.

Giving you an expectation of what to look for

- trained seal act or
- <u>a ballroom dance</u>

can make it more likely you will see something consistent with that expectation in an ambiguous image.

#### Your Long-Term Storage is Organized Based on Meaning: Schemas

A schema is an organized cluster of information about a particular topic.

For example, with the absence of a schema, the following seems random and obscure.

The procedure is actually quite simple. First arrange things into different groups. Of course, one pile may be sufficient depending on how much there is to do. If you have to go somewhere else due to lack of facilities that is the next step, otherwise you are pretty well set. It is important not to overdo things. That is, it is better to do too few things at once than too many. In the short run this may not seem important but complications can easily arise. A mistake can be expensive as well. At first, the whole procedure will seem complicated. Soon, however, it will become just another facet of life. It is difficult to foresee any end of the necessity for this task in the immediate future, but then one never can tell. After the procedure is completed, one arranges the materials into different groups again. They can be put into their appropriate places. Eventually they will be used once more and the whole cycle will eventually have to be repeated. However, that is part of life.

# **Schemas and Attitudes**

The activation of different schemas can lead to different responses.

DO YOU FAVO	OR OR OPPOSE BEING	S ALLOWED TO SERVE OPENLY?
	"Homosexuals"	"Gay Men & Lesbians"
Favor	44%	58%
Oppose	42%	28%

### **Organization of Long-Term Memory: Schemas**

Schemas help you organize and interpret the world around you. You are more like to

- perceive ambiguous information consistent with a schema
- once you have an interpretation of ambiguous information, it can make it difficult to perceive alternative interpretations.

Example of schema activation.

- Trained seal act or ballroom dance
- Doing laundry
- Survey of serving in the military
- "Advanced organizers" or outlines of the day's lecture.

Whether it is in politics or education, having schemas helps us organize information. However, in politics, providing an alternative interpretation is discouraged.

In this demonstration, participants were asked to wait in this office for the study on memory to begin.



Afterward, they were brought to another room and asked to recall as many objects in the office they were waiting in.

The participants had correct and incorrect recollections about the office:

Items that were in the office	Items that were not in the office
Chair	<ul><li>Books</li></ul>
<ul> <li>Bookcase</li> </ul>	<ul> <li>Telephone</li> </ul>
• Desk	<ul> <li>Filing cabinets</li> </ul>
<ul><li>Typewriter</li></ul>	<ul> <li>Pens and pencils</li> </ul>
	Coffee cups
Coffee pot	
Wine bottle	
<ul> <li>Picnic basket</li> </ul>	



The participants had correct and incorrect recollections about the office:

	Items that were in the office	Items that were not in the office
What participants recalled	<ul><li>Chair</li><li>Bookcase</li><li>Desk</li><li>Typewriter</li></ul>	<ul> <li>Books</li> <li>Telephone</li> <li>Filing cabinets</li> <li>Pens and pencils</li> <li>Coffee cups</li> </ul>
What participants did not recall	<ul><li>Coffee pot</li><li>Wine bottle</li><li>Picnic basket</li></ul>	



The participants had correct and incorrect recollections about the office:

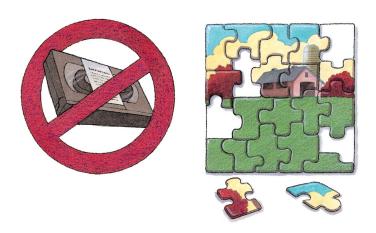
	Items that were in the office	Items that were not in the office
What participants recalled	<ul><li>Chair</li><li>Bookcase</li><li>Desk</li><li>Typewriter</li></ul>	<ul> <li>Books</li> <li>Telephone</li> <li>Filing cabinets</li> <li>Pens and pencils</li> <li>Coffee cups \( \lambda \)</li> </ul>
What participants did not recall	<ul><li>Coffee pot</li><li>Wine bottle</li><li>Picnic basket</li></ul>	

These omissions are inconsistent with the "office schema", and not "remembered"



These false identifications are consistent with the "office schema", and "remembered"

Memory is not like a video tape. We remember some information and fill in the missing information that is consistent with our schema.



### Schemas and Memory:

- We tend to remember information consistent with our schemas.
- We tend to forget information inconsistent with our schemas.
- We tend to fill in missing information that is consistent with our schemas.

Hopefully, a good education will provide people with accurate and reliable information to develop accurate and reliable schemas. Unfortunately, disinformation, creates inaccurate schemas about the world.

### **Schemas and Memory of Piaget's Conservation Task**



1 A young child believes that a tall 8 oz. glass contains more juice than a short 8 oz. glass.



2 Here, the child watches the juice being poured from the tall glass into a second short glass.



3 She is surprised to see that the short glass holds the same amount of juice as the tall glass.

#### **FIGURE 4.17**

Maya Barnes Johansen/TopFoto Copyright © 2022 W. W. Norton & Co., Inc.

In the water conservation task, young children believe there is more water in the tall glass (top picture). When poured into a shorter glass, young children say there is the same amount of water (bottom picture).

Young children overcome this error in the conservation of water task around age 7.

However, children in Third World countries overcome this error at an earlier age than American children. This is counter intuitive and may not match our schema of education, children and America. Because this is inconsistent with our schema, we are likely to remember the wrong information. The wrong information is that American children overcome this at an earlier age, which matches our schema.

When something is inconsistent with our schema, we may need to pay extra attention and expend extra effort to remember it and why it is this way.

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### Schemas and my Teaching

- Provide accurate information or a framework to help students learn new information. This can be the form of an outline.
- When learning new information, learners need to spend extra time and attention on items that don't match their pre-existing schemas and/or beliefs.
- Accurate schemas are important for accurate inferences
- Inaccurate schemas can lead to inaccurate inferences.

### In groups,

- identify examples of schema in the classroom or "real-life".
- From your example, how do these schemas influence perception or memory, either helpful or harmful.
- We will share your examples with the class.