



Perception Bias

Design with the Mind in Mind Chapter 1

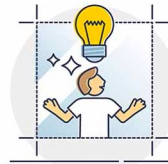
Erick Delgado



What is Bias?

An inclination of temperament or outlook *especially* a persona, and sometimes unreasoned judgment ~Merriam-Webster

COGNITIVE BIASES



**CONFIRMATION
BIAS**



**LOSS
AVERSION**



**GAMBLER'S
FALLACY**



**AVAILABILITY
CASCADE**



**FRAMING
EFFECT**



**BANDWAGON
EFFECT**



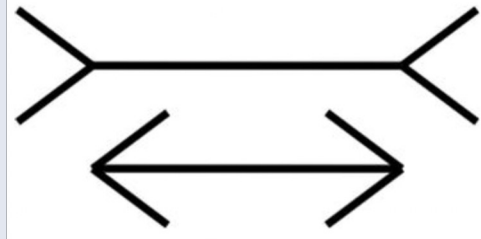
**DUNNING-KRUGER
EFFECT**

Three Main Factors of Bias in Chapter 1

-Perception Biased by Experience



-Current Context



-Goals



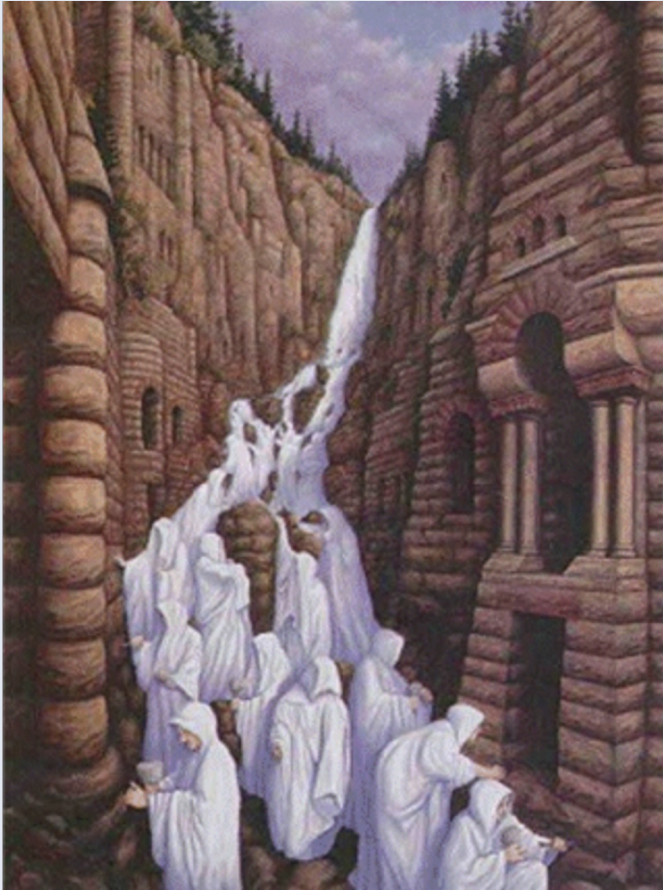
Perception Biased by Experience

Past perception can bias your current perception.

Some examples of Biased by Experience:

- Perceptual Priming
 - Familiar Perceptual patterns or frames
 - Habituation
 - Attentional Blink
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Perceptual Priming



Only after you are told about the objects can you visualize the image clearly. This is known as a **priming** visual example. Can be applied to sentences as well.

Familiar Perceptual Patterns



-Oval Office

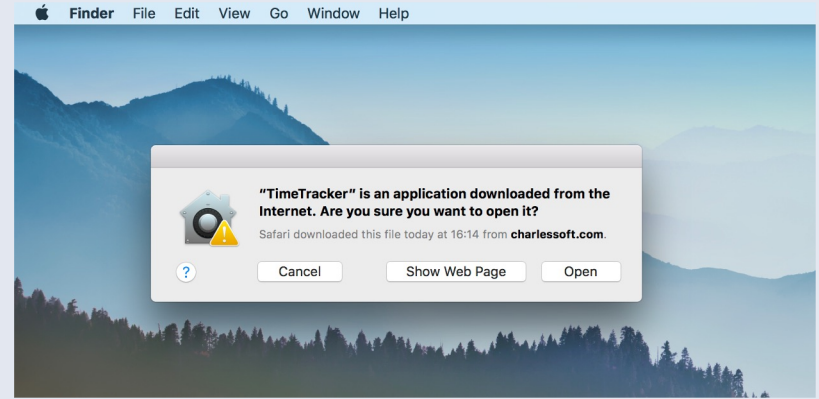
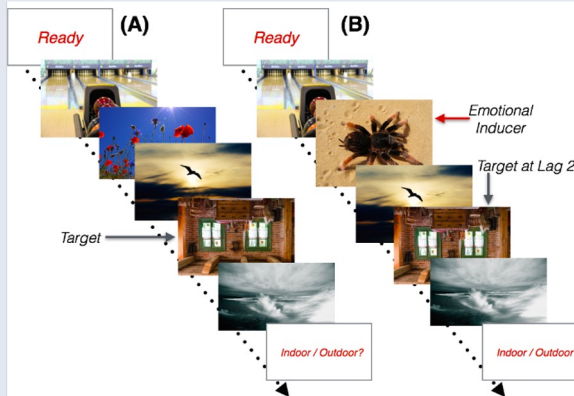
Sometimes referred to as **frames**, include the object or events that are typically encountered in that situation.



-Taylor Hall

Habituation and Attention Blinks

Repeated Exposure to the same perception begin to dull your perceptual systems sensitivity to them. After a period of time your nervous system has become **habituated** to that activity.



Attentional Blinks are similar to Habituation in the sense that once you have reached what you are familiar with your senses can miss other content that follows it in rapid succession.

Perception Biased by Current Context

Mcgurk Effect: illusion whereby speech sounds are often mis-categorized when the auditory cues in the stimulus conflict with the visual cues from the speaker's face.

Ventriloquism: illusion that a voice appears to come from the moving mouth of a puppet rather than from the actual speaker

The context will be perceived by a person biased through the objects around them that stimulate their senses.



Perception Biased by Goals



Guide: What we need from the world around us to accomplish our goal. Our minds use a “sampling” or perceptual apparatus to do so.

Filter: Objects unrelated to the goal tend to be filtered out preconscious.

Perception Biased by Goals Continued

Goals Influence where we look and how. Our perceptions are actively reaching out into what we are examining and pulling back information that may be useful to us.

Goals can also sensitize our perception by scavenge for certain features related to our goal.

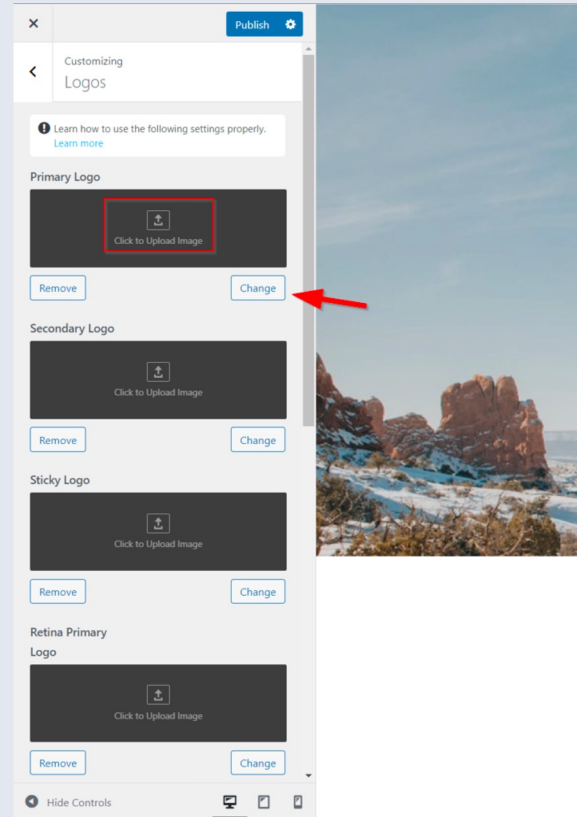


Does Bias effect Design?

Avoid Ambiguity: Limit having user interfaces that can be left open for the users interpretation. When this is unavoidable use signifiers and clear context to aid the user.

Be consistent: Information and controls should appear in the same areas they were once displayed on. Including but not limited to size, text, color, and shading.

Understand the goals: Users visit applications or websites with a goal/ task in mind. As a designers we should be able to determine what that goal is and allow the user to swiftly complete said action item.



Thanks

Do you have any questions?

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