

Unconscious and Automatic Processes

There are unconscious and automatic cognitive processes can lead errors in perception. Sometimes these errors are easy to spot and sometimes they are difficult to spot. When the errors are difficult to spot, it makes it difficult to learn and change. Even when we know our perception, memory and thinking is wrong, these errors can be quite compelling.

Understanding how people actually perceive, think and remember information, helps us improve thinking and decision-making and avoid taking the wrong action to improve and get nowhere.



Your Behavior Can be Influenced Without Your Awareness

As an example of how your decisions can be influenced without your awareness, the following comes from an [article 3 Obvious and 4 Not So Obvious Ways Buffets Make Money](#) by John-Erik Koslosky, Dec 12, 2013.

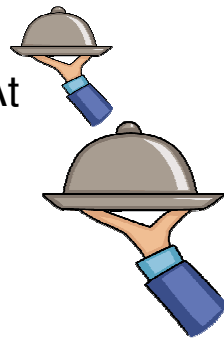


1 - **Big cost, little portion**

Pricier items on the buffet line – like meat or fish – are cut into smaller pieces. Rationally, a person would just take two pieces instead of one. But in reality, a diner is more likely to follow society's unwritten rule, taking a single smaller piece and moving on down the line.

2 - **Tricky serving dishes**

The size of serving dishes further plays on our conscience. If there's a small chafing dish with a few pieces of baked haddock, we're a lot less likely to take more than one piece. At the big, full trays of potatoes and rice, we're more likely to scoop out a heaping spoonful. And those starchy, filling, lower-cost items are often positioned earlier in the line, leaving you with less room on your plate by the time you reach that meat.



3 - **Serving utensil subterfuge**

If that weren't enough, smaller serving utensils also help reinforce the behaviors that benefit the restaurant. Spoons in the inexpensive starches are big. Tongs, spatulas, or forks used to move more expensive proteins to your plate may be smaller, and less geared toward moving large quantities of food at a time.



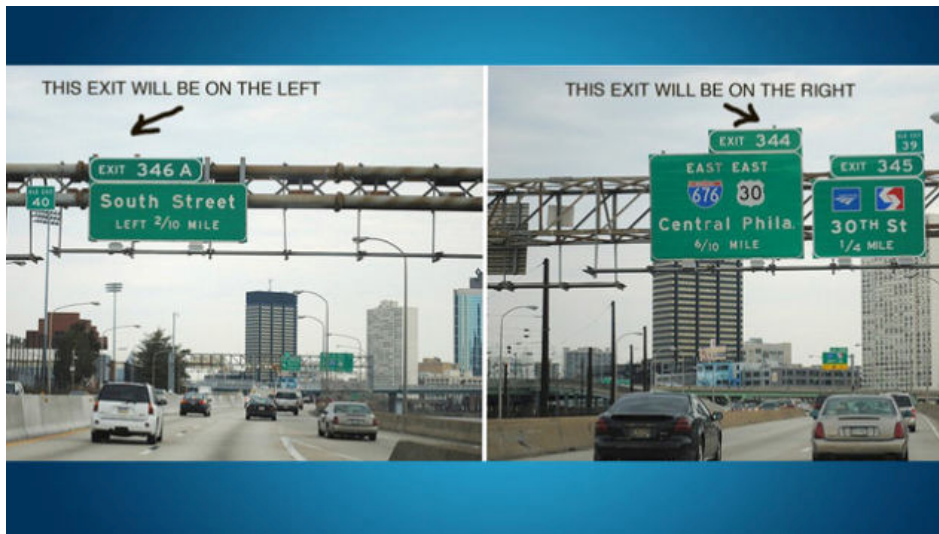
Unconscious and Automatic Processes

Unconscious and automatic processes lead to misinterpretations of reality. Even though we recognize we are misinterpreting reality, the misinterpretation is compelling.

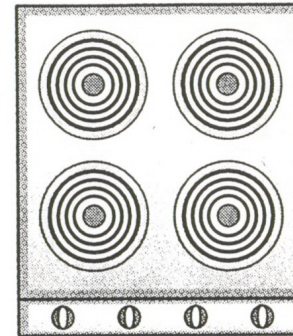


Unconscious and Automatic Processes

Cognitive processes that operate unconsciously and automatically allows us to make decisions quickly. A good design of signs and control mechanisms can allow us to make quick and accurate decisions.

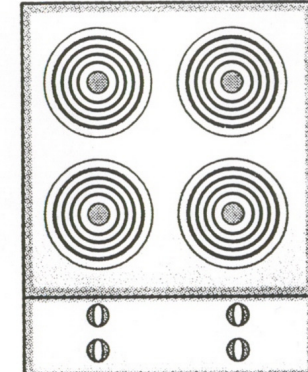


Good Designs



(a)

Bad Designs



(b)

Good Designs

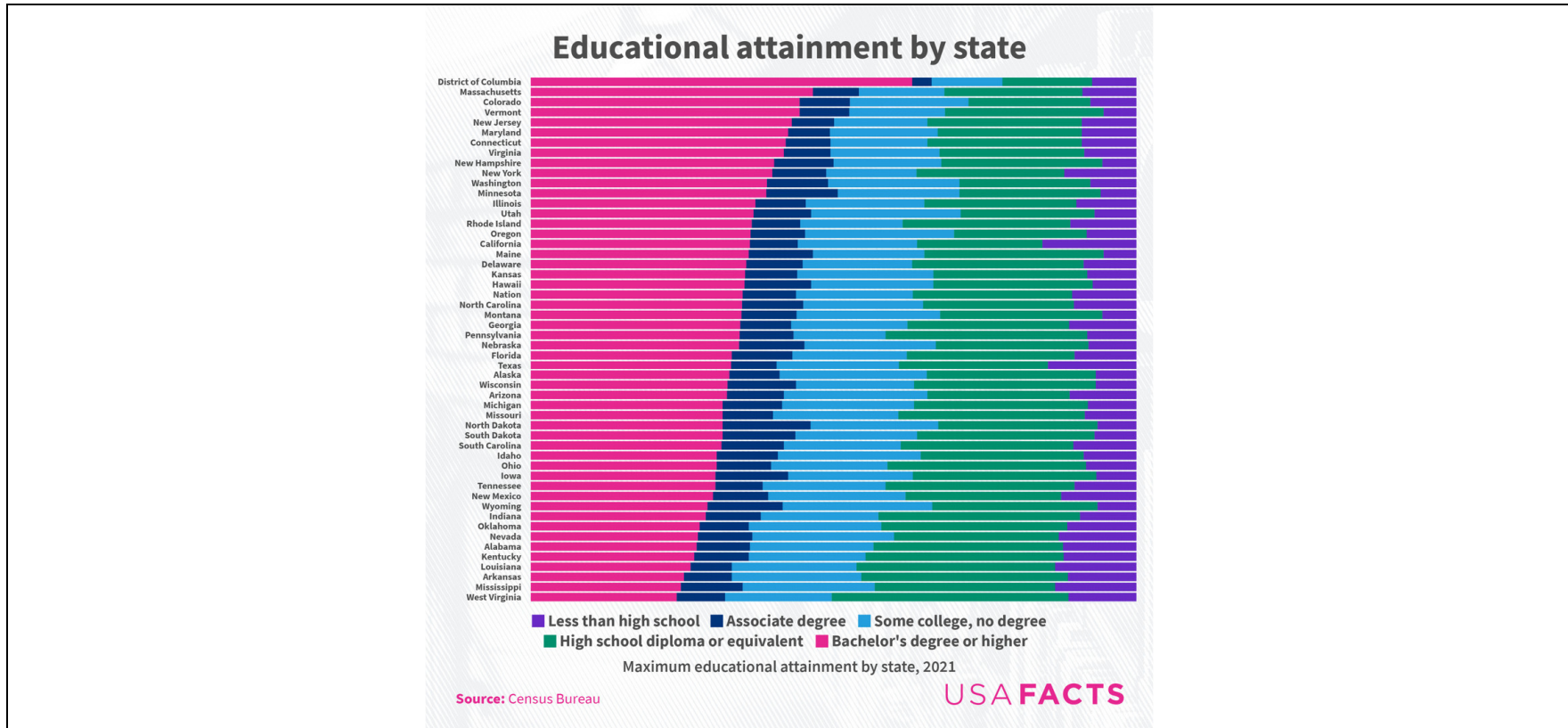
Unconscious and Automatic Processes

Bad sign designs can lead to slower thinking and more errors.



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Recommended sequence

■ Bachelor's degree or higher ■ Associate degree ■ Some college, no degree
■ High school diploma or equivalent ■ Less than high school

Language Ambiguity

Language is inherently ambiguous. We don't notice it, because language takes place in a cultural context and we unconsciously and automatically use the cultural context to interpret the meaning of language.



(FIRST DAY AS A PILOT...)

CONTROL

**TOWER: Can you give me
your position?**

**ME: I'm next to a cloud that
looks like a lion.**

CONTROL

TOWER: Can you be more specific?

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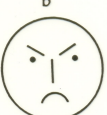

ME: Simba.

Language Ambiguity and the Movies

Context and Perception

It is difficult to see how context influences perception when you do not have an alternative context adjacent to it in space or time.

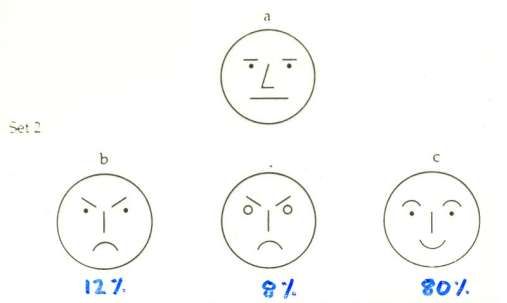
The top face is similar to which of the bottom three faces?

One Frame	
<p>Set 1</p> <p>a</p>  <p>b</p>  <p>44%</p> <p>c</p>  <p>42%</p> <p>14%</p>	
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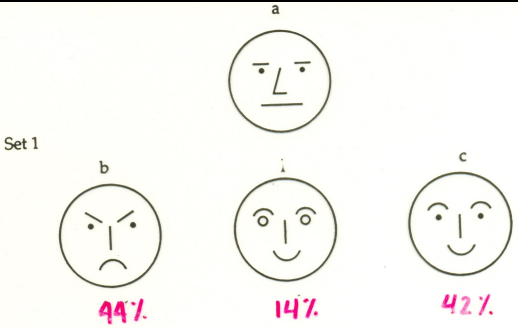
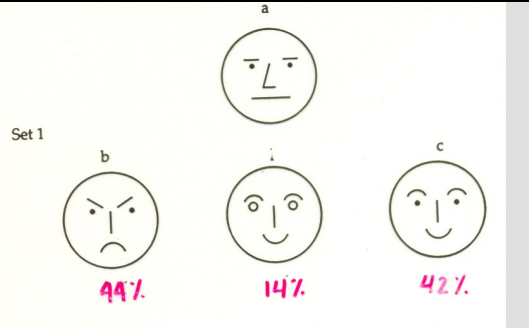
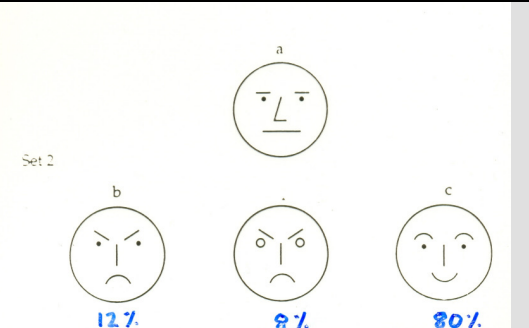
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One Frame		
		
<p>It is difficult to see how context influences your judgment of similarity if there is only one "frame".</p>		

Context and Perception

It is easier to see how context influences perception when you have an alternative context adjacent to it in space or time.

The top face is similar to which of the bottom three faces?

One Frame	Two Frames	
<p>Set 1</p> 	<p>Set 1</p> 	<p>Set 2</p> 
<p>It is difficult to see how context influences your judgment of similarity if there is only one "frame".</p>	<p>When there is a second frame to compare your judgments to, it is easier to see how context influences judgment.</p> <p>The difference between the two frames in the middle face.</p>	

Illusions and errors

Perception illusions and errors are easy to show and accept.

Cognitive illusions and errors are more difficult to show and accept.