



# Playing with Perception

New England ATD Conference  
Chelmsford, Massachusetts  
April 1, 2016

**Goal:** To identify the learning metaphors embedded in our idiosyncratic sensory perceptions

**Objectives:** *Participants will...*

- I. Describe at least five idiosyncrasies of their own sensory system
- II. Identify at least three ways to use perceptual misconceptions for learning
- III. Link at least one perceptual idiosyncrasy to a specific topic they will teach in the future

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**Resources:**

*Scientific American Mind*, 187 Illusions, Scientific American Special (ISSN 1936-1513), Volume 22, Number 3, Fall 2013.

Illusion of the Year: <http://illusionoftheyear.com/>

Hybrid Images: [http://cvcl.mit.edu/hybrid\\_gallery/monroe\\_einstein.html](http://cvcl.mit.edu/hybrid_gallery/monroe_einstein.html)

Firefly News Flash Issues:

October 2013: <http://www.thefirefly.org/Firefly/html/News%20Flash/2013/October%202013.htm>,

November 2013: <http://www.thefirefly.org/Firefly/html/News%20Flash/2013/November%202013.htm>

*Subliminal: How Your Unconscious Mind Rules Your Behavior* by Leonard Mlodinow, Pantheon Books, New York, 2012, ISBN 978-0-307-37821-7

## Twin Towers of Pisa

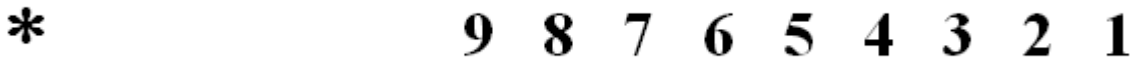
Look at these two pictures. Should we be worried that the Tower of Pisa is about to fall over?



## Visual Blind Spot

Everyone has a blind spot in their vision but don't be surprised if you've never noticed yours. Your subconscious is protecting you from the jarring sensation of imperfect eyesight.

Many people live a lifetime and never know about this quirk of their anatomy. However, you can "see" your blind spot with this experiment. Close your right eye and look at the number 1 in the figure below. Slowly move closer or further away from the image until the asterisk on the left in your peripheral vision disappears. When it does, you've found it!

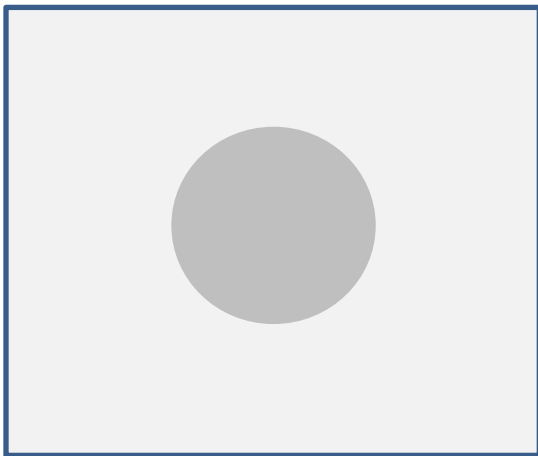


To judge its size, keep looking at the number 1 and move forward or back until the asterisk reappears. You can also gradually move your gaze to the left one number at a time. You will probably see the asterisk once you get between numbers 3 and 5 on the continuum.

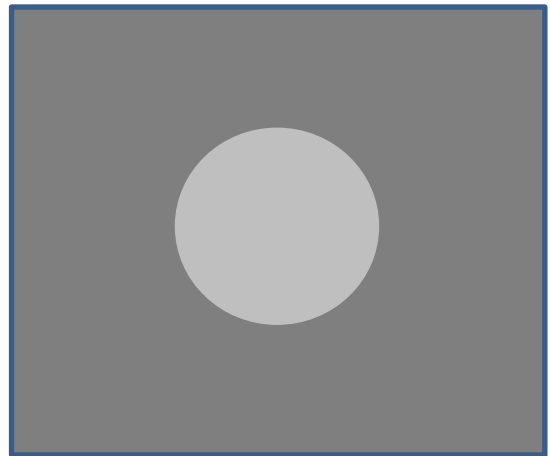
## Fifty Shades of...

Look at the two boxes below. Each has a circle in its center. Which circle is darker, A or B?

Figure #1



A

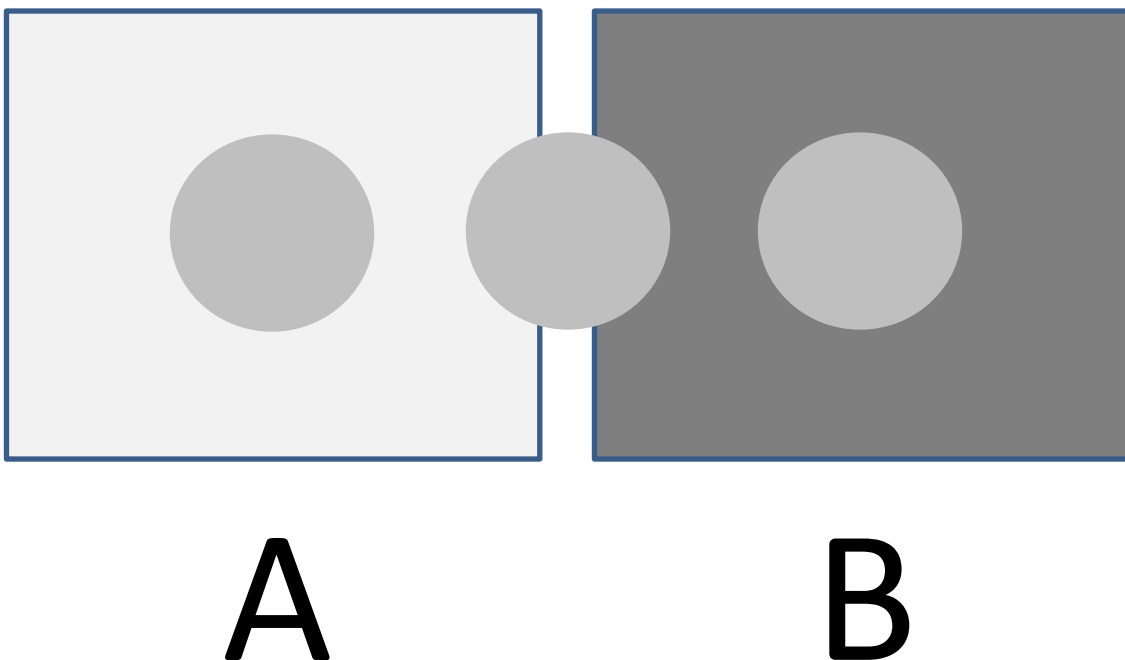


B

## Fifty Shades of...

How does adding a third circle that overlaps both squares change your perception?

Figure #2



There is no specific intensity of light that produces white or black. All the data our senses pick up is compared to something else. For example, black is only black when next to something lighter. A similar effect occurs with colors. Even though different wavelengths of light produce specific colors, the hue of the color that we perceive is affected by the shading and colors that surround it.

## Facial Recognition

Look at these four images of Margaret Thatcher. Which look most normal? Which look least normal and why?

A



B



C



D



## Describe this Person

