

BIOL3833

Week 12: Context and general principles of sensory processing

“The four F’s”

What do sensory systems do?

Discuss, debate, decide: (15 minutes)

What are the five most important things that all sensory systems should do for an organism?

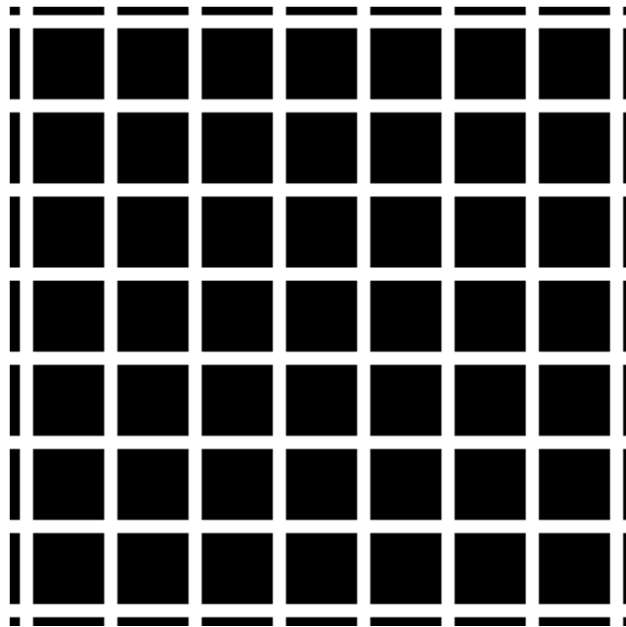
What do sensory systems do?

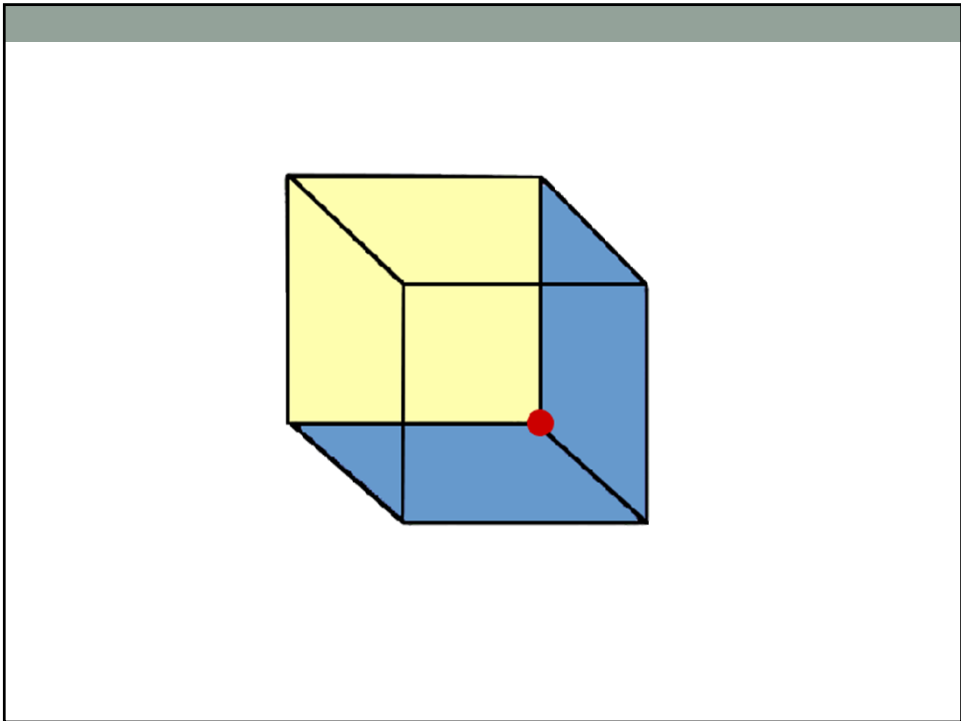
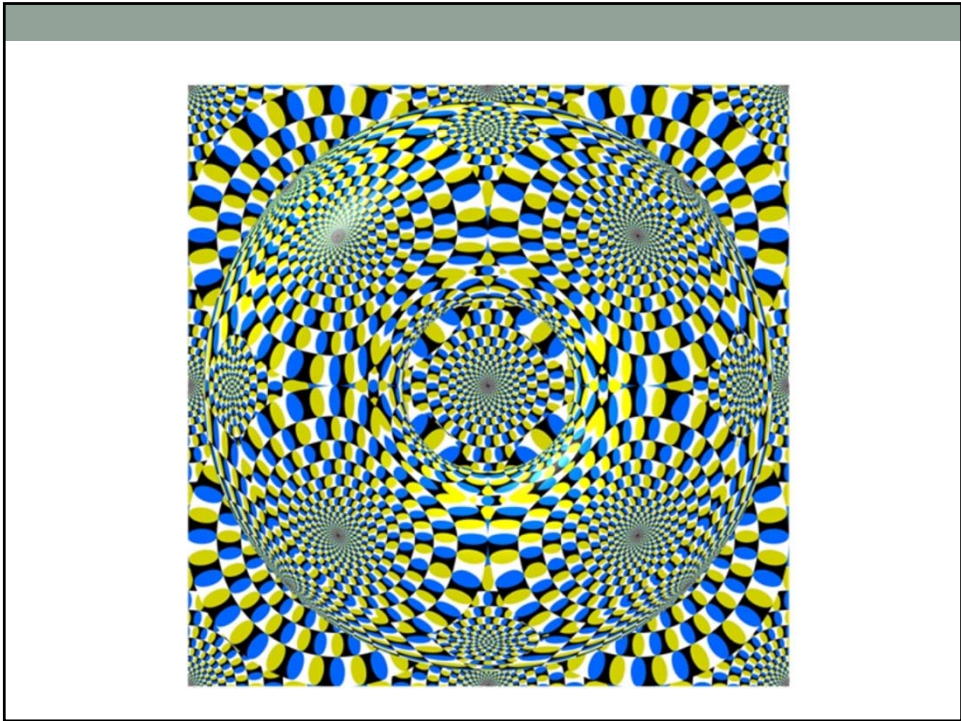
Discuss, debate, decide: (15 minutes)

What are the five most important things that any sensory system should encode about a stimulus?

General principles of sensory coding

- Reception (Receptors absorb energy)
- Transduction (energy converted to action potentials)
- Coding (stimulus features converted to patterns of activity)
 - Inhibition is essential
- Parallel processing
- Our sensory systems deceive us constantly
- Perception is an *active process*





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Reception & Transduction

Search & compile: (30 minutes)

- Find and list as many kinds of sensory receptors as you can (there are dozens!).
- Write one sentence for each type of receptor describing how it turns environmental information into action potentials.