

Design in Action 2011
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The Architecture of the Brain

And what it might tell us about what
should happen in learning

Presented by

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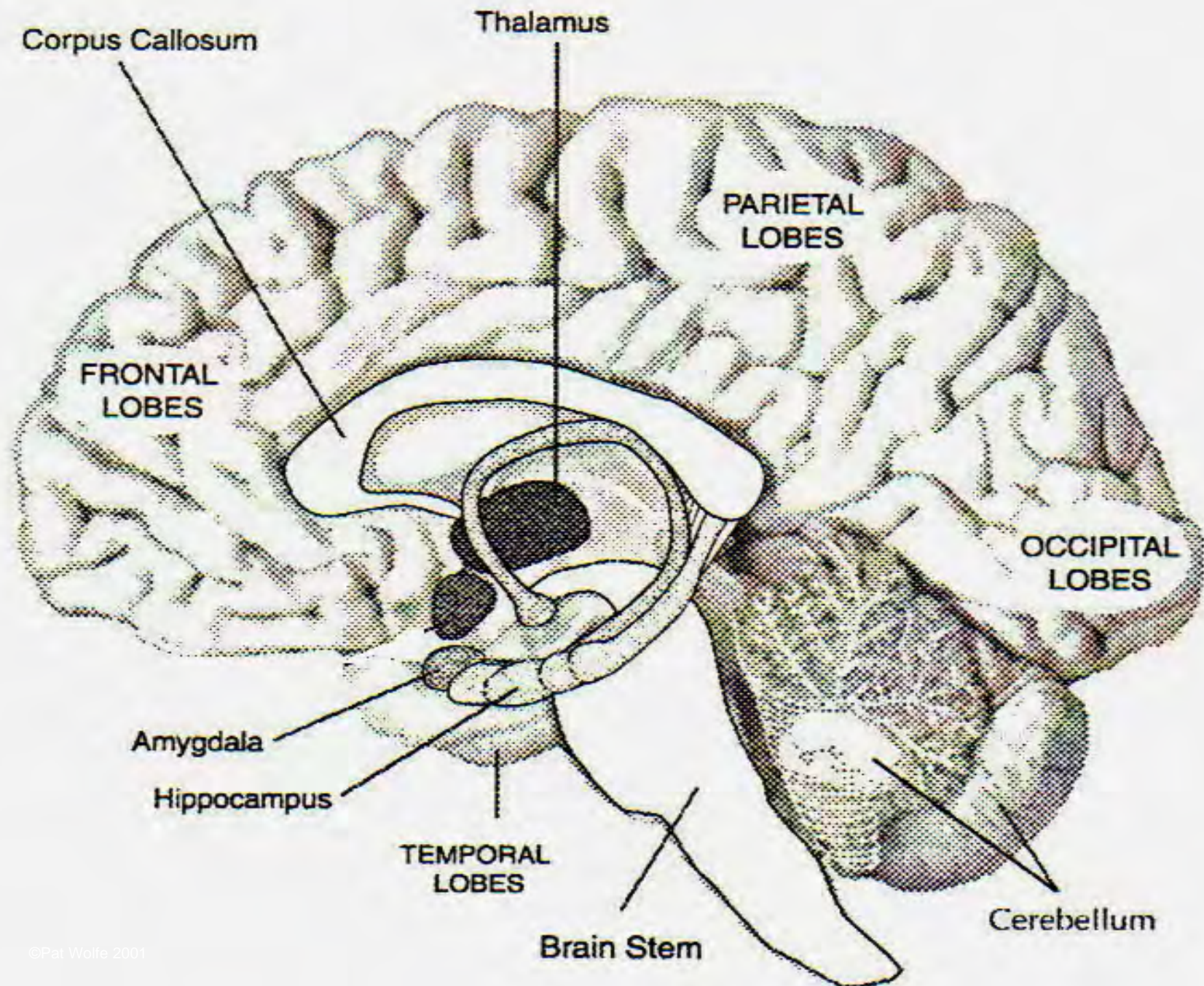
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Some Important Concepts to Consider...

- The Brain makes connections
- Emotion plays an important role in attention, learning, and memory
- The Brain is not a passive receptacle of information
- Every sensory pathway is different

#1

The Brain Makes Connections

Implications?

#2

Emotion plays an important role in Attention, Learning, and Memory

Implications?

#3

The Brain Is Not a Passive Receptacle of Information

Implications?

#4

Every Sensory Pathway Is Different

Implications?

Take the selective attention test by watching this video:

<http://www.youtube.com/watch?v=vJG698U2Mvo>

Attention

Some Factors that Influence Attention

- Novelty
- Intensity of Stimuli
- Cognitive Dissonance
- Meaning
- Emotion

Meaning

- The brain tries to make sense out of its world
- When it encounters something new, it tries to fit the new information into an existing memory category (network of neurons)
- When it is unable to do this, we subjectively call the experience Meaningless

What do you see in this picture?



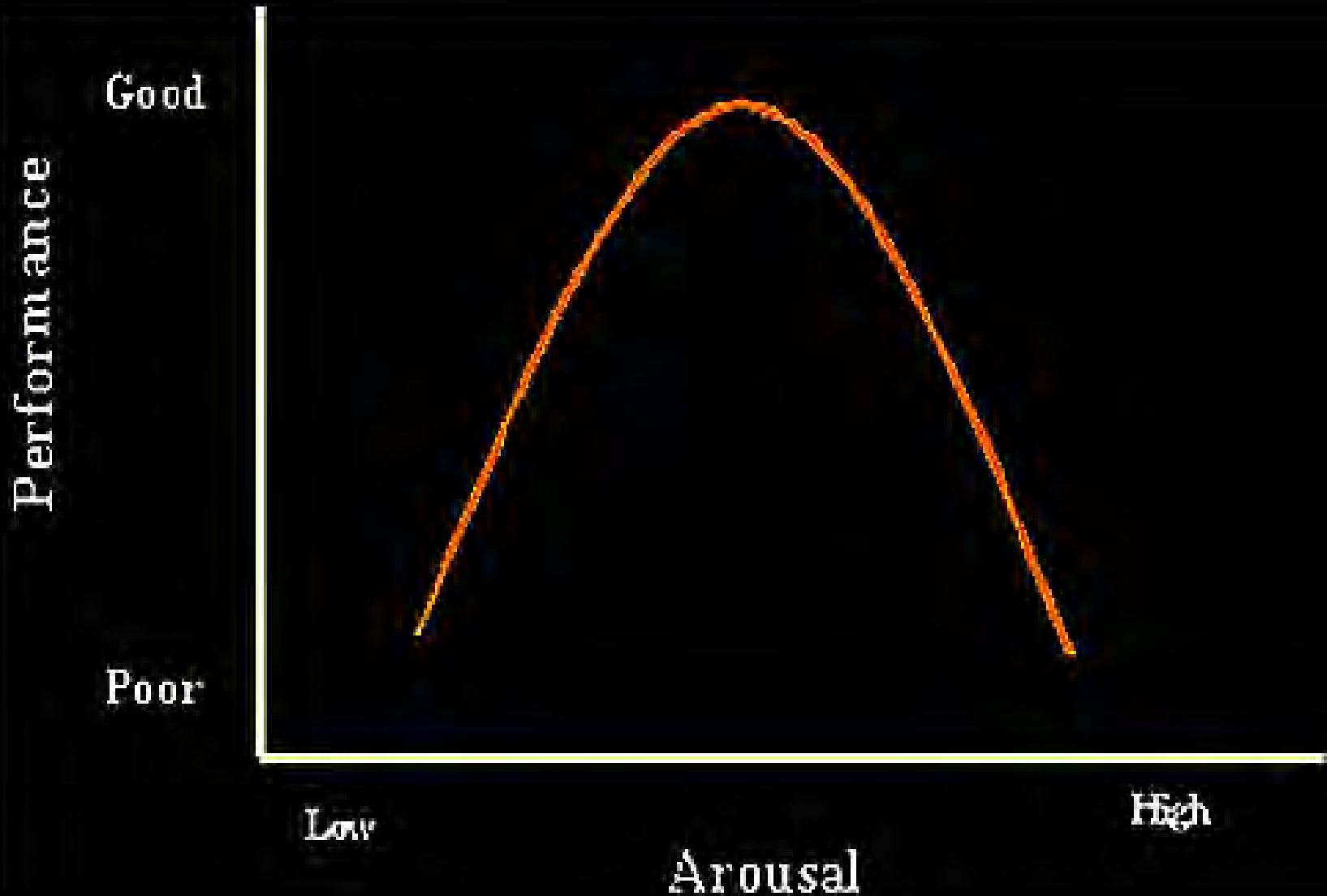
Now do you see it?



Emotion

- A certain level of Emotion/Stress should be present for optimal learning to occur, but...
- If the emotional level is too high, we do not do our best rational thinking
- If the emotional level is too low, it can lead to a lack of motivation

Stress Graph - Inverted U



Applying what you learned...

Notes/Reflections/Next Steps

