

## Monocular Cues

- Cues that work with only one eye
- There are quite a few...

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## Accommodation

- Lens changes shape depending on proximity of the object
  - Contraction of ciliary muscles for near objects
  - Relaxation of ciliary muscles for far objects



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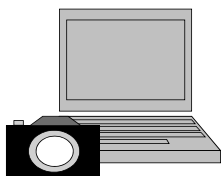
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## Occlusion



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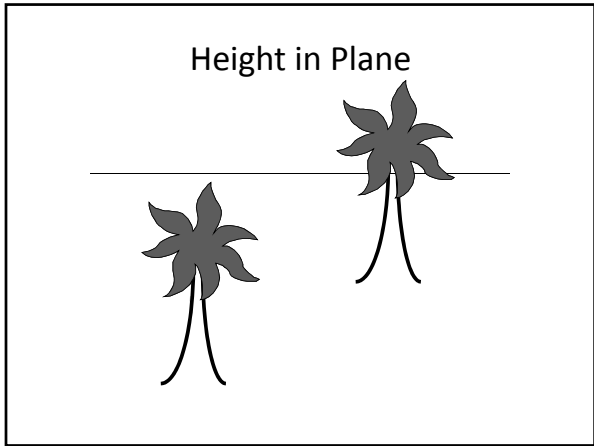
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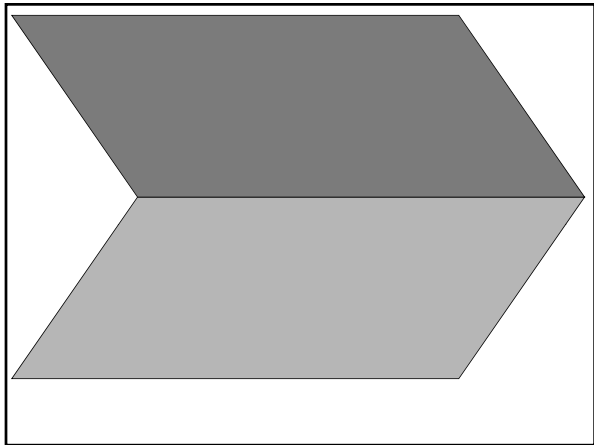
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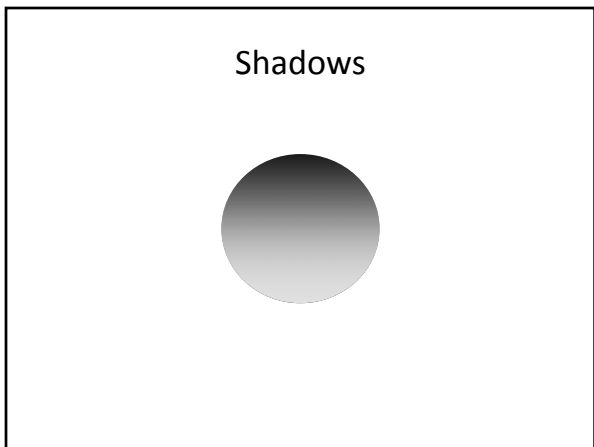
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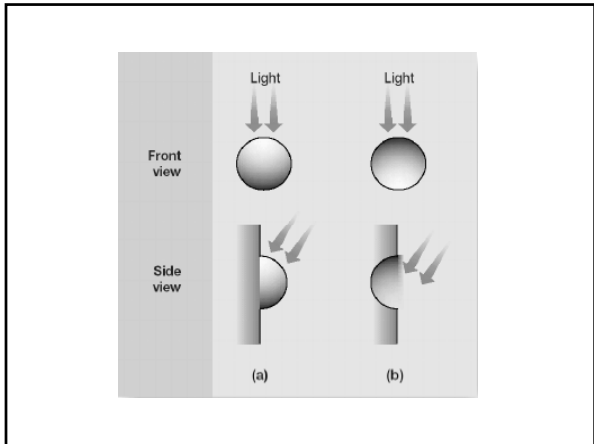
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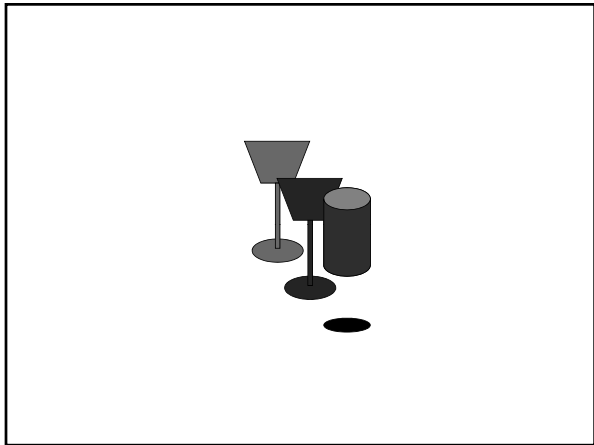
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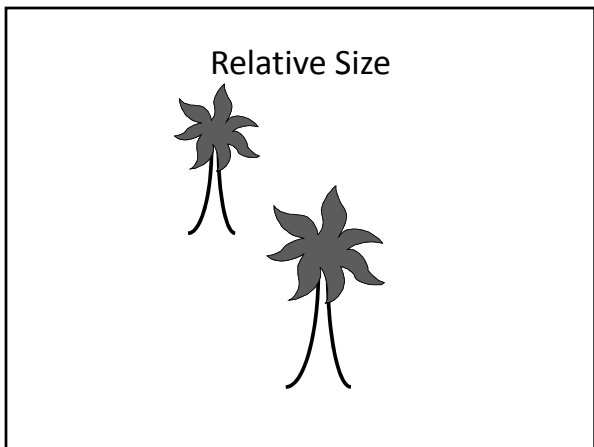
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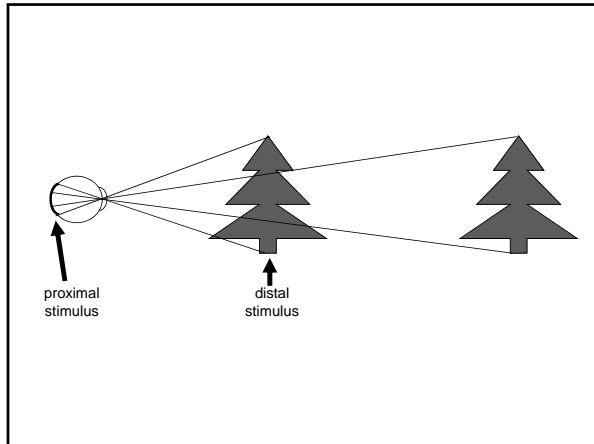
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Familiar Size

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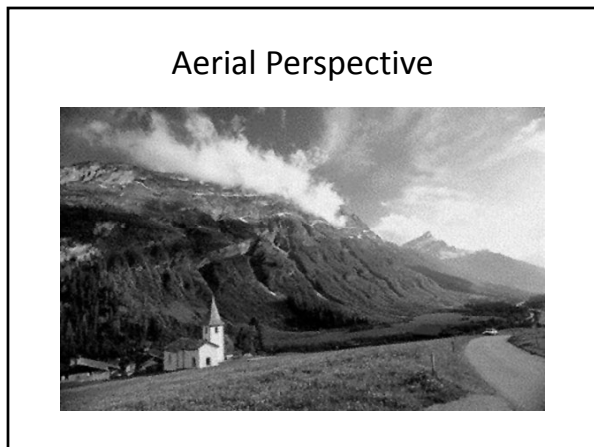
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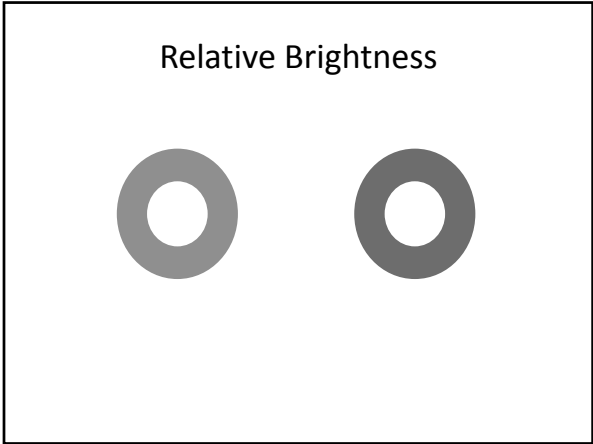
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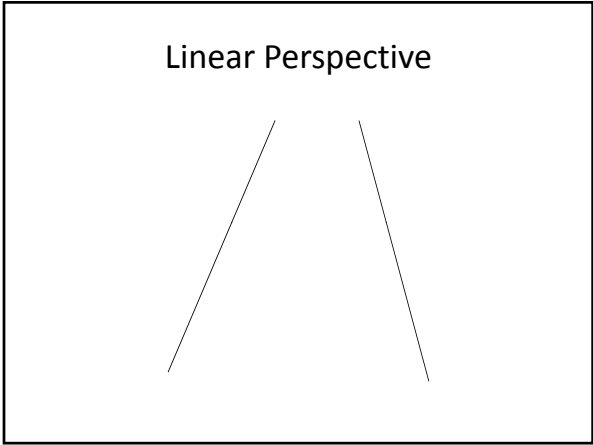
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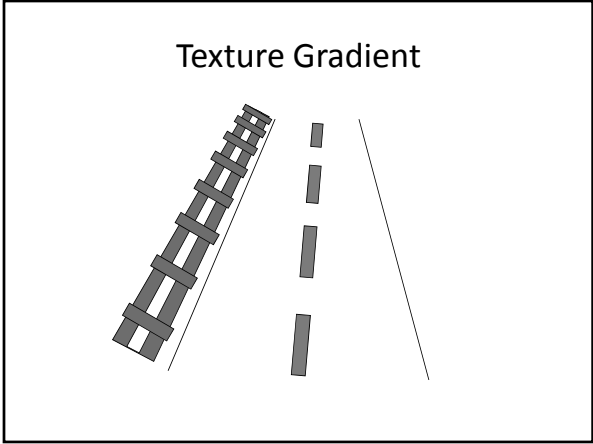
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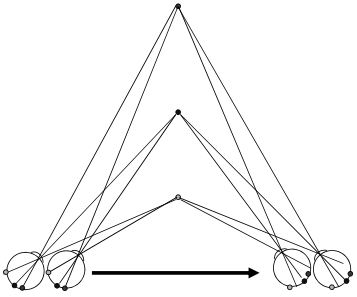
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# Motion Parallax



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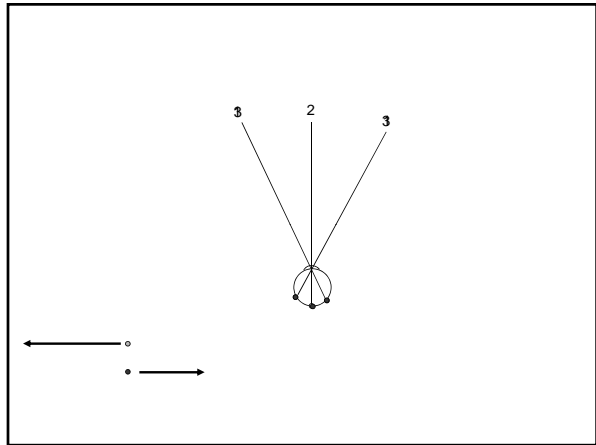
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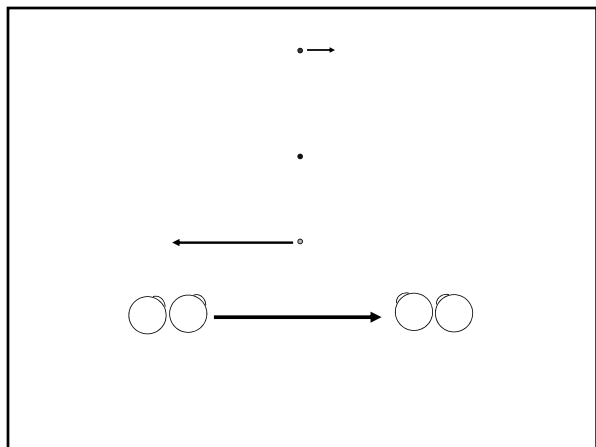
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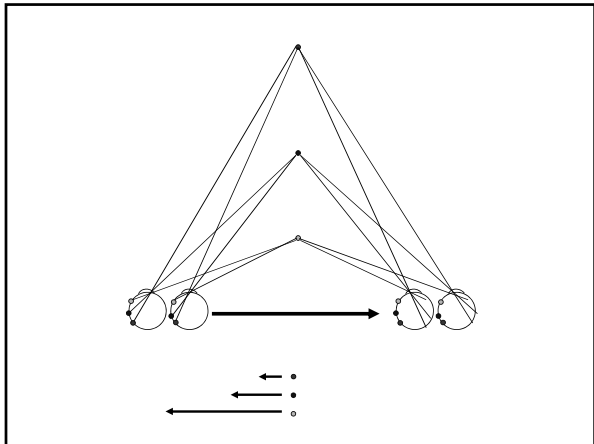
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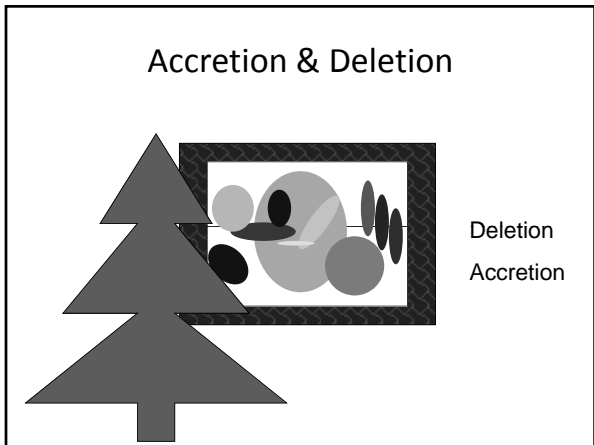
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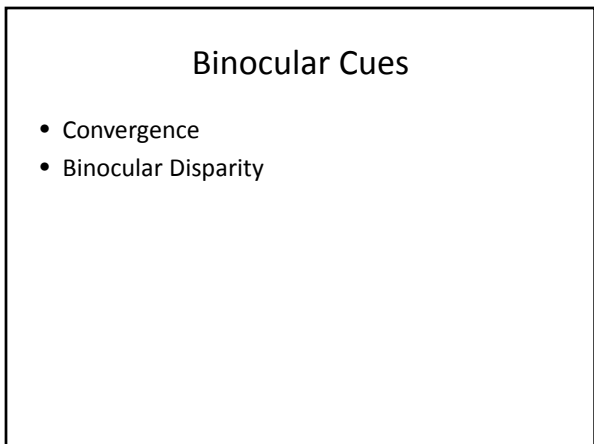
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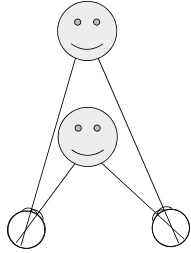
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### Convergence



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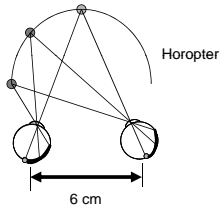
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### Binocular Disparity



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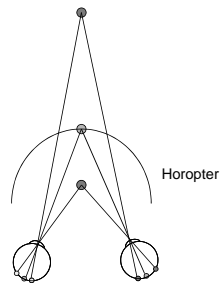
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## Binocular Disparity

- V1 – binocular depth cells (disparity detectors)
- Monocularly reared cats (6 mths)
  - Few binocular neurons
- Stimulating disparity neurons in monkeys
  - shift in depth judgement

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## Correspondence Problem

- How does our visual system figure out what goes with what in the two eyes?
  - Feature matching?

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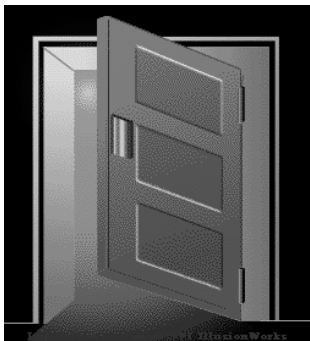
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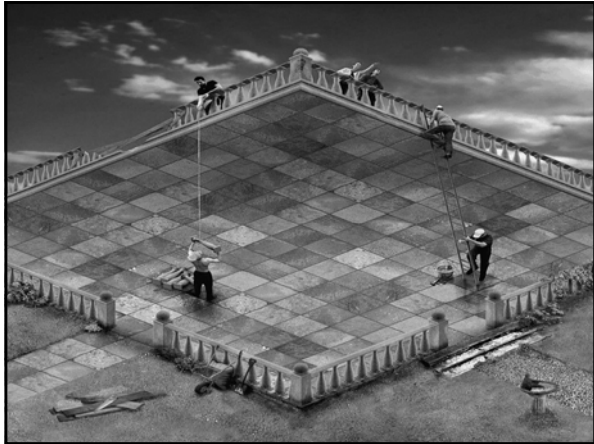
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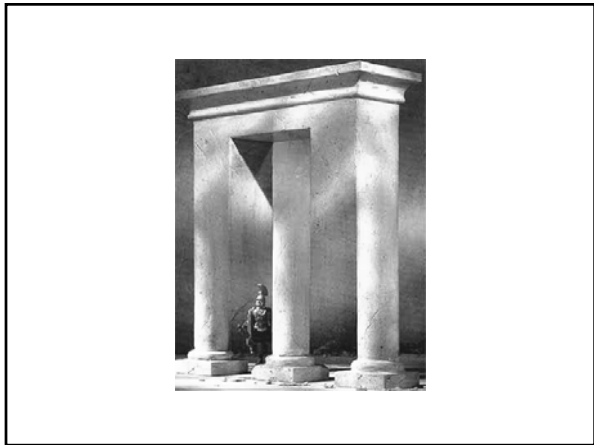
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<h3>Monocular Cues</h3> <ul style="list-style-type: none"> <li>• Accommodation</li> <li>• Occlusion</li> <li>• Height in plane</li> <li>• Cast Shadows</li> <li>• Relative Size</li> <li>• Familiar Size</li> <li>• Atmospheric/Aerial Perspective</li> <li>• Relative Brightness</li> <li>• Linear Perspective</li> <li>• Texture Gradient</li> <li>• Movement             <ul style="list-style-type: none"> <li>- Motion Parallax</li> <li>- Deletion/Accretion</li> </ul> </li> </ul>	<h3>Binocular Cues</h3> <ul style="list-style-type: none"> <li>• Convergence</li> <li>• Binocular Disparity</li> </ul>
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