

Photo 101

Is focal length compression real?

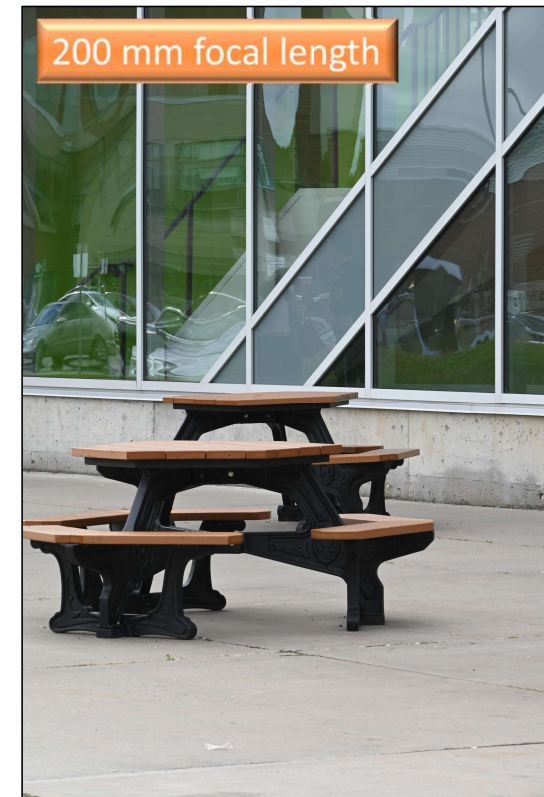
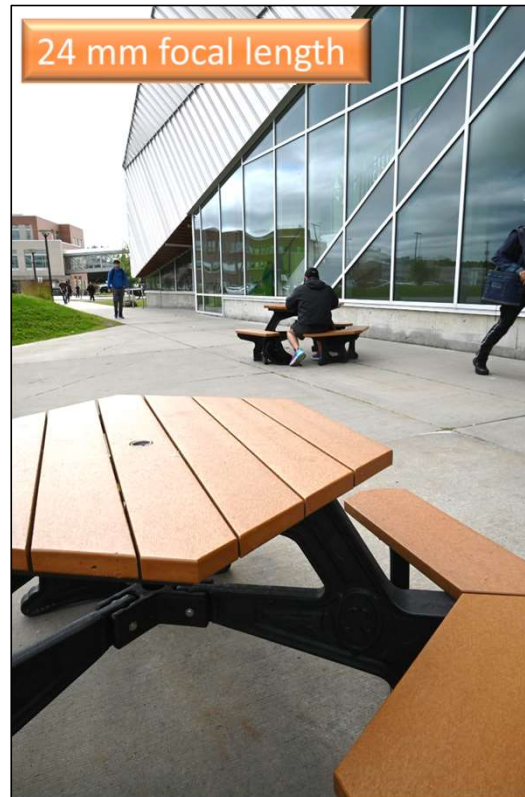
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Focal length compression

- Commonly stated
 - as you *increase* the lens focal length
 - objects at different distances are *compressed* together

Same two tables



Another example

Same two trees



But...

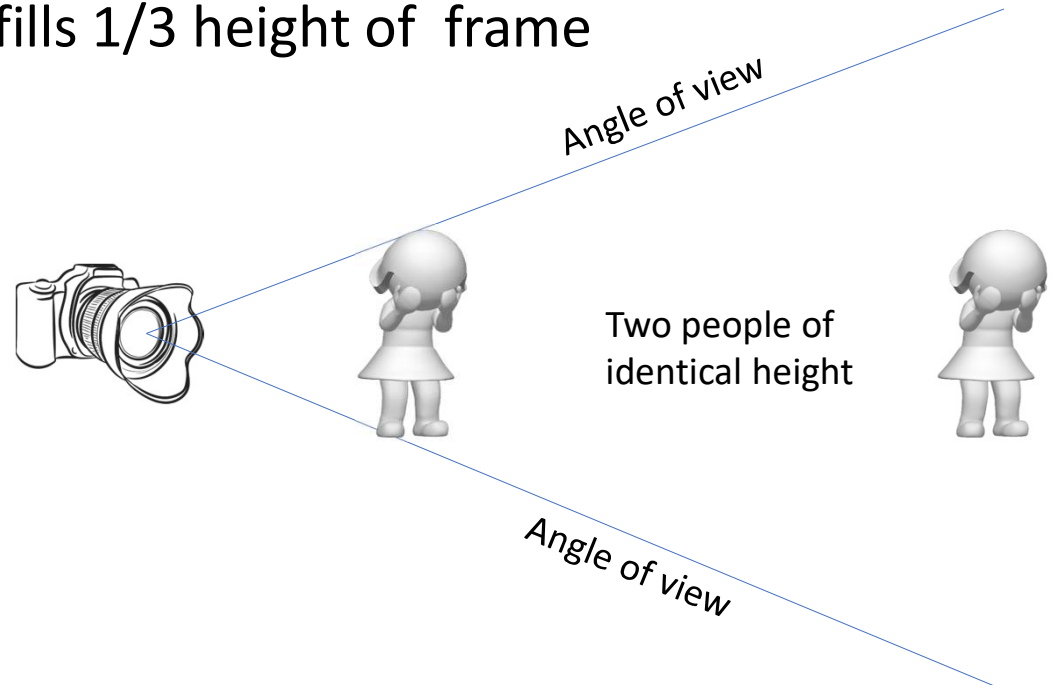
what really caused that effect?

Wide-angle lens

- Camera positioned so person closest to camera fills height of frame
- Person furthest from camera fills 1/3 height of frame

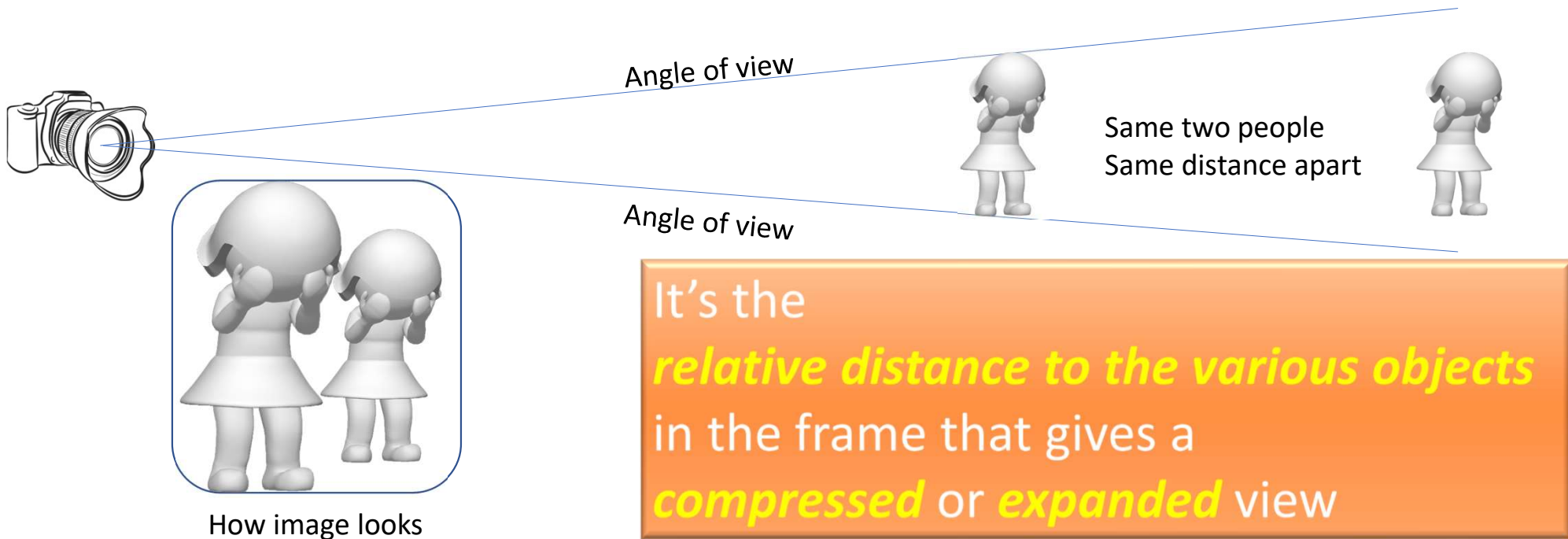


How image looks



Telephoto lens

- Camera moved back to fill frame with person closest to camera
- Person furthest from camera fills 3/4 height of the frame



Relative distance to objects in the frame

Subjects are

- same height
- same distance apart

Wide-angle lens



Telephoto lens



Example:

Two subjects **21 & 24** feet away

- appear much **closer in size** & therefore **closer together** than

Two subjects **1 & 4** feet away

That is the ***compression effect***

Side view of bike racks



200 mm focal length
• apparent compression



Proof change in focal length not the cause

24 mm focal length
• taken from same position



24 mm focal length
• taken from same position
• cropped to same angle of view as 200 mm

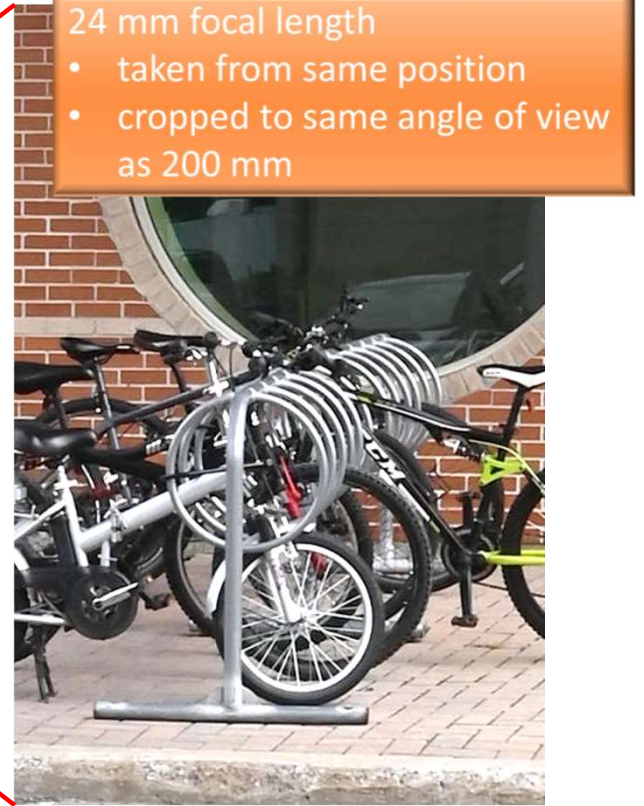


Photo taken with 24 mm appears identical to 200 mm **when taken from same position and cropped**