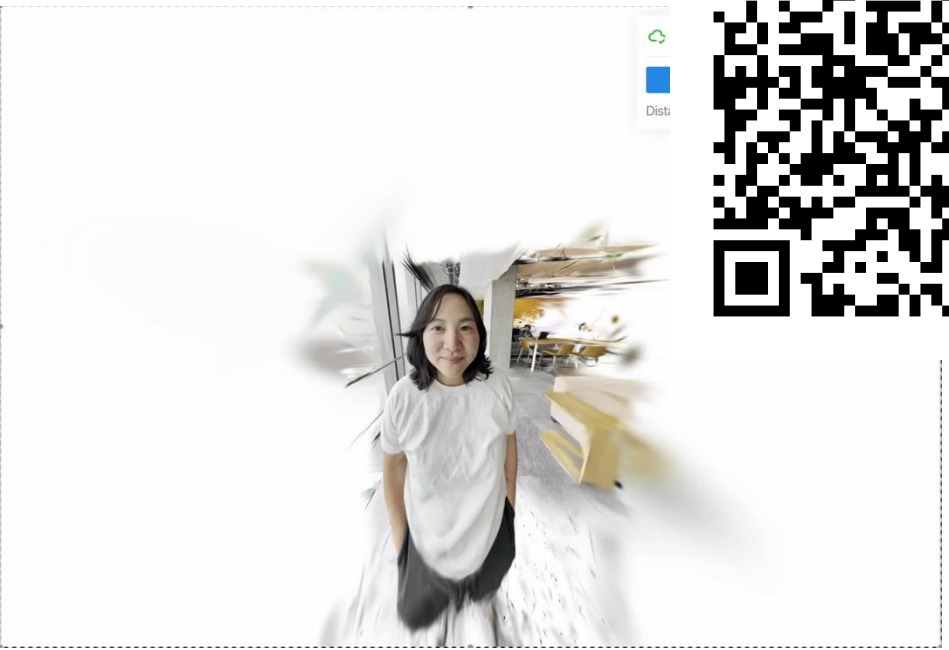
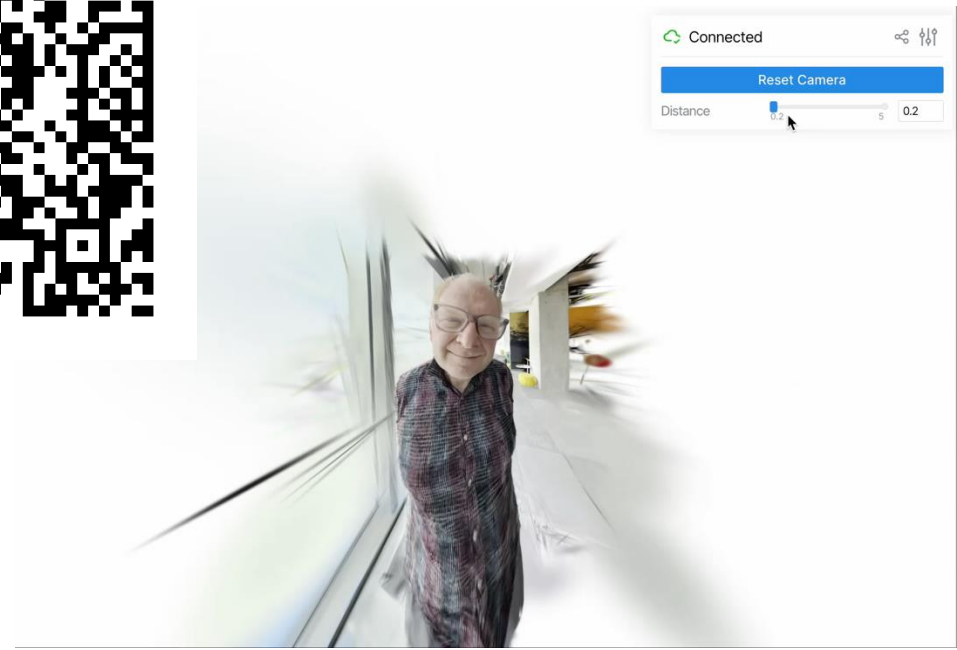
Feedback on Discussion #1





CS180/280A Discussion #2

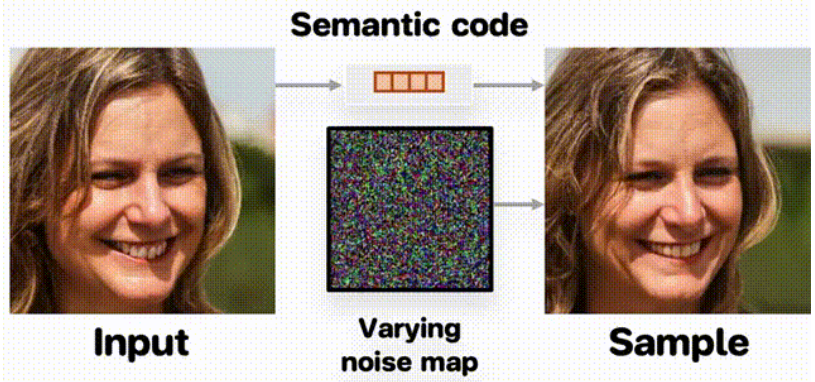
Hi 🖐 I’m Konpat Preechakul

Me: **Konpat** Preechakul

3rd year PhD student.

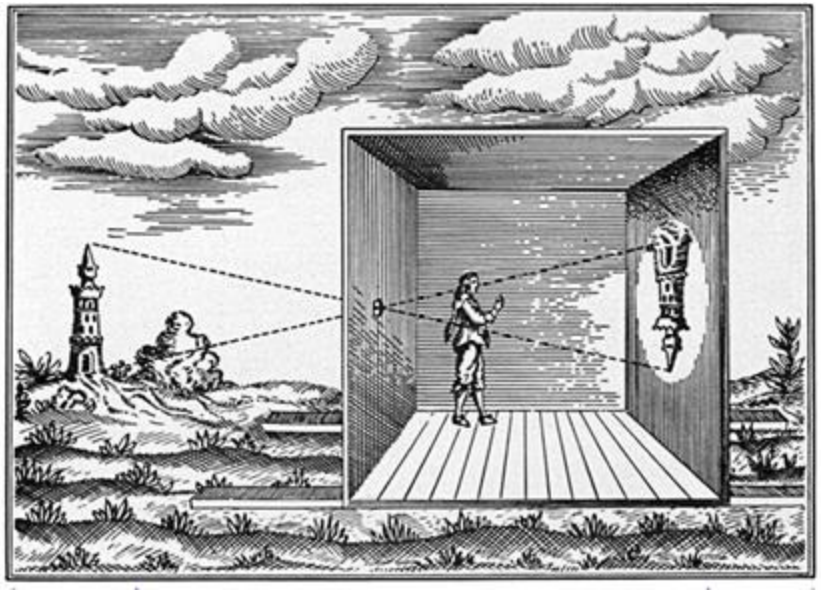
Scene understanding

Diffusion models & Representation learning



Today: image formation

Relationship between points in 3D and 2D



Move to a person next to you, And introduce yourself 🤗 (1 min)

“Hi what’s your name?”

“What’s your favorite fruit?”

“Where are you heading to after this?”

Let’s work in pairs!

Project#0 Recap...

Cr: https://m-bhatt.github.io/proj0/proj0.html

Are the two images taken by **only zooming** (and how do you know?)

Discuss in pairs (1 min) and come up with a proof!

Cr. Jingsong Sun

12 MM

24 MM

Cr. Jingsong Sun

One more...

Is it just zoom?

Discuss in pairs (3 mins) and come up with a proof!

Cr. Jingsong Sun

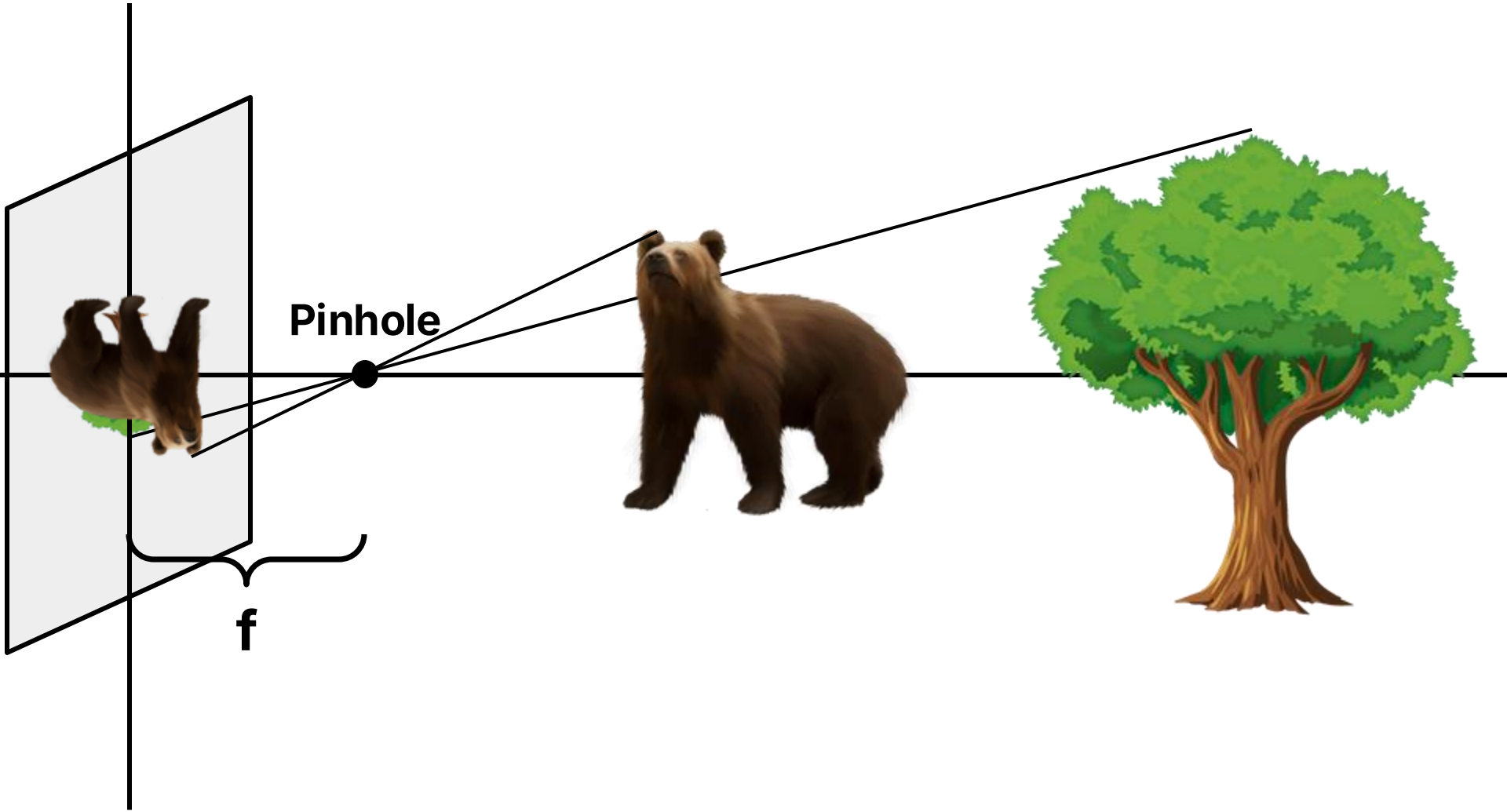
48 MM

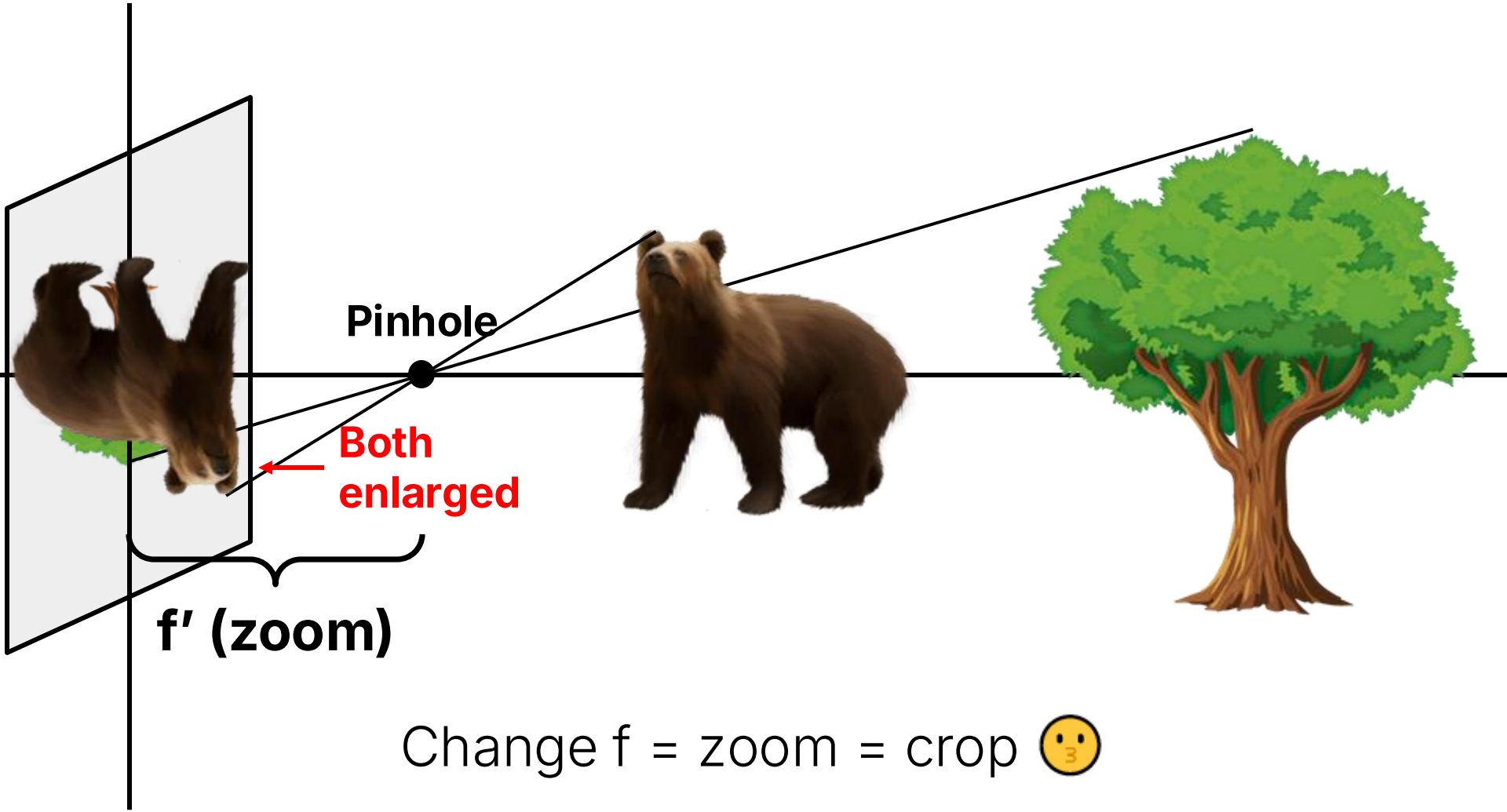
120 MM

Cr. Jingsong Sun

Focal length = zoom = crop*

Perspectively speaking, crop = zoom, but with lower resolution


Pinhole
f



Change f = zoom = crop 😗

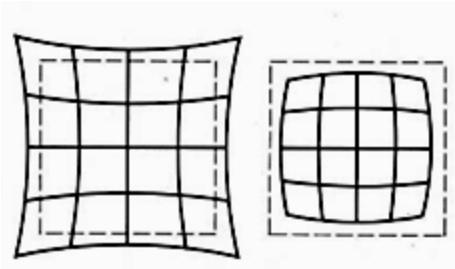
When Zoom ≠ Crop (Lens flaws; pinhole is fine)

Chromatic Aberration

Near Lens Center

Near Lens Outer Edge

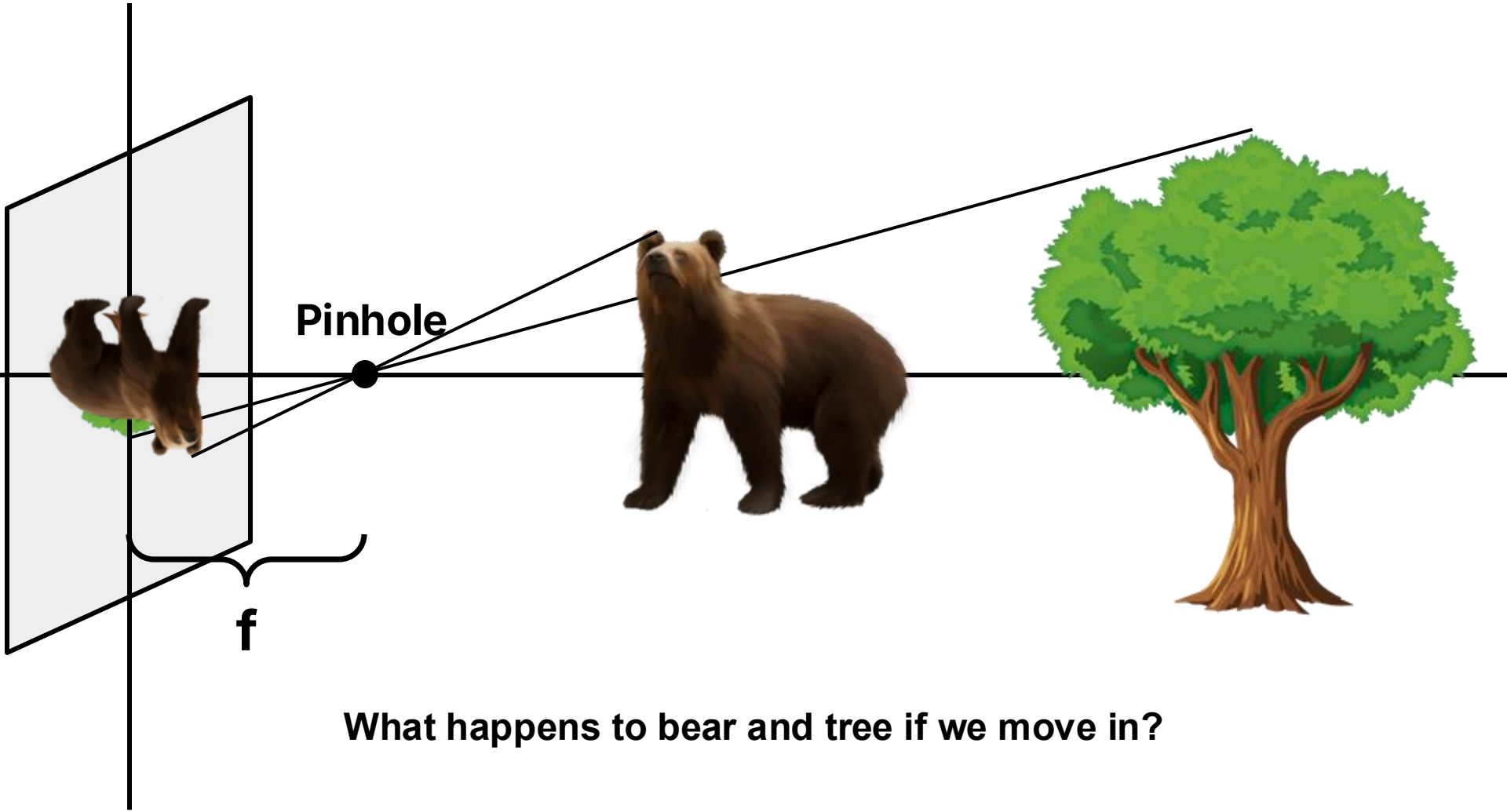
Radial Distortion



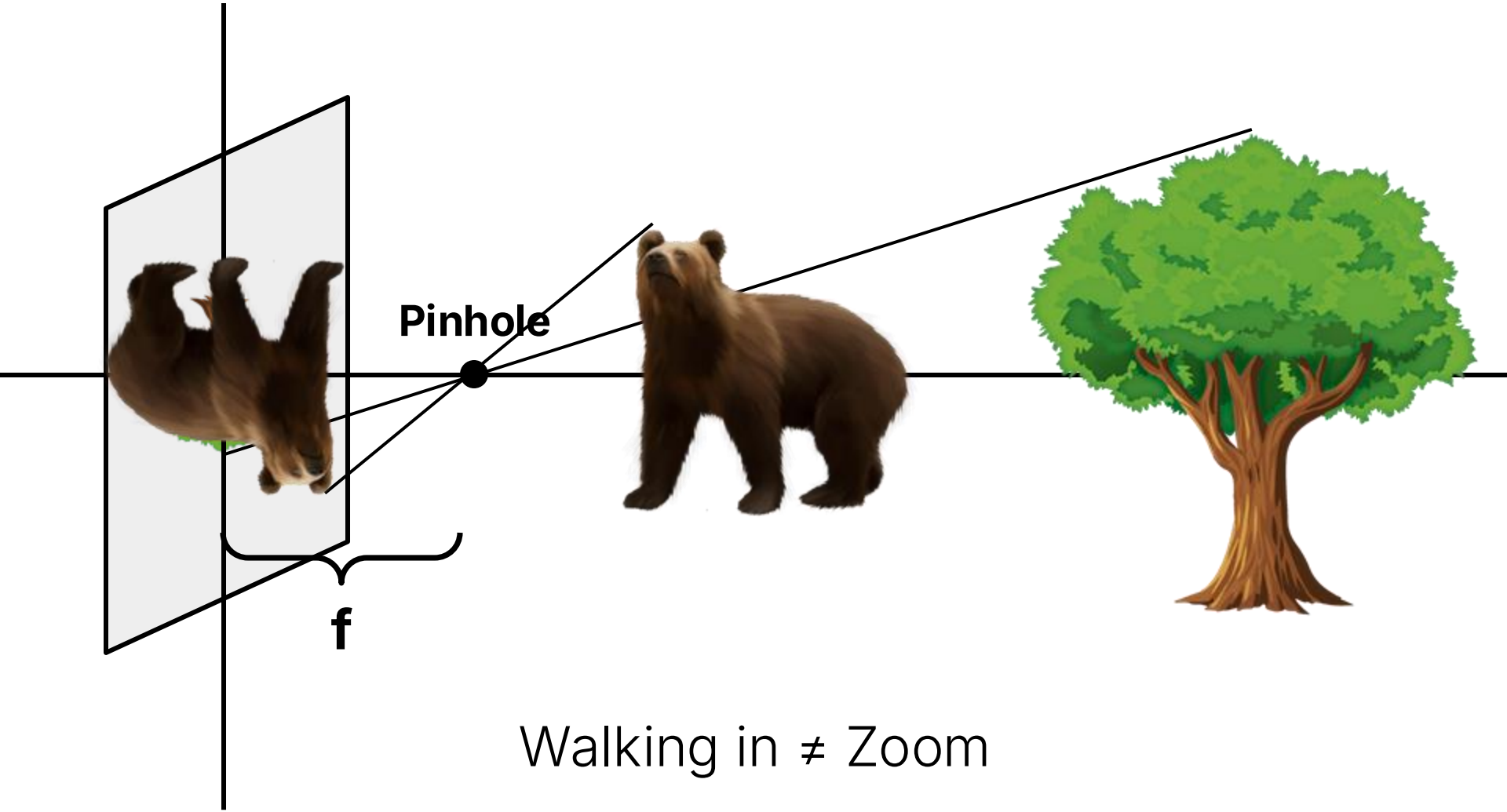
Pin cushion Barrel

(Focal length = zoom = crop)

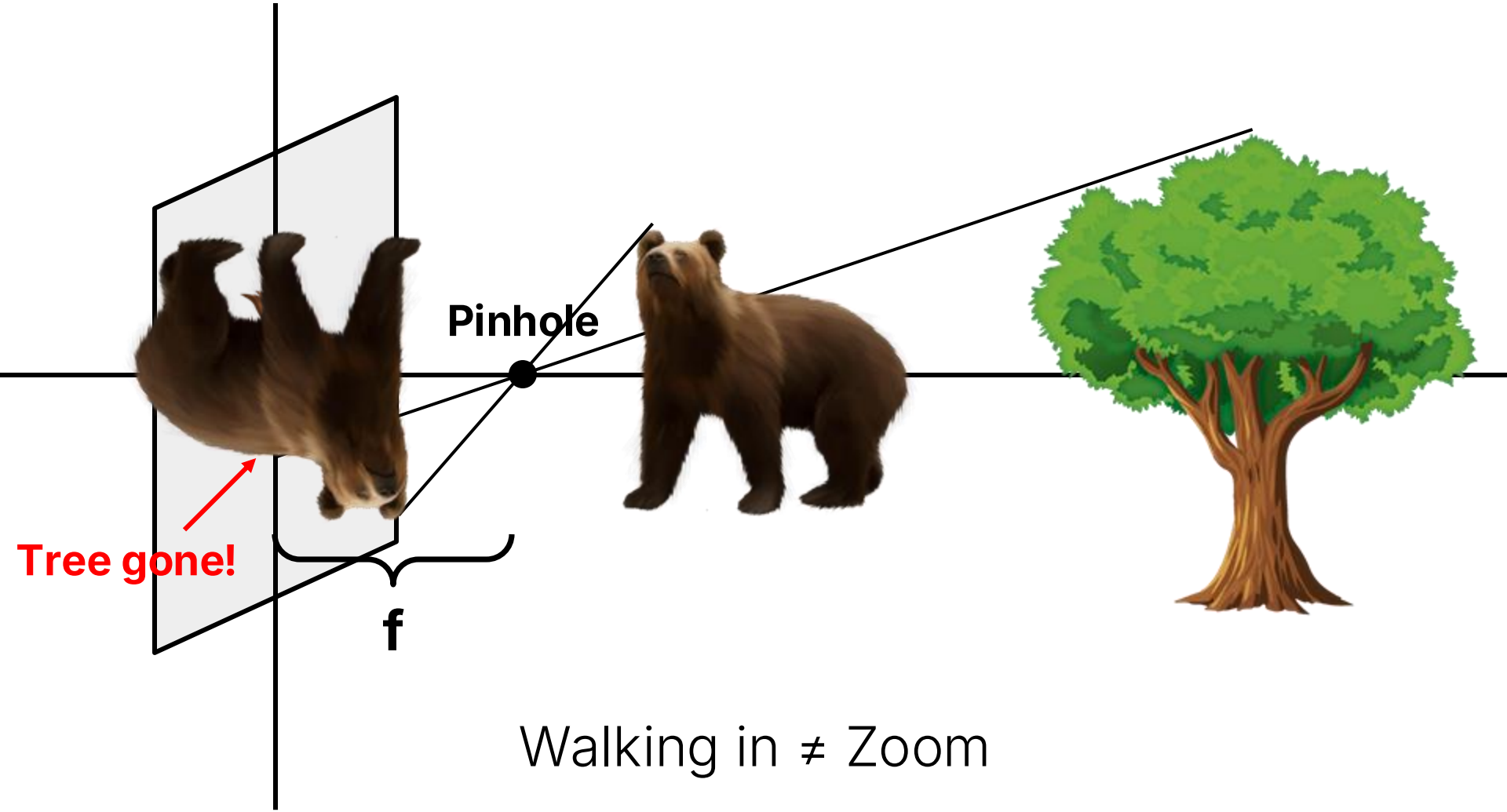
≠ Move



What happens to bear and tree if we move in?



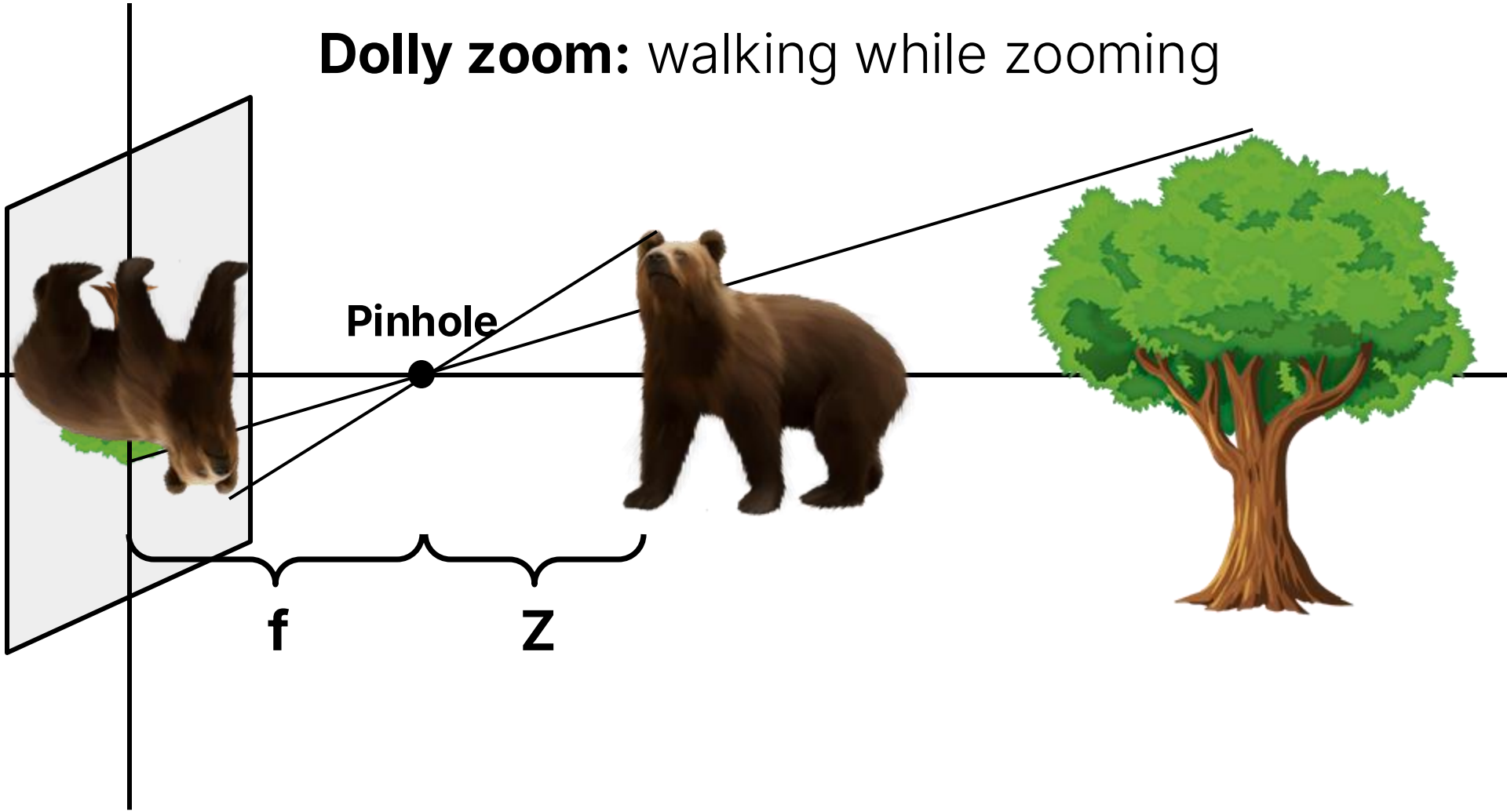
Walking in ≠ Zoom



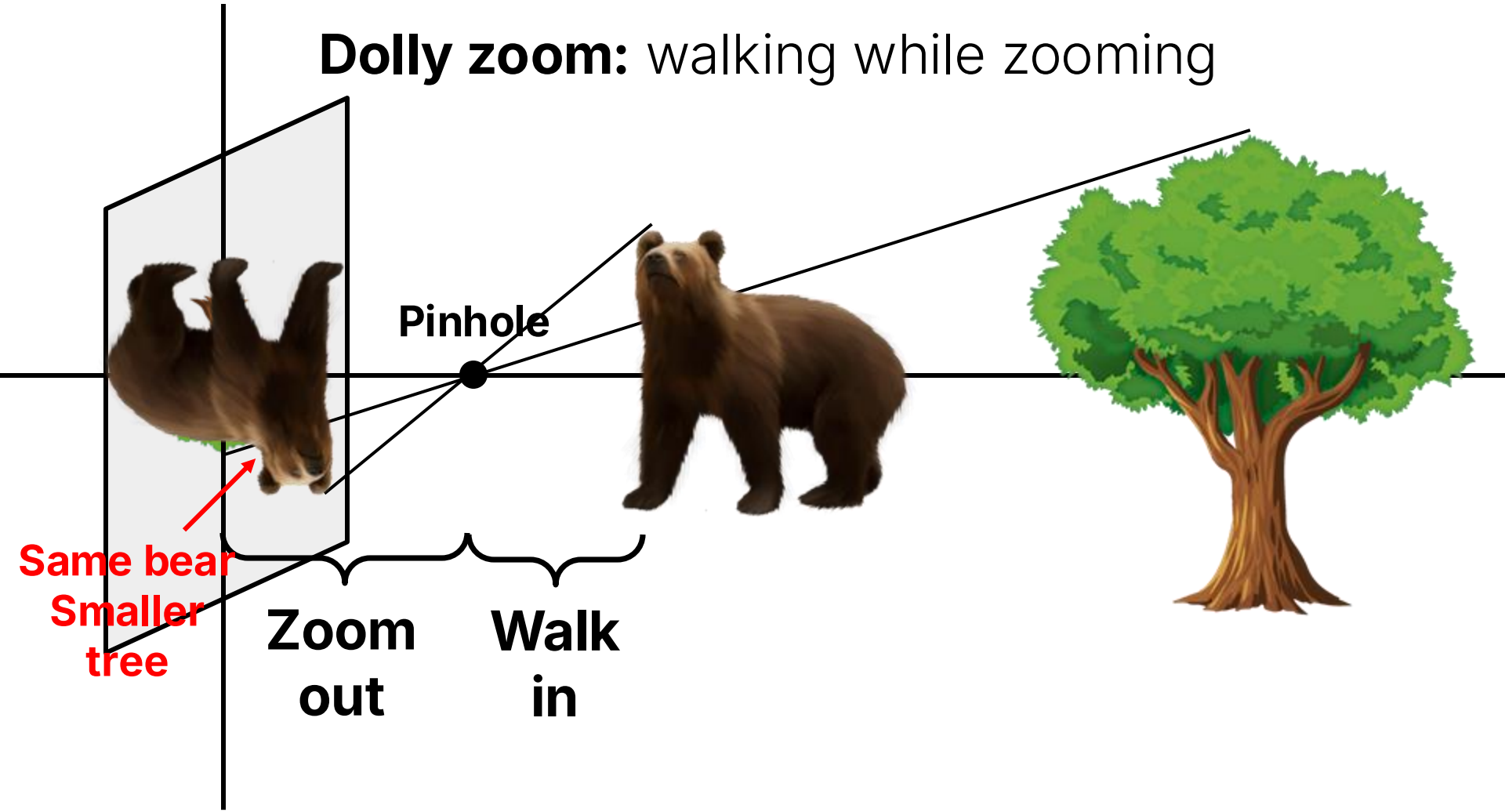
Walking in ≠ Zoom

Dolly zoom: walking while zooming

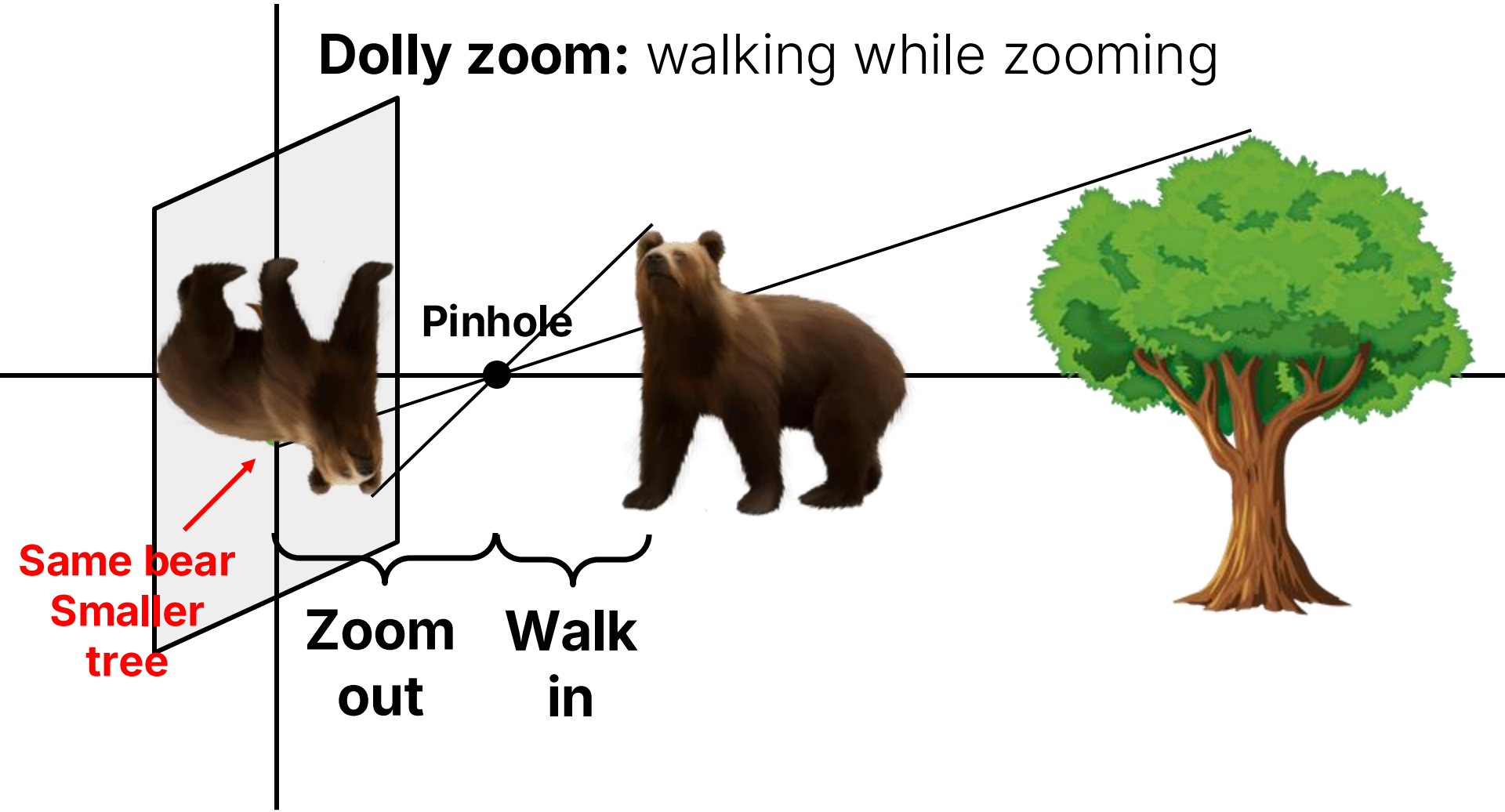
Dolly zoom: walking while zooming



Dolly zoom: walking while zooming

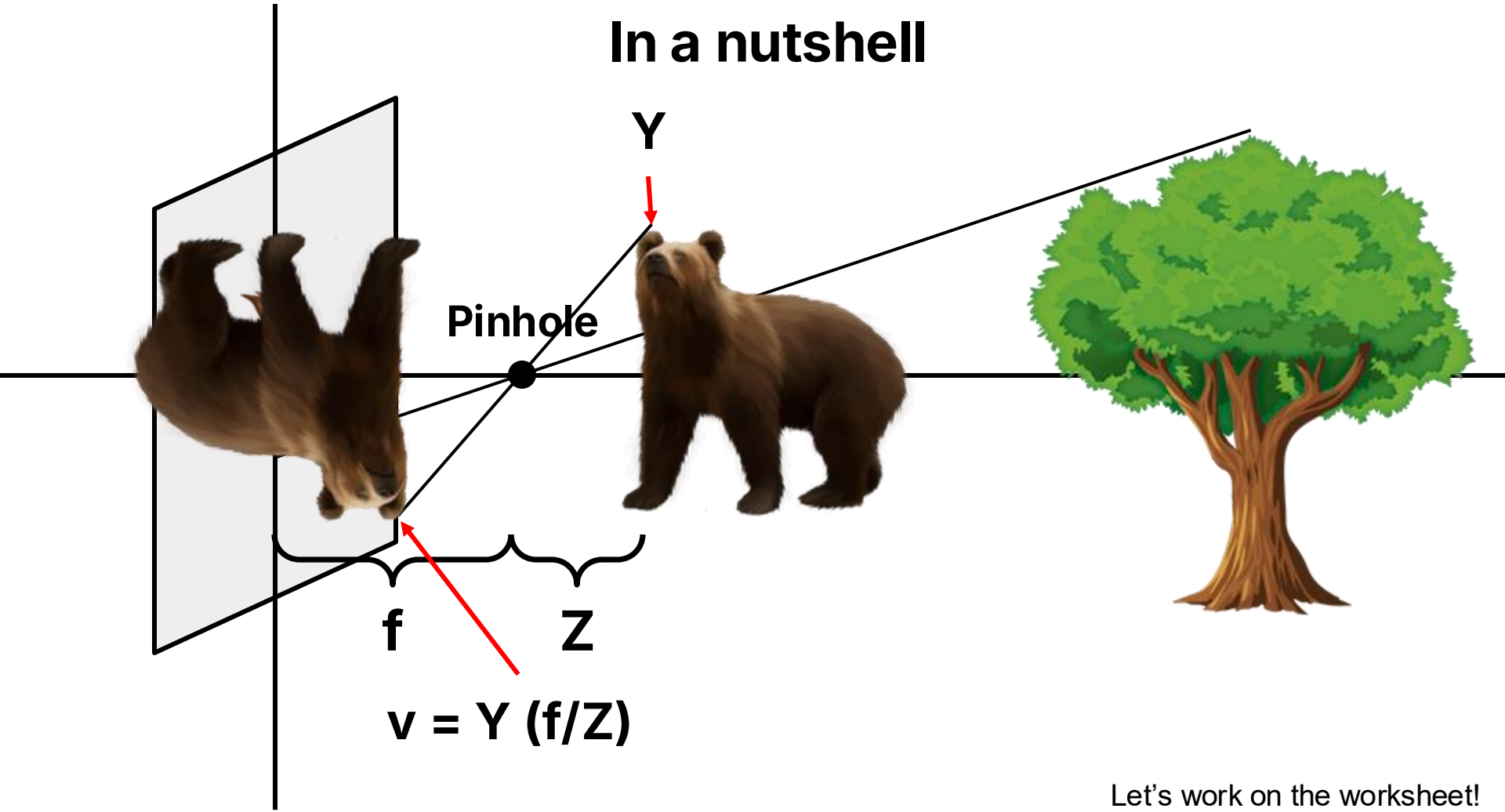


Dolly zoom: walking while zooming



Pinhole camera

In a nutshell



Let’s work on the worksheet!