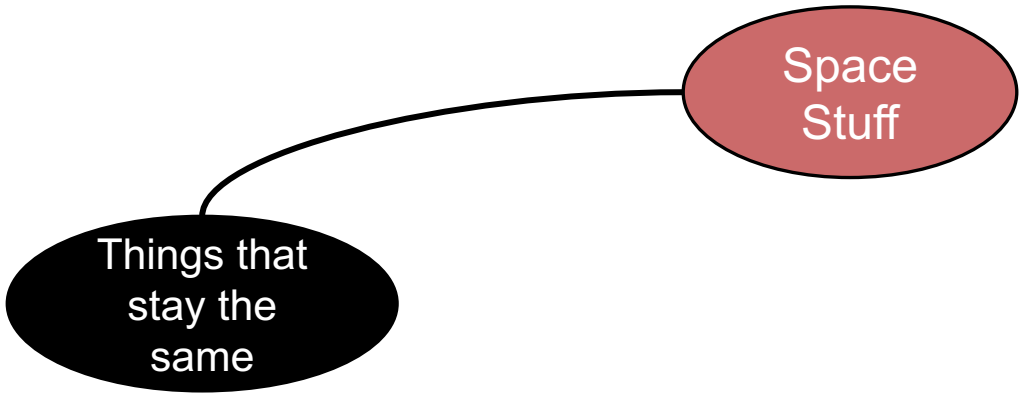


# Things that go Bump in the Night

AKA: How to find stuff in space ...

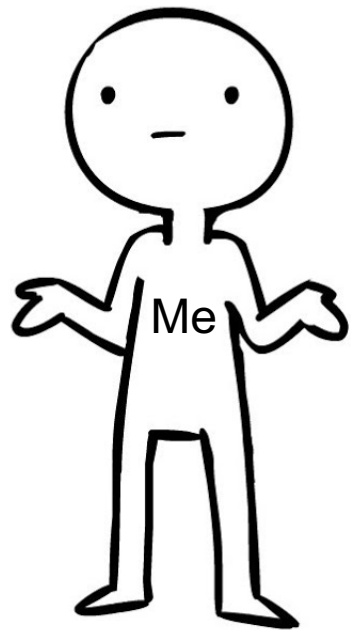


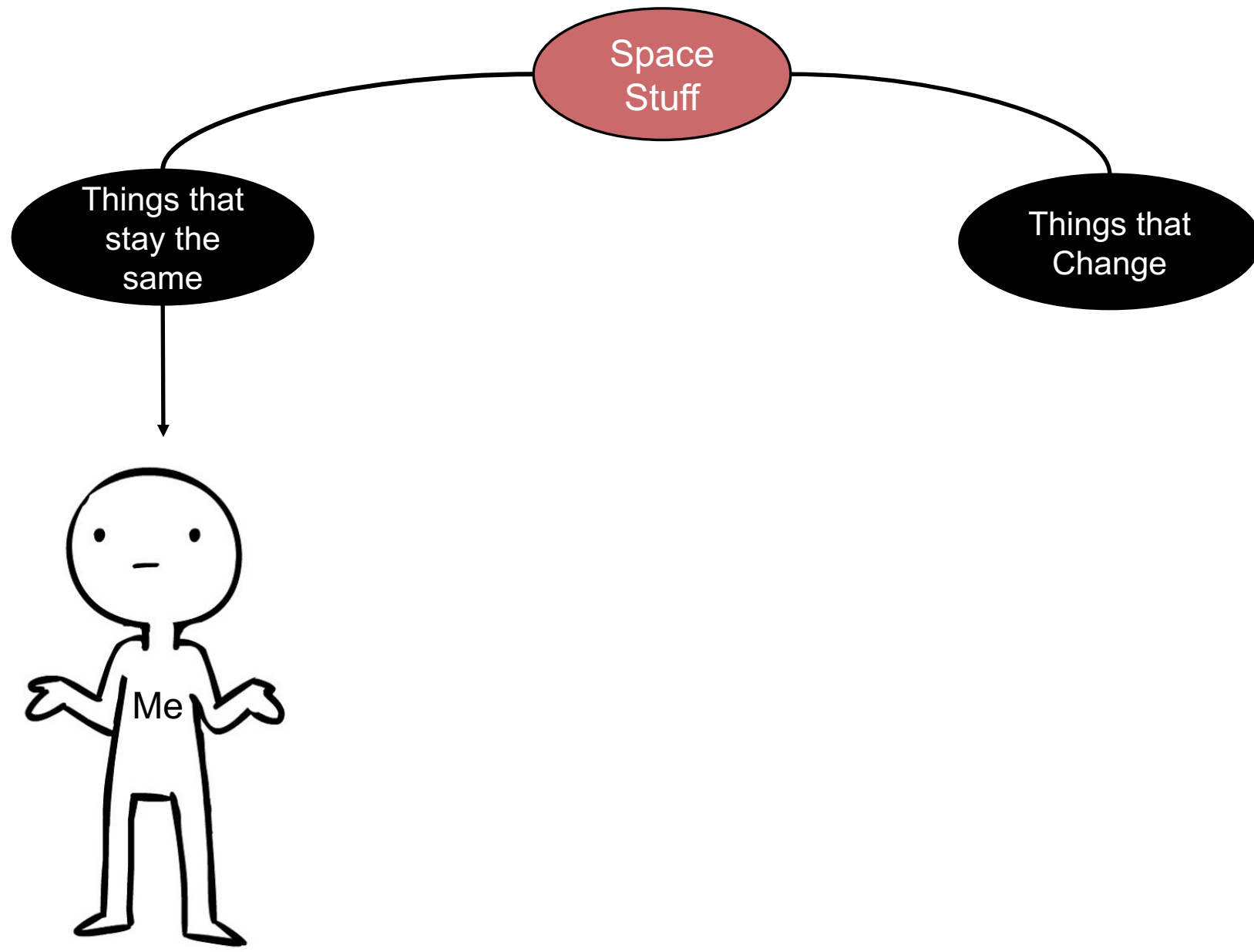
Space  
Stuff

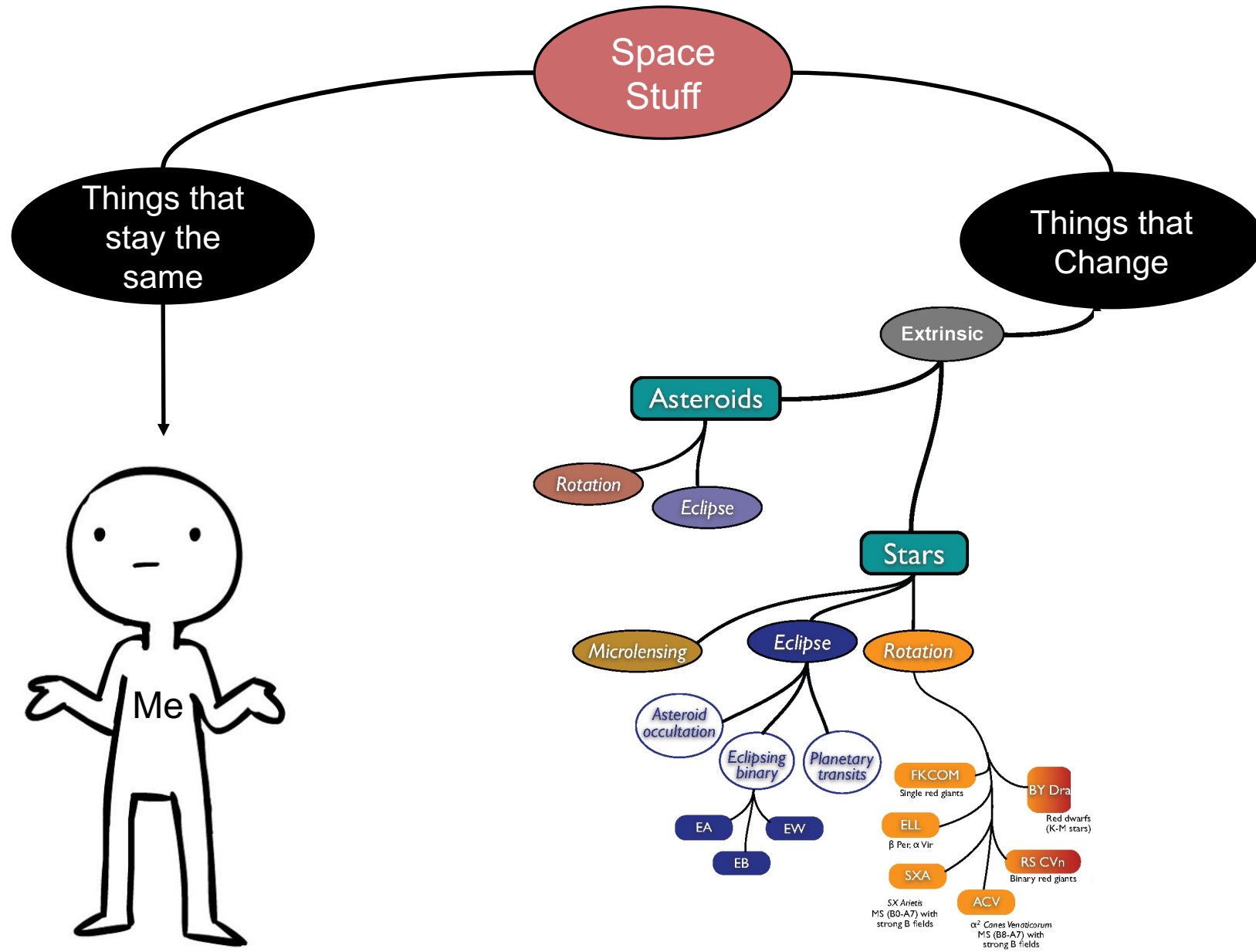


Space  
Stuff

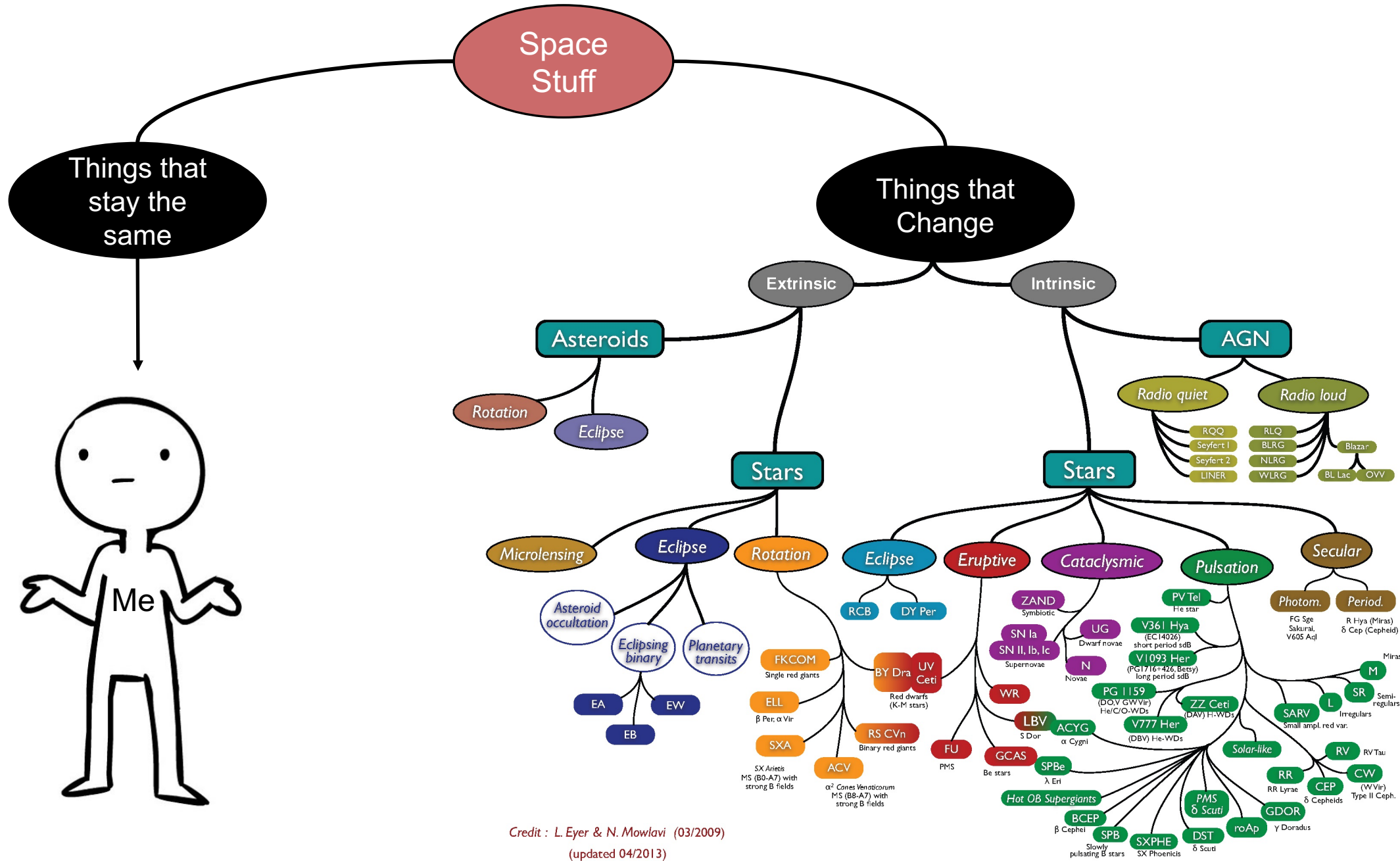
Things that  
stay the  
same







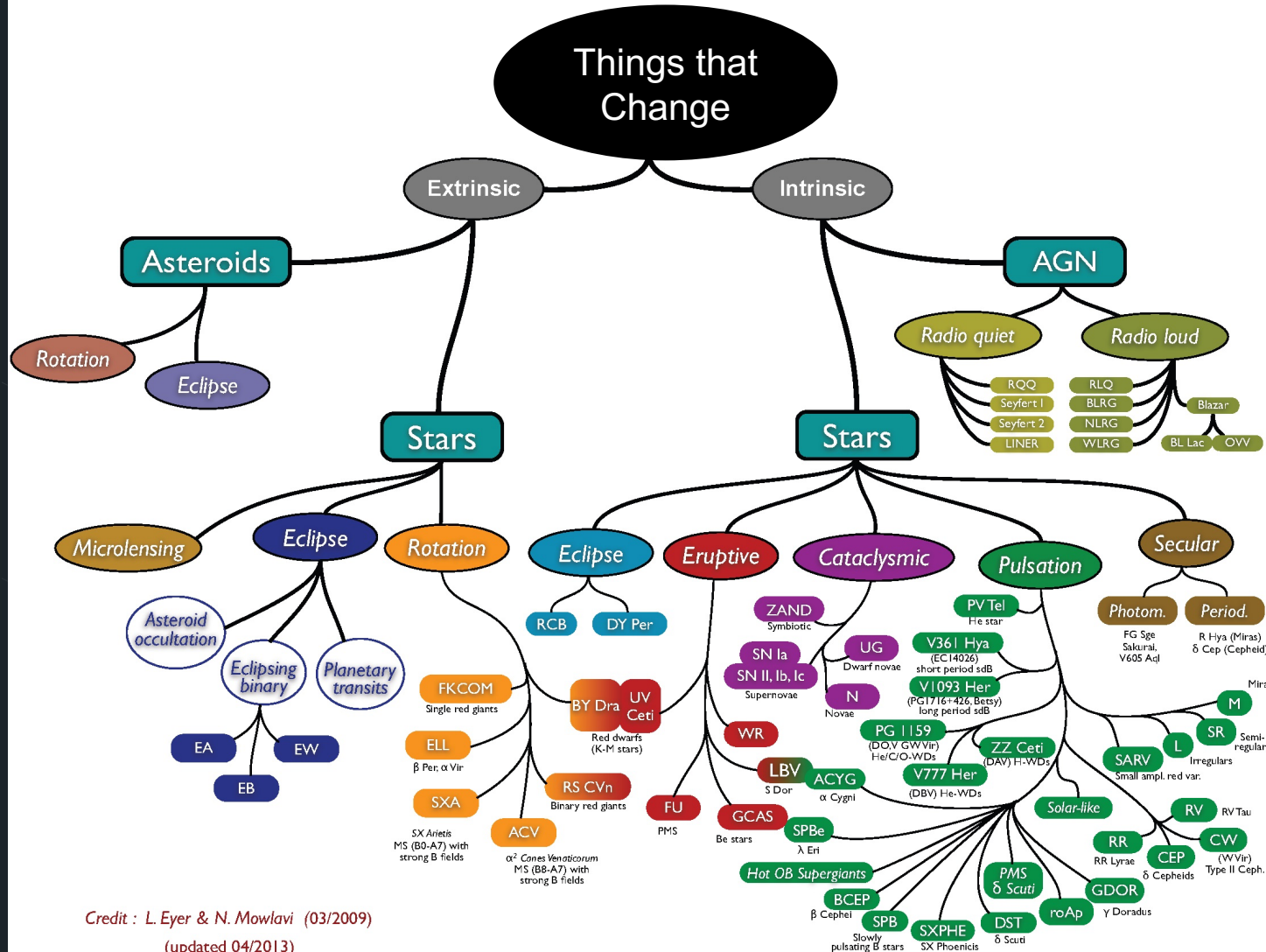
Credit : L. Eyer & N. Mowlavi (03/2009)  
(updated 04/2013)



Credit : L. Eyer & N. Mowlavi (03/2009)  
 (updated 04/2013)

# Variable objects:

- Cover a **huge** range of brightness
- Are all different sizes
- Follow different patterns as they vary in brightness
- All look surprisingly the same and are hard (impossible) to spot in a single image.



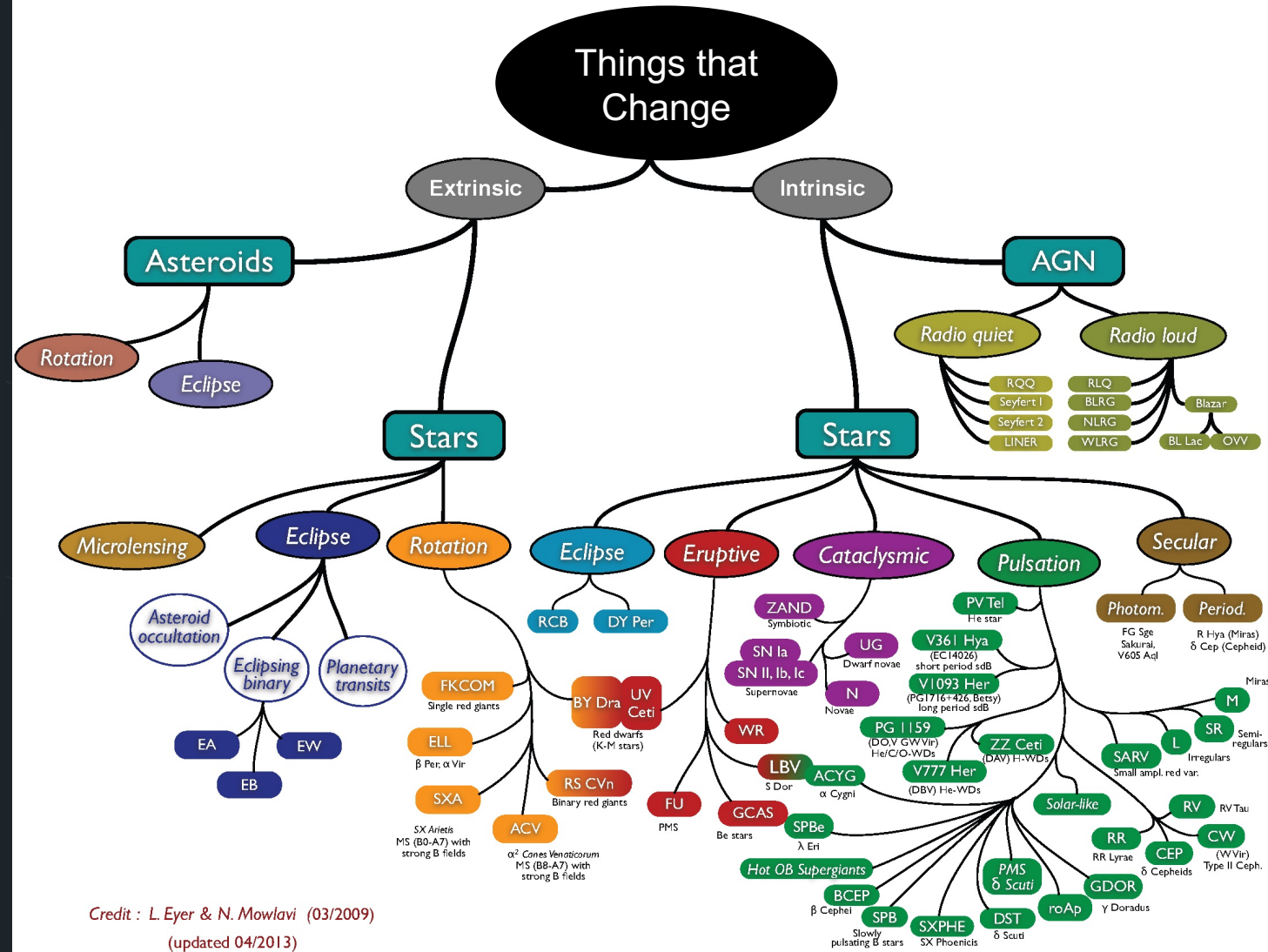
Credit : L. Eyer & N. Mowlavi (03/2009)  
 (updated 04/2013)



# Variable objects:

- Cover a **huge** range of brightness
- Are all different sizes
- Follow different patterns as they vary in brightness
- All look surprisingly the same and are hard (impossible) to spot in a single image.

So how do we find them?



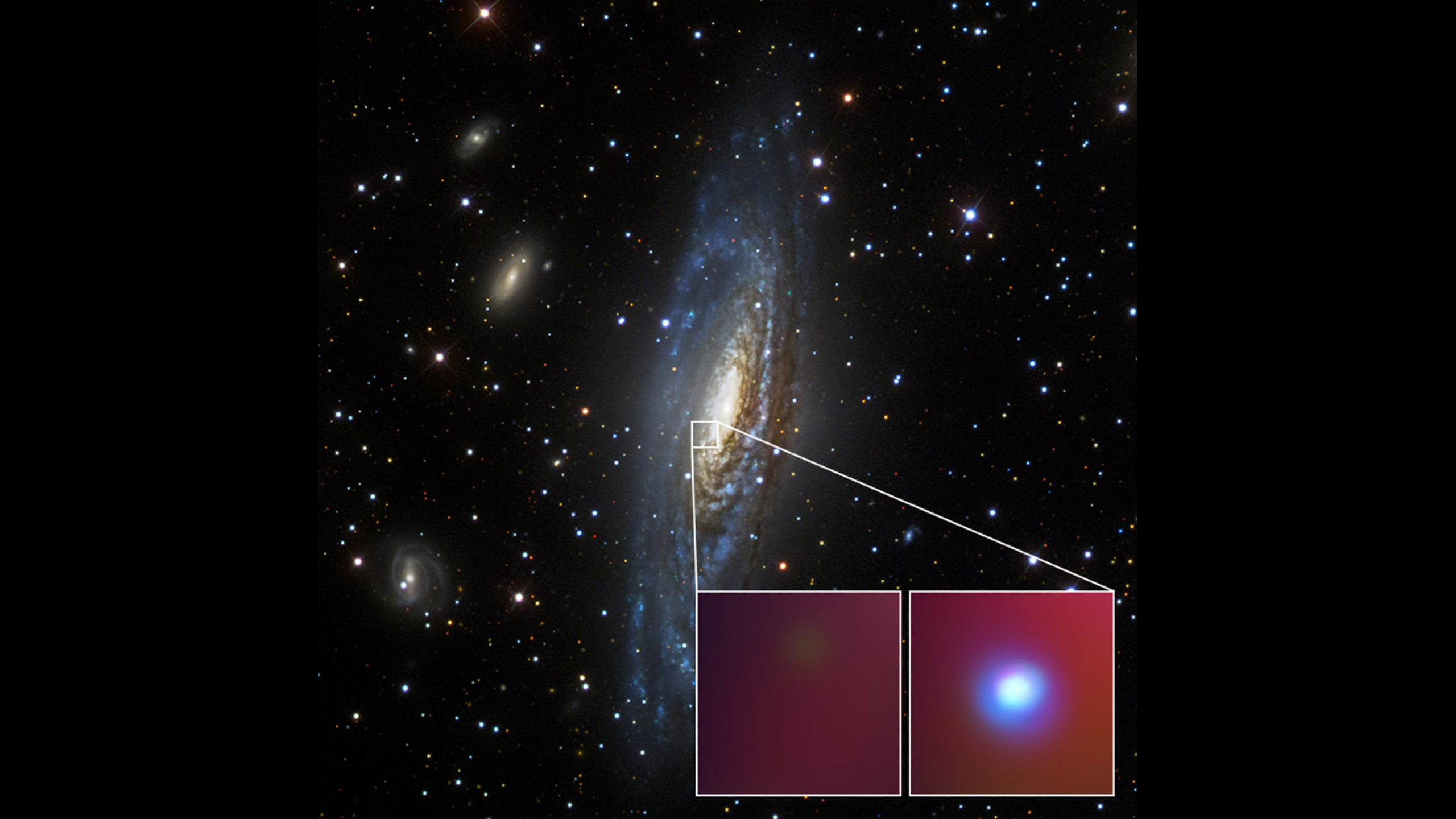
Credit : L. Eyer & N. Mowlavi (03/2009)  
 (updated 04/2013)

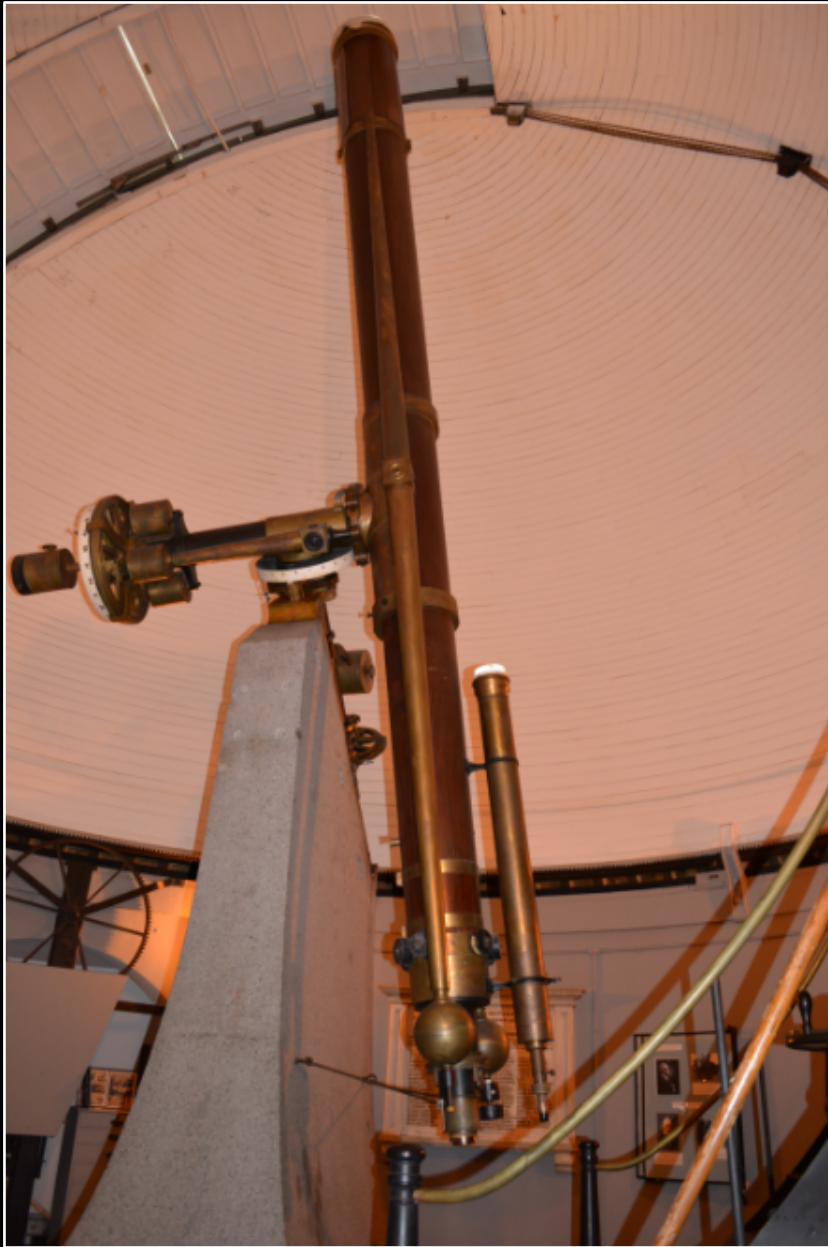
Method 1: Just look at a bunch of pictures and point at it  
(AKA: The hard way)











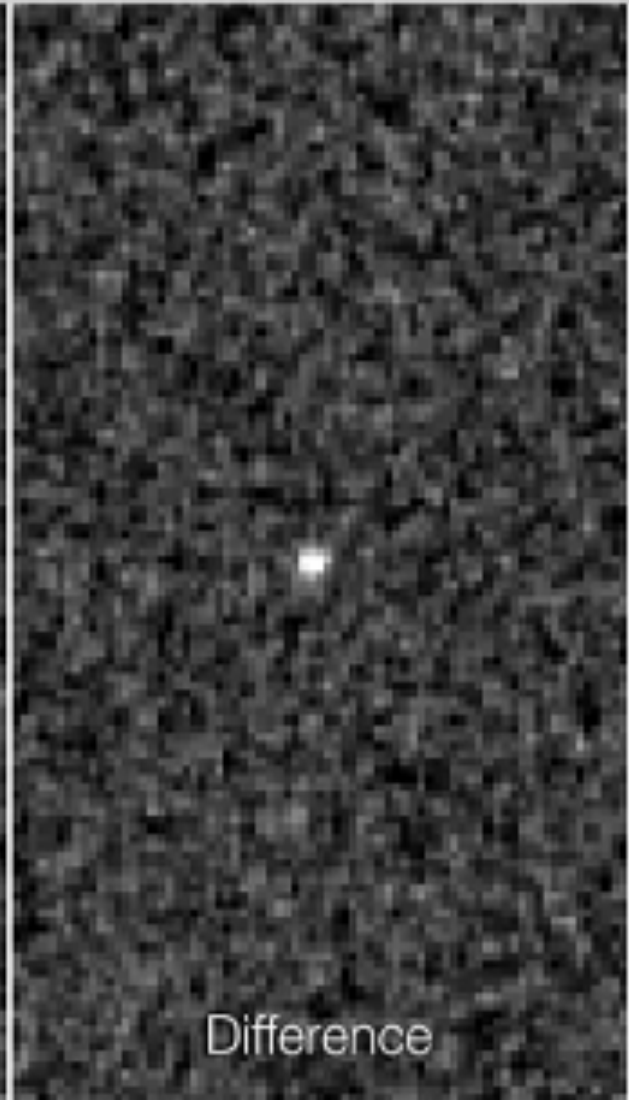
Anni "Jump" Cannon



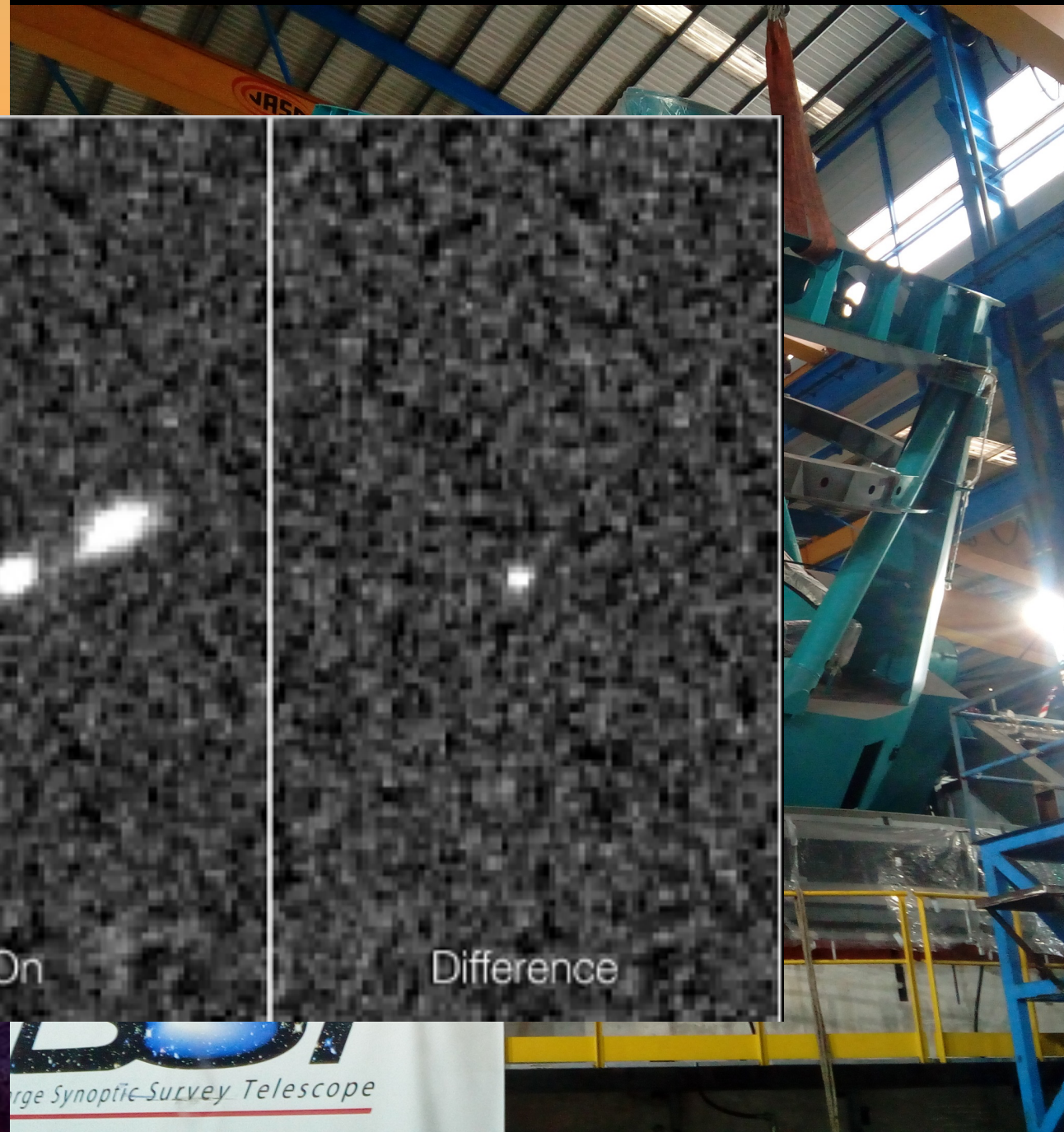
Method 2: Make a computer do it  
(AKA: The easy way)

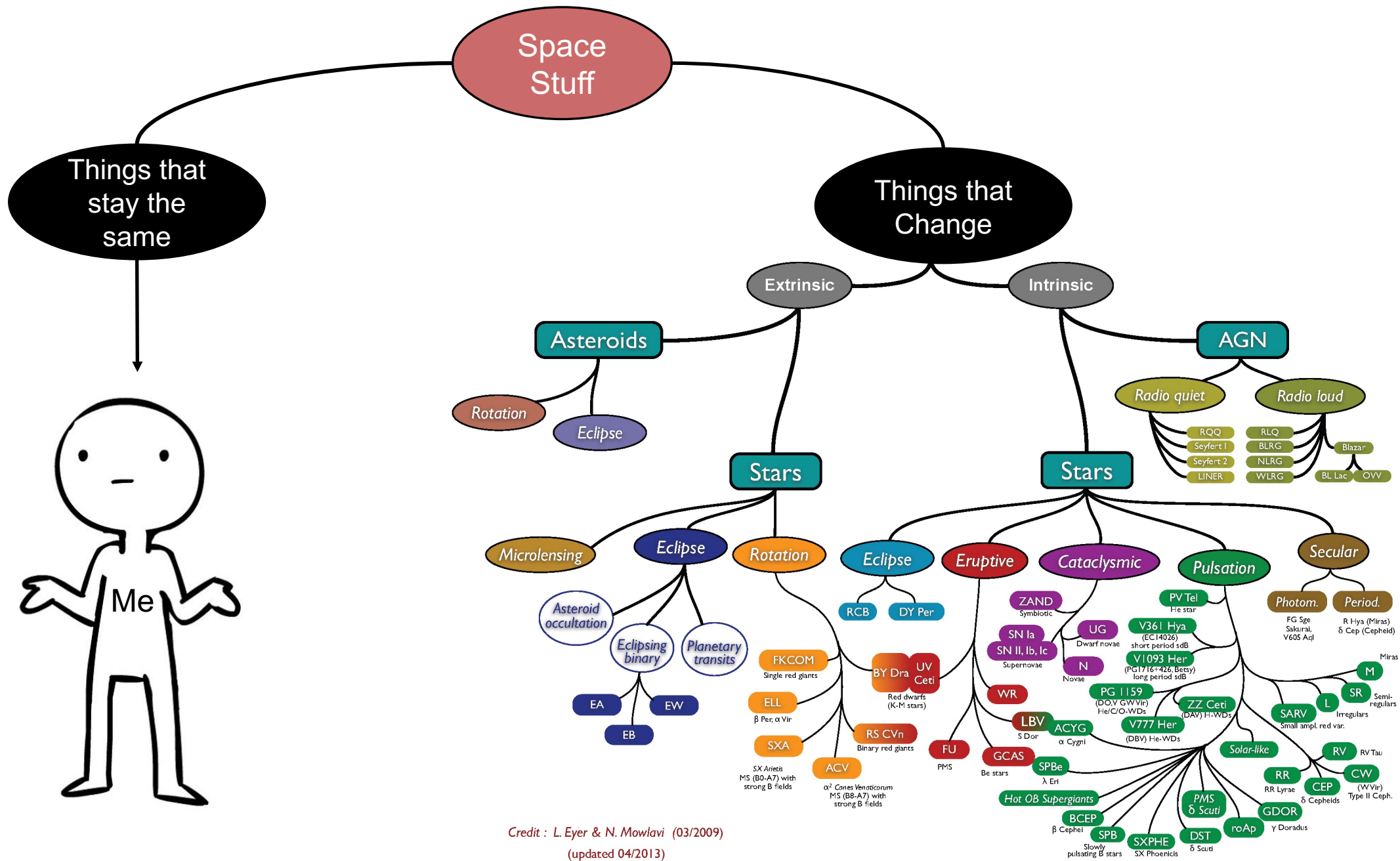




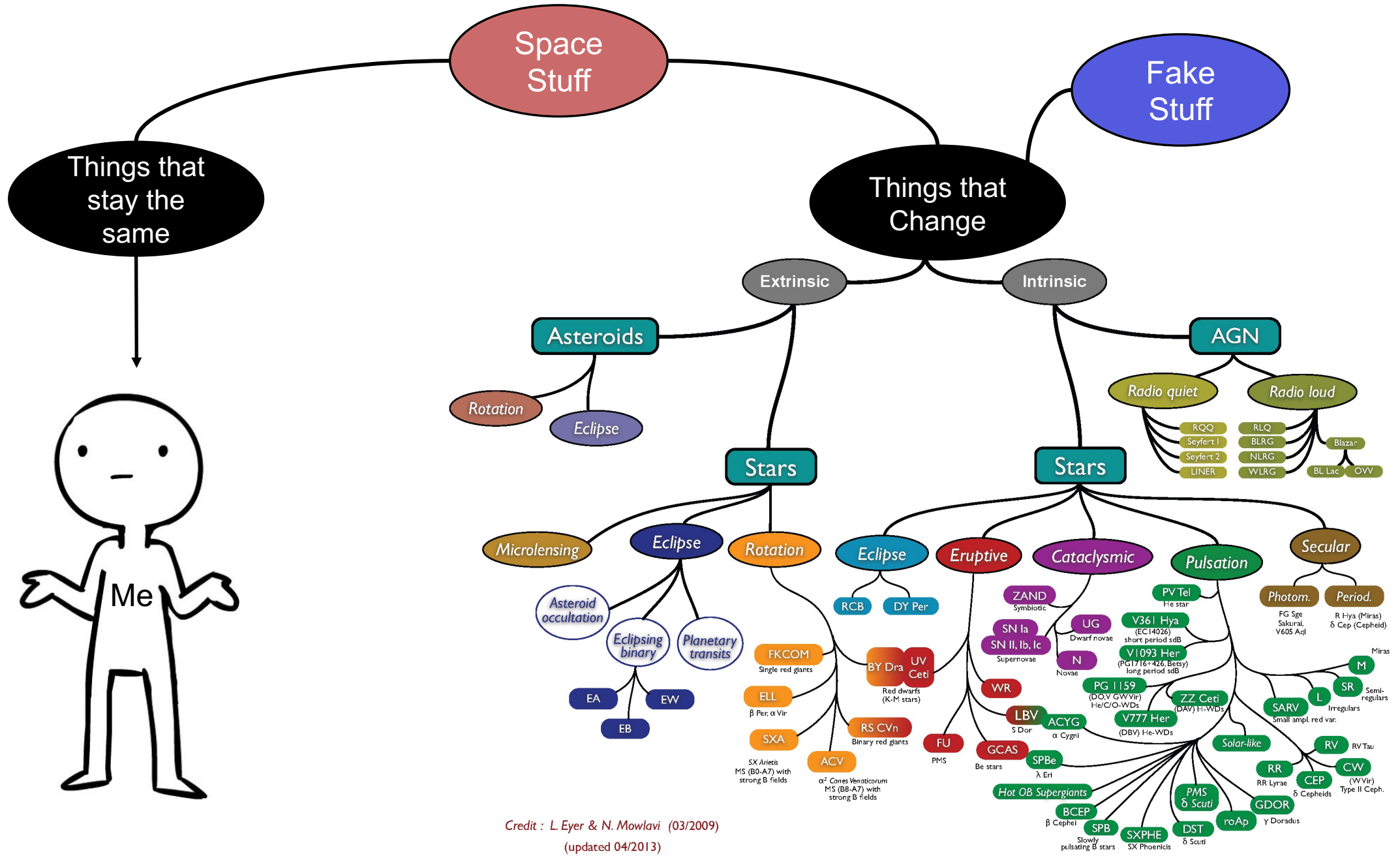


  
Large Synoptic Survey Telescope

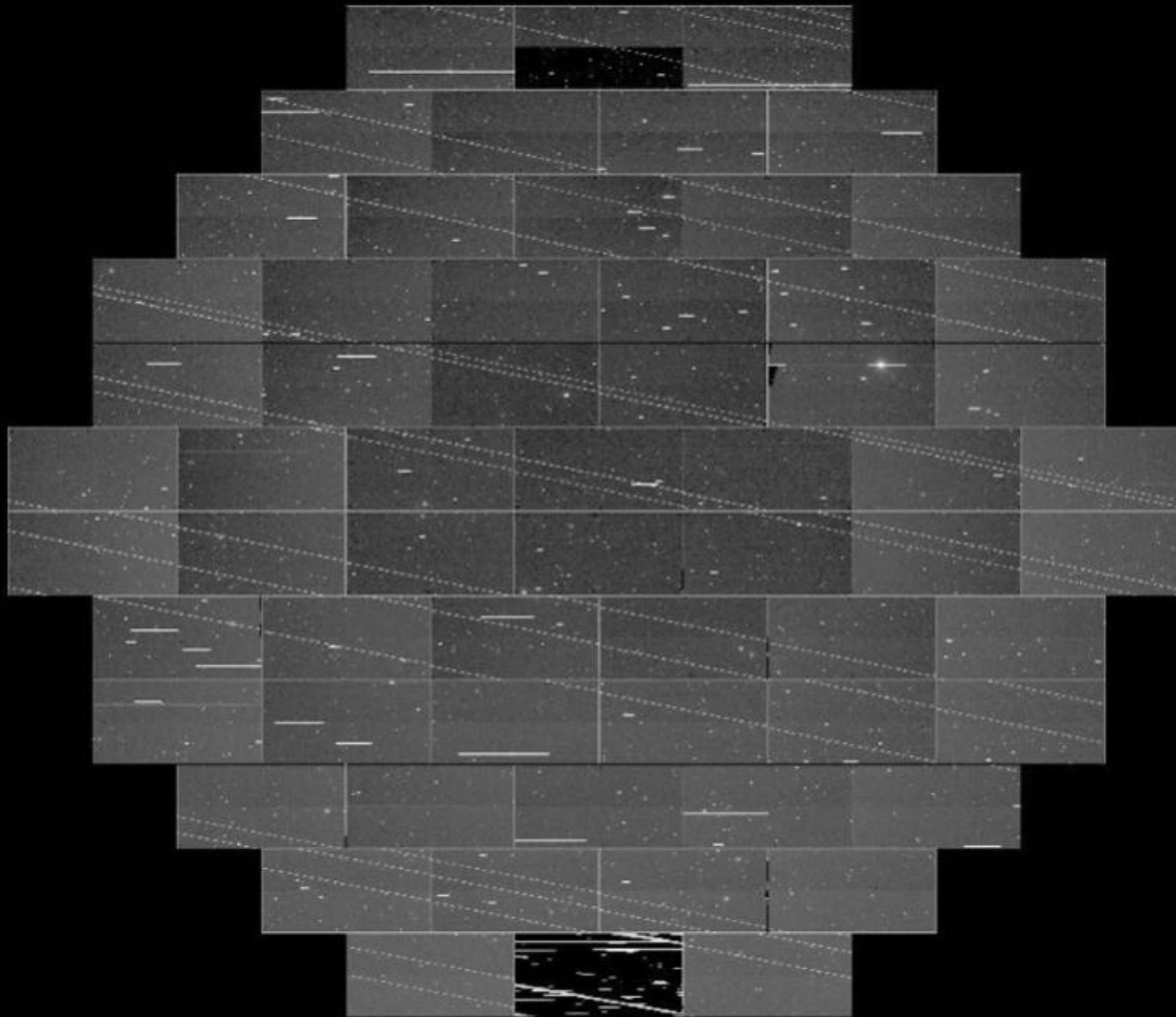


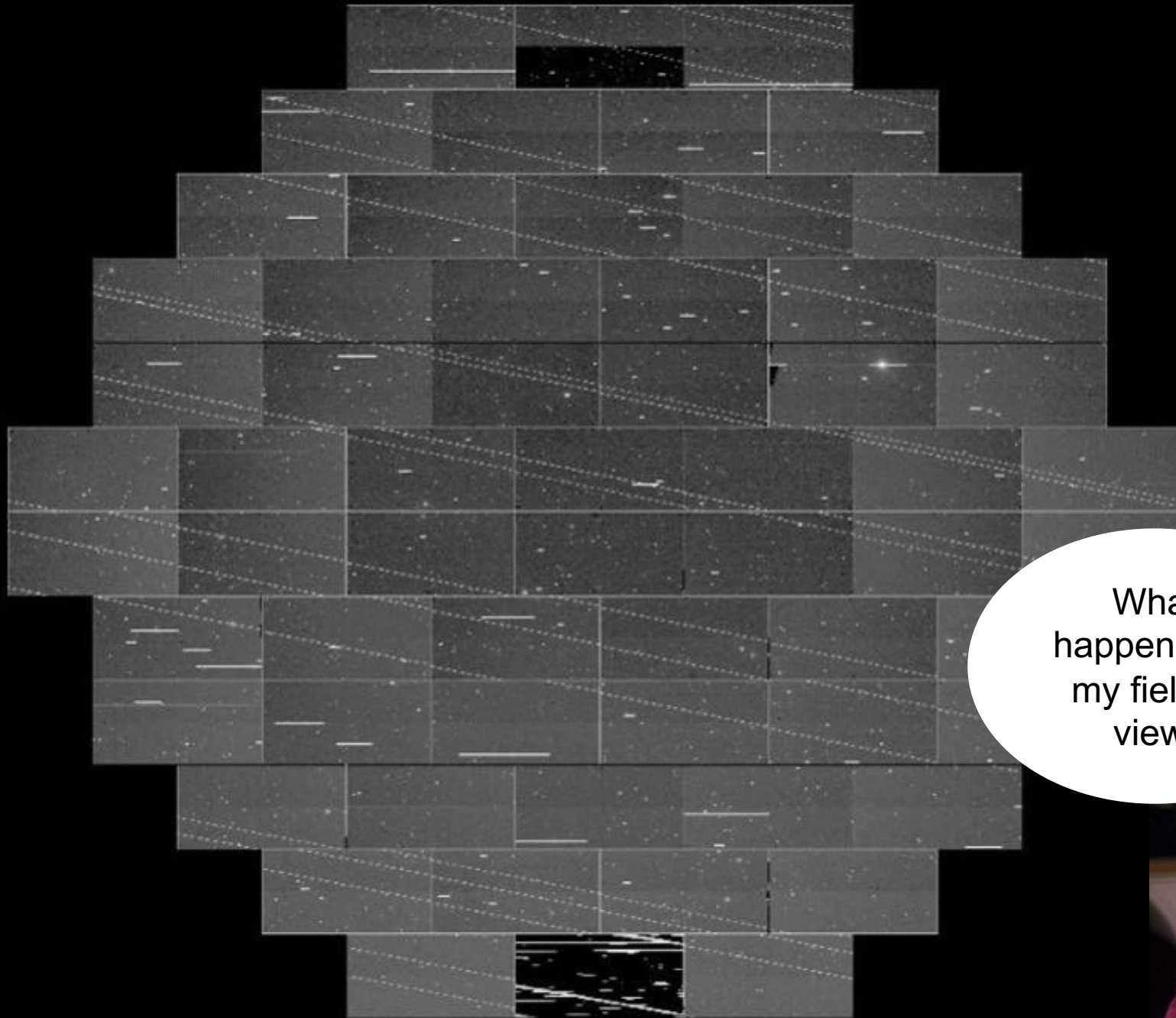


Credit : L.Eyer & N.Mowlavi (03/2009)  
(updated 04/2013)



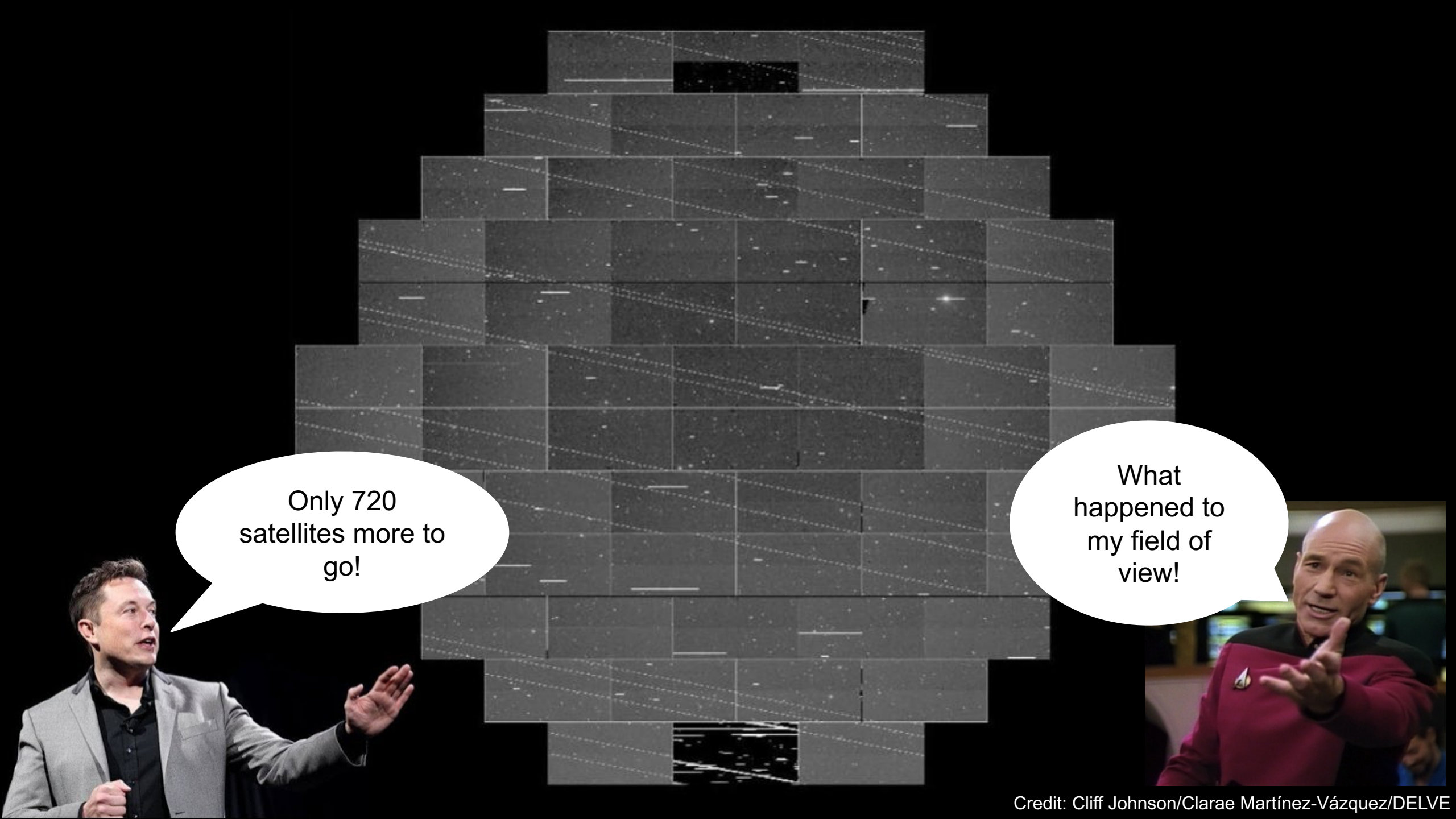
Credit : L.Eyer & N.Mowlavi (03/2009)  
 (updated 04/2013)





What  
happened to  
my field of  
view!

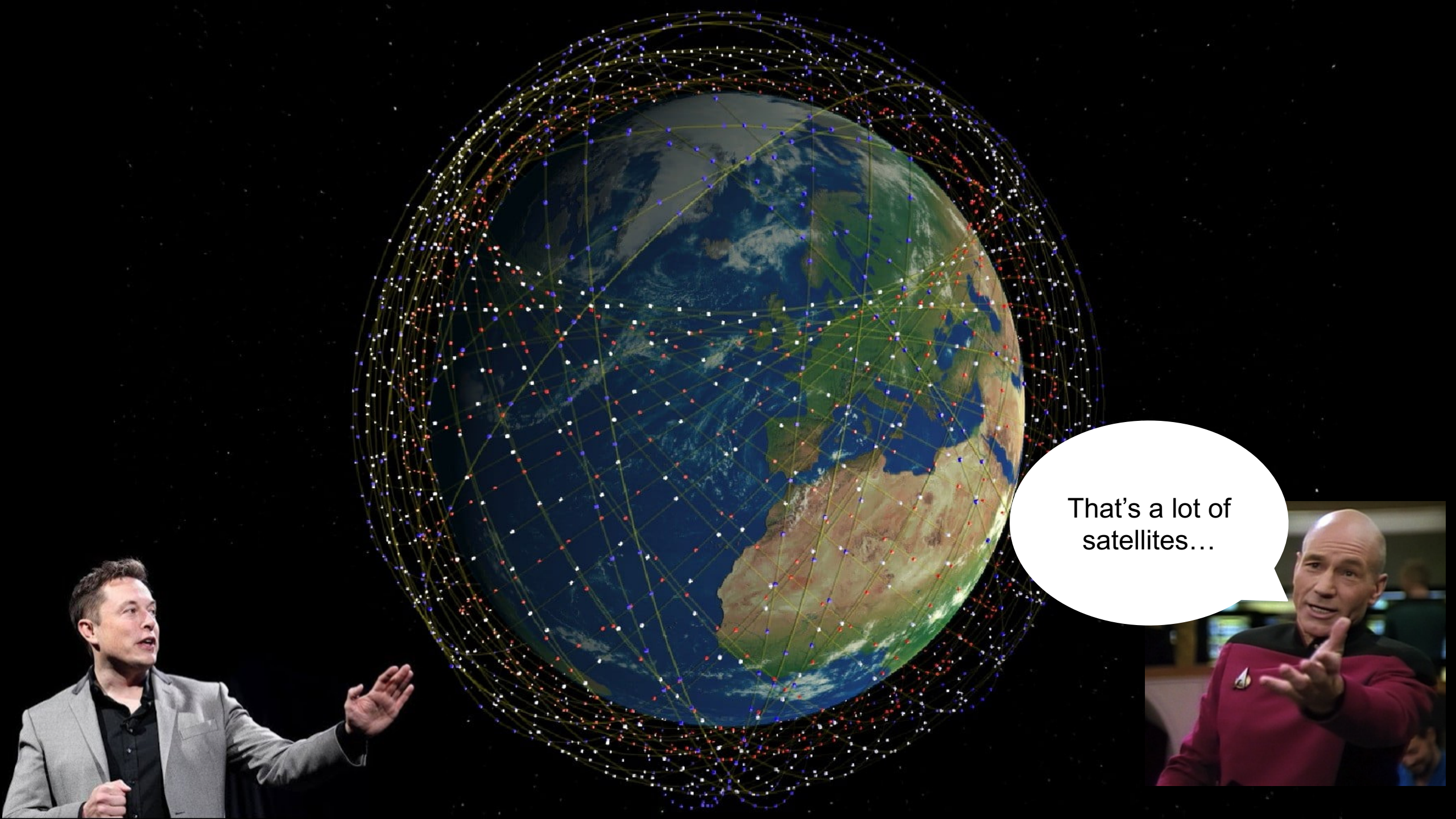




Only 720 satellites more to go!

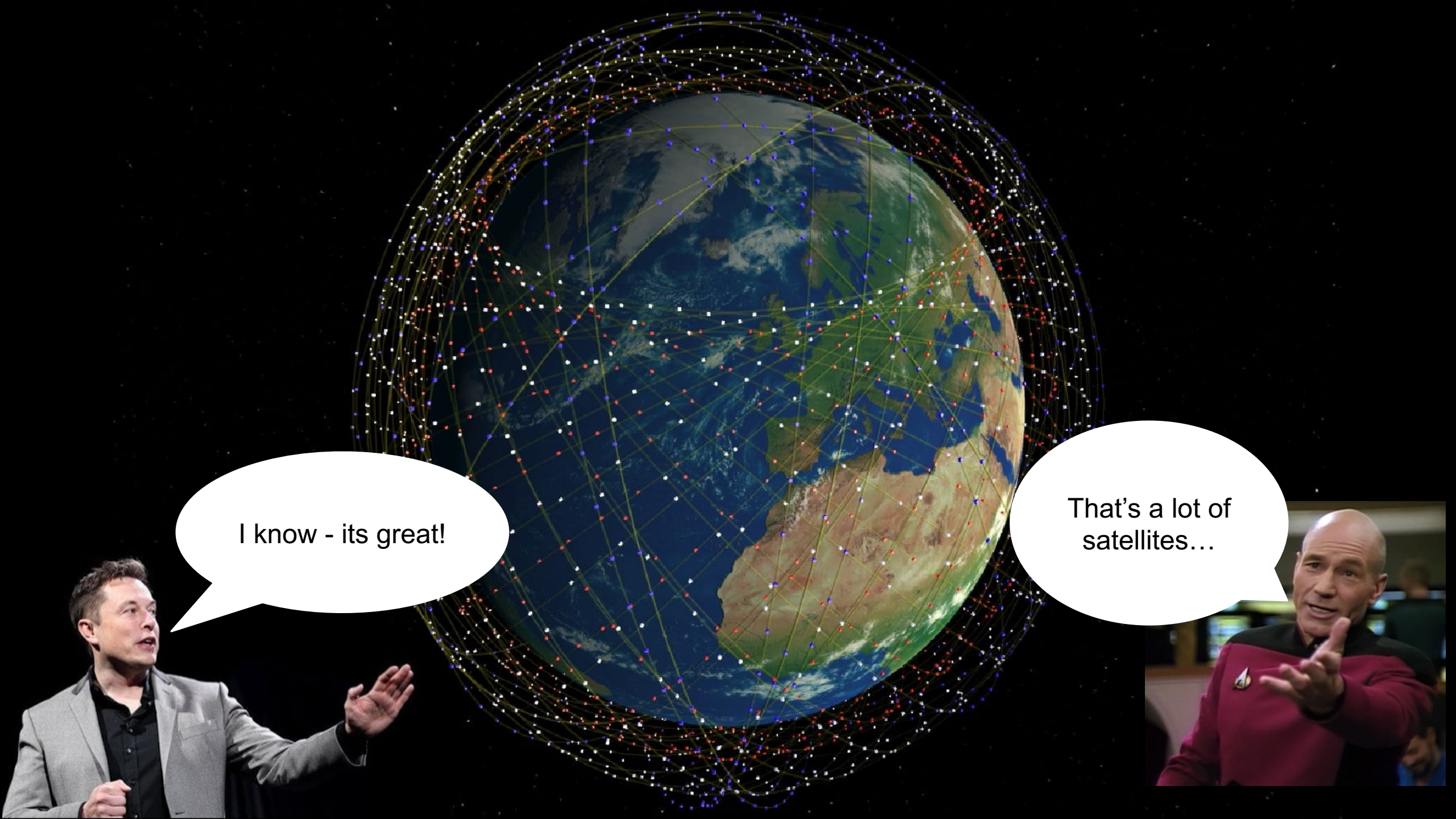
What happened to my field of view!





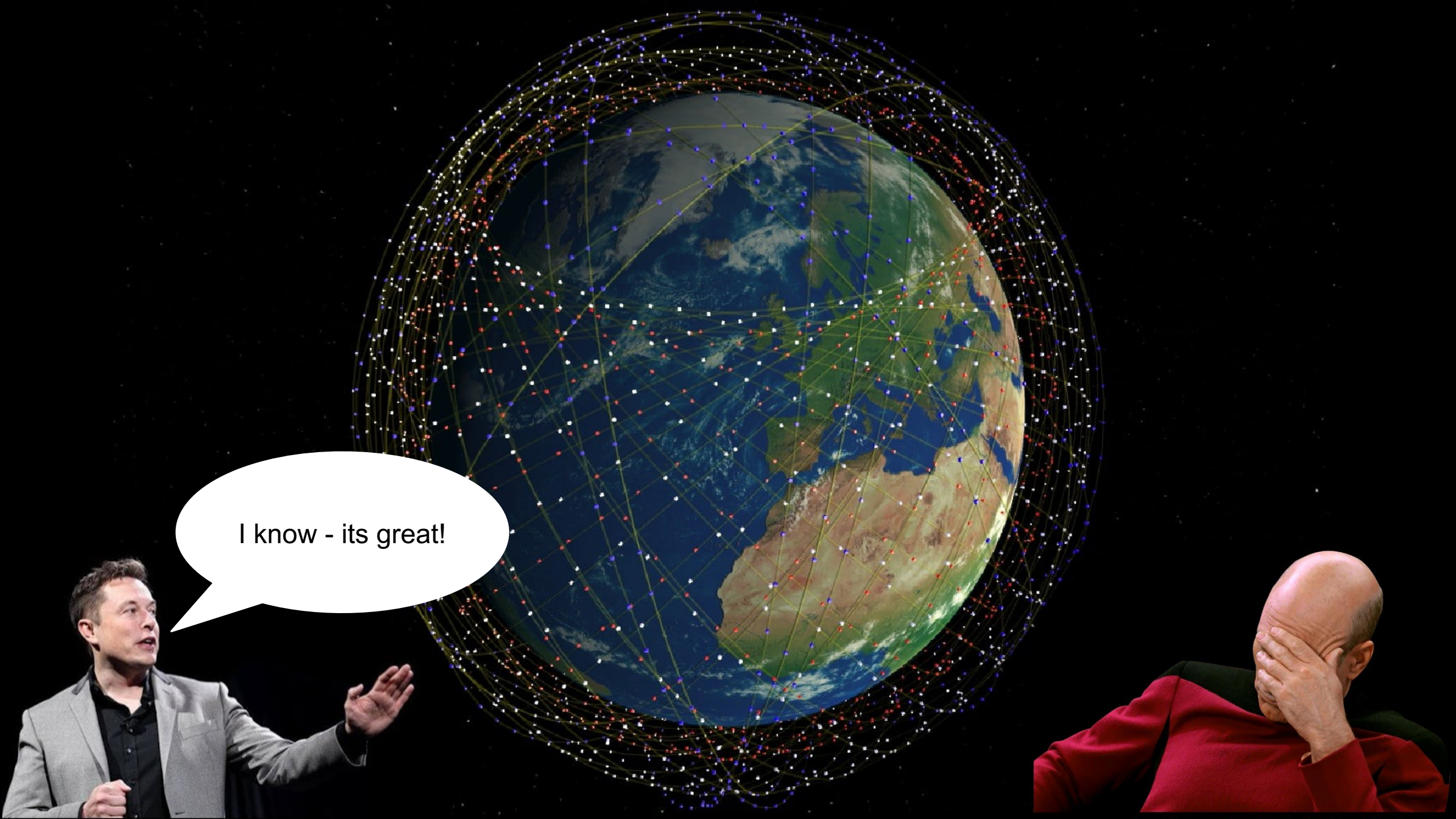
That's a lot of satellites...





I know - its great!

That's a lot of satellites...



I know - its great!

Questions?