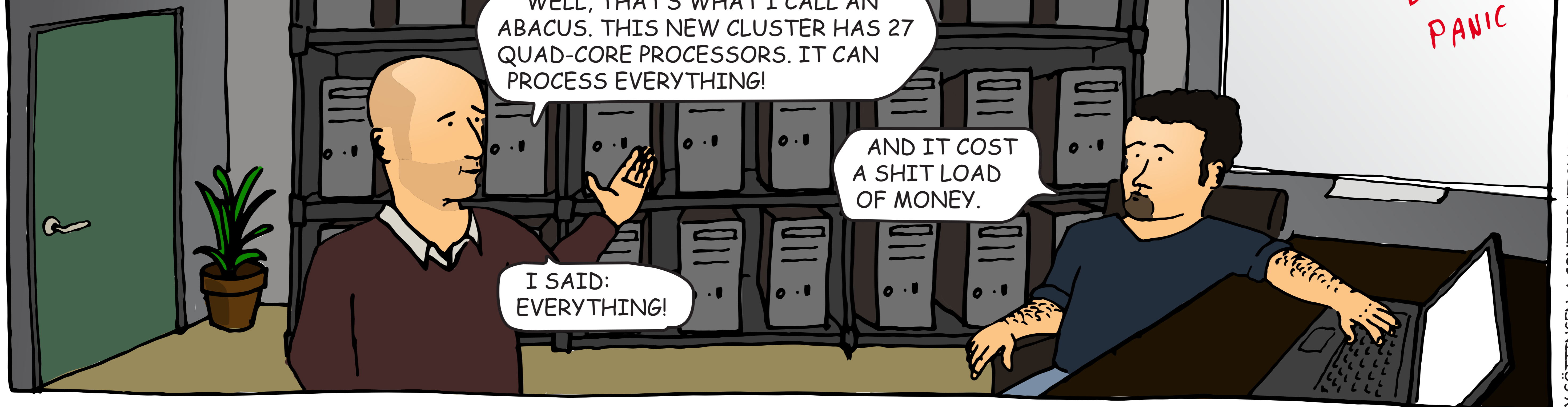


DEEP THOUGHT

A SCIENTIFIC COMIC TRIBUTE TO DOUGLAS ADAMS



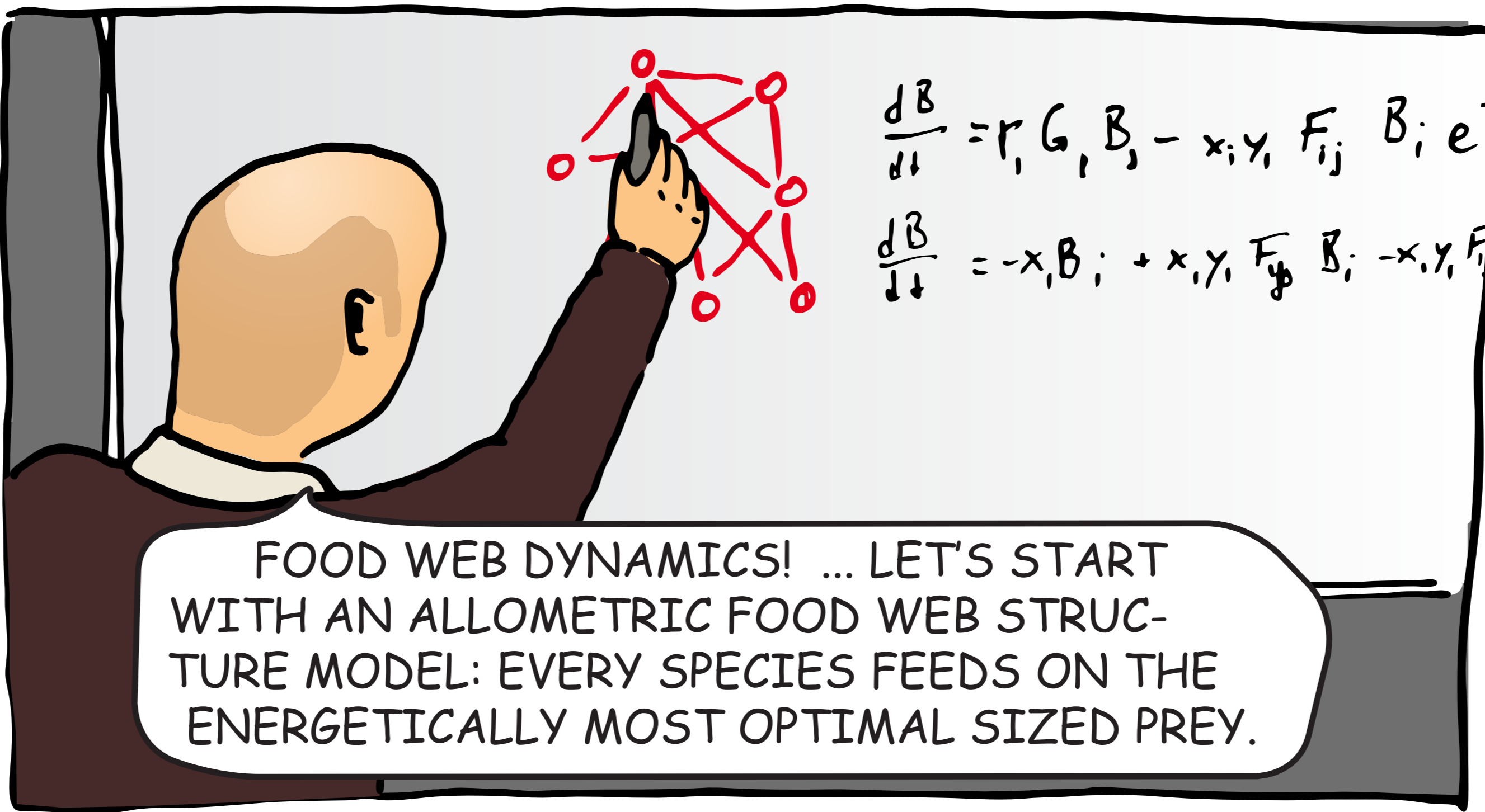
WELL, THAT'S WHAT I CALL AN ABACUS. THIS NEW CLUSTER HAS 27 QUAD-CORE PROCESSORS. IT CAN PROCESS EVERYTHING!

AND IT COST A SHIT LOAD OF MONEY.

I SAID: EVERYTHING!



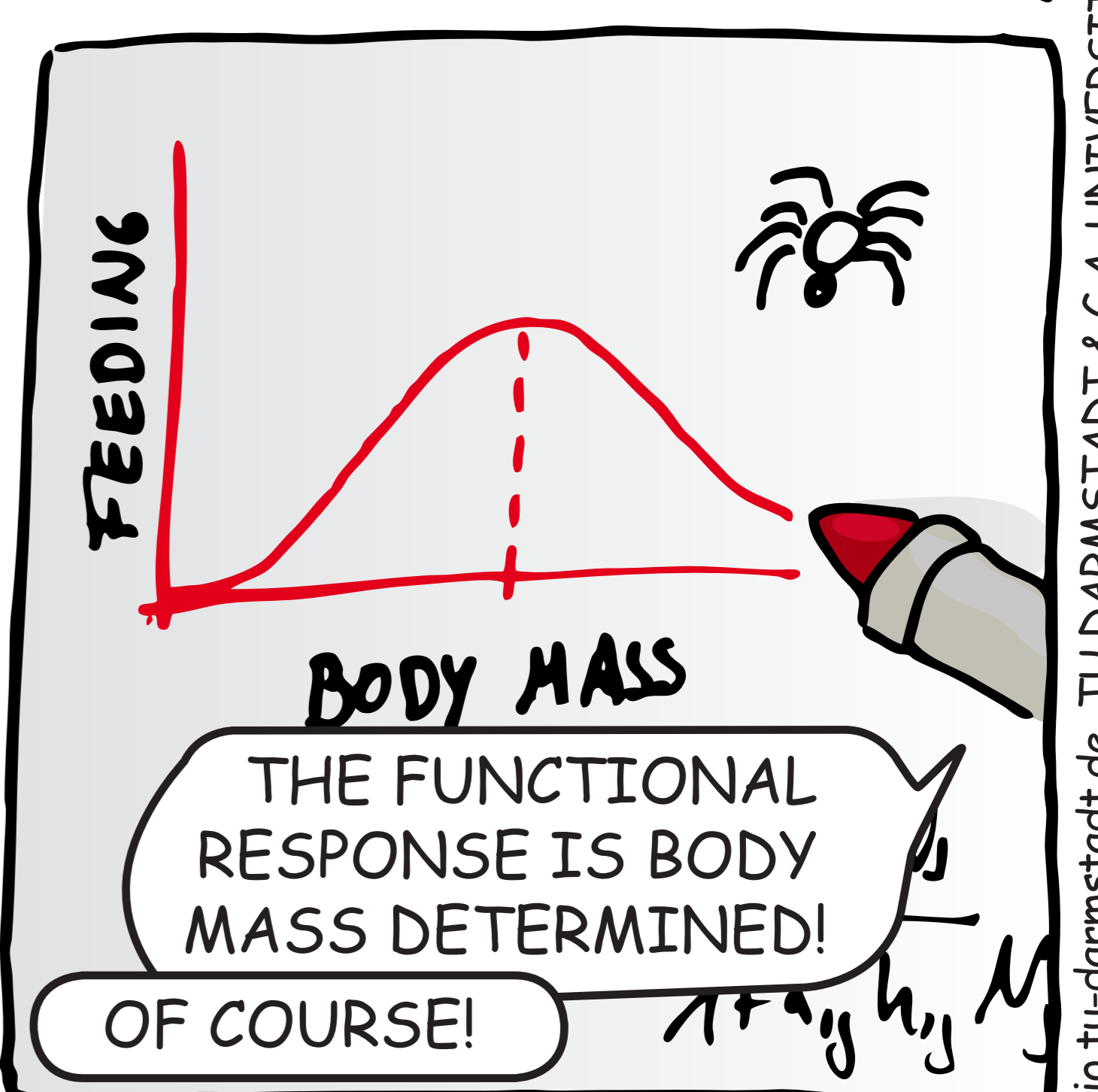
NOW, WHAT DO YOU WANT IT TO DO?



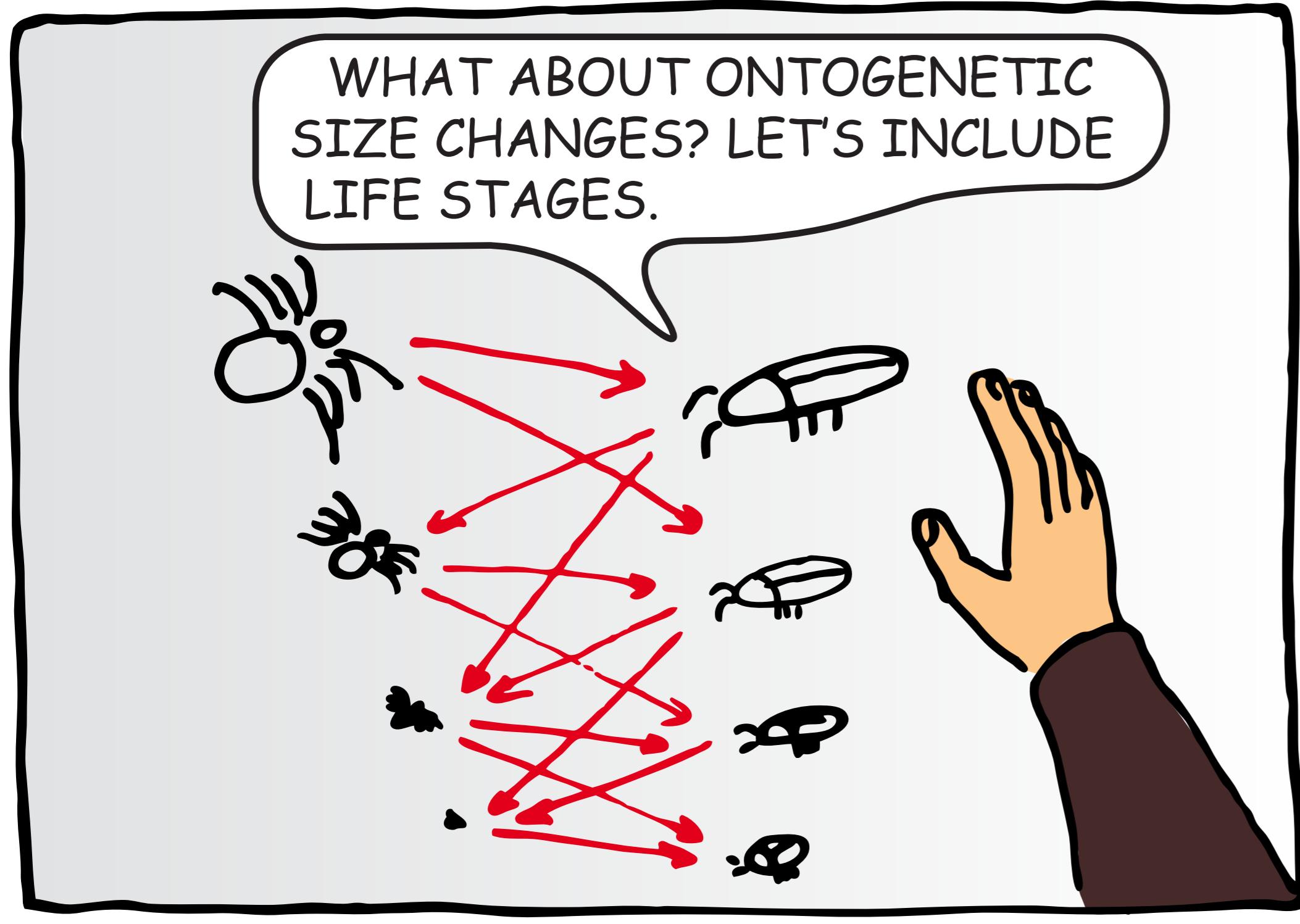
$$\frac{dB}{dt} = r_i G_i B_i - x_{ij} y_{ij} F_{ij} B_i e^{-\alpha_{ij} B_i}$$

$$\frac{dB}{dt} = -x_{ij} B_i + x_{ij} y_{ij} F_{ij} B_i - x_{ij} y_{ij} F_{ij}$$

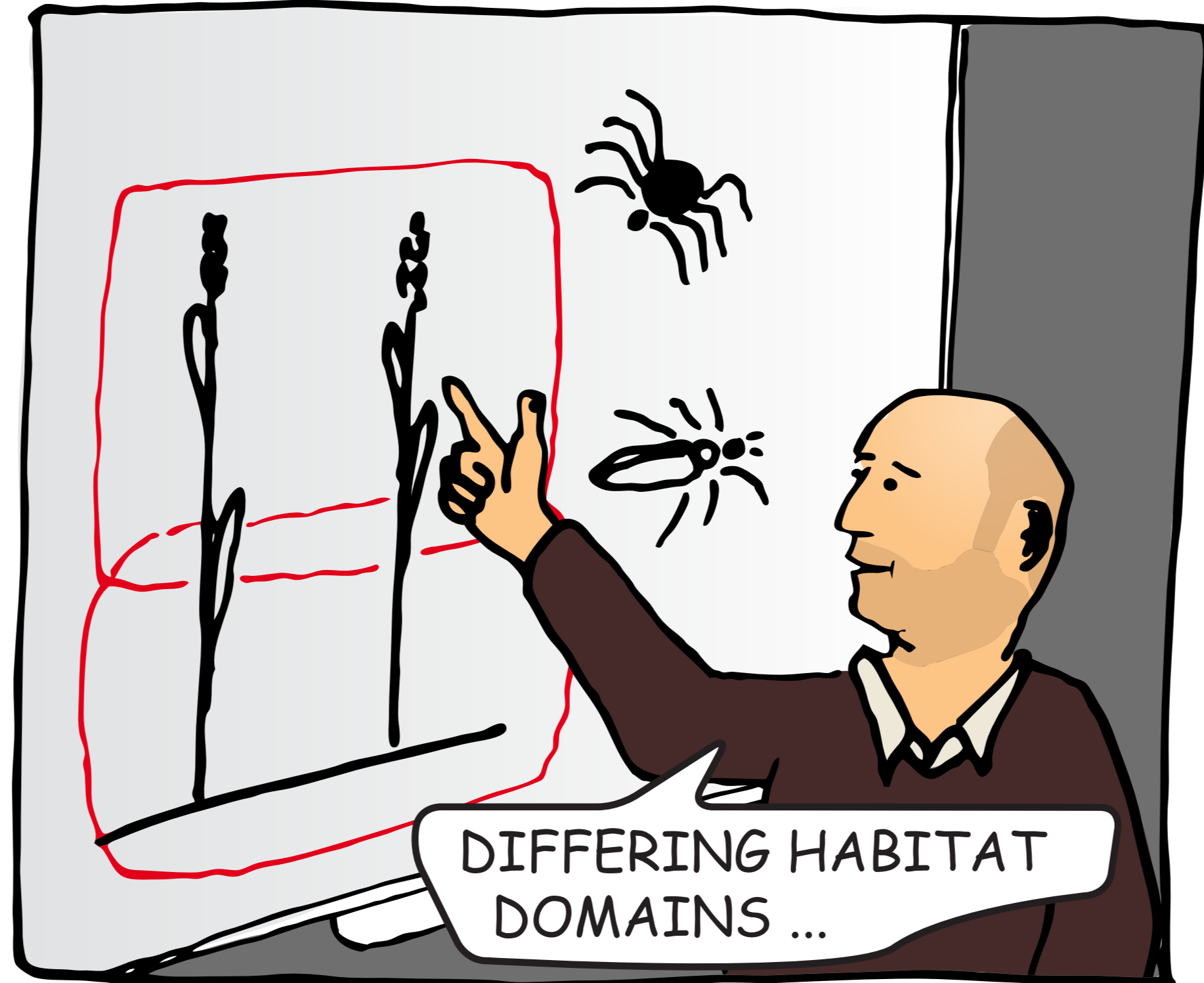
FOOD WEB DYNAMICS! ... LET'S START WITH AN ALLOMETRIC FOOD WEB STRUCTURE MODEL: EVERY SPECIES FEEDS ON THE ENERGETICALLY MOST OPTIMAL SIZED PREY.



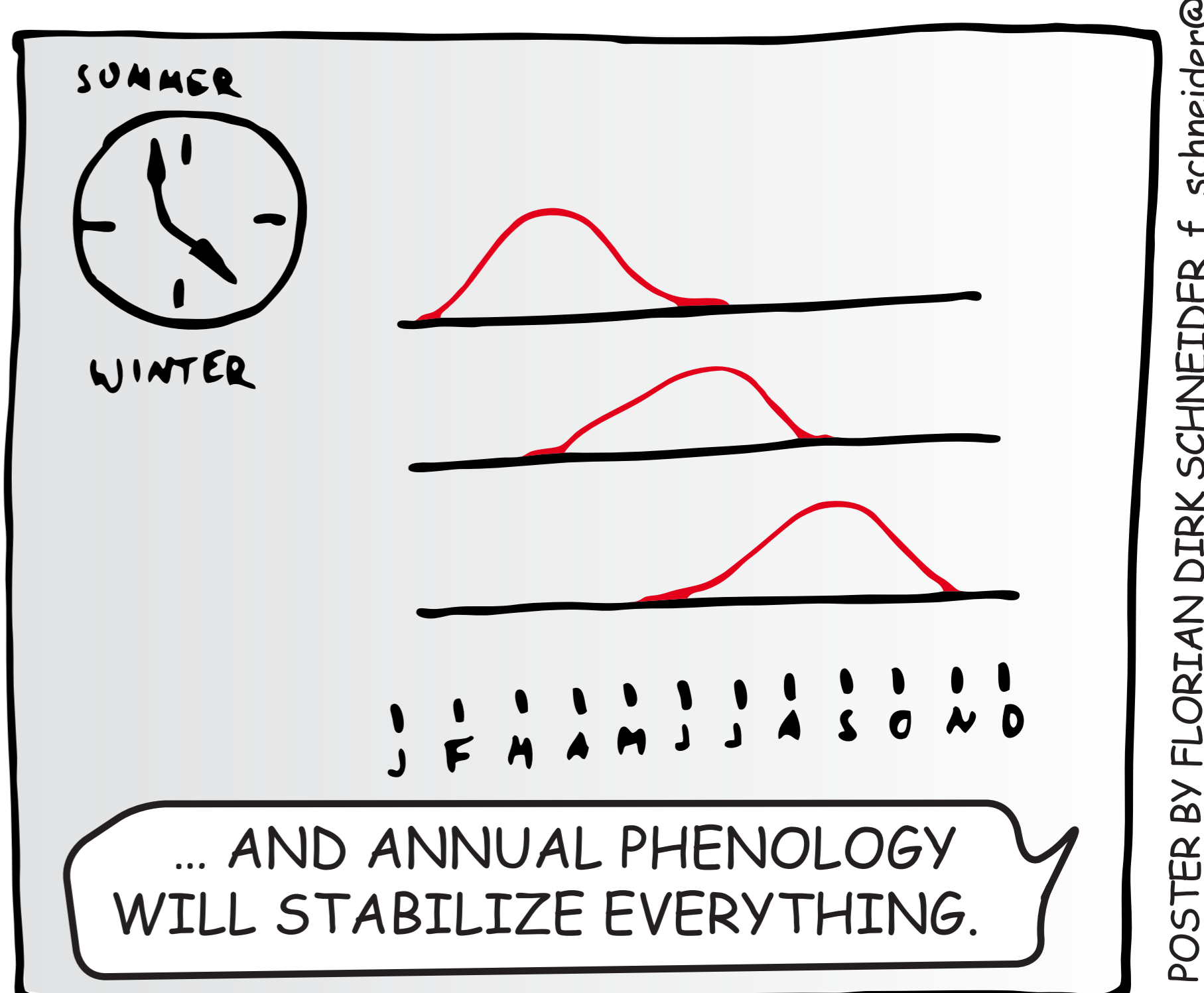
THE FUNCTIONAL RESPONSE IS BODY MASS DETERMINED!
OF COURSE!



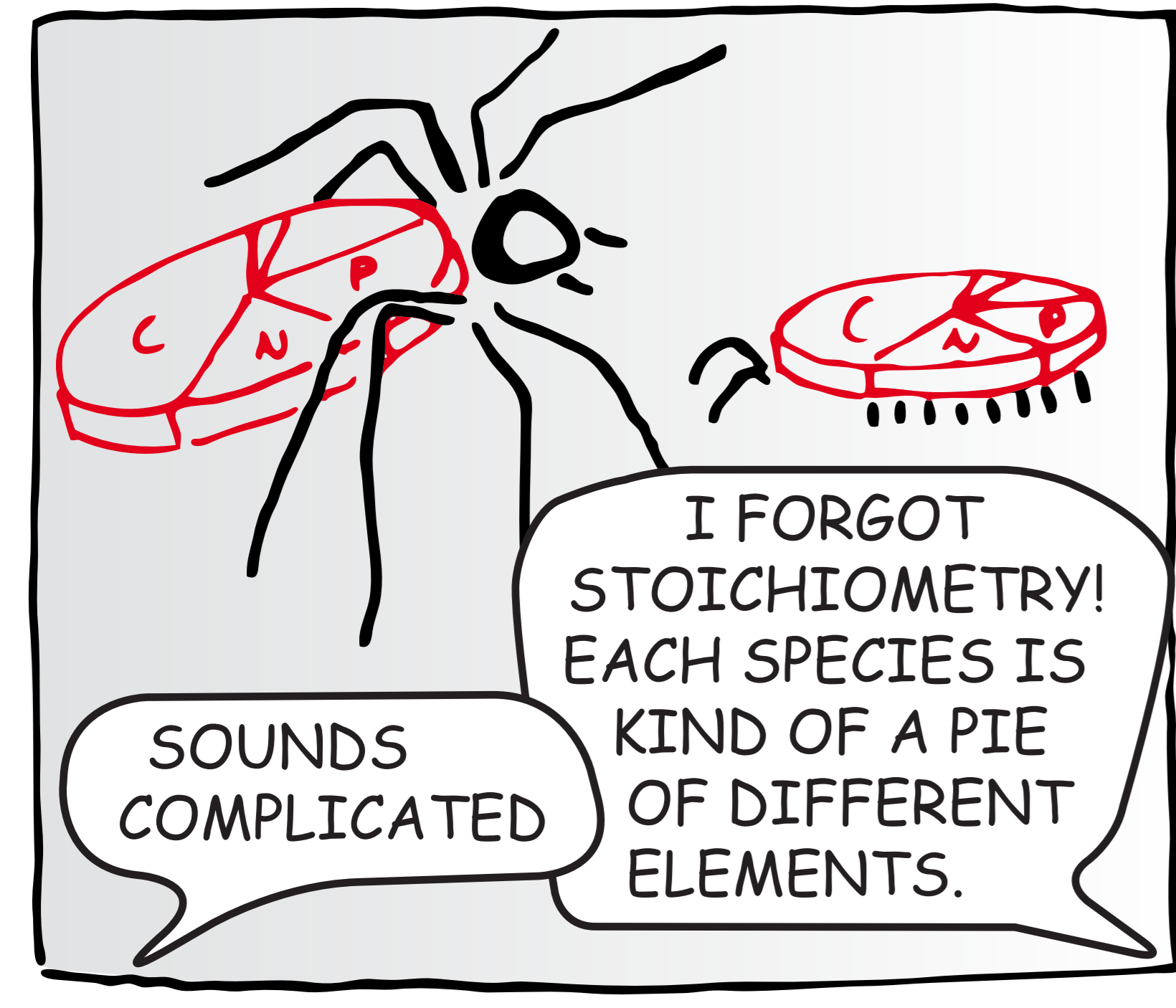
WHAT ABOUT ONTOGENETIC SIZE CHANGES? LET'S INCLUDE LIFE STAGES.



DIFFERING HABITAT DOMAINS ...

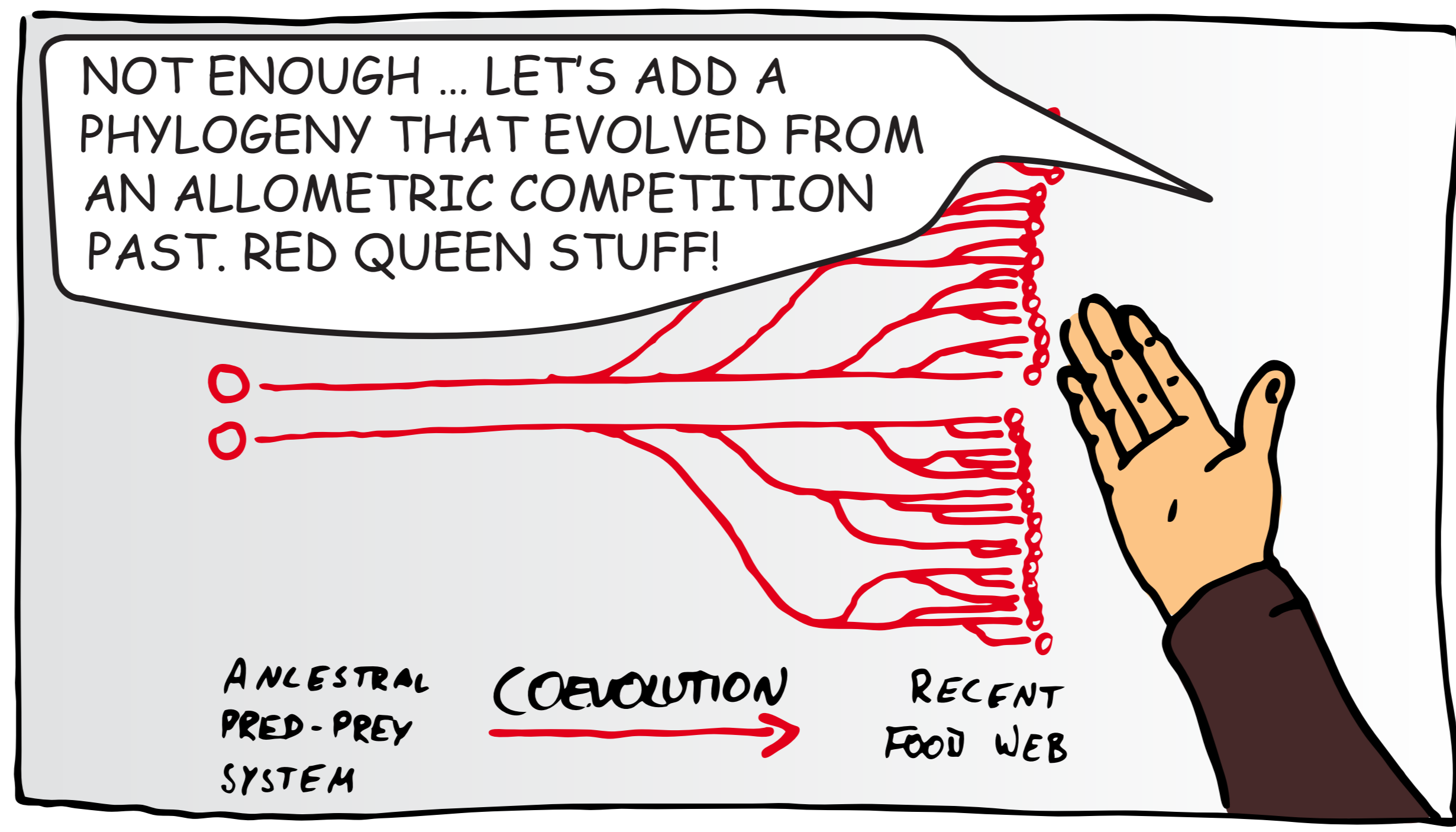


... AND ANNUAL PHENOLOGY WILL STABILIZE EVERYTHING.



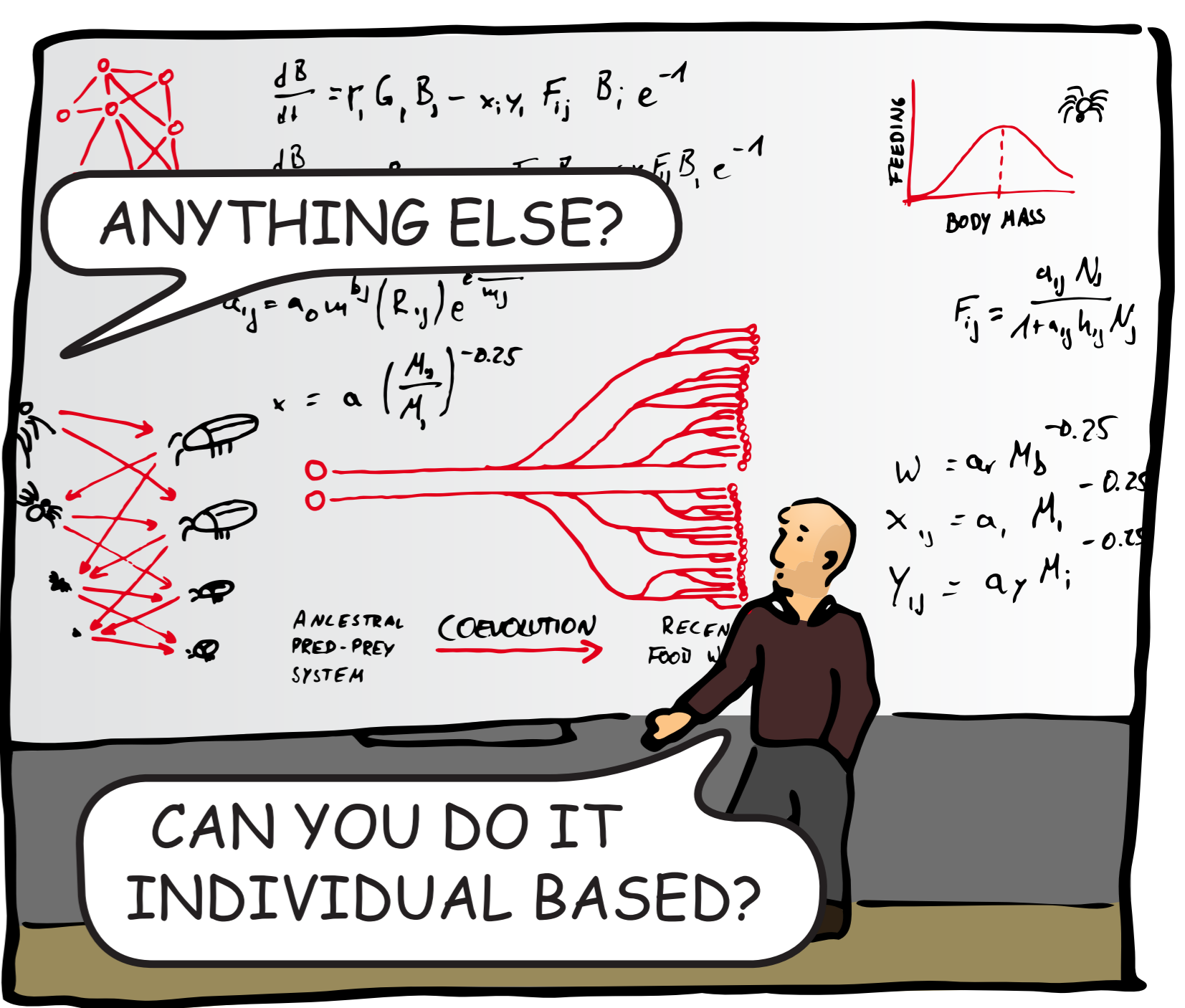
SOUNDS COMPLICATED

I FORGOT STOICHIOMETRY! EACH SPECIES IS KIND OF A PIE OF DIFFERENT ELEMENTS.



NOT ENOUGH ... LET'S ADD A PHYLOGENY THAT EVOLVED FROM AN ALLOMETRIC COMPETITION PAST. RED QUEEN STUFF!

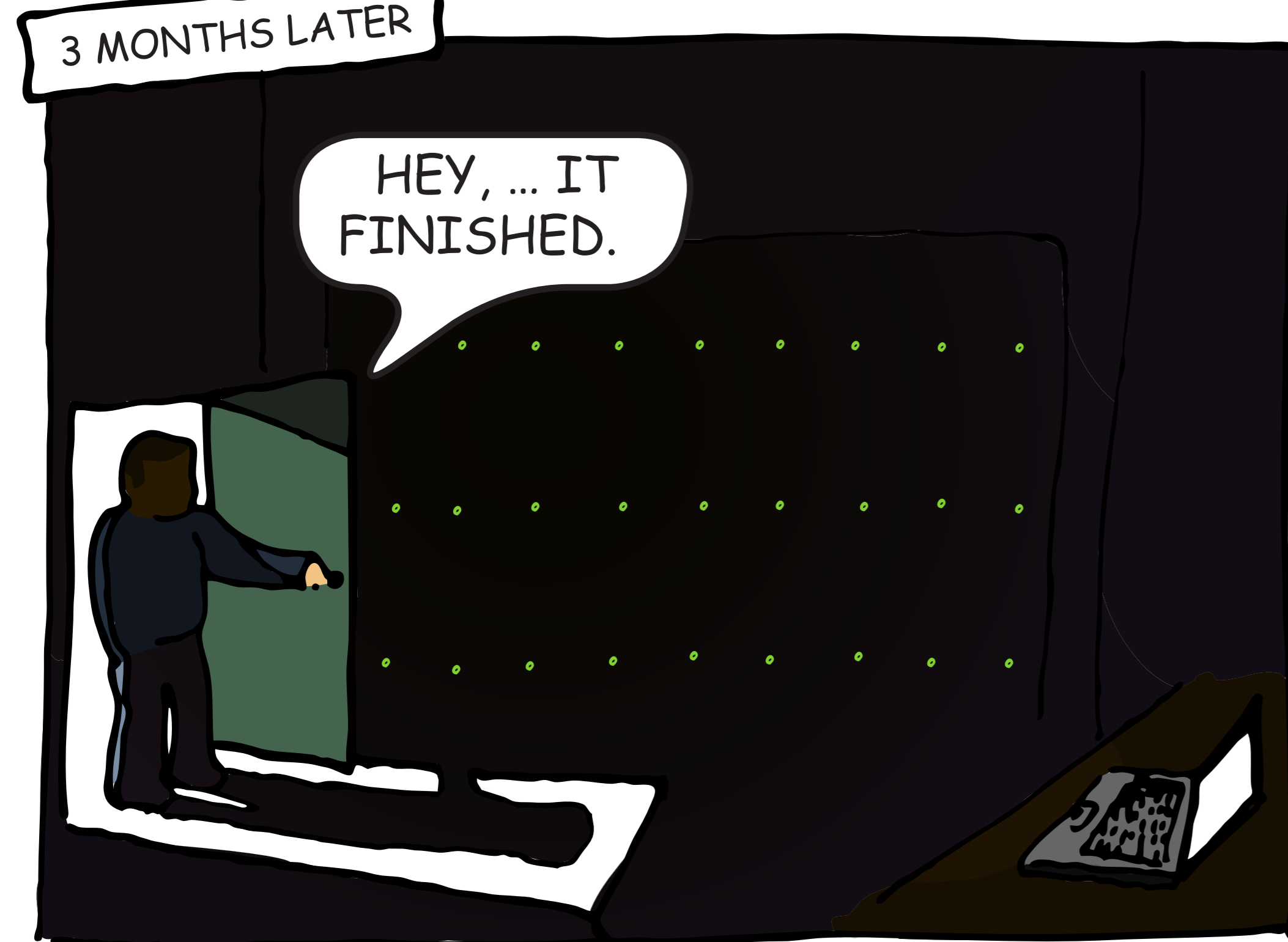
ANCESTRAL PRED-PREY SYSTEM → COEVOLUTION → RECENT FOOD WEB



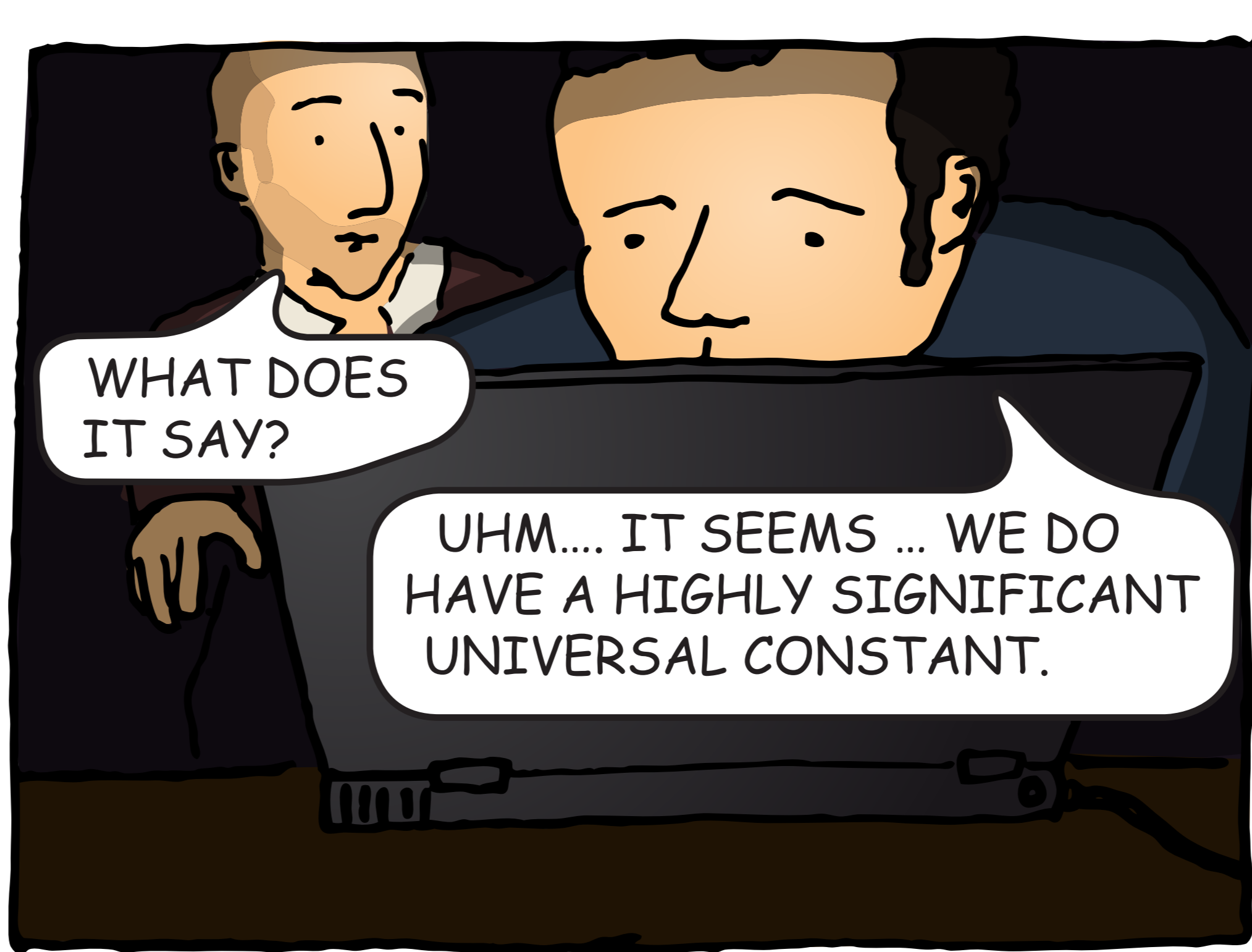
ANYTHING ELSE?

CAN YOU DO IT INDIVIDUAL BASED?

> running simulation

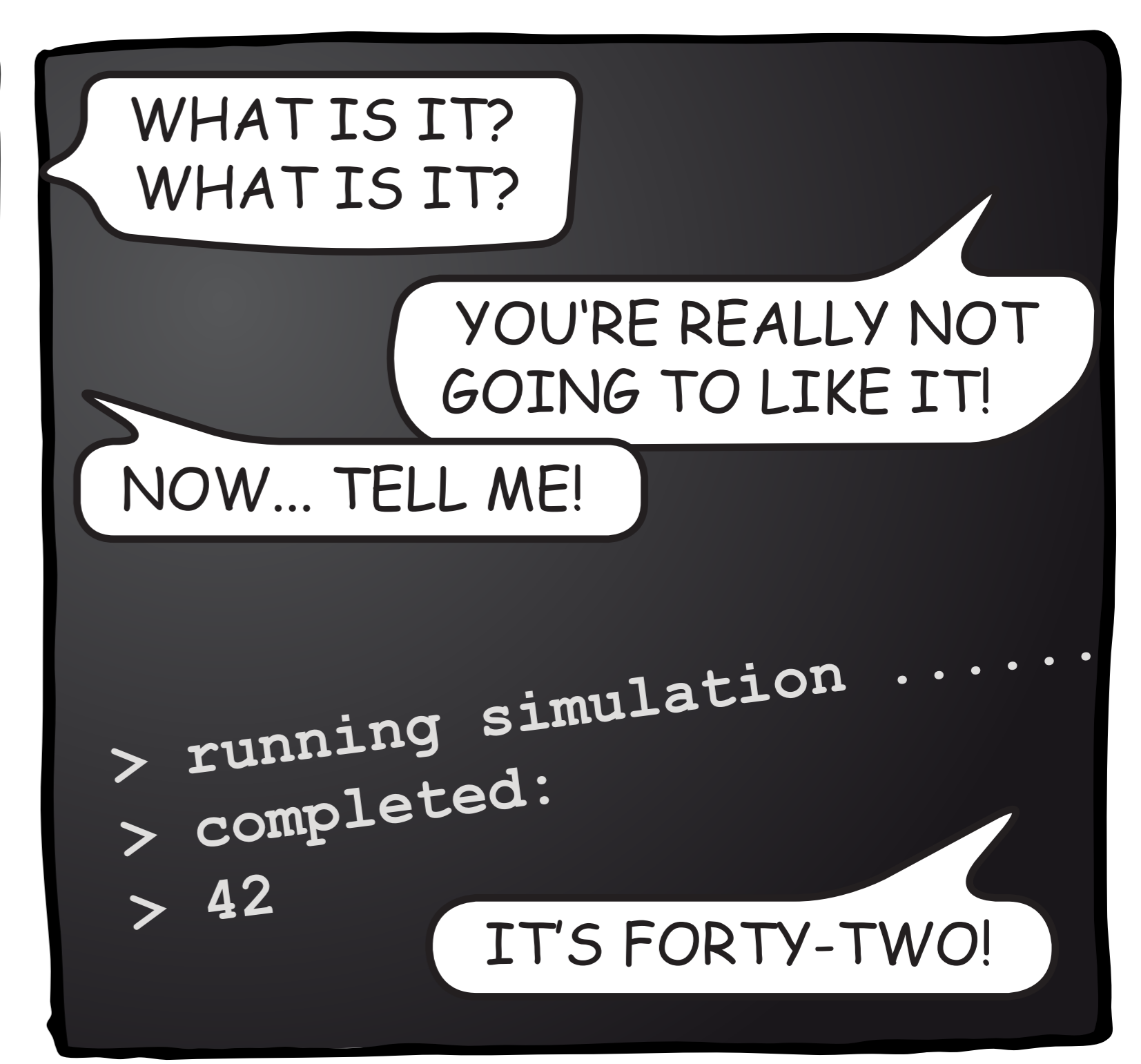


HEY, ... IT FINISHED.



WHAT DOES IT SAY?

UHM... IT SEEMS ... WE DO HAVE A HIGHLY SIGNIFICANT UNIVERSAL CONSTANT.



WHAT IS IT? WHAT IS IT?

YOU'RE REALLY NOT GOING TO LIKE IT!

NOW... TELL ME!

> running simulation
> completed:
> 42

IT'S FORTY-TWO!