

Sound & Environment: Possible working fields



- *Toni roof garden/treenet station*
- *treelab*
- *Pfynwald longterm observation (excursion 22.10.2020)*
- *Glattpark*



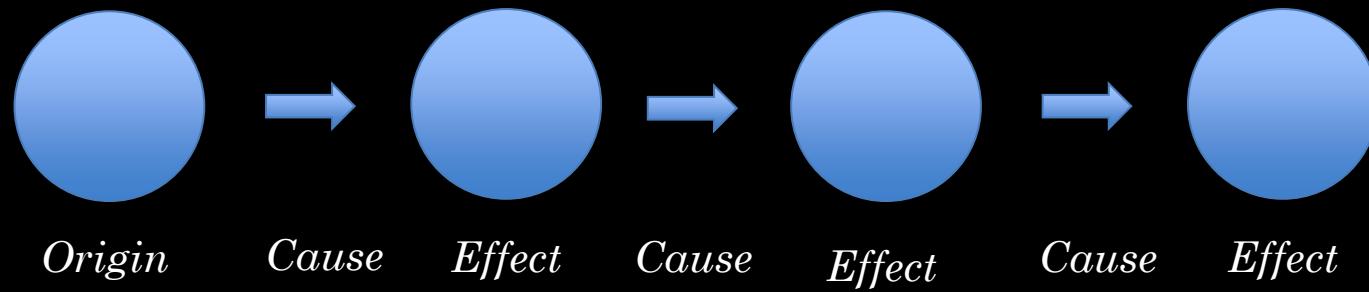
FOREST

PONDSIDE

Ecosystem Ecology

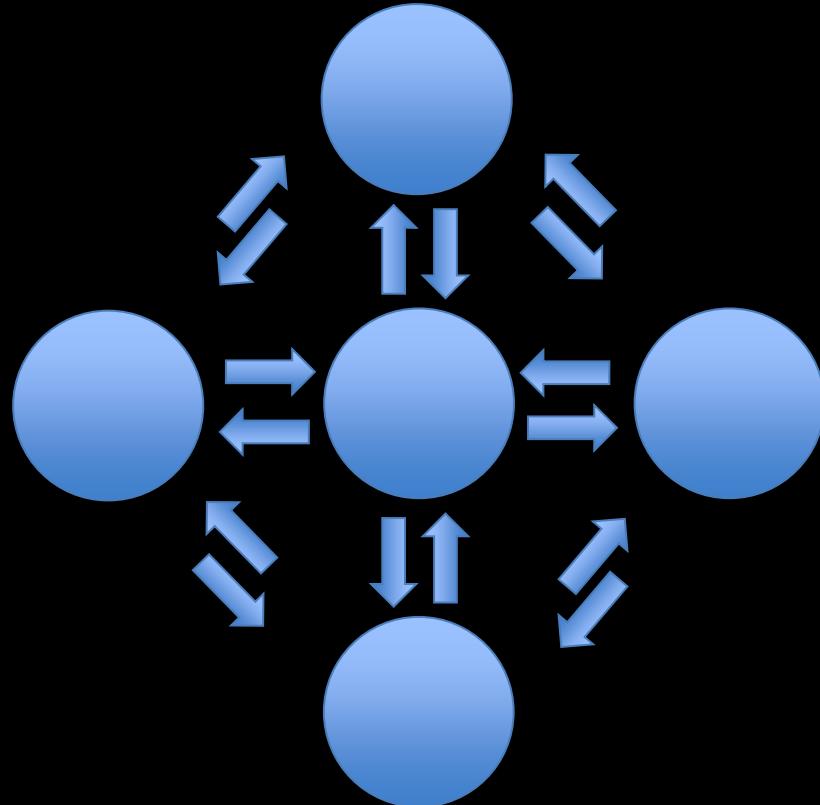
General Systems Theory

The linear universe: Cartesian worldview



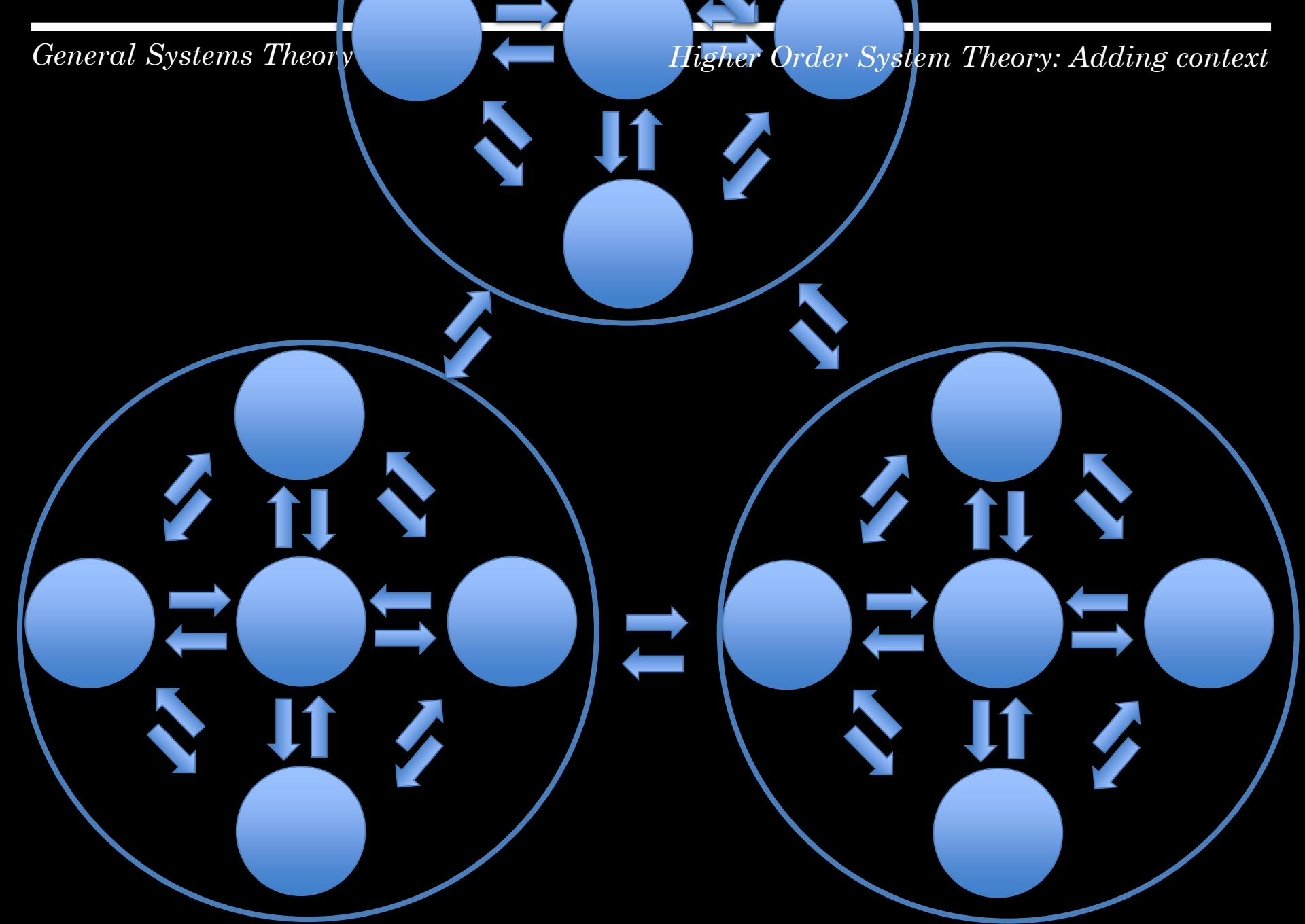
General Systems Theory

Cybernetics/system theory: Adding complexity



General Systems Theory

Higher Order System Theory: Adding context



General Systems Theory: Terminology

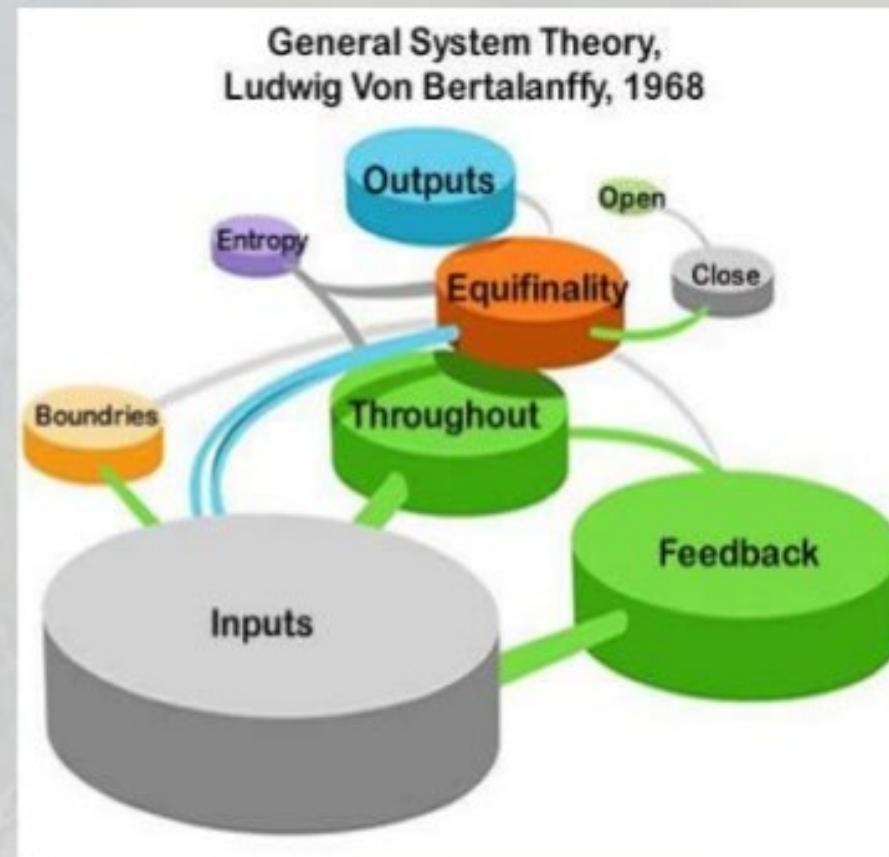
Input is the term denoting either an entrance or changes which are inserted into a system and which activate/modify a process

Output is the term denoting either an exit or changes which exit a system

PROCESS: Perform a series of mechanical or chemical operations on (something) in order to change or preserve it

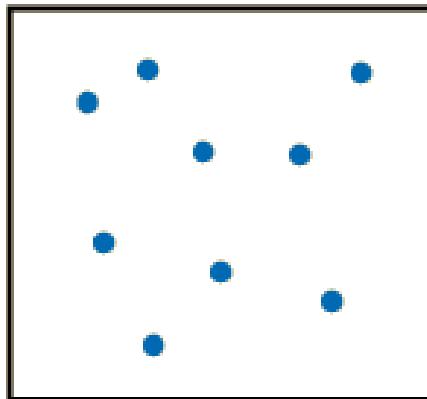
Feedback- Information about reactions to a product, a person's performance of a task, etc., used as a basis for improvement.

Throughput: Work done on those resources used to produce a product.



General Systems Theory: Entropy

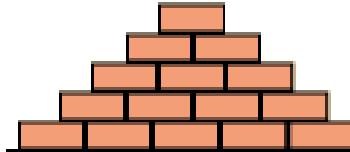
If the particles represent gas molecules at normal temperatures inside a closed container, which of the illustrated configurations came first?



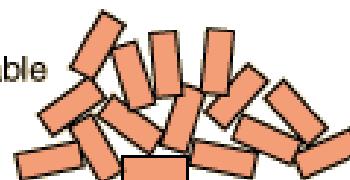
Time's
arrow



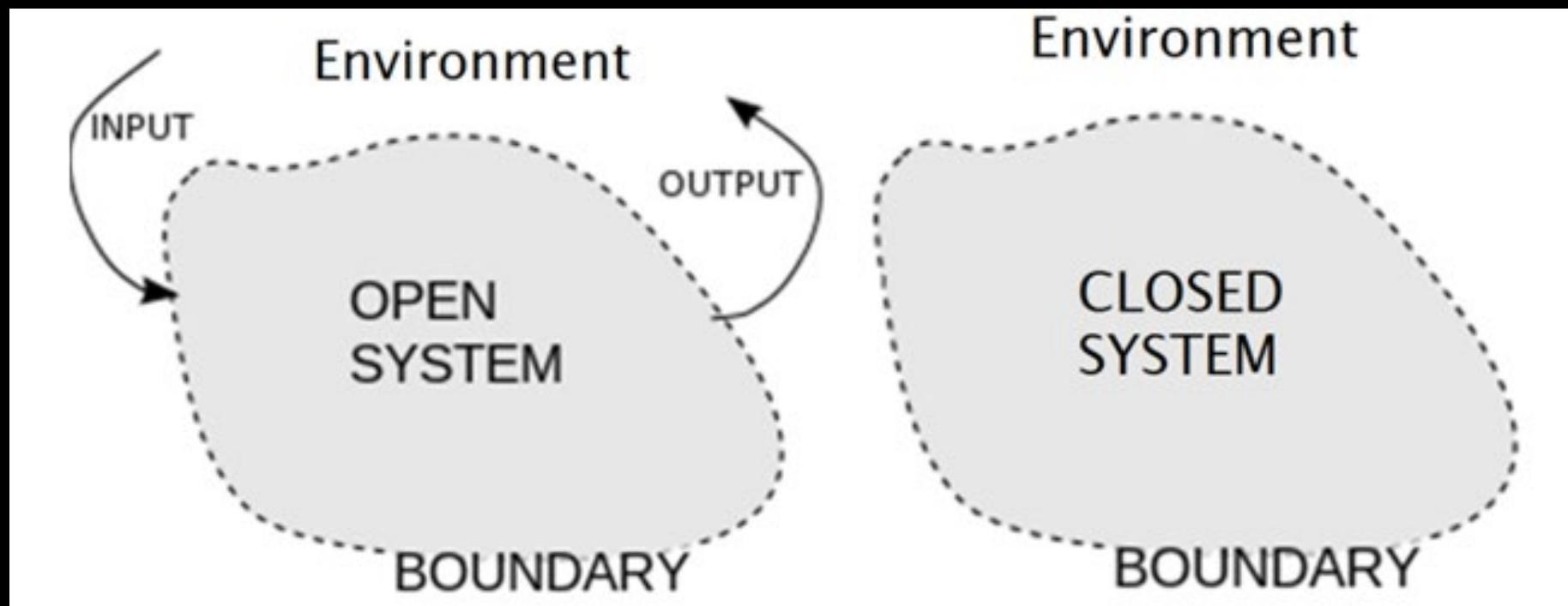
If you tossed bricks off a truck, which kind of pile of bricks would you more likely produce?



Disorder is
more probable
than order.



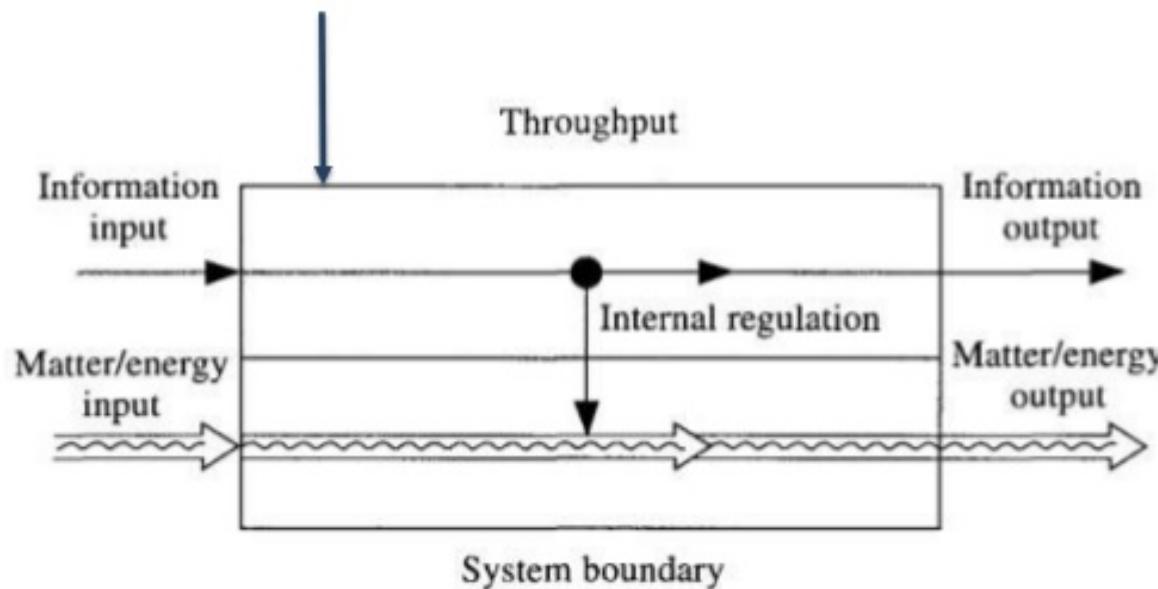
General Systems Theory: Open Systems



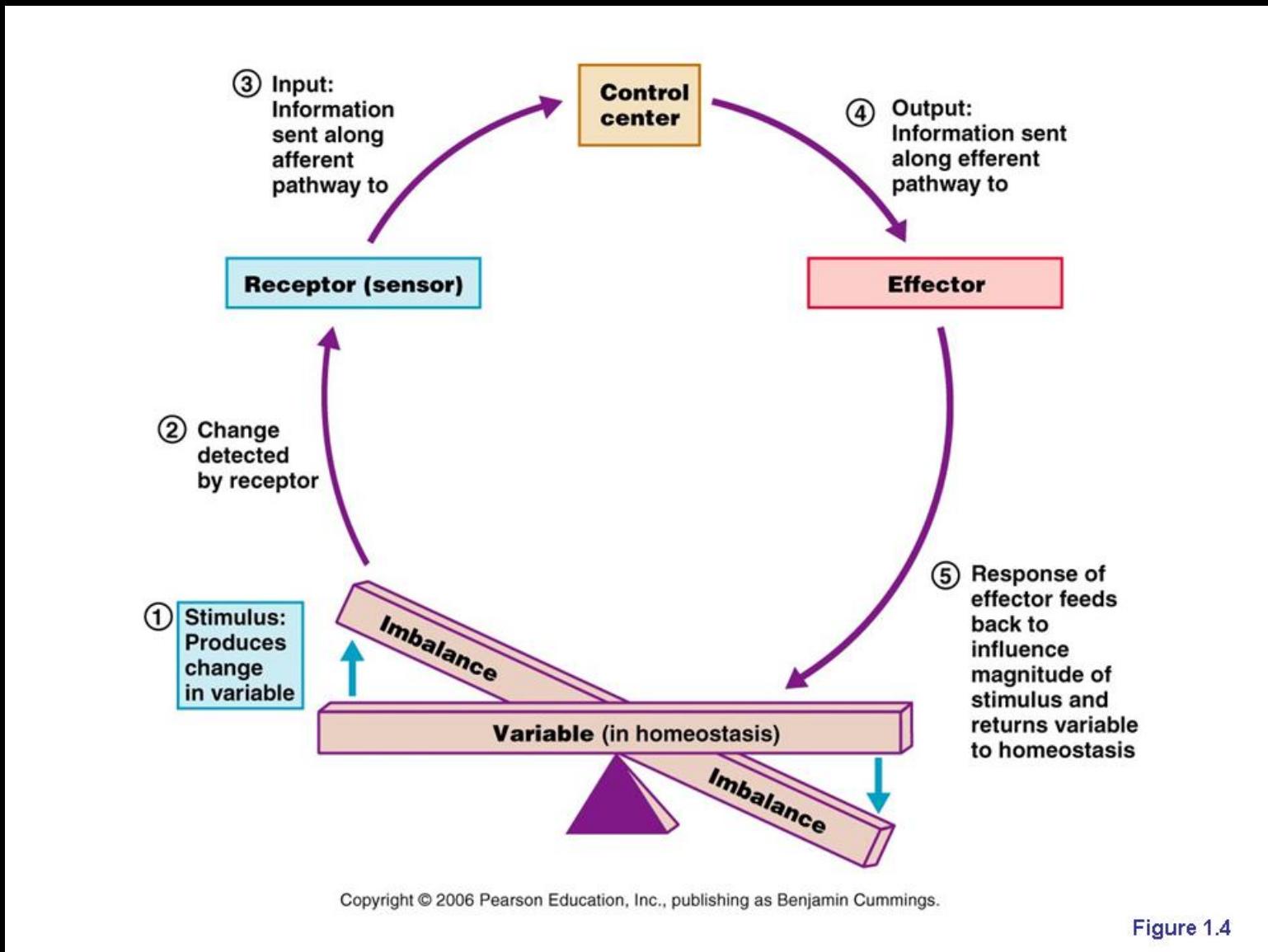
Properties of Living Systems

General Living Systems (GLS) theory – James G. Miller (1978, 1991)

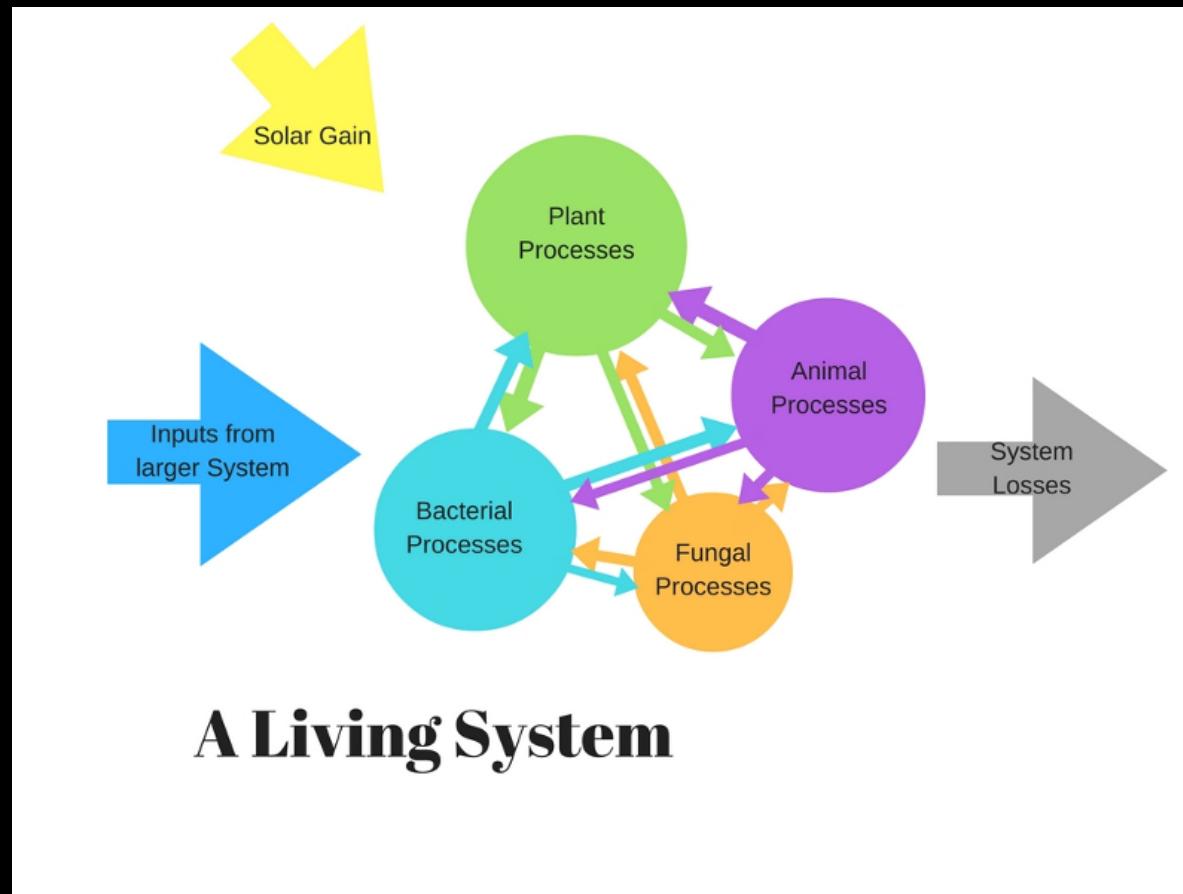
Living System – a special subclass of open system



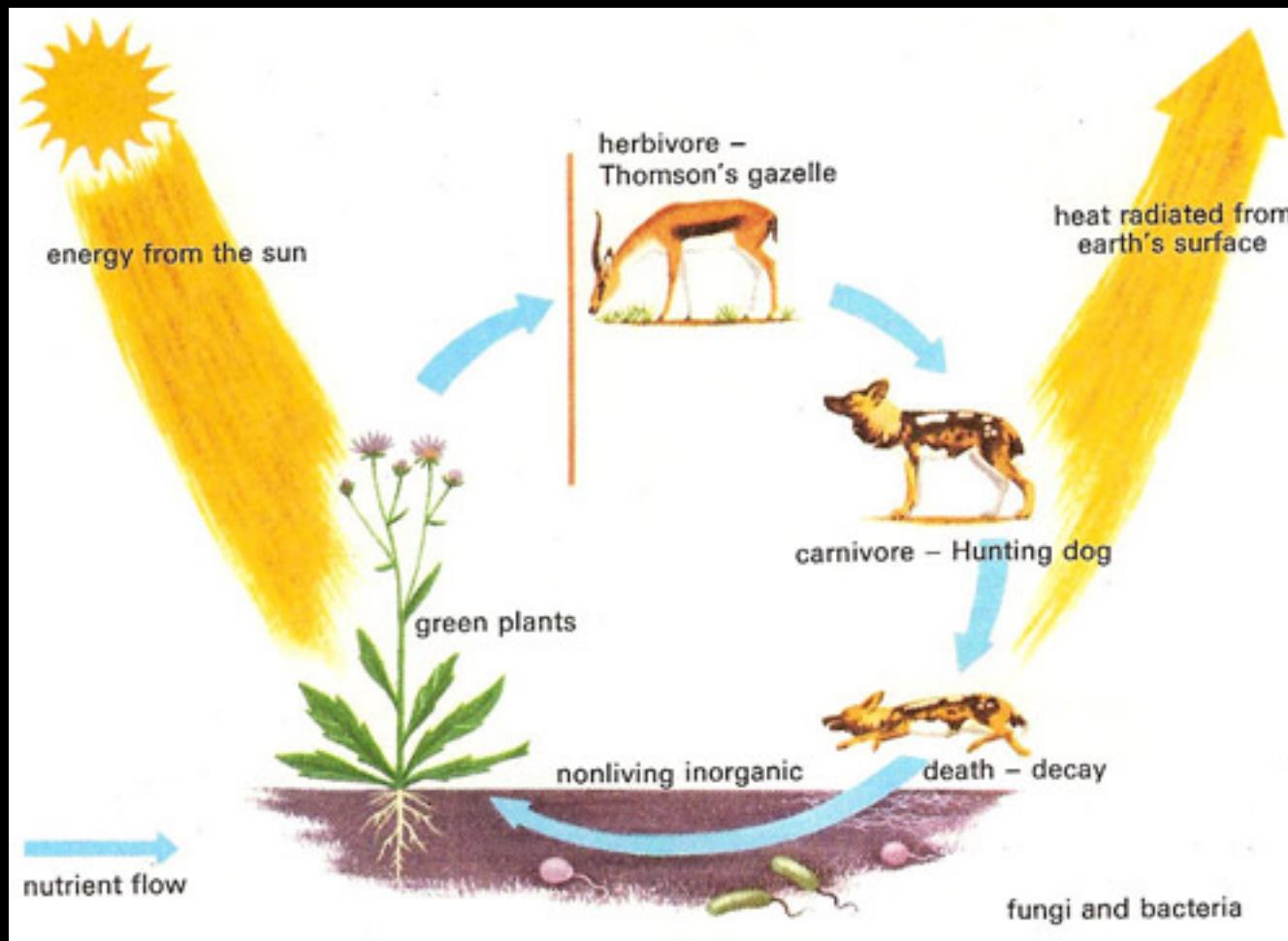
Living Systems Theory: Homeostasis



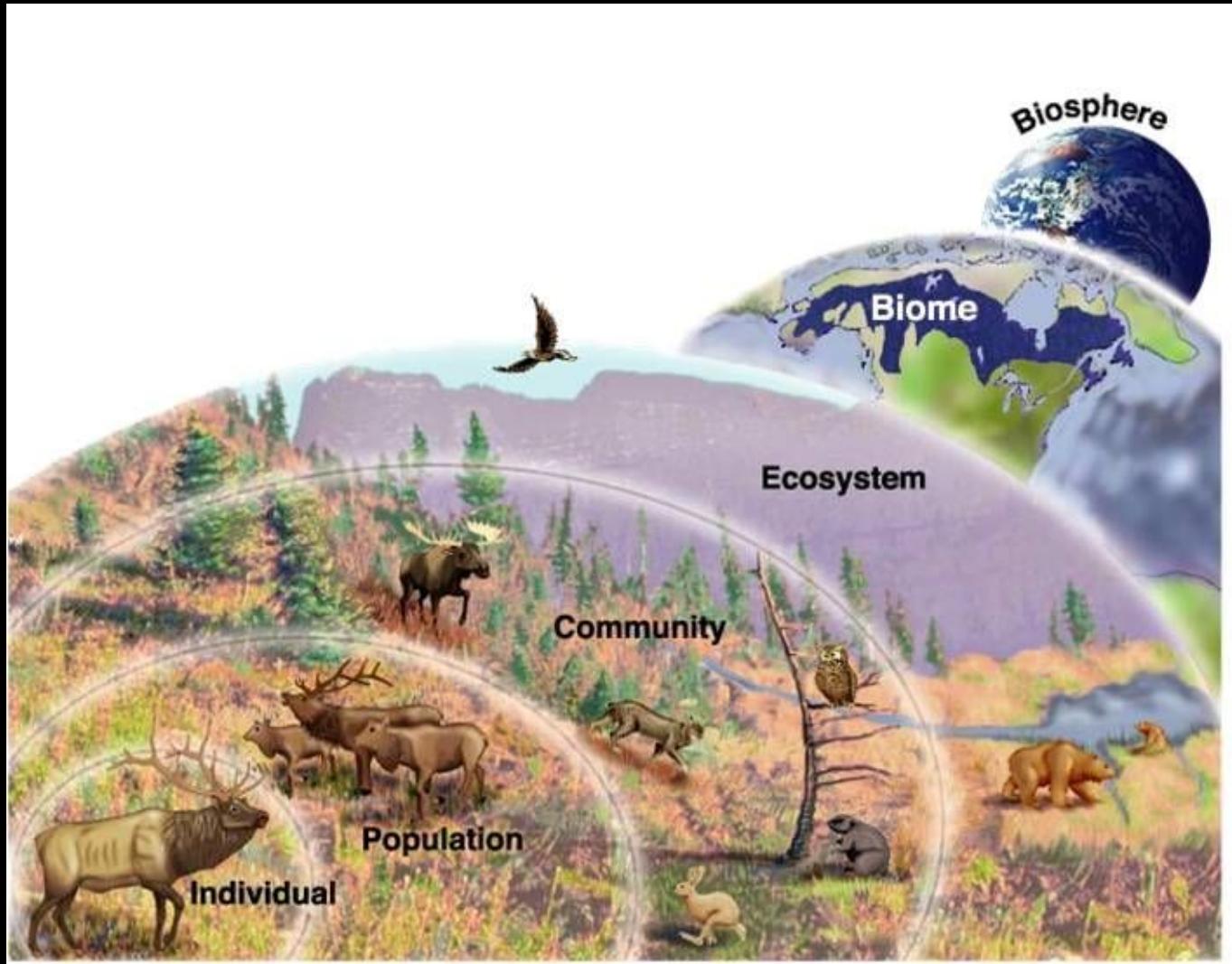
Living Systems Theory: towards ecosystems



What is an ecosystem?



Ecological scales



Ecosystem Ecology

