

BOTTOM-UP VS. TOP-DOWN PERCEPTUAL PROCESSES

More frameworks, concepts to help sort and organize the rest of the semester... A key distinction is whether a theory, a process, a model uses or assumes or is a bottom-up process or a top-down process.

1. Bottom-up (data-driven):

Perceptual processes that start with features provided by receptors

Examples:

Example of functioning:

Note: All perception has at least some bottom-up processes.
Why?

Types of bottom-up “strategies”:

Feature extraction

Recognition by components

Computational approaches

What are geons?

2. Top-down processing

Also, conceptually-driven processes

Voluntarily engaged, higher, global, abstract analysis that influences the operation of lower processes

Some “higher” aspects that can shape perception:

Examples of these affecting sensation or perception...

DEMO...

3. BOTH