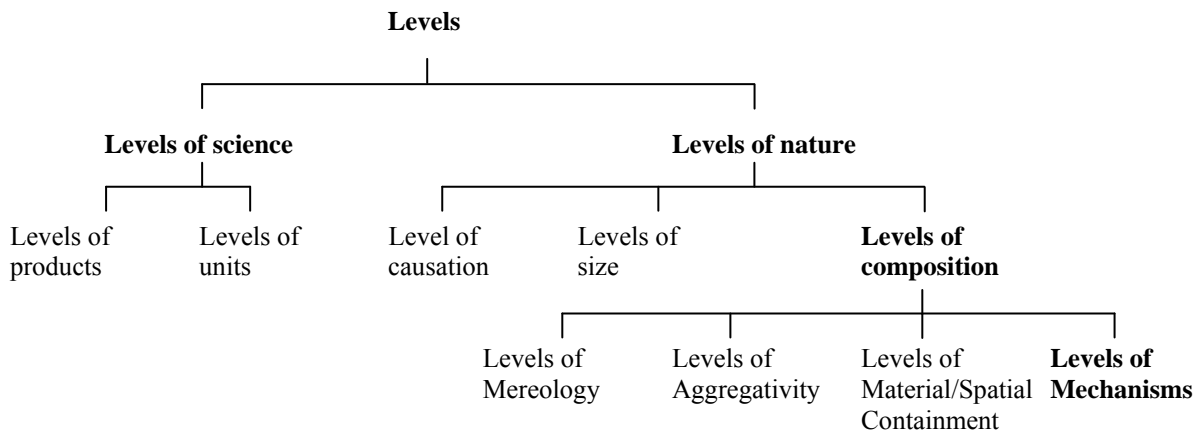


Craver: A field guide to levels

(...) there are levels of abstraction, analysis, behavior, complexity, description, explanation, function, generality, organization, science, and theory. Consequently, scientific and philosophical disputes about levels cannot be addressed, let alone resolved, without first sorting out which of the various senses of “level” is under discussion. (page 164)

Taxonomy of levels:



Three defining questions

1. What are the relata of the higher-level-lower-level relation?
2. What is the interlevel relation? By virtue of what are two items at different levels?
3. Placement: by virtue of what are two items at the same level?

Craver runs through the taxonomy, more or less from left to right, discussing whether the different conceptions of levels accommodate the LM example (spatial memory).

For discussion:

There is something a little strange going on in the discussion of the mereological conception of levels, especially about parts and *proper* parts. Proper parthood and parthood are easily interdefinable, so why use time being critical about parthood allowing things to be parts of themselves..?

Levels of aggregativity: This is a minor detail, but a sum of parts, say a piece of metal sometimes has a lesser mass than the sum of the masses of its parts due to relativity and the fact that energy is ‘tied up’ in the binding structure of the metal (same holds true for atoms compared to their parts, as far as I know...).

Important claim:

(...) decomposition into lower-level parts – components rather than pieces – for the purposes of mechanistic explanation is always a decomposition relative to the behavior of the system. (page 188)

Levels of mechanisms

1. The relata are *acting entities*.
2. The interlevel relationship is as follows: X's ϕ -ing is at a lower mechanistic level than S's ψ -ing if and only if X's ϕ -ing is a component in the mechanism for S's ψ -ing. Lower-level components are *organized together* to form higher-level components. (page 189)
3. (...) what places two items at the same mechanistic level is that they are in the same mechanism, and neither is a component of the other. (page 195) Notice that whether two items are on the same level is *relative to the mechanism* one focuses on.

Levels of mechanisms are *not monolithic*

Acting entities are related by the level-hierarchy only in so far as one is part of the mechanism for the behavior of the other. This contrasts with Oppenheim and Putnam's account.