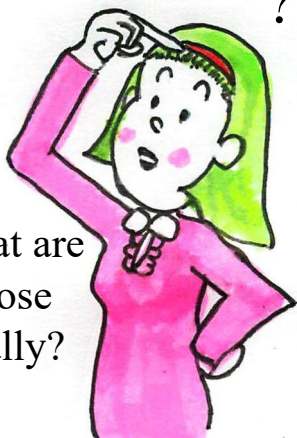


Why should we study the Lattice Theory?

Akihiko Koga (2017.08.08)

What are those really?



Lattices, Posets, CPOs, ..., a lots,
I feel they are much more abstract than necessary.

While most of the text books contain no applications,
they deduce very strong theorems endlessly...
(To tell the truth they end since their pages are limited)

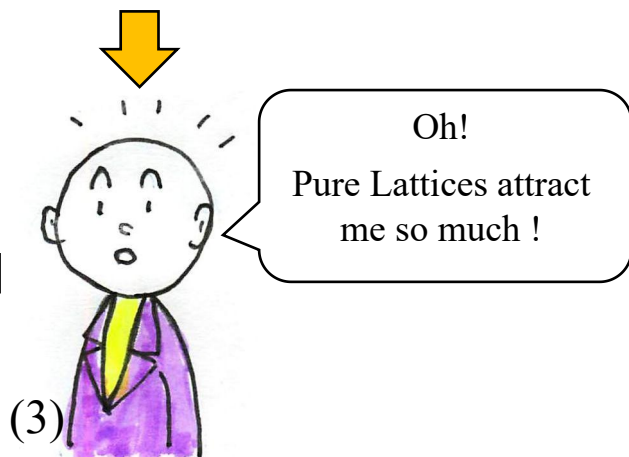
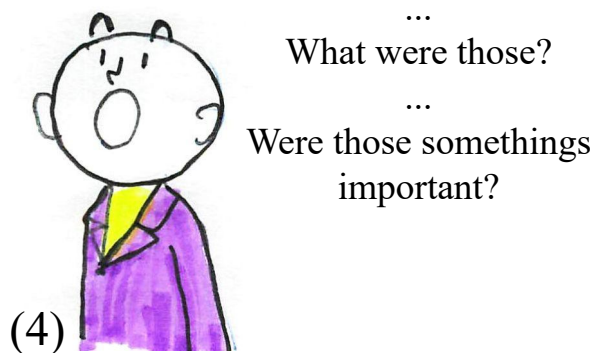
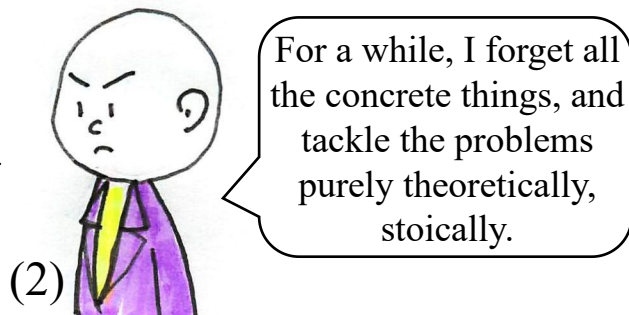
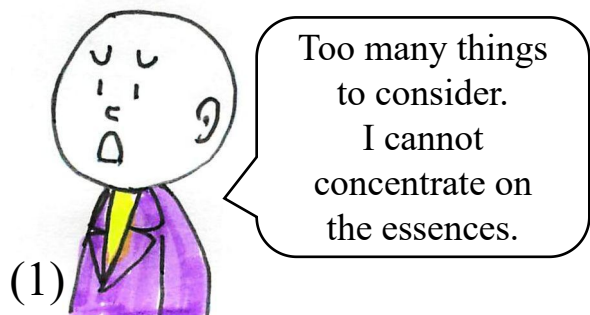
What are the purposes of those theory?

Systems to be analyzed

- Logic Systems
- Semantics of Programs
- Behaviors of Processes
- Reachability of Automata
- ...

Pure Theoretical Models

- Posets
- Lattices, Complete Lattices
- Heyting Algebras
- CPOs
- ...



They say only a few return to (4)

I think the reasoning powers of the left and right systems are same, unlike the foundational situations.