What does space look like in CS? Mapping out the relationship between spatial skills and CS aptitude

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- **Spatial skills:** understanding and (internally) representing spatial constructs and operations
- Spatial skills are associated with success in STEM (including CS)
- Margulieux presents **spatial encoding strategy theory** (SpES)
  - Spatial skills help people develop strategies for **encoding and orienting non-verbal representations** [paraphrase]
- Some skills which could be derived from SpES:
  - Holding **multiple** representations at once
  - Holding **complex** representations
  - Tracking **overlapping** and **interconnecting** mental models
- Perhaps it's easy to see how this fits in CS?
  - Abstraction Transition Taxonomy
  - Wing's definition of computational thinking
  - Program problem solving strategies (e.g., Loksa *et al.*)
- Developing spatial skills may develop skills valuable in CS learning

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Your contributions
- Does this make sense?
- Any other ways these skills may apply?
- Any other questions?