

1 | Strong inference notes

#disorganized

- "All science is equal": a fiction
 - Attempt at grant getting?
- "Primary factor in scientific advance is an intellectual one"
 - Fast moving fields have systemic research methods => strong induction, named "strong inference"
- String inference
 - Basic inductive reasoning
 - Basis of the scientific method
 1. Hypothesize all alternatives
 2. Devise experiments to rule out hypothesis
 3. Carry out the experiment
 4. Do it again with new subproblem
 - Not as simple as deduction
 - However, minimum sequence for knowledge production
 - Subject to squabbles
 - * Whether to exhaust all possibilities or test simply the reasonable ones
- Conditional inductive tree
 1. Possible causes
 2. Crucial experiments
 3. Exclusions based on experimentation and adopting what's left
- Molecular biology: user of strong inference

When we make a single hypothesis, we become attached to it

- Conflict with background and not hypotheses arises in not having multiple possible hypothesis
 - Traditional models of strong induction require the existence of only one true hypothesis out of multiple hypotheses
 - However, debate about hypothesis could only truly be had if there were multiple
- Inclusion of something does not mean anything, exclusion of all other possibilities proves a point

Diversity of viewpoints