Critical Fallibilism

by Elliot Temple, 2019

- Fallibilism -> need error correction -> need criticism
- Critical Rationalism
  - Evolution
    - Knowledge = information adapted to a purpose = appearance of design/purposefulness/intelligence
    - Brainstorming guesses and criticism
      - P1 -> TT -> EE -> P2
  - Criticizing induction
    - Observation is theory laden
    - Any finite data set is compatible with infinitely many patterns/ correlations
      - Induction = unexplained selective attention
    - Rejecting **positive** support. Asymmetry between verifying and falsifying universal theories.
  - Criticizing justification
    - Seeking sources of authority. Should judge ideas by content not source.
    - Instead of asking for positive proof, look for errors
  - Tolerance of culture clash, curiosity about other perspectives, don't burn heretics
  - Criticizing foundations
  - Demarcation between science and non-science
    - role of observation in science is to mention observations in criticisms
    - duhem quine
    - scientific testing
  - objective truth and objective reality
  - fallible knowledge ("conjectural knowledge")
  - all life is problem solving
  - Learners create their own knowledge, can't pour it in like water into a bucket. Searchlight theory of learning.
  - Piecemeal progress building on tradition
- CF idea chunks
  - YesNo
    - Digital systems are necessary for error correction.
    - Need to clearly decide what is and isn't an error. Specify clear problems with success/failure criteria and seek decisive criticisms that imply failure.
      - Positive arguments can be translated to criticisms if they're correct.
    - Acceptance and use of ideas are binary.
  - Paths Forward
    - If I'm mistaken, how can others tell me?
    - If others are mistaken, how can they learn from me?
    - How can ideas avoid *staying wrong*? PF is about error correction mechanisms with a focus on rational discussion.
  - Overreaching
    - Error rate > error correction rate
      - Getting overwhelmed with errors
  - Problem Solving with Meta Levels
    - Given stuck on X, don't know Y, disagree about Z, etc., what should I/we do?
  - Powering up and only doing what's easy/efficient
  - Win/win solutions. Common preferences. Harmony of interests.
  - Library of criticism
  - Don't reinterpret disagreements as anything else (not listening, disobedience, heresy, bad faith, malice).
  - Unbounded criticism. Bounds vs. universality.
  - math, logic, deduction, computation, epistemology all depend on physics, they aren't technically a priori or non-empirical
    - They seem separate because of the autonomy of ideas. New ideas about physics may not require revising this ideas, but could.
  - no burden of proof
  - knowledge and criticism are contextual
  - impasses chains
- DD/FoR/BoI
  - Universality and jump to universality
  - Criticism of weighing ideas
  - Paley's problem, neo-darwinism, knows way more evolution than Popper
  - TCS, common preferences
  - Math proofs are fallible because they involve physical objects
  - modern understanding of computation and information as part of physics, as involving physical objects
  - hard to vary
  - reach of ideas
  - All evils are due to lack of knowledge.
    - Nothing can stop us from doing something besides the laws of physics or not knowing how. (Also not wanting to.)
  - non-empirical criticism is the main type even in science. we don't test most stuff that we could test.
    - refutation of instrumentalism and other emphasis on explanations
  - solipsism refutation. criteria for reality, reality of abstractions