# Summary of Key Concepts

## Where Should You Begin?

- **Look in the Mirror**
  - Confirmation bias & mirror imaging impede understanding
  - Cognitive dissonance inevitable, must be tolerated
- **Figure Out What the Words in the Claim Mean**
  - Without shared meaning for key terms & phrases, debate participants talk past one another
  - Intentional or not, ambiguous language undermines understanding
  - Identifying ambiguity in key terms, and consequent effect on claim’s validity, yields valuable insight
- **Ask Whether You’ve Been Primed**
  - Emotions affect analytic response to claim
  - Strong problem definition may prime support of weak policy proposal
  - Skepticism warranted about all aspects of all claims
  - Focus only on quality, not result, of analysis
- **Identify the Frame**
  - Framing inevitable, sets boundaries of debate
  - Frames based on morality especially powerful
- **Distinguish Inquiry from Advocacy**
  - Winning & understanding very different; confusing them makes deconstruction impossible
  - Advocacy claims never constitute complete basis for action

## Does Structure of Claim Justify Conclusion?

- **Decide if the Claim is Complete**
  - Many ways to “know” world but scientific method very powerful
  - Problem, options, criteria, outcomes, tradeoffs comprise complete claim
- **Look for an Appropriate Baseline**
  - Counterfactual needed for prospective & retrospective analysis
  - Measure marginal costs & benefits of policy changes against consistent baseline
- **Validate the Reasoning Used in the Claim**
  - Sound logic, grounded in scientific principles, prerequisite to valid causal claims
  - Generalizations from other situations often flawed
- **Watch for Heroic Implementation Assumptions**
  - Real-world results depend on implementation
  - Number of actors, alignment of interests
  - Intrinsic complexity, inflexibility of policy
  - Behavior of potential winners & losers

## Does Evidence Support Conclusion?

- **Assess the Quality of the Evidence**
  - Completeness, currency, credibility
- **Pay Extra Attention to Use of Gray Literature**
  - Good information, subject to quality control & peer review, abounds
  - So too shoddy work, not to be trusted
  - Advocacy groups try to appear neutral, often aren’t
- **Don’t Trust Your Newsfeed**
  - Just don’t do it

## Does Claim Show Multidisciplinary Systems Thinking?

- **Check for Systems Thinking**
  - Environmental policies operate in complex, dynamic, linked human & natural systems
  - Failure to understand system portends policy failure
- **Look for a Panoptic Perspective**
  - Whole sight
  - Interdisciplinary thinking