Pre-Scientific vs. Scientific Thinking (summarized from Wendell Johnson’s *PIQ*)

1. **Pre-Scientific**
   - Static, assumes constancy, similarities
   - Rigid, tradition,
   - Problem solving: Authoritarian
   - Language to control behavior, don’t ask questions
   - Vague, meaningless questions and speculations, rhetorical questions
   - No sense of individuality, “to-me-ness”
   - “Ventriloquizing” VOICE OF ____
   - Traditions, practices, customs, do not regard predictability

2. **Scientific**
   - Process, ever-changing, individual
   - Adaptable, ready to change, challenge
   - Observations, Test, Revise
   - Leads to understanding, clarity, answers derived not dictated
   - Well-formulated questions lead to answers, understanding
   - Self-aware, observer-observed
   - Individuals speak for themselves
   - Objective is to make accurate predictions

**Starting Point:** To apply more of a scientific *attitude* in whatever we do.