Module 1: Where Does Logic Come From?

Coherence, Incoherence, and the Birth of Reasoning

> *This is a polished, ready-to-use teachable module written specifically for first-year philosophy students. It is designed to appear early in a course titled something like "Problems in Philosophy" or "Introduction to Philosophical Thinking."*

Most introductory philosophy courses begin by throwing students into deep skepticism: "How do you know the external world exists?" or "Can we ever be certain of anything?" Before we go there, let's start with something more basic and more useful: Where does logic itself come from?

The surprising answer is that logic does not begin as an abstract formal system floating above human experience. It begins with a very simple, observable phenomenon that every person experiences every day.

The Fundamental Contrast in Experience

Pay attention to your own consciousness for a moment:

- **Coherent Experience:** Sometimes sequences of experience feel coherent—things "fit together." Expectations are fulfilled. Patterns hold. The world feels stable and intelligible. You have the clear sense that things make sense.
- **Incoherent Experience:** Other times, experience feels incoherent—there are sudden breaks, contradictions, randomness, or frustration of expectations. Something feels "off," disjointed, or wrong. The flow is disrupted.

This contrast between coherent ("this makes sense") and incoherent ("this doesn't fit") is one of the most basic and reliable features of conscious experience. It appears long before we learn formal logic, mathematics, or philosophy. From this repeated contrast, human beings naturally develop practices and habits that help restore or maintain coherence and reduce incoherence. These practices are the living roots of logic.

How Rules of Inference Emerge

Consider some everyday examples:

- You expect your friend to call if something important happened. He doesn't call. You think: "Or does he not care?" This is informally expressing something like: "If he cared, he would have called" which is logically equivalent to "Either he doesn't care, or he called."
- You see dark clouds and feel raindrops. You think: "If it's raining, the ground will get wet." When the ground stays dry, you feel a mild incoherence ("that doesn't fit").

Simple patterns like these gradually harden into more stable habits of thought:

- ***"If P, then Q"*** becomes a useful stabilizer because it rules out the specific combination ***"P and not-Q,"*** which reliably produces a felt sense of incoherence.
- The rule **modus ponens** (***"If P then Q, and P is true, therefore Q"***) feels compelling because denying the conclusion while accepting the premises creates strong incoherence.
- The **law of non-contradiction** (***"not both P and not-P"***) gains its force because holding a blatant contradiction usually feels deeply "off."

Rules of inference are stabilizers. They are evolved, practical responses to the fundamental contrast between coherent and incoherent experience. They are not primarily discovered as eternal, Platonic truths, nor arbitrarily invented. They are refined tools developed to reduce the frequency and intensity of incoherence.

Supporting Ideas from Philosophy

This view draws on several important traditions:

- **Ludwig Wittgenstein:** Argued that logic is part of the "grammar" of our actual practices. Philosophical confusion arises when we treat logic as a mysterious structure above ordinary use.
- **John Dewey:** Described logical inquiry as a response to "problematic situations"—moments of felt incoherence. Logic is an instrument for resolving experienced tensions.
- **Maurice Merleau-Ponty:** Showed how perception organizes experience into coherent Gestalts. The body naturally seeks "maximum grip" on the world; incoherence is felt as a disruption of this tendency.
- **Historical Context:** Early logic (Aristotle, the Stoics) grew out of practical needs in debate, law, and science—situations requiring tools to reduce confusion.

Why This Matters

1. **Demystification:** Logic is a natural human response to the desire for things to make sense, not an intimidating abstract authority.
2. **Reduced Anxiety:** You don't need to "prove" logic is objectively true before using it. Its usefulness is shown in how it stabilizes experience.
3. **Equanimity:** It prepares you to tolerate temporary confusion without panicking for false certainty.
4. **Grounded Foundation:** Traditional problems (skepticism, induction, free will) become less overwhelming with this "hygienic" foundation.

Heads-Up for the Rest of the Course

As we move forward, remember that logic and reasoning are tools evolved to handle felt incoherence, not perfect mirrors of ultimate reality. Jumping straight into heavy skepticism without this grounding can be intellectually exciting but is often "philosophically unhygienic"—creating confusion rather than clarity.

Word count: ~950 | Accessible, non-technical, and motivating for first-year students.