

(Informal) Logic: Propositions

WRIT 0590: Module 2.3

Nikita Bezrukov
University of Pennsylvania
nikitab@sas.upenn.edu

January 23, 2025



Roadmap

Extracting a proposition

Bifurcation

Justificatory vs. Explanatory propositions

Logical coherence

From Text to Structure: Decoding Meaning

The Presupposition:

- ▶ The author has a **proposition** they want to communicate.

From Text to Structure: Decoding Meaning

The Presupposition:

- ▶ The author has a **proposition** they want to communicate.

The Challenge:

- ▶ Identifying the proposition can be difficult.
- ▶ Sometimes, there are **multiple competing ideas** (2-3 possibilities).

A Parallel with Art Interpretation

- ▶ We assume the artist has a **message** to convey.
- ▶ Yet, decoding the message may be:
 - ▶ **Straightforward, ambiguous, or even impossible.**
- ▶ The latter is the nature of **poetic or artistic expression.**

1. **Washington Crossing the Delaware** (Emanuel Leutze)

Examples of Art

1. **Washington Crossing the Delaware** (Emanuel Leutze)
 - ▶ **Message:** Patriotism, heroism, and determination in the American Revolution.

Examples of Art

1. **Washington Crossing the Delaware** (Emanuel Leutze)
 - ▶ **Message:** Patriotism, heroism, and determination in the American Revolution.
2. **The Scream** (Edvard Munch)

Examples of Art

1. **Washington Crossing the Delaware** (Emanuel Leutze)
 - ▶ **Message:** Patriotism, heroism, and determination in the American Revolution.
2. **The Scream** (Edvard Munch)
 - ▶ **Message:** Existential angst and emotional turmoil.

Examples of Art

1. **Washington Crossing the Delaware** (Emanuel Leutze)
 - ▶ **Message:** Patriotism, heroism, and determination in the American Revolution.
2. **The Scream** (Edvard Munch)
 - ▶ **Message:** Existential angst and emotional turmoil.
3. **American Gothic** (Grant Wood)

Examples of Art

1. **Washington Crossing the Delaware** (Emanuel Leutze)
 - ▶ **Message:** Patriotism, heroism, and determination in the American Revolution.
2. **The Scream** (Edvard Munch)
 - ▶ **Message:** Existential angst and emotional turmoil.
3. **American Gothic** (Grant Wood)
 - ▶ **Message:** Rural resilience and traditional values in America.

Examples of Art

1. **Washington Crossing the Delaware** (Emanuel Leutze)
 - ▶ **Message:** Patriotism, heroism, and determination in the American Revolution.
2. **The Scream** (Edvard Munch)
 - ▶ **Message:** Existential angst and emotional turmoil.
3. **American Gothic** (Grant Wood)
 - ▶ **Message:** Rural resilience and traditional values in America.

Bifurcation: Managing Propositions

What is Bifurcation?

- ▶ A bifurcated proposition attempts to demonstrate or prove **more than one relationship**.
- ▶ Example:
 - ▶ *"The death penalty does not prevent crime and criminals should not be given life sentences."*
 - ▶ This makes **two promises**.
 - ▶ The first part deals with the efficacy of the death penalty as a deterrent.
 - ▶ The second part makes a normative statement about how criminals should be sentenced.

How to Identify and Fix Bifurcation

Identifying Bifurcation:

- ▶ Grammatically, check for:
 - ▶ Two independent clauses.
 - ▶ Two verbs.
- ▶ Look for **multiple terms or relationships**, e.g.:
 - ▶ Corrupt politicians, untended streets, and voter apathy.

Fixing Bifurcation:

- ▶ Move one relationship to a:
 - ▶ Premise.
 - ▶ Conclusion.
- ▶ Also, maybe the proposition can be consolidated:
 - ▶ *"It is not set in stone that extremely harsh sentences are desirable."*

Achieving Clarity in Propositions

Initial Propositions:

- ▶ Often **baggy** and bifurcated, containing:
 - ▶ Premises.
 - ▶ Implications.
 - ▶ Shapeless ideas and evidence.

The Goal:

- ▶ Whittle it down to a **clean, straightforward proposition**.
- ▶ Achieving clarity of thought confirms the proposition is well-defined.

Back to our Bifurcation Example

- ▶ *"The death penalty **does not** prevent crime and criminals **should not** be given life sentences."*
- ▶ This makes **two promises**.
 - ▶ The first part deals with the efficacy of the death penalty as a deterrent.
 - ▶ The second part makes a normative statement about how criminals should be sentenced.
- ▶ Part of the argument that this is bifurcated is because an explanatory and a justificatory propositions are conjoined.

Justificatory vs. Explanatory Reasoning

Key Difference:

- ▶ Explanation: The objective is to **inform** the interlocutor.
- ▶ Justification: The objective is to **persuade** the interlocutor.

Although the distinction is binary and will be directly reflected in our writing output (the white paper vs. the op-ed), it's more of a **spectrum**.

Recognizing Genre Stances

Stance of the Genre:

- ▶ Some genres are openly **justificatory**, aiming to persuade.
- ▶ Most genres are ambiguous—mixing explanation and justification.

Recognizing Genre Stances

Stance of the Genre:

- ▶ Some genres are openly **justificatory**, aiming to persuade.
- ▶ Most genres are ambiguous—mixing explanation and justification.

Dynamic Nature of Reasoning:

- ▶ Explanation ("is") seeks to understand or describe.
- ▶ Justification ("**should/ought**") is value-based and seeks to persuade.
- ▶ Opinions may become explanations when widely accepted; explanations may become opinions when debated.

Shifting Between Explanation and Justification

Examples of Transition:

- ▶ Scientific research (explanatory) → Journalistic clickbait (justificatory):
 - ▶ *"Garlic slows cancer in mice"* → *"You should eat garlic to prevent cancer."*
- ▶ Professionals shift reasoning based on audience:
 - ▶ Scientists: Debate flu vaccine effectiveness internally (explanatory).
 - ▶ Public messaging: *"You should get vaccinated"* (justificatory).

Audience Matters:

- ▶ Specialists use explanatory reasoning within their community.
- ▶ Public-facing communication is often justificatory.
- ▶ Examples:
 - ▶ Lawyers: Explain legal history vs. Justify in court.
 - ▶ Architects: Explore designs vs. Persuade clients.

Why Monitor Logical Coherence?

- ▶ Academic and professional texts rely on a clear **line of reasoning**.
- ▶ Just as a plot has key elements (characters, turning point, resolution), a line of reasoning has:
 - ▶ **Premises, proposition, reasons, evidence/amplification.**

Monitoring for Logical Coherence

Let's practice logical coherence together!

Outlining Logical Structure

Benefits of Outlining:

- ▶ Helps identify, comprehend, and retain a text's logical framework.
- ▶ Teaches you to **read like an academic**:
 - ▶ Focus on logical moves.
 - ▶ Manage dense ideas, complex sentences, and specialized language.
 - ▶ We end up outlining anyways (eg in scientific writing workflows)
- ▶ With practice, outlining improves reading speed and comprehension.

Logical Structure in Writing

Using Logical Structure to Write:

- ▶ **Pre-outlining:** Plan research and draft structure.
- ▶ **Chunk writing:** Work on smaller sections (e.g., reasons, evidence, counterarguments).
- ▶ **Post-outlining:** Check the validity and coherence of the final draft.

Benefits of Chunk Writing:

- ▶ Saves time and keeps writing on track.
- ▶ Identifies gaps in research or reasoning.
- ▶ Avoids perfectionism with introductions—focus on reasoning and research.

Challenges in Logical Structure

Additional Challenges:

- ▶ Scholars include rhetorical detours to engage the reader:
 - ▶ Not every passage advances the logical structure.
 - ▶ Distinguishing between the logical framework and rhetorical supplements can be difficult.
- ▶ Explanatory texts occasionally include justification:
 - ▶ Definitions, restatements, or justifying methods/importance.

Key Question:

- ▶ Is the text focused on **changing the reader's mind** (justification) or **building knowledge** (explanation)?