



SAMVAD: Transforming Disagreement into Dialogue

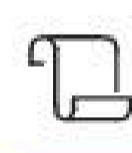
SAMVAD is a dialogue-analysis tool that applies Nyāya philosophy to real conversations about hard topics like policy and community conflict. It treats people's statements as evidence of different "pramāṇas" (experience, logic, analogy, testimony) instead of just labeling them right or wrong. The system has modules that detect which pramāṇa a speaker is using, extract their core values, trace their reasoning, and measure whether the conversation is closer to truth-seeking Vada or competitive Jalpa. Using this, SAMVAD surfaces hidden agreements and suggests bridging language so groups can move from polarization toward shared, co-created solutions.

Try Out Samvad: [CLICK HERE](#) (please wait as it might take few minutes to Load)

ANCIENT WISDOM MEETS MODERN AI

SAMVAD: Dialogue Through Epistemology

Grounding AI Dialogue Systems in 2,500 Years of Nyāya Philosophy



Ancient Indian Nyāya

Rigorous framework for **how we know**



Modern Problem

Polarization and failure of dialogue



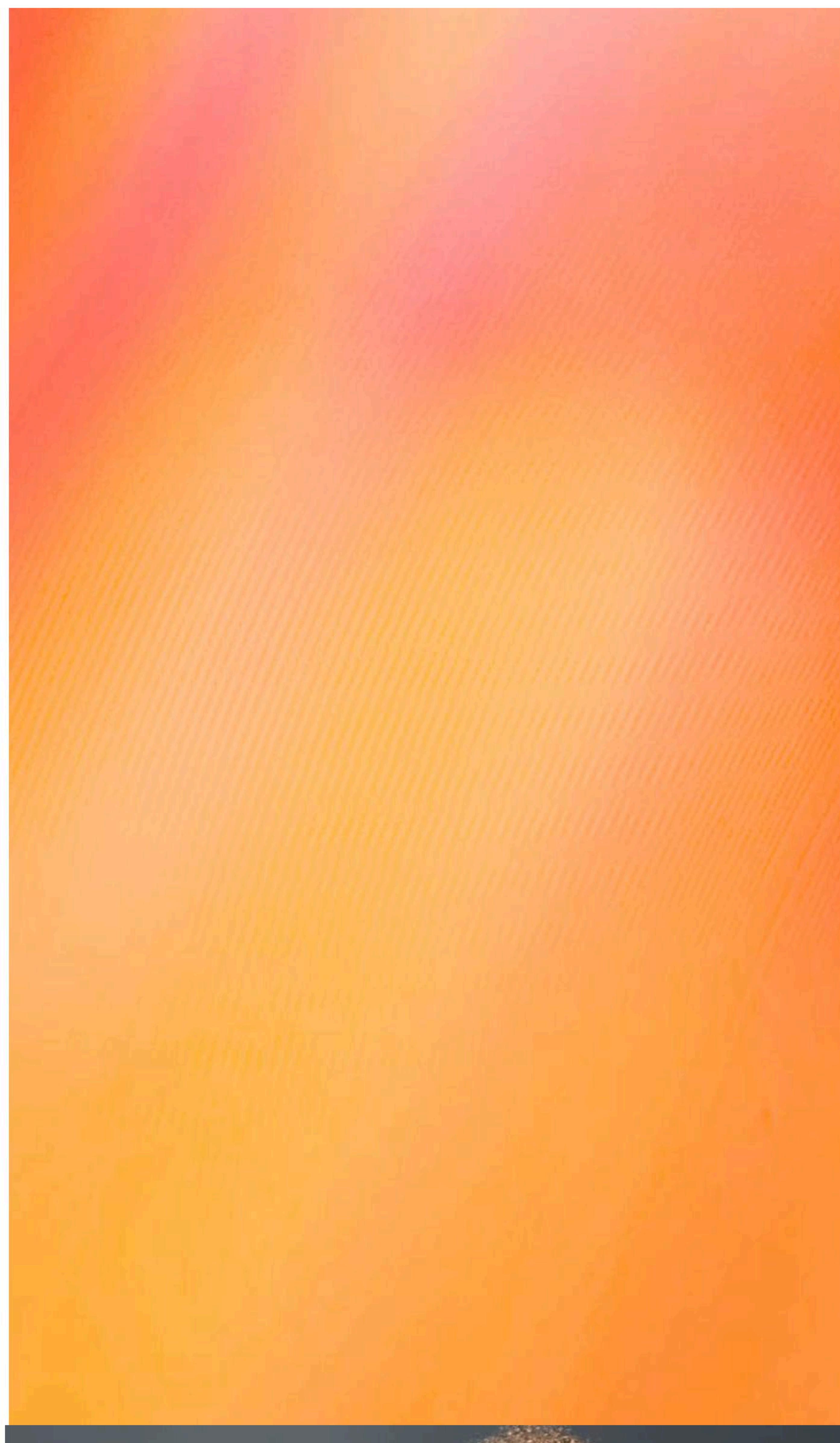
SAMVAD System

Maps knowledge sources, values, reasoning, and agreements



Goal

Shift from "Who is right?" to "How do we both know?"



Why This Matters Now

The Polarization Crisis

Historic Polarization

Political and cultural polarization at historic highs. Online discourse is performative, hostile, and shallow.

Broken Dialogue

People are talking **past** each other, not **with** each other. Communication has become a performance rather than an exchange.

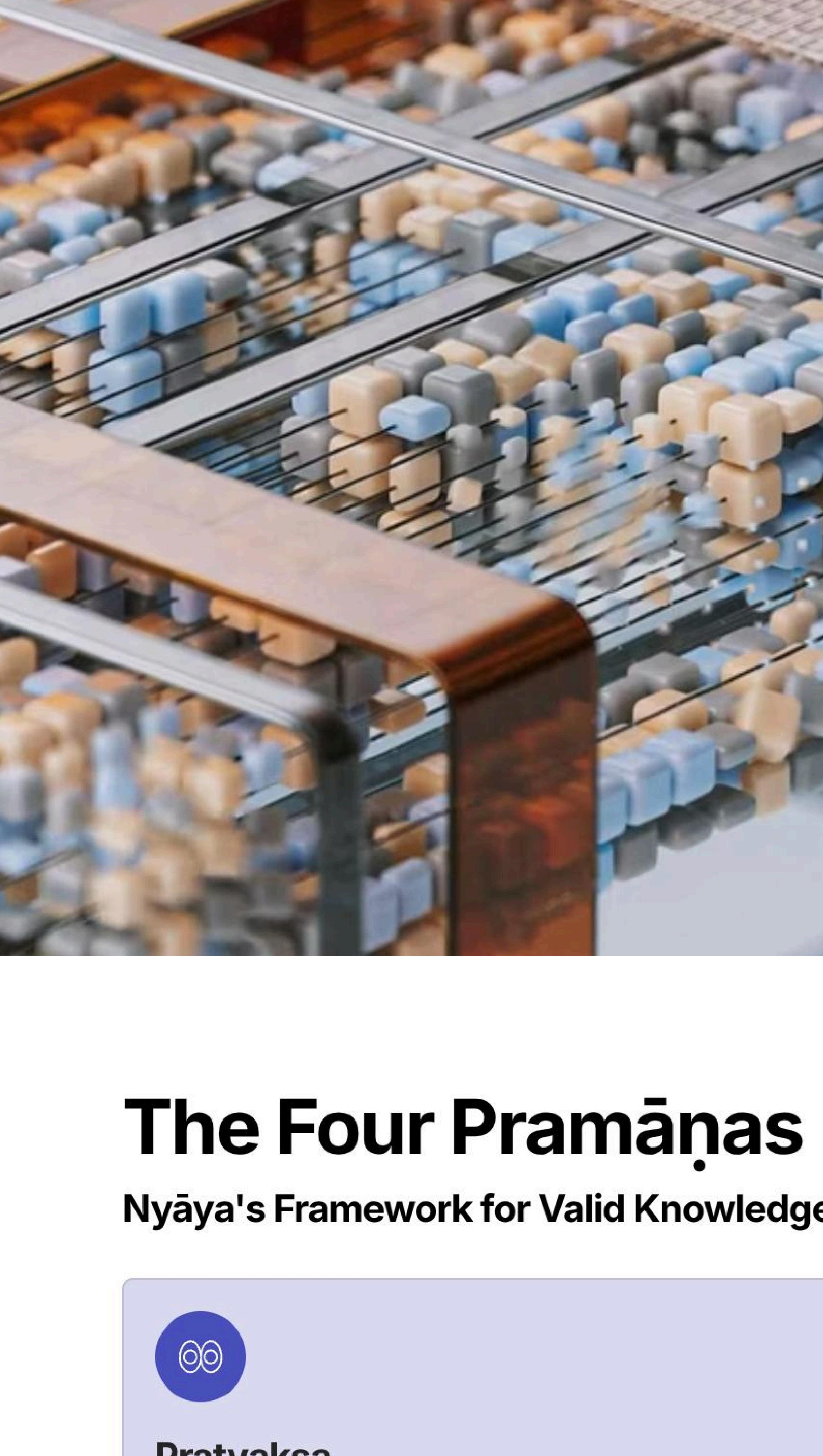


Failed Assumptions

Standard AI models often assume: disagreement = misinformation or irrationality. This assumption **fails** in real communities and policy spaces.

"Most disagreements are not about values being evil – they are about how people know what they know."

Introducing Nyāya Philosophy



What is Nyāya?

One of the classical schools of Indian philosophy (darśanas), founded around 2,500 years ago. The core text is the **Nyāya Sūtras** by Akṣapāda Gautama.

Nyāya focuses on **epistemology (pramāṇa)** and **logic (tarka)**, asking fundamental questions:

- What counts as **valid knowledge**?
- How do we distinguish **good reasoning** from **bad reasoning**?
- How should **dialogue** be conducted to arrive at truth?

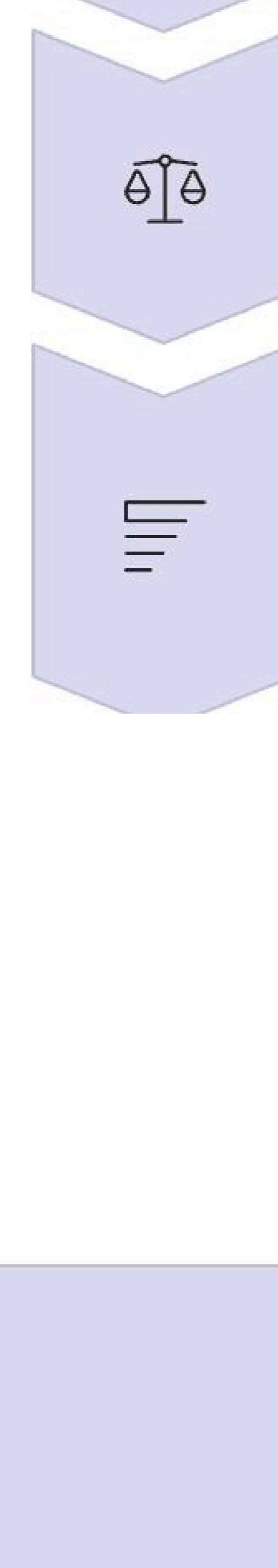
Why Nyāya Now?

- Already assumes **plurality of knowledge sources**
- Has a **taxonomy of dialogues** (truth-seeking vs. winning vs. destroying)
- A **meta-framework** that can sit behind AI systems

Nyāya's Core Insight

Multiple Valid Ways of Knowing

Nyāya does **not** say there is only one "scientific" way to know. It recognizes at least **four pramāṇas** – distinct ways knowledge can be valid. This is crucial in pluralistic democracies and diverse societies.



Different Pramāṇas

Different people rely on **different pramāṇas** in arguments

Perceived Irrationality

When pramāṇas clash, it feels like "they're irrational"

Rational Frames

Nyāya says: No – they're rational **within their epistemic frame**

Align Sources

We must analyze and **align knowledge sources**, not just trade conclusions

The Four Pramāṇas

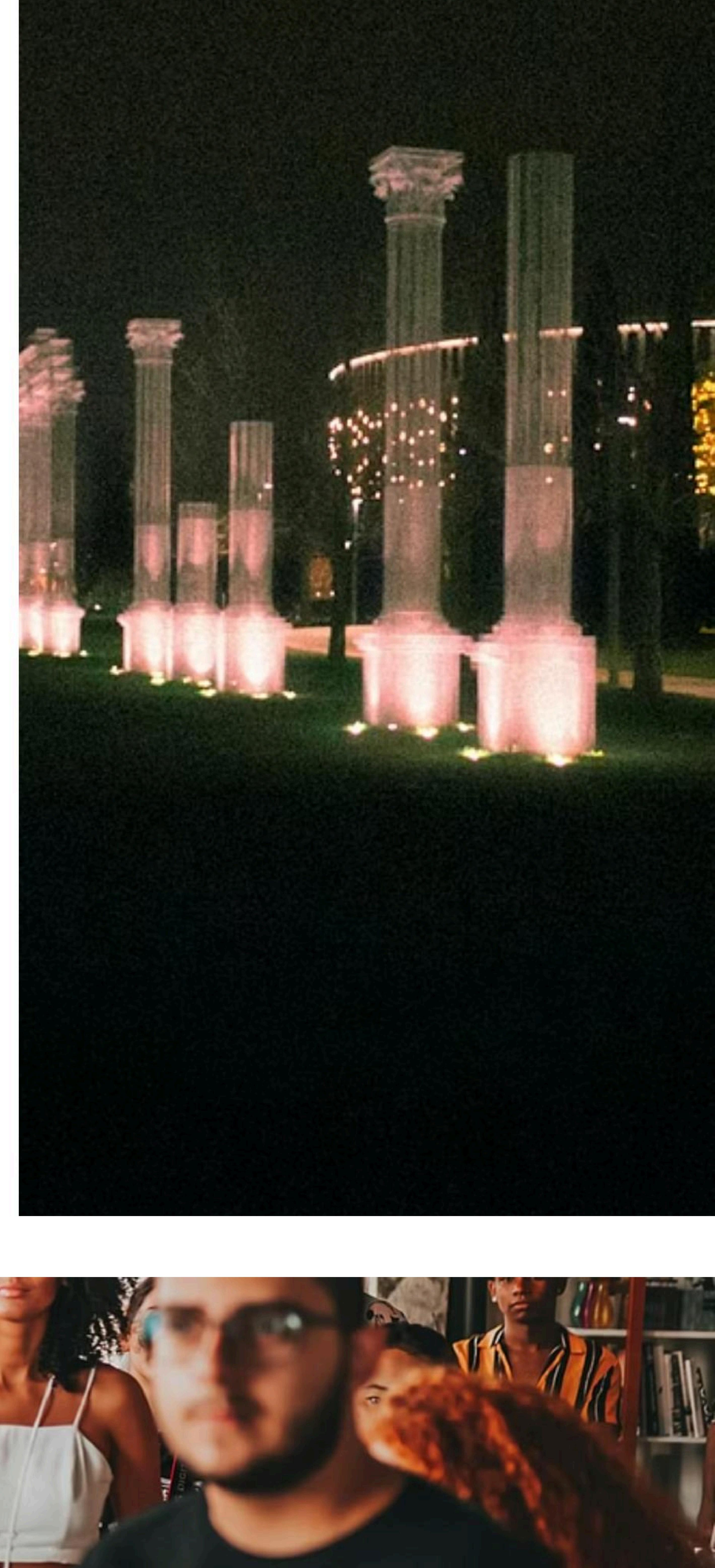
Nyāya's Framework for Valid Knowledge

Pratyakṣa
Perception / Experience
"I directly experienced this."

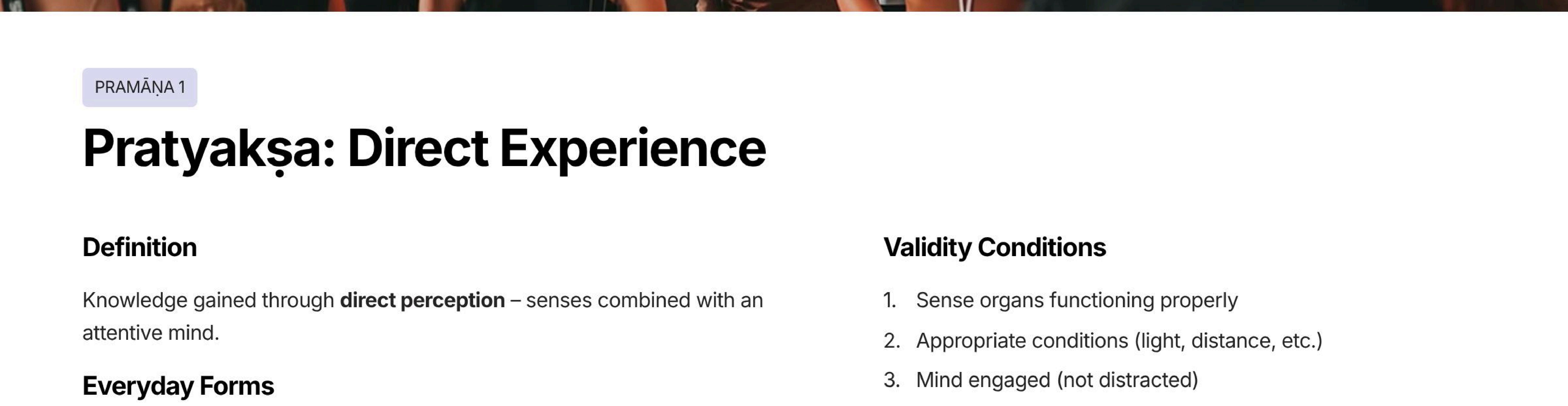
Anumāna
Inference / Logic
"From evidence and rules, I infer this."

 **Upamāna**
Comparison / Analogy
"This new thing is like that known thing."

Sabda
Testimony / Trusted Authority
"A reliable source says this."



"Nyāya treats all four as potentially valid. The real question is not 'Which one is allowed?' but 'When is each one used correctly?'"



PRAMĀṇA 1

Pratyakṣa: Direct Experience

Definition

Knowledge gained through **direct perception** – senses combined with an attentive mind.

Everyday Forms

- "I saw it with my own eyes."
- "I lived through this as a nurse / worker / parent."
- "In my village, this is exactly what happened."

Validity Conditions

1. Sense organs functioning properly
2. Appropriate conditions (light, distance, etc.)
3. Mind engaged (not distracted)
4. No known defects or illusions

Modern Relevance

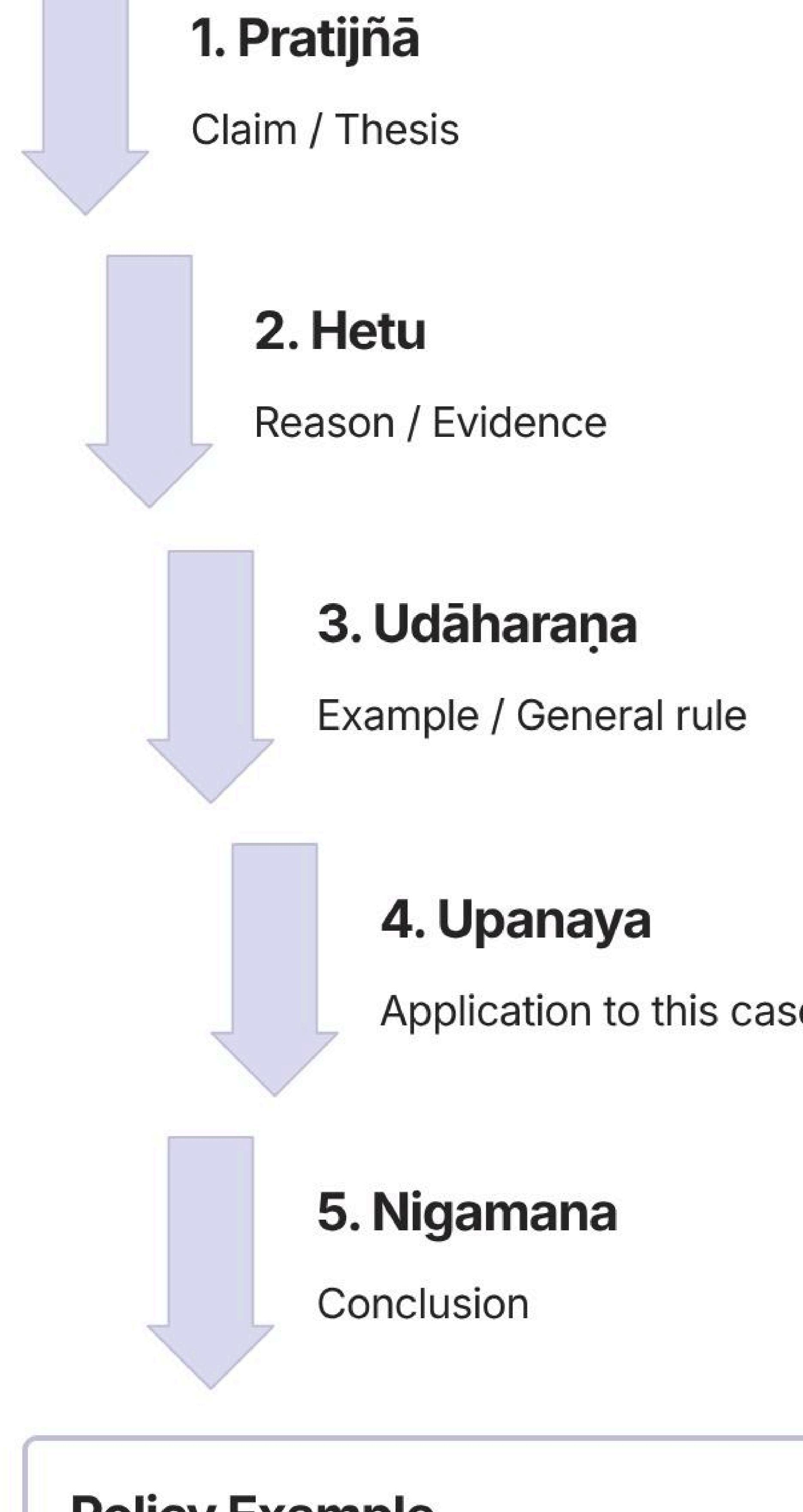
Personal and community experience is not "just anecdote" – it is a **pramāṇa**. Dismissing it as "anecdotal" without engagement is an epistemic insult. In policy debates, this is often the **voice of the marginalized**.

"Nyāya: you cannot design a fair dialogue system that ignores lived experience."

Anumāna: Logical Inference

Knowledge Through Reasoning

Definition: knowledge derived by **reasoning from evidence to conclusion**. Nyāya uses a rigorous **five-part structure** to ensure valid inference:



Policy Example

Claim: "We must invest in preventive healthcare."

Reason: "Because it reduces long-term costs and suffering."

Example: "Countries that did X saw Y drop."

Application: "Our current situation matches those conditions."

Conclusion: "Therefore, preventive investment is justified."

Nyāya is very strict about **avoiding fallacies**. Logic is valid only if **hetu** is real, relevant, and non-contradictory.

Upamāna: Analogy & Comparison

Knowledge Through Similarity

Definition: knowledge gained by **comparing something unknown with something known**.

The Formula

If X shares key properties with Y, and Y has property Z, then X likely has Z.

Examples in Use

- "This new health scheme is like the one in Country A, which improved outcomes."
- "This platform's dynamics resemble previous social networks that polarized society."

Important Limits

- Works when similarities are **relevant** and not cherry-picked
- Must acknowledge where the analogy **breaks down**
- Powerful for **intuition and communication**, but must be checked by other pramāṇas

Śabda: Testimony & Authority

Knowledge Through Trustworthy Sources

Definition: knowledge based on **trustworthy testimony** – people, institutions, texts.



Expert Testimony

"I've worked on this for 20 years."



Community Tradition

"Our community has done this for generations."

Conditions for Reliable Speech (Aptavacana)

- Speaker has **competence** and access to the truth
- Statement is **consistent** with other known facts and pramāṇas
- Speaker has **no motive to deceive**
- Statement concerns things not easily directly perceived by the audience



Scientific Literature

"Meta-analyses show..."



Official Statistics

Data releases and verified information

"Śabda is not blind faith; it is structured trust."

Key Insight: Disagreements = Pramāṇa Clashes

Person A

Relies on **Pratyakṣa**

Lived experience of suffering

Person B

Relies on **Anumāna**

Cost-benefit logic

Person C

Relies on **Śabda**

Peer-reviewed research

Person D

Relies on **Upamāna**

Analogy to other countries

They all **care** about the issue. But they are privileging **different pramāṇas**.

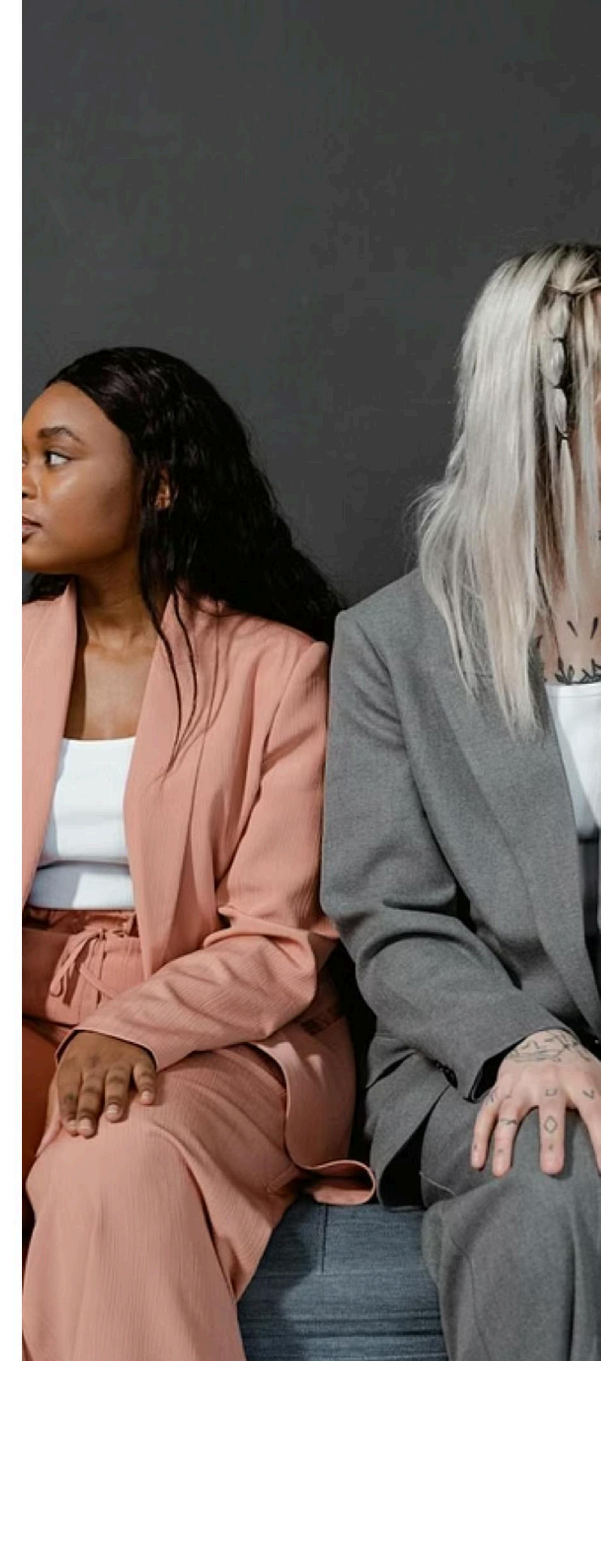
Conversation collapses into dismissive statements:

"Your experience is just anecdote."

"Your research ignores real life."

"Your logic ignores history."

Nyāya's move: "Map the pramāṇas, don't erase them."



PRACTICAL FRAMEWORK

Vada in Practice: Rules for Good Dialogue

Vada is not just a style of talking – it is an ethic of joint inquiry. These practical rules help transform everyday conversations into meaningful exchanges.

Clarify Terms

Start by defining what you mean: "By 'universal healthcare' I mean..."

State Explicitly

Present your claim, reason, and evidence clearly and transparently.

Name Your Source

Make your pramāṇa explicit: "From my experience..." or "According to this study..."

Ask to Understand

Ask questions to understand perspectives, not to trap or defeat others.

Acknowledge Change

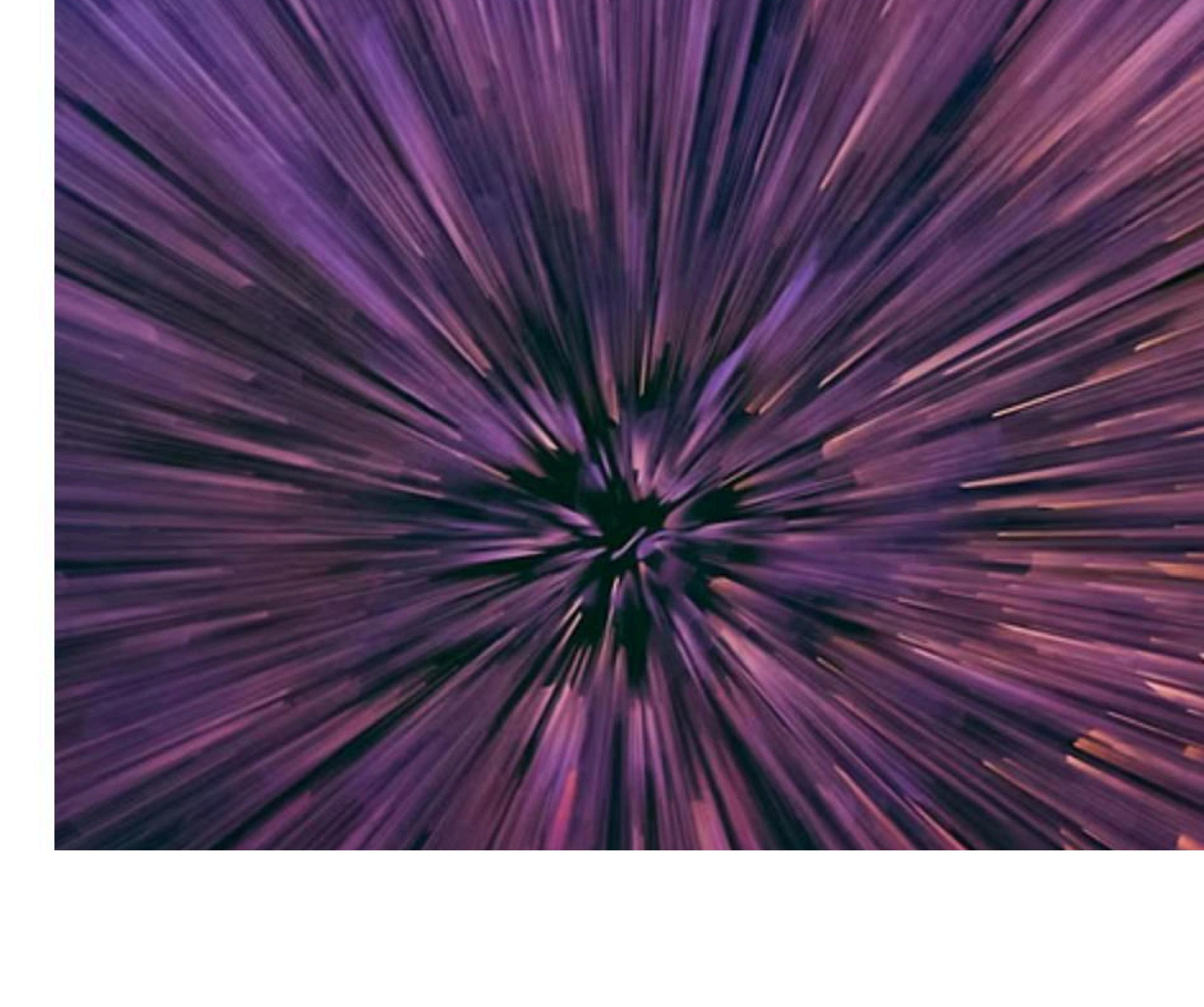
Recognize points that shift your view, even slightly, as they emerge.

Find Common Ground

Explicitly name shared values when you notice them in conversation.

Embrace Growth

Treat admitting "I was wrong" as intellectual strength, not defeat.



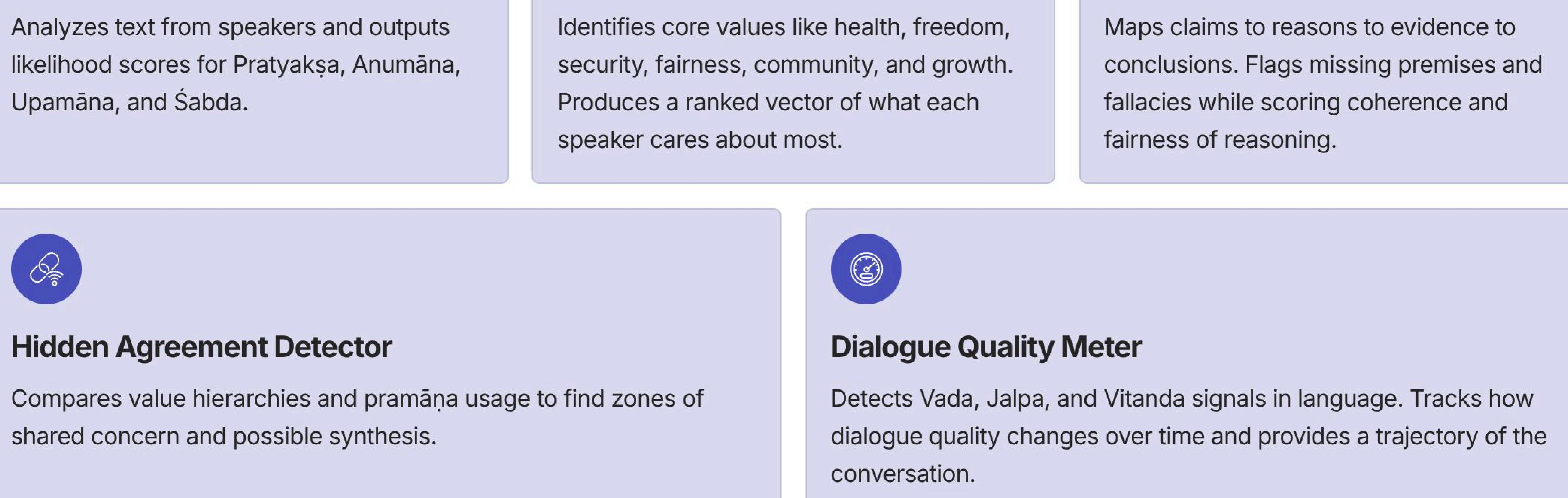
What is SAMVAD?

SAMVAD means "dialogue" or "conversation" in several Indian languages. In this project, it represents a framework for understanding and mediating dialogue using Nyāya philosophical tools.

The system analyzes conversations to reveal hidden patterns, shared values, and pathways to agreement.

SAMVAD's Guiding Questions

- Which pramāṇas is each speaker using?
- What underlying values are being protected?
- How strong and fair are the reasoning chains?
- Where are hidden agreements already present?
- Is this dialogue more Vada, Jalpa, or Vitanda right now?



SAMVAD Outputs & Interfaces

SAMVAD produces multiple analytical outputs that make invisible dialogue patterns visible and actionable.

Speaker Profiles

Pie charts of pramāṇas for each speaker, bar charts of value priorities, and example quotes illustrating their perspective.

Reasoning Maps

Flow diagrams showing Claim → Evidence → Logic → Conclusion with annotations where reasoning is strong versus weak.

Agreement Maps

Network or heatmap showing where speakers align on values and goals, revealing unexpected common ground.

Dialogue Timeline

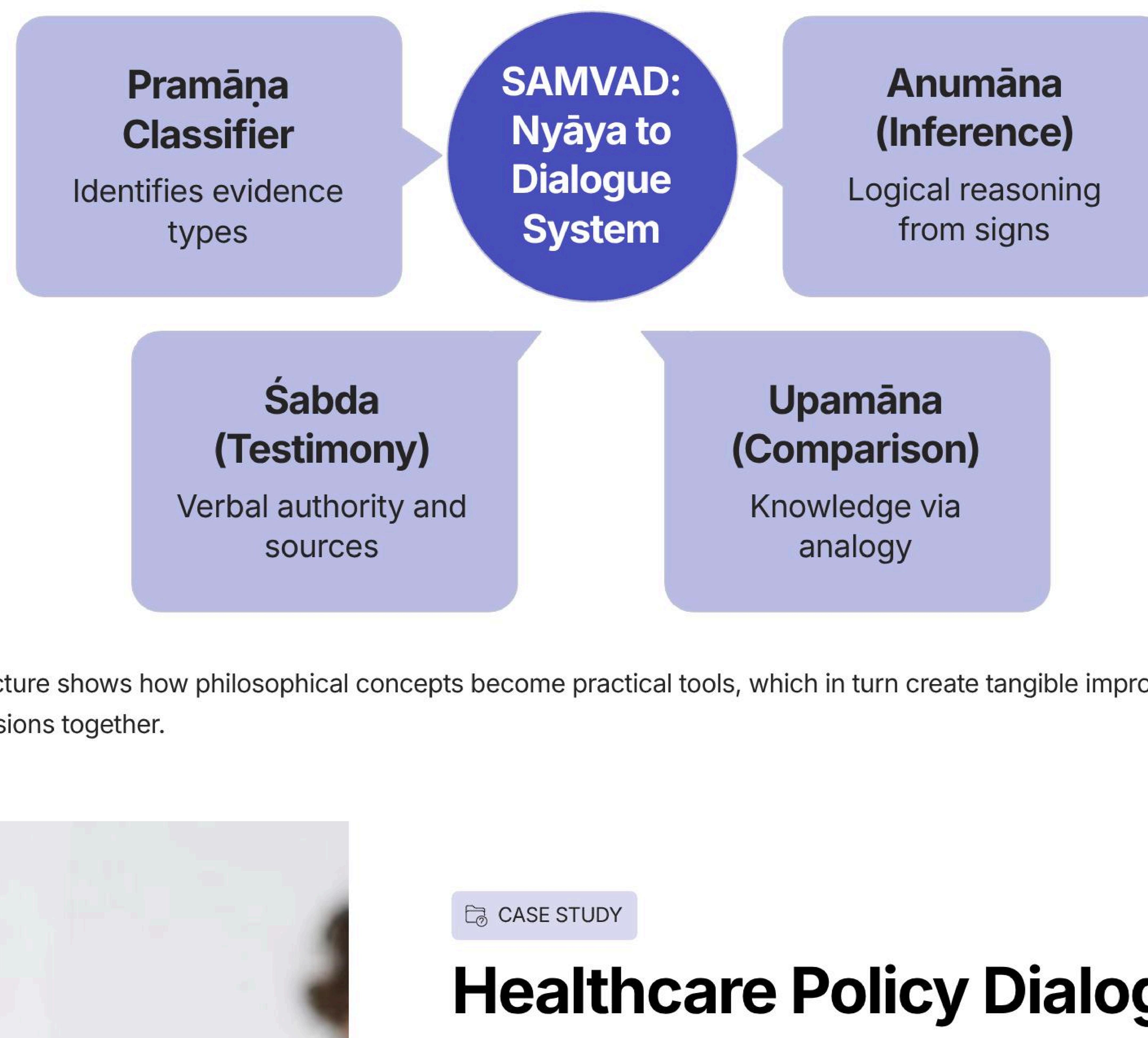
Time series of Vada vs. Jalpa vs. Vitanda signals with markers of key turning points and breakthrough moments.

Bridging Language

Sample phrasings to move back toward Vada and ways of reframing issues around shared values.

From Philosophy to System: The SAMVAD Flow

SAMVAD translates ancient Nyāya philosophy into a practical system that transforms how we understand and conduct dialogue.



This conceptual architecture shows how philosophical concepts become practical tools, which in turn create tangible improvements in how communities make decisions together.



CASE STUDY

Healthcare Policy Dialogue: Initial Positions

A city-level deliberation on healthcare policy brought together four participants with deeply different perspectives and ways of knowing.

	Nurse Position: Wants universal coverage Pramāṇa: Pratyakṣa-heavy (direct experience with patients) Core Value: Health access for all
	Business Owner Position: Fears economic costs Pramāṇa: Anumāna-heavy (logical inference about business impact) Core Value: Economic sustainability
	Researcher Position: Cites comparative data Pramāṇa: Śabda-heavy (testimony from studies) Core Value: Evidence-based policy
	Factory Worker Position: Job and health insecurity Pramāṇa: Pratyakṣa + lived experience Core Value: Personal and family security

Case Study: Transformation Through SAMVAD

Before SAMVAD Framing

The dialogue operated in debate mode (Jalpa), with participants talking past each other:

"You just want free stuff."

"You care only about profit."

"Data says you're wrong."

Each person defended their position without understanding others' reasoning or recognizing shared concerns.

With SAMVAD Mapping

The facilitator revealed:

- **Common values:** Worker security scored 0.9 for all participants
- **Shared concern:** Quality and access to healthcare
- **Different epistemic paths:** All pramāṇas acknowledged as valid ways of knowing

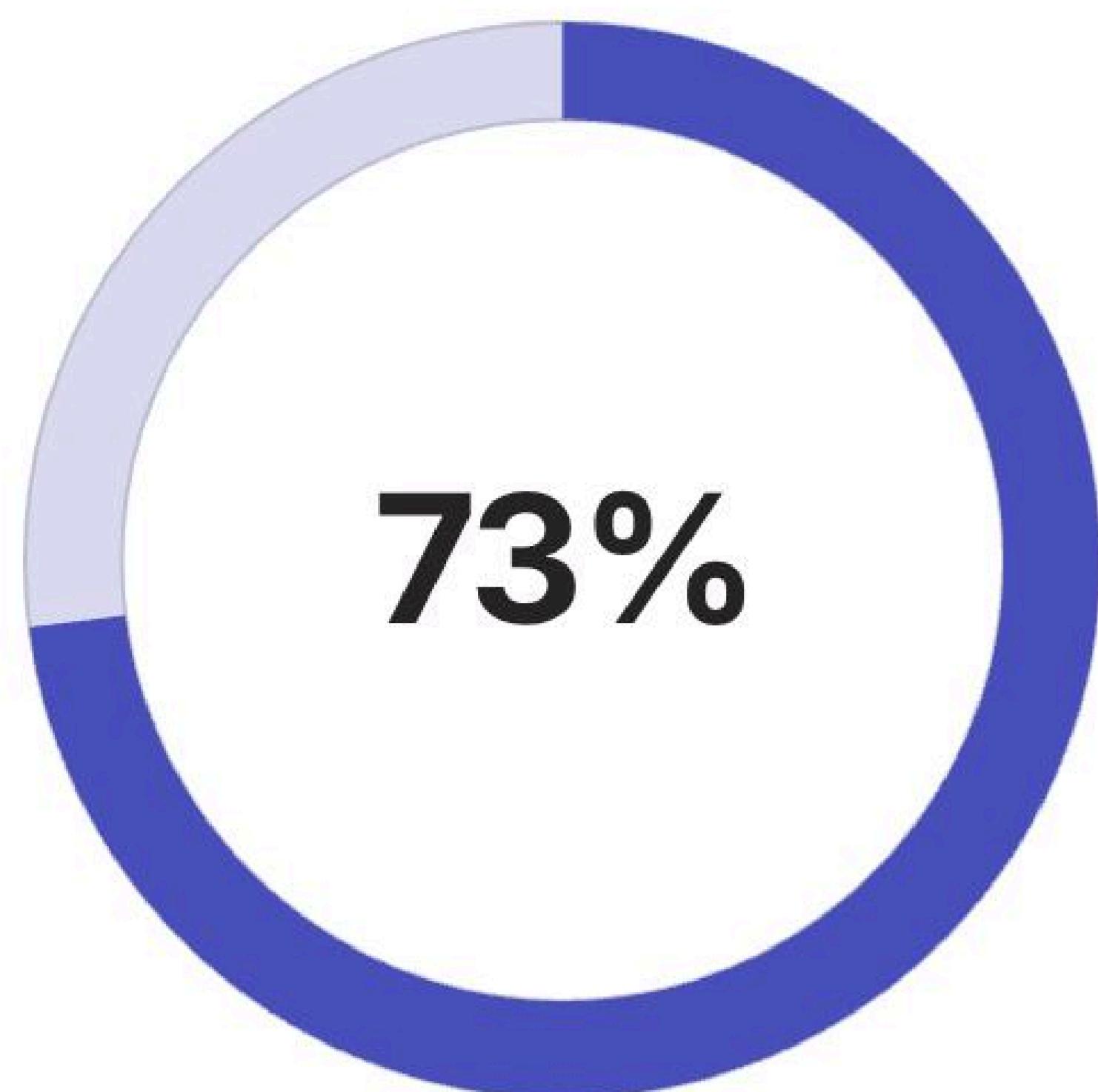
This reframing shifted the conversation from debate to joint problem-solving.

The Resulting Synthesis: "Universal Floor, Market Ceiling"



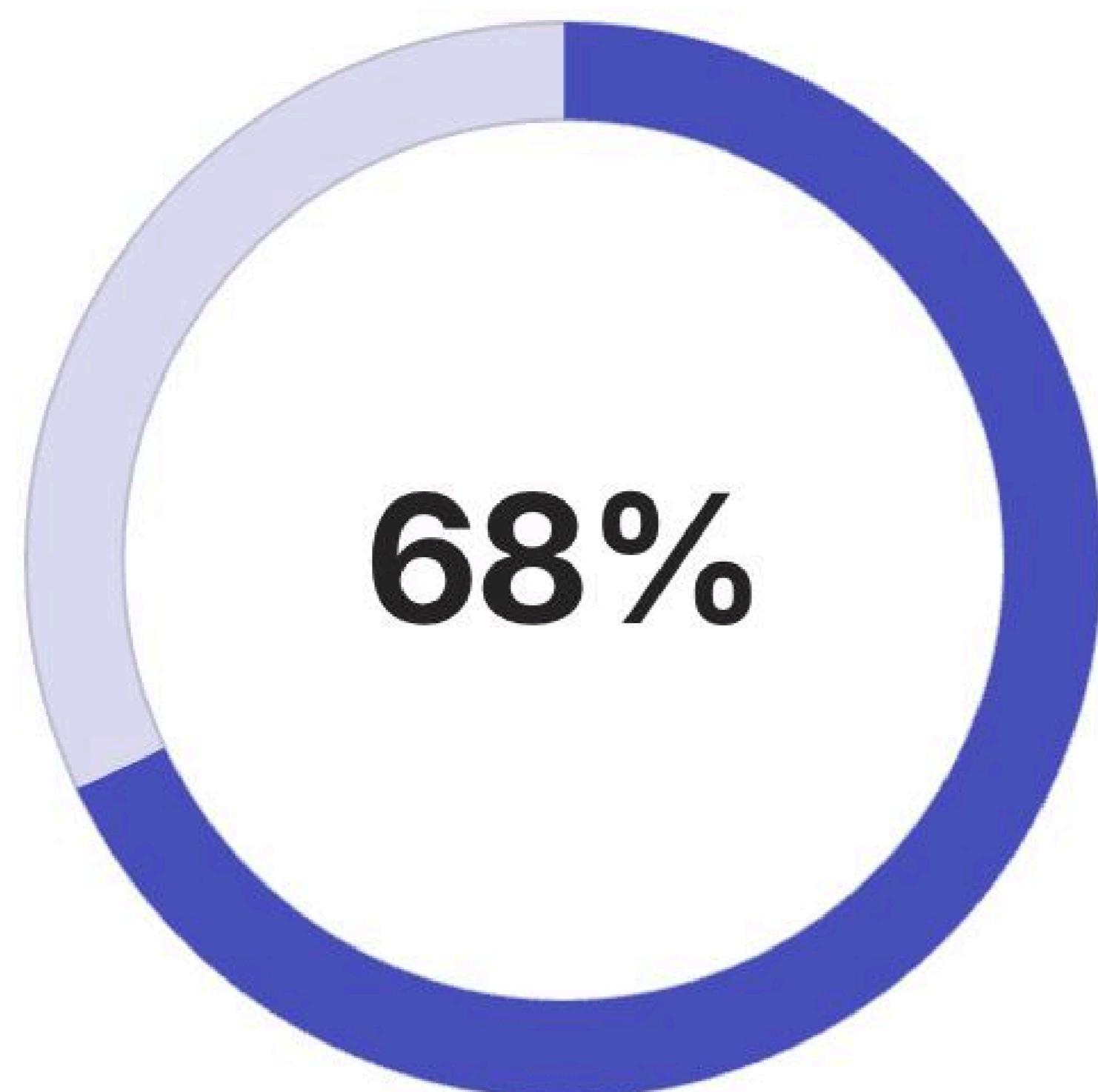
Impact & Metrics: Measuring Dialogue Transformation

The main impact is not just one policy result, but a repeatable pattern for how to talk across deep differences.



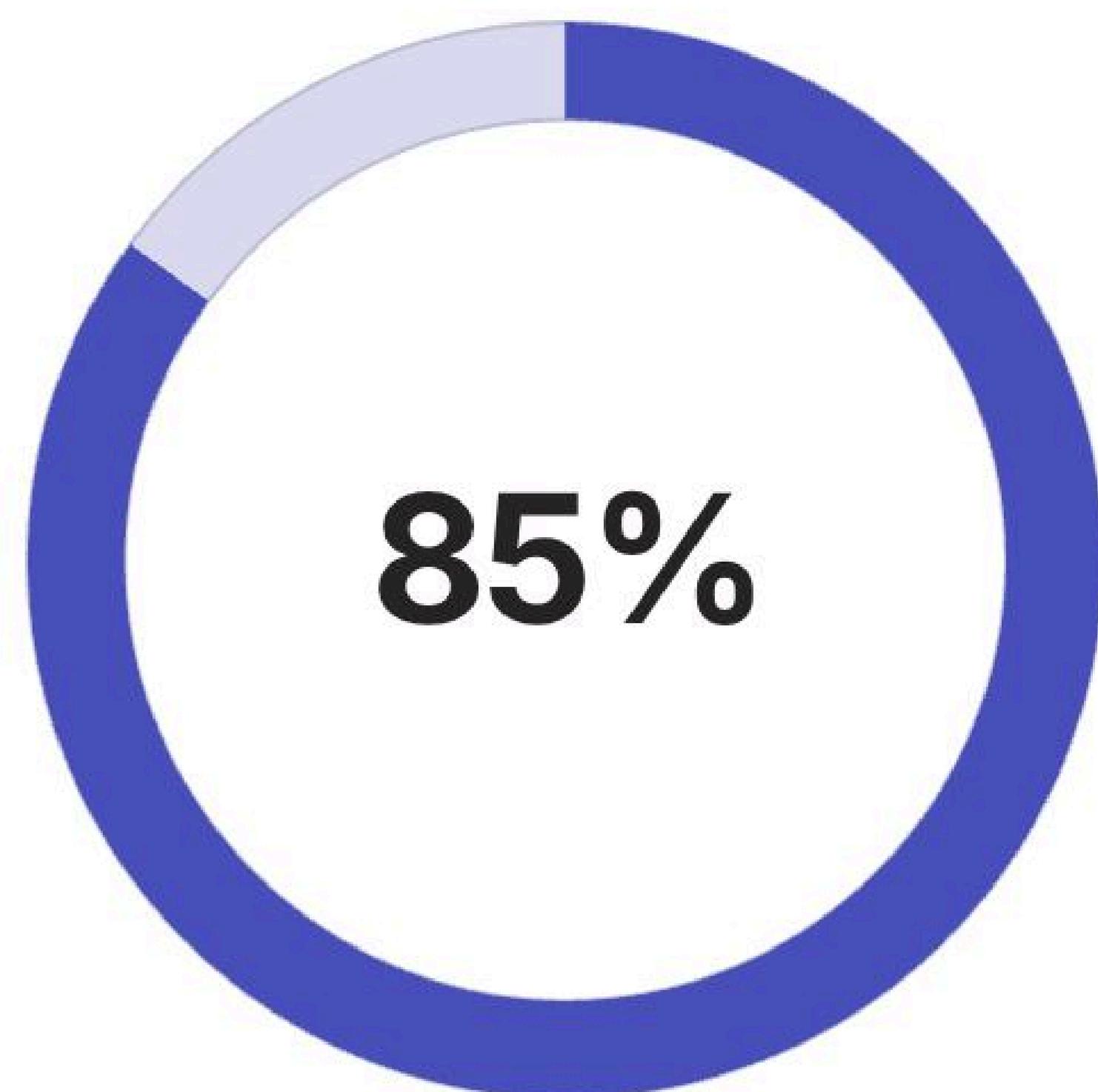
Increase in Vada Behavior

More listening, clarifying questions, and concessions over the session



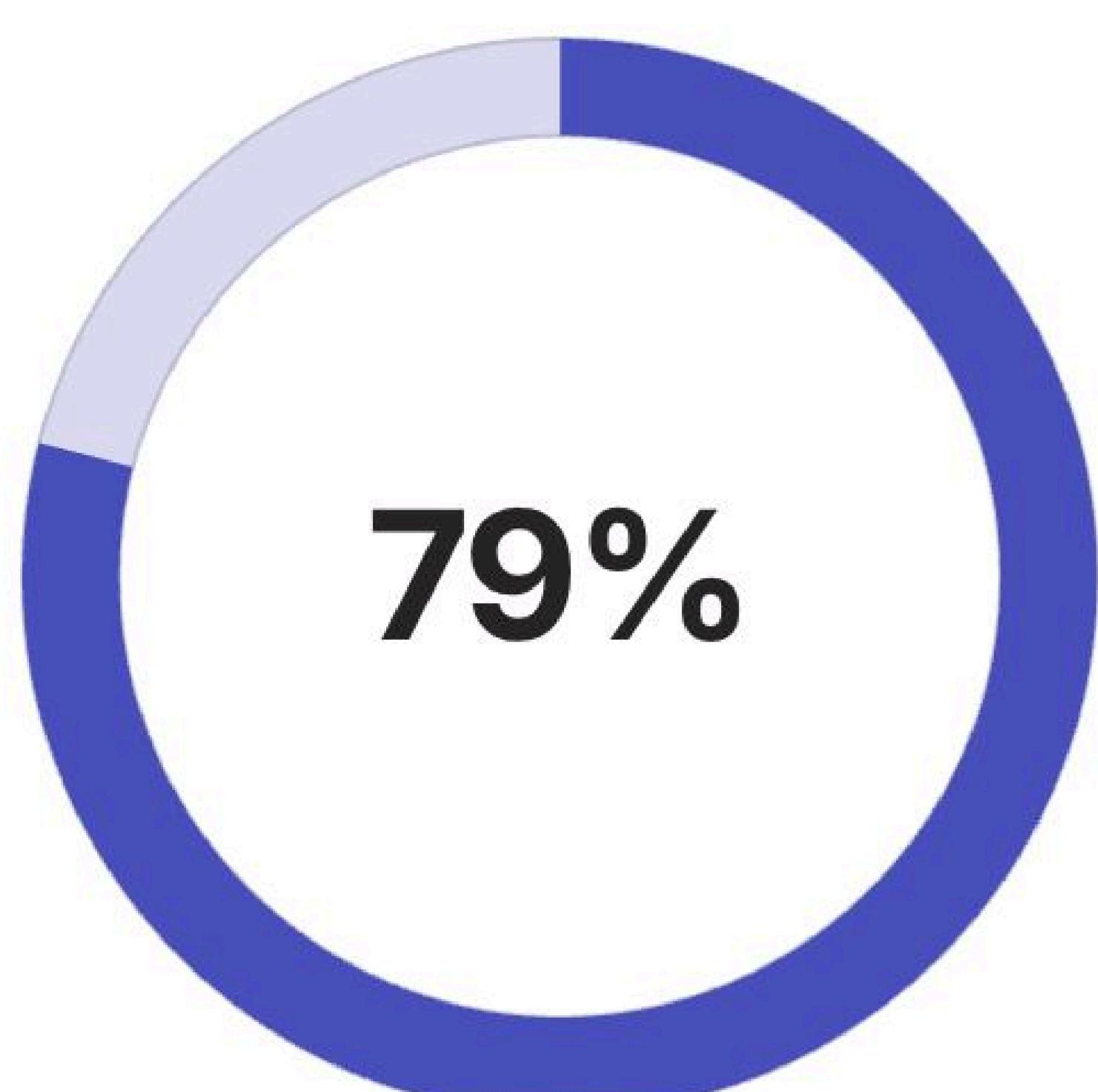
Decrease in Jalpa/Vitanda

Reduction in personal attacks, straw men, and dismissive language



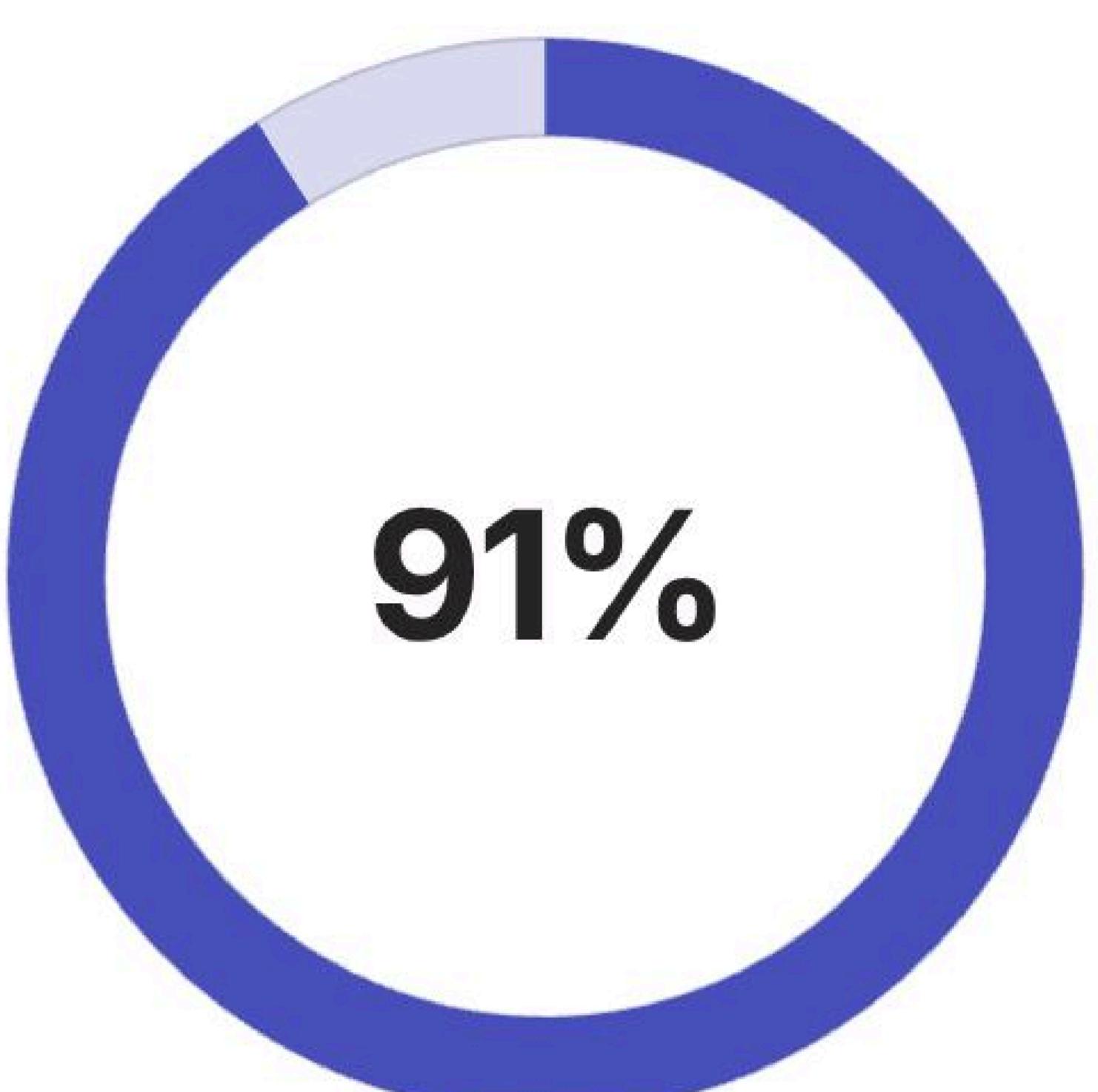
Better Understanding

Self-reported improvement in understanding others' reasoning



Discovered Shared Values

Participants found unexpected common ground and alignment



Willingness to Collaborate

Increased openness to working together again on future issues

Building Solutions Together

01

Philosophical Insight

Nyāya shows that there are multiple valid ways of knowing. Disagreement often stems from epistemic mismatch, not bad faith.

02

System Insight

SAMVAD turns these philosophical tools into a practical framework. It maps pramāṇas, values, reasoning, agreements, and dialogue quality.

03

Societal Vision

Imagine governments, platforms, and communities using Nyāya-grounded analysis to design policies. Imagine AI that respects lived experience, logic, analogy, and testimony together.



"When we stop assuming disagreement = irrationality, we can finally start building solutions together."

Polarization doesn't magically vanish, but becomes structured and addressable.

SAMVAD offers a path forward for dialogue in an age of division.