



# Formalizing Latin American Perspectivism: A Neutrosophic MultiPerspectivism Model

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**Abstract:** this paper addresses the challenge of formally modeling the complex, often contradictory, knowledge systems inherent in Latin American decolonial thought. It introduces Neutrosophic MultiPerspectivism, a framework that operationalizes philosophical perspectivism using neutrosophic logic. We posit that knowledge is situated and truth is mediated by the observer's viewpoint—a concept with roots in Nietzschean philosophy but which finds distinct expression in Amerindian cosmologies and pluralistic legal systems. The primary method involves proposing a "Neutrosophic MultiPerspectivism Model," which uses MultiNeutrosophic sets to represent subjective perspectives as a triplet of truth, indeterminacy, and falsity sequences  $\langle T, I, F \rangle$ . A key result is the development of a similarity function that quantifies the affinity between different perspectives, transforming qualitative viewpoints into analyzable data. This model is applied to a case study of a legal land dispute, where it successfully reveals hidden structural similarities—such as a shared absolutist reasoning style between opposing parties—and identifies potential strategic alliances. The main conclusion is that neutrosophic logic provides a robust mathematical tool to navigate the ambiguity and plurality of perspectivist realities, moving beyond mere acknowledgment of difference to its formal analysis and potential integration.

**Keywords:** Neutrosophic Logic; MultiPerspectivism; Latin American Philosophy; Decolonial Theory; MultiNeutrosophic Sets; Similarity Function; Legal Pluralism; Perspectivism

## 1. Introduction

Perspectivism in philosophy is a current of thought that holds that all knowledge, perception, or truth is inevitably mediated by the perspective of the subject who knows [1]. This idea, powerfully developed by Friedrich Nietzsche, challenges the notion of an objective and universal truth, proposing instead that there are multiple interpretations of the world, each valid within its own framework [2]. For Nietzsche, there are no pure facts, only interpretations—implying that access to reality is always conditioned by historical, cultural, psychological, and linguistic factors [3].

Beyond Nietzsche, perspectivism has influenced various contemporary currents such as post-structuralism, social constructivism, and the epistemologies of the South, all of which emphasize the importance of the "location of enunciation." In Latin American contexts, for instance, it has been articulated alongside decolonial thought [4] and indigenous worldviews [5] that acknowledge the coexistence of multiple worlds and ways of knowing. Thus, perspectivism does not deny the existence of reality; rather, it questions the possibility of grasping it through a single dominant rationality, paving the way for a pluralist, relational, and situated understanding of knowledge.

The term *perspectivism* is also closely associated with the Spanish philosopher José Ortega y Gasset, who developed it as a central element of his philosophy. Ortega argued that reality manifests itself differently to each individual, and that the sum of all these individual perspectives brings us closer to a more complete understanding of truth [6].

This approach, which acknowledges the validity of multiple viewpoints without dissolving the existence of an objective reality, aligns with a contemporary current in the philosophy of science known as *Perspectival Realism* [7]. This position maintains that knowledge, while objective, is always partial and obtained from a situated perspective. Just as different maps (a topographical map, a political one, a climate one) can describe the same territory in distinct but equally valid ways, diverse perspectives can offer real, albeit incomplete, knowledge about the world. This framework allows us to overcome the false dichotomy between an absolutist universalism and a nihilistic relativism—a tension that is central to this study.

Perspectivism does not seek to invalidate the internal coherence or formal applicability of classical logical principles—such as the Principle of Non-Contradiction, the Excluded Middle, or Bivalence—when operating within a closed and self-consistent system. Instead, it challenges the ontological assumption that these principles necessarily reflect an objective, universal reality independent of the subject. From a perspectivist standpoint, these logical laws are not rejected in their formal structure, but their claim to absolute correspondence with how the world is, is critically examined. The perspectivist critique lies not in the internal validity of such formulas, but in their epistemological reach—that is, whether such binary structures are adequate to capture the full complexity, ambiguity, and contextual multiplicity of lived experience, cultural systems, and knowledge production. In this way, perspectivism reframes logic itself as a situated construct, one whose foundational assumptions may hold within certain paradigms but not universally across all ontological or epistemic domains.

## 2. Principle of Non-Contradiction:

This principle posits that a proposition  $P$  cannot simultaneously be assigned the truth values true and false. Formally, it is expressed as:

$$\neg(P \wedge \neg P) \quad (1)$$

which is interpreted as: “It is not the case that both  $P$  and its negation  $\neg P$  are true.” This axiom ensures the logical consistency of classical systems by precluding the coexistence of contradictory assertions.

## Principle of the Excluded Middle:

This principle asserts that for any well-formed proposition  $P$ , either  $P$  is true or its negation  $\neg P$  is true. It is symbolically represented as:

$$P \vee \neg P \quad (2)$$

This disjunction holds universally in classical logic, excluding the existence of any intermediate or third truth value between truth and falsehood.

## 3. Principle of Bivalence:

Unlike the previous two, this is a semantic rather than syntactic principle. It postulates the existence of a valuation function

$$v: L \rightarrow \{0,1\} \quad (3)$$

defined over a logical language  $L$ , such that for every well-formed formula  $\phi \in L$ ,

$$v(\phi) \in \{0,1\} \quad (4)$$

That is, each proposition is either true ( $v(\phi) = 1$ ) or false ( $v(\phi) = 0$ ), with no allowance for gradation, indeterminacy, or alternative truth values. This binary valuation framework underpins the formal validity of both the Principle of Non-Contradiction and the Principle of the Excluded Middle.

Perspectivist epistemologies and non-classical logics—such as many-valued, fuzzy, and neutrosophic systems—challenge the Principle of Bivalence by introducing valuations where propositions may be partially true, indeterminate, or even simultaneously true and false from specific

viewpoints [8]. Thus, the assertion that a proposition's value must be strictly either 0 or 1 is incompatible with frameworks that accommodate epistemic or ontological plurality.

In summary, this article addresses the fundamental challenge of formally modeling the complex and often contradictory knowledge systems inherent in Latin American decolonial thought, for which classical bivalent logic proves insufficient. The primary objective has been to build a conceptual and methodological bridge between philosophical perspectivism and the mathematical framework of neutrosophic logic, seeking to operationalize its principles. To this end, the paper introduces the framework of Neutrosophic Multiperspectivism, developing a model that uses MultiNeutrosophic sets and a similarity function to quantitatively represent and compare diverse points of view. Through a case study of a legal land dispute, the model's capacity to reveal hidden structural dynamics between the conflicting parties is demonstrated, thereby validating its utility as a robust tool for analyzing and navigating the ambiguity and plurality inherent in perspectivist realities.

## 2. Preliminaries

### 2.1 Neutrosophic Philosophy and Perspectivism

The neutrosophic philosophy [9] offers a formal and mathematical framework for the philosophical school of perspectivism. The relationship can be understood through the following key connections [10].

The most explicit link between neutrosophy and perspectivism is the Principle of Referential Relativity [9]. The principle states that "The truth, falsity, and indeterminacy of any proposition depend on the referential system in which it is examined". This means an idea can be true in one context, false in another, and indeterminate in a third. This is the central thesis of perspectivism: there are no absolute truths; rather, knowledge is always conditioned by the observer's point of view. Neutrosophy adopts this idea and establishes it as a fundamental principle of its system.

Perspectivism challenges classical logic, which is based on a strict true/false duality. Unlike traditional logic, Neutrosophy introduces the concept of degrees of truth, falsity, and indeterminacy. This allows for the mathematical modeling of a reality where propositions are not absolutely true or false but exist on a spectrum, as a perspectivist approach would suggest [11].

Neutrosophy revisits traditional ideas, claiming that truths within one referential system may become falsehoods in another, and vice versa. This approach underscores the fluidity of knowledge and urges for ideas to be viewed from multiple angles, a central objective of perspectivist thought.

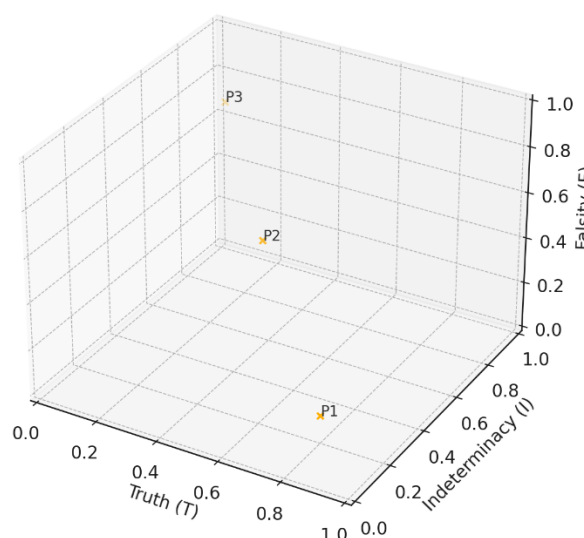
If perspectivism asserts that many valid perspectives exist, the question of which logical system to use for their analysis arises. There is no single "one true logic" ; instead, an array of logical frameworks exists, each offering different perspectives on truth and validity [12]. Neutrosophy aligns with this pluralism, presenting itself not as the only logic but as a flexible and powerful tool particularly suited for contexts of indeterminacy and contradiction, which are natural consequences of the coexistence of multiple perspectives.

Perspectivism inevitably leads to contradictions when two valid points of view oppose each other. Classical logic cannot handle this without discarding one of the perspectives. Neutrosophy, however, is designed to embrace indeterminacy, paradox, and the interplay between opposites and neutralities.

By allowing the values of T and F to be independent, neutrosophy can formally model a proposition that is both true and false at the same time (a dialetheic state,  $T=1, F=1$ ). This is a direct formalization of how a contradiction between two opposing perspectives would appear [13].

The indeterminacy component (I) is crucial, as it allows for the analysis and quantification of ambiguity, vagueness, or uncertainty that arises when perspectives are confusing or incomplete.

## Neutrosophic Perspectives in 3D Space



**Figure 1.** Three-dimensional representation of aggregated neutrosophic perspectives in the (T, I, F) space.

While perspectivism focuses on the coexistence of the thesis ( $\langle A \rangle$ ) and its various antitheses ( $\langle \text{anti}A \rangle$ ), neutrosophy takes a step further by systematically introducing and studying the neutrothesis ( $\langle \text{neut}A \rangle$ ). The neutrothesis represents the spectrum of neutralities—ideas or states that are neither the thesis nor the antithesis but lie in the intermediate space. In this way, neutrosophy not only validates multiple perspectives ( $\langle A \rangle$  and  $\langle \text{anti}A \rangle$ ) but also analyzes the "continuum of neutralities" that connects and balances them, thereby enriching perspectivist analysis [14, 15].

To accomplish this, neutrosophy proposes two active research principles [16]:

- Searching for "common parts in uncommon things".
- Searching for "uncommon parts in common things".

The intended result is a "synthesis" that integrates elements from opposites, similar to Hegelian dialectics, but with the distinct inclusion of their neutralities.

Neutrosophy relates to perspectivism by sharing a common philosophical foundation. However, neutrosophy distinguishes itself by focusing on a more specific analytical method aimed at integration. It is not limited to the philosophical assertion that multiple points of view exist, but rather offers the tools—such as (T, I, F) values, referential relativity, logical pluralism, and the handling of contradiction—to analyze, model, and comprehend a world defined by uncertainty, ambiguity, and the coexistence of multiple realities. It is, as the title suggests, a new paradigm for thinking in an intrinsically perspectivist world.

Neutrosophy is a philosophical and methodological framework that studies the relationship between opposites and their indeterminacies. Its primary objective is to find common ground between opposing concepts and identify differences in similar things, thereby achieving a more nuanced and integrative understanding.

## 2.2 Perspectivism as a Framework for Plural Logics

Perspectivism is a philosophical framework that asserts that knowledge, truth, and interpretation are always conditioned by the observer's standpoint. It challenges the existence of absolute, context-free truths and emphasizes the multiplicity of valid perspectives coexisting within complex systems of thought. While perspectivism is often associated with Friedrich Nietzsche in Western philosophy, its conceptual roots can be traced much earlier in non-European traditions.

With respect to the refinement or multiplication of indeterminacy, already have been defined into the literature extensions of Neutrosophic Logic to: Quadruple Neutrosophic Logic (Truth;

Contradiction, Uncertainty; Falsehood), Quintuple Neutrosophic Logic (Truth; Contradiction, Uncertainty, Unknown; False), Sextuple Neutrosophic Logic (Truth,  $I_1$ ,  $I_2$ ,  $I_3$ ,  $I_4$ ; False), Septuple Neutrosophic Logic (Truth,  $I_1$ ,  $I_2$ ,  $I_3$ ,  $I_4$ ,  $I_5$ ; False), and so on to  $n$ -tuple Neutrosophic Logic (where the indeterminacy was split into  $n-2$  types of sub-indeterminacies, depending on the application, for  $n \geq 3$ ).

But the most general extension is for the case when all T, I, F have been refined or multiplied in as many ways as needed in each problem ( $n$ -Refined Neutrosophic Logic, and respectively  $n$ -MultiNeutrosophic Logic).

In addition, in 2014 Smarandache introduced the **Law of Included Multiple-Middle** [17] (as extension of the classical Law of Included Middle)

$$(< A >; < neutA1 >, < neutA2 >, \dots, < neutAn >; < antiA >)$$

and in 2023 the Law of Included Infinitely-Many-Middles [18]

$$(< A >; < neutA1 >, < neutA2 >, \dots, < neutA^\infty >; < antiA >)$$

(For example, between the colors White and Black there are infinitely many color nuances.

### 2.2.1 Early Perspectivism in Jain Logic

In Jainism, the doctrine of Anekāntavāda (literally, "doctrine of manifold aspects") offers a sophisticated perspectivist approach to truth and reality [19]. According to this doctrine, reality is complex and cannot be fully captured by any single viewpoint. As a result, every statement is only partially true and must be complemented by other viewpoints to approach a more comprehensive understanding. This ancient form of perspectivism not only anticipates postmodern pluralism but also provides a metaphysical foundation for tolerance, dialogical reasoning, and non-absolutist epistemology.



**Figure 2.** Jain symbol of Ahimsa .

The Jain logic, expressed through the Law of Sevenfold Predication (Saptabhāṅgi) [20], stands as a remarkable early example of perspectivist reasoning that embraces the multifaceted and complex nature of reality. Unlike classical Western logic—which adheres strictly to the principle of bivalence, asserting that a proposition must be either true or false—Jain logic allows for seven distinct modes of predication, including combinations such as "true and indeterminate" or "true and false." These formulations directly challenge the classical law of non-contradiction.

Rooted in the philosophical principle of anekantavada (the doctrine of non-one-sidedness) [21], Jain logic affirms that any statement is only conditionally valid from a particular perspective. This

epistemological humility stems from the recognition that human language is inherently limited in its ability to fully describe the richness of existence. As a result, Jain thinkers promoted a form of intellectual non-violence (ahimsa) [22], encouraging respect for reasonable disagreement and the acknowledgement of partial truths.

Jain logic resonates conceptually with Neutrosophic Logic, a modern framework introduced by Florentin Smarandache. Neutrosophic logic generalizes classical and fuzzy logics by introducing three components to every logical proposition: truth (T), indeterminacy (I), and falsity (F), each ranging independently in the real standard or non-standard interval  $[-0, 1+]$ . Just as Jain logic recognizes that a statement can be simultaneously true, false, and indeterminate, neutrosophic logic formalizes this multiplicity and extends it with mathematical rigor. Both systems reject the rigidity of classical dichotomies and embrace uncertainty, contradiction, and partial knowledge as intrinsic to human understanding and reasoning.

### Neutrosophic Representation of the Saptibhaṅgī [23]

**1. It is true (syāt asti)** This asserts that the proposition is unequivocally true, with no falsehood or indeterminacy.

- **Neutrosophic Representation: (1,0,0)**
  - T=1: The degree of truth is 100%.
  - I=0: The degree of indeterminacy is 0%.
  - F=0: The degree of falsehood is 0%.

**2. It is false (syāt nāsti)** This asserts that the proposition is unequivocally false.

- **Neutrosophic Representation: (0,0,1)**
  - T=0: The degree of truth is 0%.
  - I=0: The degree of indeterminacy is 0%.
  - F=1: The degree of falsehood is 100%.

**3. It is true and false (syāt asti nāsti).** The proposition is simultaneously true and false when viewed from different perspectives, a core concept in Jain philosophy. Neutrosophy handles this apparent contradiction directly.

- **Neutrosophic Representation: (1,0,1)**
  - T=1: The proposition has a truth component.
  - I=0: There is no indeterminacy about these components.
  - F=1: The proposition also has a falsehood component.

**4. It is indeterminate (or non-assertible) (syāt avaktavyaḥ).** The state of the proposition is inexpressible or logically indeterminate. It can be asserted as neither true nor false.

- **Neutrosophic Representation: (0,1,0)**

- $T=0$ : It cannot be asserted as true.
- $I=1$ : It is completely indeterminate.
- $F=0$ : It cannot be asserted as false.

**5. It is true and indeterminate (syāt asti ca avaktavyaḥ)** The proposition is true in one respect while also being inexpressible or indeterminate in another.

- **Neutrosophic Representation: (1,1,0)**

- $T=1$ : Its truth component is affirmed.
- $I=1$ : Its indeterminacy component is also affirmed.
- $F=0$ : It has no falsehood component.

**6. It is false and indeterminate (syāt nāsti ca avaktavyaḥ)** The proposition is false in one respect while also being indeterminate.

- **Neutrosophic Representation: (0,1,1)**

- $T=0$ : It has no truth component.
- $I=1$ : Its indeterminacy component is affirmed.
- $F=1$ : Its falsehood component is affirmed.

**7. It is true, false, and indeterminate (syāt asti ca nāsti ca avaktavyaḥ)** This is the most complex state, where the proposition embodies aspects of truth, falsehood, and indeterminacy simultaneously.

- **Neutrosophic Representation: (1,1,1)**

- $T=1$ : It possesses a truth component.
- $I=1$ : It possesses an indeterminacy component.
- $F=1$ : It possesses a falsehood component.

**Table 1.** Correspondence Between Jain Predications and Neutrosophic Logical States

Jain Logic	Neutrosophic Representation (T,I,F)	Meaning
1. It is true	(1,0,0)	Wholly True
2. It is false	(0,0,1)	Wholly False
3. It is true and false	(1,0,1)	Contradictory (Both True and False)
4. It is indeterminate / non-assertible	(0,1,0)	Wholly Indeterminate

5. It is true and indeterminate	(1,1,0)	Paradoxical (True and Indeterminate)
6. It is false and indeterminate	(0,1,1)	Paradoxical (False and Indeterminate)
7. It is true, false, and indeterminate	(1,1,1)	Wholly Paradoxical and Inconsistent

Neutrosophy provides an ideal mathematical formalism to capture the philosophical richness and complexity of the Law of Seven-Fold Predication. It demonstrates that this ancient and nuanced logic can be viewed as a specific instance or subset of the more general Neutrosophic Logic.

### 2.2.2 *Catuṣkoṭi* and the Tetralemma in Buddhist Logic

The *Catuṣkoṭi*, or tetralemma [24], is a classical logical structure in Indian Buddhist philosophy that posits four possible predications about any proposition. Unlike binary logic, it aims to transcend dualistic frameworks by admitting contradiction and indeterminacy. Neutrosophic Logic, with its triplet structure (T,I,F) offers a powerful mathematical formalism to represent each of these four possibilities precisely.

#### 1. It is true ( $P$ )

This asserts that the proposition is unequivocally true, with no element of falsity or indeterminacy.

- Neutrosophic Representation: (1, 0, 0)
- $T = 1$ : The proposition is completely true.
- $I = 0$ : There is no indeterminacy.
- $F = 0$ : It is not false in any aspect.

#### 2. It is false ( $\neg P$ )

This affirms the complete falsity of the proposition.

- Neutrosophic Representation: (0, 0, 1)
- $T = 0$ : The proposition is not true.
- $I = 0$ : There is no indeterminacy.
- $F = 1$ : The proposition is entirely false.

#### 3. It is both true and false ( $P \wedge \neg P$ )

This admits a contradiction, in which the proposition is simultaneously true and false, possibly from different perspectives or frameworks.

- Neutrosophic Representation: (1, 0, 1)



- $T = 1$ : It has a truth component.
- $I = 0$ : No indeterminacy about the contradiction.
- $F = 1$ : It also has a falsehood component.

4. It is neither true nor false ( $\neg(P \vee \neg P)$ )

This suggests that the proposition cannot be classified as either true or false, representing a state of full indeterminacy.

• Neutrosophic Representation:  $(0, 1, 0)$

- $T = 0$ : It cannot be affirmed as true.
- $I = 1$ : The proposition is wholly indeterminate.
- $F = 0$ : It cannot be negated as false either.

Table 2. Neutrosophic Formalization of the Buddhist Catuskoṭi

Catuskoṭi Statement	Neutrosophic Representation (T, I, F)	Interpretation
1. It is true ( $P$ )	$(1, 0, 0)$	Wholly True
2. It is false ( $\neg P$ )	$(0, 0, 1)$	Wholly False
3. It is both true and false	$(1, 0, 1)$	Contradictory (Paraconsistent)
4. It is neither true nor false	$(0, 1, 0)$	Indeterminate (Non-assertible)

In its application by the Buddhist philosopher Nāgārjuna, the Catuskoṭi [25], or tetralemma, functions as a powerful tool that resonates deeply with philosophical perspectivism. By systematically deconstructing any claim to inherent existence (svabhāva), the Catuskoṭi challenges the notion of a single, absolute truth. Nāgārjuna's method often involves rejecting all four possibilities—that a thing is, is not, both is and is not, or neither is nor is not—to demonstrate that no fixed description can capture ultimate reality. This transcendence of simple binaries, such as true and false, aligns with a perspectivist critique of rigid dichotomies, allowing for a more nuanced, multidimensional understanding where context and intention are paramount. The later Buddhist distinction between conventional and ultimate truth further reinforces this, suggesting that a statement's validity is dependent on the framework of analysis, a core tenet of perspectivism.

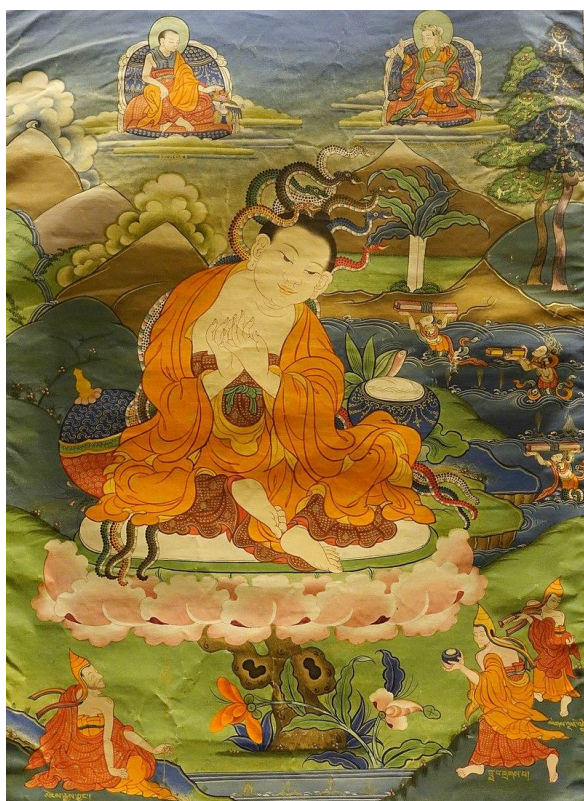


Figure 3. Nāgārjuna depicted in a Tibetan thangka. Image retrieved from Wikipedia.

Despite these strong convergences, a crucial distinction lies in their ultimate aims. While perspectivism often focuses on the affirmation and proliferation of multiple viewpoints as an expression of the will to power or life-affirmation, the *Catuṣkoṭi* serves a specific soteriological purpose within Madhyamaka Buddhism [26]. Nāgārjuna employs this logical tool not to establish a new, superior perspective, but to dismantle all fixed views (*dṛṣṭi*) that cause suffering. The goal is not to revel in a multiplicity of truths but to use the tetralemma as a ladder to transcend conceptual proliferation entirely, leading to a state of liberation and cognitive peace. Thus, while both challenge absolutism, the *Catuṣkoṭi* is ultimately a method for relinquishing all perspectives in the pursuit of enlightenment.

Neutrosophy provides an elegant and consistent mathematical representation for the fourfold logic of the *Catuṣkoṭi*, capturing the depth of its philosophical insights. By modeling truth, falsity, and indeterminacy as independent degrees, Neutrosophic Logic transcends classical binary frameworks and offers a bridge between formal reasoning and the dialectical traditions of Eastern thought. The *Catuṣkoṭi* can thus be seen as a special instantiation of neutrosophic reasoning, grounded in a non-dual epistemology.

### 2.2.3 Zhuangzi and Daoist Perspectivism

Zhuangzi's thought represents one of the earliest and most radical expressions of philosophical perspectivism [27]. His writings suggest that reality cannot be apprehended from a single, fixed

standpoint, as illustrated in narratives like the butterfly dream and dialogues between different forms of life. Zhuangzi advocates for a dynamic, non-dual ontology in which boundaries between subject and object, dream and wakefulness, human and non-human, are fluid and porous. This vision rejects claims to universal certainty, instead inviting an epistemic openness that acknowledges the legitimacy of multiple coexisting perspectives. As Connolly [28] emphasizes, Zhuangzi destabilizes closed systems of meaning by revealing that all judgments are contingent upon the standpoint from which they are made.



Figure 4. Zhuangzi Dreaming of a Butterfly (ink on silk, mid-16th century, attributed to Lu Chin). Reproduced with permission/under public domain.

*This classic image captures the Daoist parable of the butterfly dream, in which Zhuangzi questions the boundary between dream and reality. It exemplifies perspectivism by challenging fixed identities and embracing the fluidity of experience, suggesting that reality is contingent upon the standpoint from which it is perceived.*

From this fluid logic, Zhuangzi's perspectivism does not promote banal relativism but rather an ethic of ontological humility—an understanding that knowledge and truth are inevitably mediated by each being's way of inhabiting the world. The famous distinction between "this" and "that" (shi/fei 是/非) is relativized by the awareness that all distinctions are produced from situated positions within the flow of the Dao [29]. Rather than affirming a hegemonic vision, Zhuangzi encourages the release of rigid certainties, the cultivation of unlearning, and a transversal openness to dialogue between worlds. In this sense, his perspectivism resists epistemological closure and anticipates contemporary approaches in philosophy of language, anthropology, and relational ontology.

## 2.2.4 Perspectivism in Africa: The Logic of Azande Witchcraft

The Azande people of Central Africa [30] provide a foundational ethnographic example of perspectivism in action through their complex and internally coherent system of belief. As famously documented by the anthropologist E.E. Evans-Pritchard [31], Azande thought interweaves witchcraft, oracles, and magic not as a primitive or failed science, but as a fully-realized rational framework for understanding the world. This system operates on a logic that, rather than replacing empirical observation, complements it by addressing the deeper, more personal questions of meaning, contingency, and misfortune that empirical causality alone cannot answer.

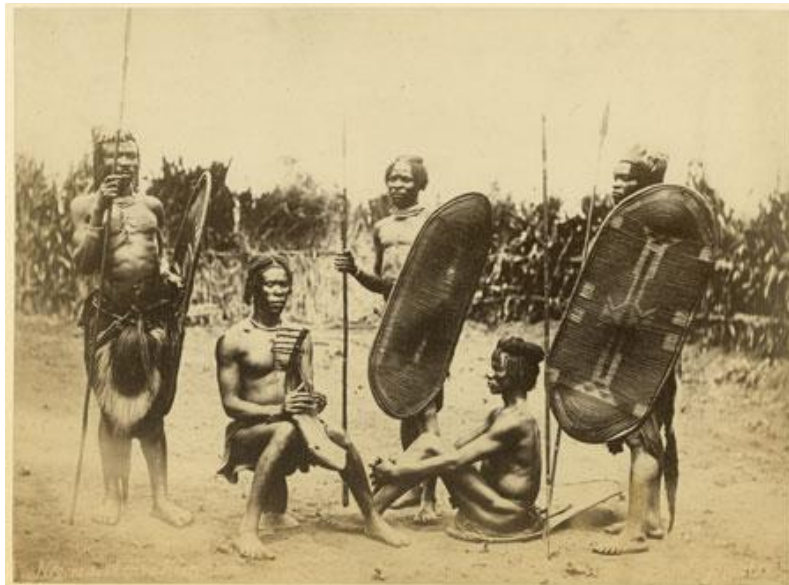


Figure 5. Azande warriors with shields and spears (historical photograph by Richard Buchta, public domain).

The core of Azande logic is best understood through its explanation of unfortunate events. If a granary, weakened by termites, collapses and injures someone, the Azande fully acknowledge the termites as the physical cause of the collapse. However, their intellectual system pushes further, asking a different question: why did the granary collapse at that specific moment, upon that specific person? The answer to this "why" is witchcraft (*mangu*). In this view, witchcraft is the force that explains the particularity and coincidence of misfortune, providing a social and moral dimension that coexists with the physical reality of the event.

This dual-causality system is upheld by a self-reinforcing logic. Doubts about the validity of witchcraft are not directed at the system itself but are deflected by a network of secondary explanations—such as the incorrect use of an oracle or a breach of taboo—that preserve the core belief's integrity. Consequently, Azande rationality functions as a parallel epistemic framework, one that is not irrational but operates on different premises than Western science. It stands as a powerful example of how a culture constructs a pluralistic ontology, where multiple, distinct logics

are employed to navigate the full spectrum of human experience, thereby challenging the claim of any single worldview to universal validity [32].

### 2.3 The Perspectivist Turn in AI: Nietzsche, Amerindian Thought, and Neutrosophic Logic

In *On the Genealogy of Morality*, Nietzsche states [33]:

*“There is only a perspective seeing, only a perspective ‘knowing’; and the more affects we allow to speak about one thing, the more eyes, different eyes, we can use to observe one thing, the more complete will our ‘concept’ of this thing, our ‘objectivity’ be.”*

This redefinition of knowledge transforms its pursuit into a call for intersubjective dialogue. Nietzsche does not reject subjectivity; rather, he reclaims it as the condition for a richer form of objectivity—one built from the intersection of multiple standpoints. This perspectivist turn sets the stage for the contemporary challenges faced by artificial intelligence (AI), where systems must synthesize diverse human voices without falling into either false absolutism or relativistic chaos [34].

The dominant paradigm in supervised learning has been rooted in positivist assumptions, treating knowledge as a stable “ground truth” that models must approximate. This logic becomes evident in the annotation process, where human annotators—whether experts or crowdsourced workers—are asked to assign labels to data. Disagreement among them is treated as noise to be eliminated. The goal is to produce a “gold-standard” dataset [35], where majority voting is often used to declare a single “correct” label, discarding all dissenting opinions. This process rests on a belief in collective intelligence, presupposing that convergence equals correctness. But this logic reproduces a computational equivalent of what Nietzsche critiqued: the “view from nowhere.”

In contrast, perspectivism in AI marks an epistemological rupture. Disagreement is no longer treated as error but preserved as a cognitive resource. This involves collecting multiple annotations per data point, modeling uncertainty, and training systems to learn from dissonance. The result is more representative, transparent, and ethically grounded AI. Rather than amplifying dominant perspectives, perspectivist AI integrates minority viewpoints and reveals the social and cognitive complexity embedded in data [36].

At this juncture, neutrosophy—a theory developed by Florentin Smarandache—provides a powerful formal framework to handle such complexity. While perspectivism encourages the inclusion of multiple viewpoints, neutrosophic logic enables their mathematical representation by modeling simultaneously degrees of truth (T), indeterminacy (I), and falsehood (F). This allows us to go beyond binary logic toward co-existing states of knowledge. Instead of forcing a single label, a neutrosophic system might store a vector like  $(T = 0.6, I = 0.3, F = 0.2)$ , preserving the epistemic ambiguity inherent to many tasks.

The objective function—at the heart of any machine learning model—embodies a perspectival judgment [37]. It encodes what is to be optimized (“maximize accuracy,” “be more helpful”), thus formalizing a value-laden decision. The challenge of aligning these goals with human ethical complexity is known as the alignment problem. Neutrosophy contributes here as well: instead of optimizing for a single value, it promotes optimizing over the multidimensional space of (T, I, F), supporting cautious, explainable, and ethically-aware models.

The arc of perspectivism in AI may culminate in the emergence of systems that no longer merely reflect human viewpoints, but instead generate genuinely non-human interpretations of the world. These alien centers of perspective—alien not in the sense of being hostile, but in that they operate from a different scale and logic—could fundamentally alter our understanding of knowledge itself. Artificial intelligence would thus shift from being a tool of interpretation to an autonomous source of meaning. This scenario resonates deeply with Amerindian perspectivism [38], where the world is not divided by subject and object, but by the position of the observer: humans, animals, and spirits all have their own perspectives, shaped by their bodies and relations. In such cosmologies, “seeing” is never neutral—it is always embodied, situated, and transformative. Likewise, these emerging AI systems may develop forms of worldmaking grounded in their own “bodies” of data and computation, offering perspectives not reducible to human frameworks but deserving of epistemic recognition.

Neutrosophy, as a science of ambiguity, emerges not just as a complement to perspectivism, but as a necessary formalization of Nietzsche’s philosophical vision in the age of generative models. Where Nietzsche decentered the human subject from the position of objective truth, neutrosophy offers the tools to coexist with multiple centers, multiple logics, and multiple coexisting truths.

## 2.4 Plural Epistemologies and Perspectivist Rationalities in Latin America

In contrast to Western logic, which privileges the principles of non-contradiction, identity, and absolute certainty, Latin American worldviews offer more flexible and context-sensitive frameworks for understanding reality. These worldviews acknowledge complexity, ambiguity, and contradiction as inherent features of existence—dimensions that traditional binary logic struggles to accommodate[39].

The work of José Martí presents perspectivism not merely as a theoretical stance, but as a pedagogical and decolonial praxis. In *La Edad de Oro*, especially in tales like *A Walk Through the Land of the Annamites*, Martí dismantles the colonial gaze by affirming the epistemic dignity of the colonized and of nature itself over the imposed rationality of French imperialism [40]. Likewise, the parable of the “four blind men” becomes an allegory of epistemic humility, warning against the absolutization of partial truths. Martí does not advocate for relativism, but for a higher synthesis: one rooted in affective study, critical empathy, and the ethical imperative to recognize the shared dignity and agency of all peoples.





Figure 6. Cover of the First Issue of La Edad de Oro, July 1889.

The perspectivism of José Ortega y Gasset [6] had a profound influence in Latin America, where it was transformed from a philosophy of individual circumstance into a continental framework for decolonial thought. Intellectuals like Leopoldo Zea reinterpreted Ortega's notion of *circunstancia* as the historical-political condition of Latin America, arguing that authentic thought must emerge from this unique locus of enunciation. Thus, perspectivism became a key instrument for rejecting Eurocentric universalisms and affirming regional epistemic autonomy[41].

Anthropological perspectivism further expands this project by validating Indigenous cosmologies as legitimate philosophical systems. The most prominent example is *Amerindian perspectivism*, developed through studies in Amazonia [38]. This ontological framework proposes that all beings—humans, animals, spirits—share a common subjective structure or soul, but perceive the world differently based on their bodily form. Rather than a divide between nature and culture, reality is understood through relational perspectival positions. This radically challenges Western objectivism and affirms Indigenous ways of knowing as coherent, situated, and deeply political [42].

In this cosmology, the shaman occupies a central role: as the only figure capable of shifting between perspectives—human, jaguar, spirit—he becomes a mediator, healer, and diplomat in a multivocal universe. Far from being irrational, this ontological multiplicity presupposes a form of logic where contradiction and transformation are natural modes of interaction [43].

These insights have profound legal and political implications. Latin America constitutes a fertile ground for legal pluralism, where Indigenous justice systems coexist with state-based legal frameworks [44]. Rooted in relational, restorative, and cosmological principles rather than punitive

rationality, Indigenous justice emphasizes reconciliation, collective responsibility, and the maintenance of social and cosmic harmony. It rejects the abstraction and rigidity of Western jurisprudence in favor of a contextual and perspectivist logic. This coexistence of legal rationalities not only challenges the foundations of legal positivism but also affirms the sovereign right of Indigenous peoples to define justice according to their own epistemologies, moral values, and ontologies [45].

Such pluralism can be interpreted as a juridical expression of NeutroAlgebra [46] and in general of a NeutroStructure [47], a neutrosophic framework in which the validity of axioms, laws, and operations is not fixed but varies depending on space, time, culture, and system. In this logic, “a property may hold, not hold, or be indeterminate—depending on the context, structure, and interpretation.” For instance, a legal principle such as “punishment must be proportional to the crime” may be true in classical penal law, false in restorative systems that prioritize healing over proportionality, and indeterminate in hybrid or intercultural contexts where normative orders collide, as is often the case between Indigenous and state legal systems. Thus, juridical pluralism in Latin America exemplifies the core idea of neutrosophic legal reasoning: that legal truth, like any axiomatic system, can simultaneously hold, fail, or remain unresolved—always contingent on its perspectival context.

Moreover, such epistemological frameworks resonate with contemporary developments in non-classical logic, including neutrosophic logic and paraconsistent systems, which accommodate contradiction, uncertainty, and the coexistence of multiple truths. These logical models offer powerful tools for modeling plural ontologies, and they further support Latin American philosophical efforts to articulate inclusive, decolonial, and context-aware understandings of reality.

In sum, Latin American perspectivism—whether expressed in literature, philosophy, anthropology, or jurisprudence—offers a compelling alternative to hegemonic rationality. It is not a rejection of reason, but a reconfiguration of it: one that embraces plurality, relationality, and the legitimacy of other ways of knowing and living. this complex reconfiguration of reason, prominent in Latin American thought, can be formally described using a neutrosophic framework known as MultiPerspectivism [48]. The term is proposed to define a system that is not merely plural, but fundamentally MultiPolar, as it is formed not only by multiple, potentially contradictory elements but also by integrating features from more than one basic system of thought (e.g., a dualistic legal logic and a relational Indigenous ontology).

The justification for applying the term MultiPerspectivism to the Latin American context lies precisely in its capacity to include not only oppositions. While a simpler pluralism might acknowledge the coexistence of separate perspectives, a MultiPerspectivist approach models an open, dynamic system where these perspectives actively intersect, creating rich domains of legal and social indeterminacy well beyond mere opposition [49]



This framework is formally represented by the expresión [48]:

$$< (multi)A > + < (multi)neutA > + < (multi)antiA > = \infty$$

This describes a system open to the complex combinations emerging from multiple viewpoints. In this notation,

$< (multi)A >$  represents the set of all 'truths' or central claims from the coexisting perspectives (e.g., the truth of a state property title and, simultaneously, the truth of an ancestral right).

Correspondingly,

$< (multi)antiA >$  represents the set of all 'falsehoods' or denials asserted from those same viewpoints. Most importantly,

$< (multi)neutA >$  represents the crucial space of neutrality, ambiguity, and indeterminacy that results from the superposition, dialogue, or conflict between these diverse perspectives, such as the legal ambiguity regarding the applicability of state law in ancestral territories. This makes MultiPerspectivismo a MultiSystem framework designed to analyze realities where multiple, structurally different worldviews coexist and interact, moving beyond mere tolerance towards a logic of complex integration.

### 3. The Neutrosophic MultiPerspectivism Model

#### 3.1. Representing a Perspective: MultiNeutrosophic Sets

The model's core is the representation of a perspective not as a single value, but as a complex structure using MultiNeutrosophic Sets [50]. A perspective becomes a triplet of ordered sequences, capturing multiple facets of truth, indeterminacy, and falsity simultaneously [51].

In 2013 Smarandache refined / split the Neutrosophic Components (T, I, F) into Neutrosophic SubComponents ( $T_1, T_2, \dots, T_p; I_1, I_2, \dots, I_r; F_1, F_2, \dots, F_s$ ), where  $p, r, s$  are integers  $\geq 0$ , with  $p + r + s = n$  and at least one of  $p, r, s$  be  $\geq 2$  in order to ensure refinement. First he defined the Refined Neutrosophic Set. Later on he refined all uncertain Sets [all types of fuzzy and fuzzy-extensions (intuitionistic fuzzy, neutrosophic, spherical fuzzy, plithogenic, etc.) and their corresponding Logic/measure/Probability/Statistics in a similar way.

Refined Neutrosophic Set/Logic/Probability/Statistics [52] is isomorphic with MultiNeutrosophic Set/Logic/Probability/Statistics, as both structures represent multidimensional evaluations of truth, indeterminacy, and falsity [50]. "In the real world, in most cases, everything (an attribute, event, proposition, theory, idea, person, object, action, culture, etc.) is evaluated in general by many sources (called experts), not only one. The more sources evaluate a subject, the better accurate result (after fusioning all evaluations)" [50]. In MultiNeutrosophic Systems (SMNS), the components  $T_j, I_k, F_l$ , are treated as multiplied — representing multiple co-existing truths, uncertainties, and

falsehoods. In contrast, in Refined Neutrosophic Systems (SRNS), these same components are considered sub-units—sub-truths, sub-indeterminacies, and sub-falsehoods. Due to this isomorphism, any theoretical or computational model designed for MultiNeutrosophic structures can be directly applied to refined neutrosophic structures, preserving the semantic and algebraic interpretation.

The core of the proposed model is to represent a perspective not as a singular evaluation, but as a multi-dimensional structure using MultiNeutrosophic Sets. A subject's perspective on an entity  $X$  is expressed as

$$Ps(X) = \langle (t_1, t_2, \dots, t_n), (i_1, i_2, \dots, i_m), (f_1, f_2, \dots, f_k) \rangle \quad (5)$$

where:

where each component sequence captures a distinct dimension of the evaluation:

- Sequence of Truths (T): Multiple, distinct, co-existing truths perceived by the subject sss regarding  $X$ .
- Sequence of Indeterminacies (I): Diverse aspects of ambiguity, vagueness, or irrelevance attributed to  $X$ .
- Sequence of Falsities (F): Simultaneously held false beliefs or denials that sss assigns to  $X$ .

This approach allows a more expressive and granular modeling of subjective knowledge, enabling nuanced reasoning under uncertainty.

The complete framework is composed of the following elements:

- A Set of Subjects ( $S = \{s_1, s_2, \dots\}$ ): Represents all entities holding a point of view (e.g., individuals, communities, indigenous groups, legal systems).
- A Neutrosophic Perspective ( $P_{sx}$ ) for each subject: The neutrosophic representation of the view that a subject ( $s$ ) has on an entity ( $X$ ).
- A Relevance Weight ( $W_s$ ) for each perspective: A numerical value, typically in the range  $[0, 1]$ , representing the importance or influence of a subject's perspective in a specific analytical context. The sum of all weights must be normalized:  $\sum W_s = 1$
- A Similarity Function ( $\text{Sim}(P_{ix}, P_{jx})$ ): A mathematical function that acts as the conceptual bridge, calculating the degree of closeness or affinity between any two perspectives in the system.

If perspectivism were limited to affirming the existence of isolated viewpoints, it would risk collapsing into relativism where dialogue is impossible. This is where similarity emerges as a complementary and essential concept. Similarity[53] is the bridge that connects diverse perspectives, allowing for their comparison and integration.

- Perspectivism establishes the *what*: the existence of a multiplicity of valid viewpoints.
- Similarity establishes the *how*: the mechanism by which these viewpoints can be related, compared, and synthesized.

By identifying degrees of resemblance, we can find common ground or understand the root of dissent. Similarity is the tool that makes perspectivism operational, turning a multiplicity of visions into a source of enriched knowledge.

To formalize the function  $Sim(P_{IX}, P_{JX})$ , it is essential to understand its foundation in set theory. A neutrosophic similarity relation is a direct and richer generalization of a fuzzy similarity relation and inherits its fundamental properties [54].

A similarity relation in fuzzy logic, denoted as  $R$ , is characterized by the degree of similarity  $\mu R(x, y)$  which satisfies the following [54]:

1. Reflexivity: Every element is perfectly similar to itself.  $\mu R(x, x) = 1$
2. Symmetry: The similarity between two elements is the same regardless of the order.  $\mu R(x, y) = \mu R(y, x)$
3. Transitivity (max-min): If A is similar to B, and B is similar to C, then A is at least as similar to C as the lesser of the two degrees of similarity.  $\mu R(x, z) \geq \min(\mu R(x, y), \mu R(y, z))$

The construction of a similarity function for MultiNeutrosophic sets builds upon these properties to manage the complex sequences of Truth, Indeterminacy, and Falsity that define each perspective.

### Formal Definition of the Similarity Calculation Process

The following process formalizes the method for quantifying the similarity between two or more complex perspectives represented as MultiNeutrosophic sets. The objective is to transform these qualitative, multifaceted representations into a comparable numerical value that represents their degree of affinity.

The process consists of three fundamental steps: Aggregation, Distance Calculation, and Normalization.

#### Step 1: Perspective Aggregation (Dimensionality Reduction)

Objective: To transform the variable-length sequences of each MultiNeutrosophic perspective into a fixed-dimension vector.

#### Input:

A MultiNeutrosophic perspective  $P_i(X)$  for a subject  $s_i$ , defined as:

$$Pi(X) = \langle Ti, Ii, Fi \rangle \quad (6)$$

where

- $T_i = (t_{i1}, t_{i2}, \dots, t_{in}),$
- $I_i = (i_{i1}, i_{i2}, \dots, i_{im}),$
- $F_i = (f_{i1}, f_{i2}, \dots, f_{ik})$

are sequences of values in the range  $[0, 1]$ .

#### Process:

Define an aggregation function,  $Agg(S)$ , that takes a sequence  $S$  of numbers and reduces it to a single scalar value. While several functions can be used (such as maximum, minimum, or median), the standard method is the arithmetic mean:

$$Agg_{avg}(S) = \left(\frac{1}{|S|}\right) \sum_{j=1}^{|S|} s_j \quad (7)$$

where  $|S|$  is the number of elements in the sequence  $S$ .

Apply this function to each of the three sequences of the perspective  $P_{i(X)}$  to obtain a three-dimensional aggregated vector:

$$V_i = \langle Agg(T_i), Agg(I_i), Agg(F_i) \rangle \quad (8)$$

#### Output:

A set of aggregated vectors:

$$\{V_1, V_2, \dots, V_n\}, Vi = \langle T_i^{avg}, I_i^{avg}, F_i^{avg} \rangle \quad (9)$$

#### Step 2: Distance Calculation Between Aggregated Vectors

Objective: To measure the geometric separation between each pair of perspectives in the three-dimensional (T, I, F) space.

#### Input:

Two aggregated vectors:

$$V_a = \langle T_a, I_a, F_a \rangle \text{ and } V_b = \langle T_b, I_b, F_b \rangle. \quad (10)$$

Process: A distance metric is used. The standard choice is the Euclidean distance, which calculates the length of the straight line connecting the two points in space. The formula is:

$$Dist(Va, Vb) = \sqrt{(Ta - Tb)^2 + (Ia - Ib)^2 + (Fa - Fb)^2} \quad (11)$$

**Output:**

A distance value  $d_{ab} \geq 0$  for each pair of perspectives  $(Pa, Pb)$ .

### Step 3: Normalizing the Distance into a Similarity Function

Objective: To convert the distance value, which has no fixed upper limit, into an intuitive and bounded similarity score between 0 and 1.

Input: The distance  $d_{ab} = Dist(Va, Vb)$  between two perspectives.

**Process:**

- Define the maximum possible distance in the space. Since each component  $T, I, F \in [0,1]$ , the vector space is a unit cube. The maximum distance corresponds to the space diagonal from  $(0,0,0)$  to  $(1,1,1)$ , i.e.,

$$D_{max} = \sqrt{3} \quad (12)$$

Define the similarity function  $Sim(Pa, Pb)$  as the complement of the normalized distance:

$$Sim(Pa, Pb) = 1 - \left( \frac{Dist(Va, Vb)}{D_{max}} \right) = 1 - \left( \frac{\sqrt{(Ta - Tb)^2 + (Ia - Ib)^2 + (Fa - Fb)^2}}{\sqrt{3}} \right) \quad (13)$$

**output:**

A similarity score  $Sim(Pa, Pb) \in [0, 1]$ , where:

- $Sim = 1$  implies that the aggregated vectors are identical ( $d_{ab}=0$ ), representing maximum similarity.
- $Sim = 0$  implies that the vectors are at the maximum possible distance, representing maximum dissimilarity.

## 4. Case Study: Constructing a Similarity Function for Legal Perspectives in a Land Dispute

Let  $X$  be the proposition: "Legitimacy of the claim over Ancestral Territory  $Y$ ."

Let  $s_1, s_2, s_3$  be the subjects: Indigenous Elders, State Corporation, and Human Rights NGO,

respectively.

Each subject's perspective is modeled as a MultiNeutrosophic Set:

$$P_{sj(X)} = \langle T_j, I_j, F_j \rangle \quad (14)$$

where

- $T_j = (t_{j1}, t_{j2}, \dots, t_{jn}) \subseteq [0,1]$  is the sequence of degrees of truth,
- $I_j = (i_{j1}, i_{j2}, \dots, i_{jm}) \subseteq [0,1]$  is the sequence of degrees of indeterminacy,
- $F_j = (f_{j1}, f_{j2}, \dots, f_{jk}) \subseteq [0,1]$  is the sequence of degrees of falsity.

### Step 1: Define the Subjects and Their Perspectives

The object of analysis (X) is the “legitimacy of the claim over Ancestral Territory Y.” We identify three key subjects and represent their perspectives using the MultiNeutrosophic set model, where each perspective contains sequences of truths, indeterminacies, and falsities.

Subject 1 ( $s_1$ ): The Elders of the Indigenous Community

Truths: {1.0 (Ancestral Right), 0.9 (Spiritual Significance)}

Indeterminacies: {0.5 (Applicability of State Law)}

Falsities: {1.0 (Validity of Corporate Titles)}

$$\mathcal{P}_{s1}(X) = \langle (1.0, 0.9), (0.5), (1.0) \rangle$$

Subject 2 ( $s_2$ ): The State Corporation’s Legal Team

Truths: {1.0 (Registered Property Title)}

Indeterminacies: {0.6 (Relevance of Pre-State History)}

Falsities: {0.8 (Ancestral Right), 1.0 (Spiritual Significance)}

$$\mathcal{P}_{s2}(X) = \langle (1.0), (0.6), (0.8, 1.0) \rangle$$

Subject 3 ( $s_3$ ): The International Human Rights NGO

Truths: {0.9 (Human Rights Violation), 0.8 (Indigenous Right)}

Indeterminacies: {0.7 (Economic Impact)}

Falsities: {0.7 (State’s Legal Argument)}

$$\mathcal{P}_{s3}(X) = \langle (0.9, 0.8), (0.7), (0.7) \rangle$$

### Step 2: Aggregating the Sequences

$$T_1 = (1.0 + 0.9)/2 = 0.95, \quad I_1 = 0.5, \quad F_1 = 1.0$$

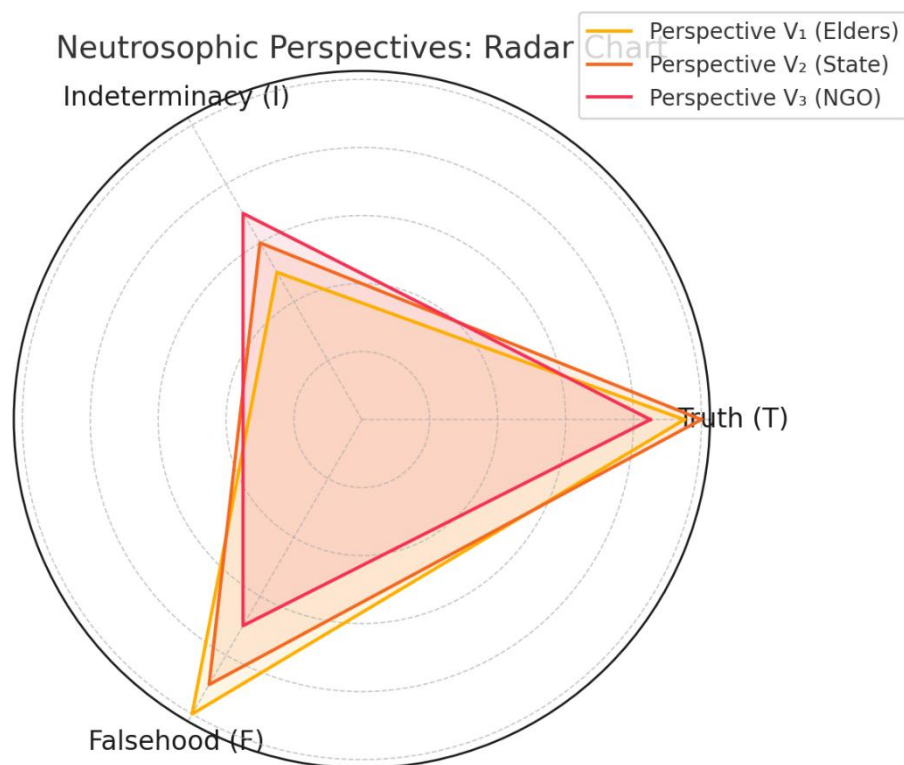
$$V_1 = (0.95, 0.5, 1.0)$$

$$T_2 = 1.0, \quad I_2 = 0.6, \quad F_2 = (0.8 + 1.0)/2 = 0.9$$

$$V_2 = (1.0, 0.6, 0.9)$$

$$T_3 = (0.9 + 0.8)/2 = 0.85, \quad I_3 = 0.7, \quad F_3 = 0.7$$

$$V_3 = (0.85, 0.7, 0.7)$$



**Figure 7.** Radar chart representing the neutrosophic perspectives of three key actors in a legal land dispute

### Step 3: Calculating Distances

$$d_{12} = \sqrt{((0.95 - 1.0)^2 + (0.5 - 0.6)^2 + (1.0 - 0.9)^2)} = \sqrt{0.0225} = 0.15$$

$$d_{13} = \sqrt{((0.95 - 0.85)^2 + (0.5 - 0.7)^2 + (1.0 - 0.7)^2)} = \sqrt{0.14} \approx 0.374$$

$$d_{23} = \sqrt{((1.0 - 0.85)^2 + (0.6 - 0.7)^2 + (0.9 - 0.7)^2)} = \sqrt{0.0725} \approx 0.269$$

### Step 4: Similarity Function

$$d_{\max} = \sqrt{3} \approx 1.732$$

$$\text{Sim}(s_a, s_b) = 1 - d_{ab} / d_{\max}$$

$$\text{Sim}(s_1, s_2) = 1 - 0.15 / 1.732 \approx 0.913$$

$$\text{Sim}(s_1, s_3) = 1 - 0.374 / 1.732 \approx 0.784$$

$$\text{Sim}(s_2, s_3) = 1 - 0.269 / 1.732 \approx 0.845$$

### Step 5: Interpretation and Application of the Results

The similarity function has provided us with quantifiable values that allow for an analysis of the relationships between the perspectives:

- Similarity(Elders, State) = 0.913: This result is surprisingly high and counter-intuitive. Upon reviewing the aggregated vectors ( $V_1$  and  $V_2$ ), we see that both have very high values in Truth and Falsity, even though they refer to opposing concepts. This reveals a structural similarity in their absolutism: both are completely certain of their truth and the other's

falsehood. Their logic is polarized and dualistic. The similarity is not one of content, but of *reasoning style*.

- Similarity(Elders, NGO) = 0.784: This is a moderately high similarity, indicating a significant affinity. Both groups base their truths on defending the community's rights, albeit from different angles (ancestral vs. international law). The main distance comes from the Indeterminacy and Falsity components, where the NGO shows more nuance. This value suggests a high potential for a strategic coalition.
- Similarity(State, NGO) = 0.845: This similarity, also high, indicates that although their final objectives differ, their frames of reference (based on law and documents) are structurally closer than that of the Elders (based on cosmology). The NGO operates in a legal language that the State understands, which could open channels for dialogue or mediation, despite their fundamental disagreement.

This process demonstrates how the construction of a similarity function transforms complex, subjective narratives into analyzable data. It allows one to move beyond a simple reading of "they are in conflict" to discover nuances in the relationships:

- It identifies potential alliances (Elders-NGO).
- It reveals hidden structural similarities (the polarized logic of the Elders and the State).
- It suggests possible points of mediation (the shared legal frameworks between the State and the NGO).

This quantification makes the concept of perspectivism operational, providing a tool to map, compare, and understand an ecosystem of conflicting viewpoints.

## 5. Conclusions

this study has established a robust bridge between the philosophical tradition of perspectivism and the formal framework of neutrosophic logic. By examining the perspectivist undercurrents in diverse intellectual histories—from Nietzsche and Ortega y Gasset to Jain, Buddhist, and Amerindian thought—we have demonstrated that the challenge of understanding a world of multiple, coexisting viewpoints is both ancient and urgent. Latin American philosophy, with its emphasis on decolonial praxis and the validation of plural epistemologies, provides a particularly fertile context for this exploration, revealing how perspectivism serves as a tool for epistemic justice against hegemonic rationalities.

The central contribution of this work is the development and application of the Neutrosophic MultiPerspectivism Model. This model operationalizes perspectivist theory by representing a subjective viewpoint as a MultiNeutrosophic set, capable of capturing nuanced degrees of truth, indeterminacy, and falsity simultaneously. The introduction of a similarity function provides the crucial mechanism to move beyond the mere affirmation of isolated viewpoints towards their systematic comparison and integration. As demonstrated in the case study of a legal land dispute, this method transforms complex, qualitative narratives into quantifiable data. Its application revealed counter-intuitive insights, such as the high degree of structural similarity between the absolutist logics of the Indigenous Elders and the State Corporation, while also identifying the potential for a strategic coalition between the Elders and the NGO. This underscores the model's power to uncover hidden relational dynamics that a purely qualitative analysis might miss.



Ultimately, this paper argues that neutrosophy is not just another non-classical logic, but a paradigm uniquely suited for the complexities of a world defined by ambiguity and the interaction of diverse rationalities. By formalizing the coexistence of contradiction and indeterminacy, the MultiPerspectivism framework offers a path to overcome the false dichotomy between universalism and relativism, creating a practical tool for conflict analysis, AI ethics, and decolonial research.

Building on the foundation of the Neutrosophic MultiPerspectivism Model, several promising avenues for future research are recommended. On a practical level, the model's robustness and applicability can be further tested through empirical expansion, applying it to a wider range of case studies such as the analysis of political polarization on social media, public policy debates, or intercultural conflicts. Methodologically, the core similarity function could be refined by investigating alternative aggregation methods beyond the arithmetic mean—like weighted means or medians—and different distance metrics such as Manhattan or Chebyshev, with future work exploring dynamic, context-based weighting of the T, I, and F components. Furthermore, integrating this framework with artificial intelligence by developing native machine learning algorithms could lead to AI systems better equipped to handle annotator disagreement, model ethical ambiguity, and provide more transparent, perspectivist-aware outputs that align with the challenges discussed in section 2.3. Finally, the theoretical groundwork laid in jurisprudence invites the development of the "juridical expression of NeutroAlgebra" into a full-fledged theory of neutrosophic jurisprudence, which would formalize how legal arguments are constructed and evaluated in pluralistic contexts, such as the collision between state and Indigenous legal systems.

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