

EXPLORING AFRICAN LOGIC: THE INTERPLAY OF UBUNTU, EZUMEZU, AND DIALETHEIA

Qusthan A. H. Firdaus

UIN Syarif Hidayatullah, Jakarta

Email: qusthan.abqary@uinjkt.ac.id

Abstrak

Konsep filosofis Afrika, Ubuntu, yang menyatakan bahwa identitas seseorang pada dasarnya dibentuk melalui hubungannya dengan orang lain, secara langsung menantang asumsi dasar logika Aristotelian klasik. Artikel ini mengevaluasi kembali Ubuntu, melampaui interpretasi filosofis tradisional untuk mendalami kesesuaiannya dengan logika Ezumezu—sebuah sistem logika Afrika—dan logika formal modern. Saya berargumen bahwa identitas relasional yang menjadi inti Ubuntu menawarkan alternatif kuat bagi prinsip-prinsip inti logika Aristotelian, khususnya prinsip identitas ($A=A$), non-kontradiksi (A dan bukan A tidak mungkin keduanya benar), dan excluded middle (tidak ada nilai tengah di antara A dengan bukan A). Melalui penerapan notasi formal, analisis ini menyajikan demonstrasi yang presisi dan tidak ambigu tentang bagaimana sifat relasional Ubuntu yang melekat mengikis prinsip-prinsip tersebut. Pada akhirnya, artikel ini menyingkap bahwa Ubuntu menemukan kerangka yang lebih sesuai dan ekspresif dalam logika Ezumezu. Selain itu, karya ini memberikan dukungan filosofis yang kuat bagi dialetheisme modern, pandangan bahwa beberapa kontradiksi dapat menjadi benar, sehingga memperluas pemahaman kita.

Kata kunci: Ubuntu, logika, Ezumezu, Africa, dialetheism.

Abstract

The African philosophical concept of Ubuntu, which posits that a person's identity is fundamentally constituted through their relationship with others, directly challenges the foundational assumptions of classical Aristotelian logic. This article re-evaluates Ubuntu, moving beyond its traditional philosophical interpretations to examine its compatibility with Ezumezu logic—an African logical system—and with modern formal logic. I argue that the relational identity at the heart of Ubuntu offers a compelling alternative to the core tenets of Aristotelian logic, in particular the principles of identity ($A=A$), non-contradiction (A and non- A cannot

both be true), and the excluded middle (no middle value between A and non-A). By employing formal notation, the analysis provides a precise and unambiguous demonstration of the ways in which Ubuntu's inherent relationality undermines these principles. Ultimately, the article shows that Ubuntu finds a more fitting and expressive framework in Ezumezu logic. Moreover, it offers robust philosophical support for modern dialetheism, the view that some contradictions can be true, thereby broadening our understanding of African philosophy and of the nature of truth itself.

Keywords: Ubuntu, logic, Ezumezu, Africa, dialetheism.

Received: August 21, 2025 | **Reviewed:** December 23, 2025 | **Accepted:** February 28, 2026

INTRODUCTION

Contemporary debates suggest that African logic, ontology, and ethics constitute the most developed branches of African philosophy, while African epistemology and metaphysics remain comparatively under-theorised (Chimakonam & Ogbonnaya, 2021: 16–17). The multidimensional concept of Ubuntu highlights central values such as human dignity, communalism, solidarity, interdependence, care, hospitality, and sharing (Kamwangamalu in Sambala et al., 2019: 5). Although its application has served both reactionary and conservative ends, it has also played a persuasive role in legal reasoning and public discourse in several African countries (Cornell, 2014: 177, 181, 159–160). The transcendental character of Ubuntu is striking: it appears grounded in the symbolism of the human umbilical cord—an object that others must cut and bury. This practice implies that a person's individuation begins at the moment their cord is severed, a notion that resonates with Ubuntu's central tenet: "a person is a person through other persons." Because Ubuntu remains open to reinterpretation, renewed engagement with it may offer valuable insights for philosophical inquiry beyond Africa. Such an endeavour requires that researchers approach this non-Western tradition with humility and a willingness to learn. Philosophy, after all, does not merely examine texts and contexts; it also constructs, reconstructs, and

advances our understanding of the world in the present and for the future.

This article will consider the following questions: What, if anything, is the logic of Ubuntu? Does Ubuntu cohere with Aristotelian or modern formal logic, and if so, in what respects? How might Ubuntu, as an African philosophical framework, argue for or against particular logical principles? What consequences or entailments might Ubuntu generate for those principles? To address these questions, I will first examine the identity of Ubuntu within a logical framework. I will then explore its potential to support the concepts of *dialetheism* and *dialetheia* as discussed in Graham Priest's work on modern logic, specifically by analysing Ubuntu's challenge to both the principle of non-contradiction and the principle of the excluded middle. Ultimately, this investigation aims to develop a coherent and well-grounded argument, rooted in the philosophy of Ubuntu, that justifies a re-evaluation of certain traditional principles in logic. To ensure clarity and avoid ambiguity, I will employ formal logical symbols throughout the article.

DISCUSSION

1. Ubuntu's Identity

The African philosophical idea of Ubuntu, classically expressed as *umuntu ngumuntu ngabantu*, translates to "a person is a person through other persons" (Mangena, n.d.). If this translation is accurate and representative, Ubuntu can be regarded as an African conception of "humanness." Yet the notion is multifaceted and carries a dense cluster of connotations, which makes it resistant to any straightforward translation into English (Metz, 2017: 99). Within a community, Ubuntu also offers a logic of cooperation (Sambala et al., 2019: 7). If this is so, one might attempt to formalise its core principle within the framework of logical notation. The idea that "a person is a person through another person" indicates a conception of identity that is fundamentally relational. One may symbolise it as follows:

Let $P(x)$ = "x is a person."

Let $R(x, y)$ = "x stands in a person-defining relationship with y."

A person exists as a person only through others:

$$\forall x(P(x) \rightarrow \exists y(y \neq x \wedge P(y) \wedge R(x,y)))$$

This states that for any entity x , if x is a person, then there exists some y (distinct from x) such that y is a person and x stands in a relationship with y that partly constitutes x 's personhood. Because Ubuntu often presupposes reciprocity, one might refine the notation:

$$\forall x(P(x) \rightarrow \exists y(y \neq x \wedge P(y) \wedge R(x,y) \wedge R(y,x)))$$

This expresses that a person is a person through another person, and that the relationship in question is mutual. In contrast, a classical, non-relational account of identity asserts that a person is a person by virtue of an intrinsic essence:

$$\forall x(P(x) \rightarrow E(x))$$

This states that if x is a person, then x possesses an essential property that grounds their personhood independently of any relational context. The contrast between the two frameworks may therefore be outlined as follows:

Ubuntu: $P(x) \Rightarrow \exists y(y \neq x \wedge P(y) \wedge R(x,y))$
(Relational, existential dependency)

Classical: $P(x) \Rightarrow E(x)$
(Intrinsic, essentialist dependency)

Aristotle endorses this classical view in the *Metaphysics*, arguing that "why a thing is itself is doubtless a meaningless inquiry; for the fact or the existence of the thing must already be evident... and its being one just meant this" (§ 1041^a6–1041^a32,

Aristotle, 1991: 113). Beyond identity, Aristotle also articulates the fundamental laws of logic. If the Principle of Identity is $x = x$, then one can symbolise the Principle of Non-Contradiction as:

$$\neg(x = x \wedge x \neq x)$$

When Aristotle claims that “why a thing is itself is meaningless,” he reinforces both the Principle of Identity and the Principle of Non-Contradiction. The associated logical principle may be expressed as:

$$\forall x(x = x \wedge \neg(x \neq x))$$

He defends this in the *Metaphysics*: “the most indisputable of all beliefs is that contradictory statements are not at the same time true” (§ 1011^b13–1011^b22, Aristotle, 1991: 57). The Principle of Excluded Middle, articulated in *De Interpretatione*, states that for any given proposition, either it or its negation must be true. In standard notation:

$$x \vee \neg x$$

While the Principle of Non-Contradiction maintains that a proposition and its negation cannot both be true, the Principle of Excluded Middle strengthens the claim by insisting that they cannot both be false. Together, the two principles yield bivalence by exhausting all possible truth-values.

If a person’s identity is defined by a unique and distinctive essence, then according to the Aristotelian principle of identity, that person cannot be another, because her essence belongs to her alone and is not shared with any other individual. On this view, because the Ubuntu principle posits a relational conception of identity, it cannot be reconciled with the Aristotelian account.

The conceptual landscape of Ubuntu would shift significantly if its core principle were taken to mean “I am because we are.” Some scholars equate this formulation with “a person is a person through other persons” (More, 2004: 157). Yet these two expressions are not

logically equivalent. The collective pronoun “we are” does not entail the existence of the individual “I am,” even though the latter is necessarily a member of that collective. The distinction matters: the existence of a whole, understood as a collective identity, does not logically imply the existence of any particular constituent individual. This disrupts the assumption of symmetry that many interpreters take for granted. The point carries philosophical significance and connects with a broader challenge to the principle of identity within African philosophy. Masolo captures this tension when he writes:

“One such principle is the Principle of Identity, which operates on the basis of the definition given above from Bodunrin. It states that two things can be identical only if all the qualities or properties of the compared things are indiscernible. Therefore, where two or more things are compared and asserted to be identical, as in the expression ‘X is Y,’ that copula ‘is’ is taken to indicate indiscernibility of all the properties constituting X and Y. If X and Y are objects, ‘is’ will be taken to indicate ontological identity of X to Y; and where X and Y are different statements, ‘is’ is taken to indicate a logical identity between the statements, that is, that X, as a statement, expresses exactly what is expressed by statement Y. And because the statements described above (‘twins *are* birds’; ‘some men *are* lions’; and ‘humans *are* birds’) can only be sensibly translated into English by using the copula ‘is/are,’ it was assumed by some that Africans make statements which claim ontological identity between objects whose properties are in fact very discernible, such as twins-birds, men-lions, humans-birds, etc. For this view, the statement in example one above could be the only meaning of ‘*dhano winyo*’ in its English translation as ‘humans are birds.’ And this would constitute a paradox or mysticism, because, on the basis of the Principle of Indiscernibles, it is not rational to assert identity between two or more ontologically different objects such as humans and birds” (Masolo, 1994: 144).

The Principle of Identity holds that a thing is identical to itself and, by implication, distinct from all others. This principle appears self-evident in a finite domain, but non-Western traditions may call it into question. Masolo (1994: 143), for example, discusses the Luo expression *dhano winyo*, which resists any single translation. The term can mean:

1. "The entities we call humans are the same entities we call birds."
2. "Humans sing like birds."
3. "Humans have hair like birds have feathers."
4. "Humans are unreliable in character like birds are unreliable in flight."

These divergent interpretations indicate that although certain aspects of a human being's nature (the "partial") may relate to the whole, they do not exhaust what it means to be human. The first meaning, in particular, unsettles the Principle of Identity by asserting that two apparently distinct categories can, in some sense, be the same.

This raises an important consideration: the apparent universality of the Principle of Identity may rest not on an objective feature of reality but on the shared conceptual imagination of a particular culture. Philosophers should therefore hesitate before treating it as universally binding, especially when engaging with traditions grounded in different epistemological assumptions. One might draw a parallel with the *bissu* of pre-Islamic Bugis culture in Indonesia. These androgynous ritual specialists, born with ambiguous genitalia, function as mediators between God and human beings. Their command of spells, languages, and ritual songs, and their role in conferring blessings, reveals a fluid and overlapping identity that resists the rigid, monadic categories characteristic of the Western philosophical tradition.

A more formal analysis of the Ubuntu principle of identity emerges when we place it in dialogue with the Principle of the Identity of Indiscernibles (PII). This principle holds that if, for every

property F, object x has F if and only if object y has F, then x is identical with y (Forrest, 2016). In standard notation:

$$\forall F(Fx \leftrightarrow Fy) \rightarrow x = y$$

The PII thus treats a unique and distinctive set of properties as both necessary and sufficient for individual identity. By comparing this with the Ubuntu account, we can articulate how a relational conception of identity challenges a property-based understanding of personhood.

A central question arises: can the PII be applied to, or reconciled with, the Ubuntu principle? The concept of “through” in the statement “a person is a person through another person” suggests that it cannot. The notion of “through” ranges far beyond the indiscernibility of properties between individuals. The relationship is, in fact, one of discernibility: individuals contribute to one another’s identity through their distinctive qualities. This point is captured by the familiar proverb, “It takes a whole village to raise a child.” The shaping of an individual depends not on the identical properties of those around them but on the diverse and distinguishable roles played by members of the community. Thus, the PII fails as a framework for capturing the Ubuntu principle. The relational identity posited by Ubuntu is not grounded in shared properties, nor in the indistinguishability of persons. It rests instead on constitutive relationships among distinct and discernible individuals, each of whom shapes and sustains the identity of the other.

Before I construct a formal argument, I must first specify constitutive and definitive elements for the individuals p and q. Because I lack any intrinsic definition of these terms, I can provisionally adopt the Aristotelian principle of identity, which holds that a person is defined by their own essence. Although Aristotle sets out his logical principles in the corpus of *Organon*, he also makes extensive use of them throughout the *Metaphysics*, especially when examining *prōton kinoun akinēton* (the First

Unmoved Mover). Since this ultimate explanatory principle is not finite, Aristotle does not draw a sharp line between logical investigation and metaphysical inquiry. This continuity encourages me to resist imposing a strict boundary between logical notation in logic and the logical forms that structure metaphysical discourse. I therefore formalise the Aristotelian conception of essence by using a modal operator:

□

to denote a necessary property, so that for any individual x , it is necessarily the case that x is a person. The principle may be expressed as:

$$\exists x \square (Person(x))$$

By integrating this Aristotelian definition of a person with the Ubuntu principle of identity, I can construct a more comprehensive formal argument. Their combination may be represented as:

$$\exists p \exists q (\square Person(p) \wedge \square Person(q))$$

At this point a logical conjunction becomes indispensable, because the Ubuntu principle claims that “a person is a person through other persons.” Since no formal logical operator corresponds directly to “through,” I take the conjunction symbol \wedge as the closest available device. It allows me to capture, in a schematic form, the relational structure that Ubuntu emphasises, even though the notation inevitably simplifies the philosophical depth of the concept. When synthesised with an Aristotelian notion of essence, the Ubuntu principle may be expressed in natural language as: “a person is a person by their own essence through the essences of others.” In pluralistic terms, this becomes “some persons are some persons by their own essence through the essences of others.” This may appear counterintuitive if one assumes that individual essences are unique and sharply distinct. However, the paradox dissolves once I distinguish between an individual essence and a common

essence—the latter referring to those central qualities that all persons share, such as humanity, justice, or compassion. With this distinction in place, I can examine how the Principle of the Identity of Indiscernibles (PII) might illuminate the Ubuntu principle. If a person’s essence is defined by these shared, common qualities, then it would follow that all persons are indiscernible in their essential properties.

The Ubuntu principle, when combined with this notion of common essence, may be expressed as a premise:

$$(1) U(p,q) \leftrightarrow (E(p) \wedge E(q))$$

The Principle of the Identity of Indiscernibles (PII) states:

$$(2) \forall F(Fp \leftrightarrow Fq) \rightarrow p = q$$

To clarify: $U(p, q)$ represents the Ubuntu relation between persons p and q (often interpreted as “ p and q share humanity” or “ p and q are interconnected”). $E(p)$ and $E(q)$ denote that p and q each possess a common essence (for example “human essence” or “shared being”). The biconditional (\leftrightarrow) means that p and q stand in the Ubuntu relation if and only if they both possess this essence. Thus, the Ubuntu relation is grounded in shared essence. Meanwhile, the PII asserts that if, for every property F , p and q share exactly the same properties, then p and q are identical. The first notation therefore offers a relational condition based on essence, while the second offers a strict identity condition based on indiscernibility.

If I assume that the essence of a person is the only property relevant to identity, then personal identity reduces to the set of essential properties that individuals share. From premise (1), it follows that all persons share the same essential properties. Anyone who accepts the coherence of a multiverse must also accept that X in universe A differs from X in universe B ; otherwise, they must reject the multiverse or argue directly for its incoherence. I set aside the task of specifying a particular formal system, since many African

logicians remain reluctant to rely on the apparatus of formal logic when discussing Ubuntu, Ezumezu, or other African logical traditions. Their reluctance reflects a broader concern that formal notation may obscure rather than clarify the conceptual structures of these indigenous systems. Nevertheless, one could argue that the Ubuntu principle, understood in this particular way, yields the conclusion that all persons are indiscernible in their essential nature:

$$(3) Fp \leftrightarrow Fq$$

(where F denotes the property of possessing a common essence)

$$(4) p = q$$

(from 2 and 3, by Modus Ponens)

This formalisation exposes a potential tension: if Ubuntu grounds identity in a common, shared essence, it risks collapsing individual identity altogether, a conclusion that likely conflicts with the spirit of the philosophy.

By simplifying the logical expressions, we can derive a striking implication. If the relation “a person p is a person through a person q” is symmetrical—that is, if:

$$U(p, q) \text{ and } U(q, p)$$

then $U(p, q)$ means that p stands in the Ubuntu relation to q, and $U(q, p)$ means that q stands in the Ubuntu relation to p. This derivation holds so long as F designates the shared quality between p and q that constitutes their relational identity. This reasoning suggests that the Ubuntu principle of identity might ultimately rest upon the Aristotelian principle of identity, but only insofar as the former implicitly relies on the Principle of the Identity of Indiscernibles. However, I am inclined to locate the deepest roots of Ubuntu’s conception of identity in Ezumezu logic, a topic I will address in the next section.

2. Ubuntu's Root in Ezumezu Logic

This section examines a key distinction articulated by Chimakonam, who argues that the English term “logic” is best captured by the Igbo word *ngho*, which he defines as flexible or dynamic reasoning (Chimakonam, 2019: 94). This distinction proves fundamental, for it grounds his claim that African and Western logics are incommensurable and that scholars must therefore resist imposing external standards on African thought. Chimakonam strengthens this position by arguing that the philosophy of Ubuntu has its conceptual roots in Ezumezu logic. He states:

Ubuntu as a theory can be grounded in Ezumezu logic when we observe the triadic nature of its variables and the complementary relationship that exists between the two extremes, reason and emotion. It is in this relationship, otherwise called *nmeko* in Ezumezu logic that a humanity with ubuntu is forged. The basic statement of ubuntu which is, ‘a person is a person through other persons’ is a reflection of arumaristic reasoning upheld by the law of *njikoka*. Also, the internal dynamic of mutual interdependence found in ubuntu is guaranteed by both the ontological thesis and the law of *onona-etiti*” (Chimakonam, 2019: 154-155).

Chimakonam’s claim that Ubuntu “can be grounded” in Ezumezu logic is significant. It signals a modal possibility rather than a necessary condition, and thus leaves open the prospect that alternative systems might also ground Ubuntu. I shall take up this point in the next section on *dialetheism*. Had Chimakonam written that Ubuntu “grounds in Ezumezu logic,” the argument for exclusivity would have been much stronger and would have foreclosed the possibility of grounding Ubuntu in non-African logical systems.

To understand the extent to which Ezumezu logic is genuinely independent, I must examine its structure. The term Ezumezu means “the collective, the aggregate or the totality of all that is most viable, most potent and most powerful” in Igbo thought

(Chimakonam, 2019: 94). Its central components are its trivalence of *ezu* (truth), *izu* (falsity), and *ezumezu* (complemented); its sub-contrary valuation; its complementary mode; its context principle; and its three supplementary laws of *njikoka*, *nmekoka*, and *onona-etiti* (Chimakonam, 2019: 98–100). The relationship between these laws and the traditional principles of logic raises a crucial issue. Chimakonam explains:

“Ezumezu logic thus would be that system whose principles of correct reasoning are derived from the African thought system. It obeys the laws of Nmekoka, Njikoka and Onona-etiti all of the time in addition to those of traditional thought such as contradiction, identity and excluded-middle which it obeys some of the times” (Chimakonam, 2019: 96).

The idea that Ezumezu logic obeys traditional laws only “some of the times” raises a critical question for modern logic: under what exact rules or conditions do such laws hold? This ambiguity suggests that Ezumezu logic is not merely an extension or variant of traditional or modern formal logic. Instead, it constitutes a fundamentally distinct and autonomous system grounded in a different ontological commitment. Its uniqueness stems from its foundation in “African ontology where being is transcendent and time is cyclical” (Chimakonam, 2019: 144). One cannot claim that Ezumezu logic is a simple offshoot of Aristotelian logic unless one can demonstrate a shared ontological premise concerning the nature of being and time.

If we assume that Ezumezu logic must apply its three supplementary laws in all situations, then it may offer an alternative framework that renders the traditional principles of identity, non-contradiction, and excluded middle unnecessary. This conjecture becomes clearer when we examine the formal notations of Ezumezu logic.

First, *Njikoka* states a form of relative identity. This law mitigates any notion of absolute identity or mutual exclusivity. It is formally expressed as:

$$(T) A \Downarrow (T) A \mid \rightarrow (T) (A \wedge B)$$

This reads as “A is true iff A is true wedge-implies A and B is true” (Chimakonam, 2019: 100). We may interpret Chimakonam’s “wedge-implies” as expressing a form of complementary or relational dependence between propositions. This aligns with his broader metaphysical commitment to the idea that truth is constituted rather than merely asserted. On this account, a proposition achieves completion or harmony only through its relation to another proposition; truth becomes contextual rather than self-standing; and truth-values function relationally rather than atomically, often allowing a glut in which a proposition may be both true and false. In this framework, the truth of a proposition A emerges only when A enters a complementary relation with a wider conjunctive structure that includes B. For this reason, one should resist evaluating this trivalent system through a bivalent Aristotelian lens, because the two are incommensurable. Along with *Ọnọna-etiti*, *Njikọka* implies that identity is relative rather than absolute, and the two are mutually inclusive (Chimakonam, 2019: 138).

Second, *Nmekọka* states a form of relative difference, or mutual inclusivity, which mitigates the idea of absolute difference (Chimakonam, 2019: 138). Its definition is:

$$(T \mid \supset F) = C$$

This is read as “C is or equals a complement of T and F” (Chimakonam, 2019: 100).

The final supplementary law, *Ọnọna-etiti* (the included middle), directly challenges the Principle of Excluded Middle by affirming that a proposition may be both true and false, or that an entity may be both itself and different from itself, depending on context (Chimakonam, 2019: 100, 140). This law is symbolised as:

$$(T) A \wedge (T) \sim A \text{ or } (T) A \wedge (F) A$$

These principles show that Ezumezu logic offers a robust alternative foundation for reasoning grounded in relative identity, relative difference, and the included middle. Their very existence supports the view that traditional logical principles may not be necessary within this framework.

The Ubuntu principle of identity can be integrated into the Njikoka law of Ezumezu logic. To demonstrate this, I first introduce a symbolic notation for each principle. The Ubuntu principle, which posits a relational identity between two individuals p and q , may be expressed as:

$$(\exists p \exists q)((Person(p) \wedge Person(q)))$$

This formula asserts only what is minimally required at the outset: that there exist at least two individuals who qualify as persons. It captures the smallest ontological commitment Ubuntu demands while leaving the relational notion of “through” unencoded. Because it relies solely on first-order resources—the existential quantifier, conjunction, and the unary predicate *Person*—it remains neutral across different logical frameworks, whether classical, paraconsistent, dialethic, or trivalent. This neutrality is philosophically advantageous. It allows the Ubuntu relation to be introduced explicitly at a later stage instead of embedding it implicitly within the initial quantificational structure. Starting from a sparse existential claim also keeps the subsequent integration with Njikoka transparent and theoretically adaptable.

Njikoka requires that a truth achieves completion only when conjoined with another truth. The initial existential statement is well-suited to serve as the “A” component in the Njikoka schema. Its simplicity ensures that any further relational enrichment—such as the idea that “a person is a person through another person”—can be added deliberately rather than being covertly assumed. This approach clarifies precisely where the relational identity enters the system and avoids importing the metaphysical assumptions of

Ubuntu into the logical structure prematurely. By beginning with this minimal expression, the integration proceeds cleanly: the existential claim provides ontological grounding, while Njikọka supplies the complementary structure needed to capture the relational character of Ubuntu identity. The notation thus functions as an effective bridge between the metaphysical commitments of Ubuntu and the structural commitments of Ezumezu logic.

The Njikọka law, as defined by Chimakonam, is:

$$(T)A \leftrightarrow (T)A \wedge (T)B$$

Here, T denotes a truth-value, and A and B are propositions. To integrate the Ubuntu principle, I substitute the entire Ubuntu formula for the proposition A and the individual q for the proposition B. This yield:

$$(T)((\exists p \exists q)((Person(p) \wedge Person(q)))) \leftrightarrow (T)((\exists p \exists q)((Person(p) \wedge Person(q)))) \wedge (T)Person(q)$$

Given the original meaning of the Njikọka notation—that a proposition is true if and only if its conjunction with another proposition is true—this substitution reveals that the truth of the Ubuntu principle is contingent upon the existence of both individuals. In other words, the notion of “truth” in Njikọka, when applied to identity, requires precisely the concept that “a person is a person through another person.” This integration is not a merely formal manoeuvre; it provides a necessary condition for a coherent and philosophically credible understanding of Njikọka itself.

Furthermore, the Ubuntu principle can also be integrated into the Ọnọna-etiti law, the principle of the included middle. The Ubuntu principle of relational identity is:

$$(\exists p \exists q)(Person(p) \wedge Person(q))$$

The *Ọnọna-etiti* law, which affirms that a proposition can be both true and false, is expressed as:

$$(T)A \wedge (F)A$$

By substituting the entire Ubuntu formula for *A*, we obtain:

$$(T)((\exists p \exists q)(Person(p) \wedge Person(q))) \wedge (F)((\exists p \exists q)(Person(p) \wedge Person(q)))$$

The original meaning of *Ọnọna-etiti* states, “A could be both true and false, or if a thing is equal to itself it can be unequal to or different from itself depending on context” (Chimakonam, 2019: 100, 140). This already signals the contextualism at the heart of Ezumezu logic. When combined with the Ubuntu principle, we obtain exactly the sort of contextual structure this law requires. Ubuntu teaches that a person becomes who they are only through others; identity is relational rather than insular. Under this relational horizon, a person’s identity may be both the same as and different from itself, but only through its dependence on another person. The truth of personal identity arises from this relational structure, and within such a context, it can indeed bear both truth and falsity. Thus, the Ubuntu principle supplies the contextual grounding that *Ọnọna-etiti* demands, rendering its seemingly paradoxical formulation coherent and logically intelligible.

The insights of Ezumezu logic may also benefit non-African philosophical traditions. Philosophers in Southeast Asia, for example, often navigate the tensions between religiosity, rationality, and forms of magical or spiritual practice. Many have presumed the universality of Aristotelian logic without considering alternative frameworks. In this setting, rigorous engagement with African logical systems such as Ezumezu becomes especially valuable. While I agree with Chimakonam that Ezumezu logic can serve as a rigorous foundation for Ubuntu, I argue that Ezumezu is not merely an extension of Aristotelian logic nor a pre-logical discourse. Rather, it represents a breakthrough: an autonomous and coherent system of reasoning in its own right. My subsequent argument will

reinforce this claim by showing how Ubuntu can also be formalised within modern Western logic. This effort does not diminish the distinctively African character of Ubuntu; instead, it illustrates its philosophical robustness and versatility by demonstrating that it can be coherently articulated within both the African Ezumezu framework and Western formal systems.

3. For *Dialetheism*

The critique of Aristotelian and traditional logic is longstanding in the history of philosophy, and the distinction between the two traditions plays a significant role in that critique. Łukasiewicz insists upon the importance of this distinction: “The Aristotelian syllogism as an implication is a proposition, and as a proposition must be either true or false. The traditional syllogism is not a proposition, but a set of propositions which are not unified so as to form one single proposition” (Łukasiewicz, 1957: 21). He further argues that the failure to recognise this difference constitutes a serious flaw in any logical treatise. The distinction, therefore, turns upon whether a logical argument constitutes a single, unified proposition or merely a collection of separate propositions.

The Aristotelian syllogism, in its capacity as a singular and unified proposition, arguably addresses only what Priest terms “What It is To Be True” (WITB) rather than “What Is True” (WIT). WITB concerns the quality of the evidential support that underwrites a claim; it focuses on the internal structure of an argument and the formal relation between premises and conclusion. By contrast, WIT refers to a more general account of truth that transcends individual claims—what Priest describes as “the telos of certain cognitive activities” (Priest, 2006b: 21, 37, 47, 109). The Aristotelian syllogism, by its very nature, supplies a formal account of truth without offering any commitment to its worldly correspondence.

Graham Priest’s conception of dialetheism provides a powerful framework for interpreting Ubuntu. A dialetheia is “any true statement of the form: α and it is not the case that α ,” and

dialetheism is the thesis that “some contradictions are true” (Priest, 2006: 4, 53, 299). We may therefore employ the existential quantifier:

$$\exists$$

to denote the claim that some contradictions are true. This framework becomes especially suggestive when applied to the Ubuntu principle that “a person is a person through other persons.” If we define a contradiction grounded in this relational conception of personhood, we may represent it schematically as:

$$\exists p((Person(p)) \wedge \neg(Person(p)))$$

To incorporate Ubuntu’s account of relational identity into this dialethic structure, I argue that the contradiction arises from an individual’s constitutive dependence upon others. The central insight is that a person p may count as a complete individual in themselves while also counting as a non-individual in virtue of their dependence upon a particular person q . In formal terms, this relational tension may be expressed as:

$$\exists p \exists q([p \in Person] \wedge [p \notin Person \text{ through } q])$$

This formalisation captures the heart of Ubuntu: some contradictions are true because identity is simultaneously individual and interdependent. I emphasise that this does not imply that all persons become persons through others; my claim is simply that, in specific instances, a person’s identity is both individual and relational. Any analysis of Ubuntu’s logic must proceed with intellectual humility regarding the limitations of traditional, non-*dialethic* systems. A careful and impartial investigation requires setting aside the rigid adherence to principles such as the law of non-contradiction when engaging with a genuine, autonomous system of thought.

A potential internal contradiction within Ubuntu concerns the tension between individual and communal interests. Defining a

person through another may appear to privilege the community over the individual. Kayange, however, argues for a reinterpretation of Ubuntu as a virtue theory in which an individual strives to balance their own well-being with that of the community (Kayange, 2020: 10). Ubuntu's capacity to hold these apparently contradictory values is one of its defining features. This tension can be rigorously examined through paraconsistent logic. As Priest observes, paraconsistency permits "coherence... even without consistency" (Weber, n.d.). It is thus a suitable framework for philosophical systems that do not recognise the classical law of non-contradiction as universally binding.

The practice of *dialetheia*—the acceptance of both a proposition and its negation as true—is not unique to Ubuntu within African philosophy. The Acholi expression "*Kongo ni mit marac*" literally means "this beer is good bad," though in context it means "this beer is very good" (Ocaya, 2004: 288). Such expressions violate the Aristotelian principles of non-contradiction and the excluded middle directly. This is markedly different from the English expression "crazy rich Asians," where the adjectives "crazy" and "rich" do not contradict one another in their denotative meanings. This explains why English lacks an expression equivalent to "this beer is good bad." The presence of dialethic structures in language and thought therefore appears to be a recurring feature not only of Ubuntu but of several African philosophical traditions.

4. Against the Principle of Non-Contradiction

Before proceeding, it is essential to distinguish between the Principle of Non-Contradiction and the Principle of Explosion (*Ex contradictione quodlibet*). The latter states that from a contradiction, anything follows, and it occupies a distinct and significant place in the history of Western logic (Priest, 2006a: xviii, 247, 302). Drawing a clear boundary between these two principles enables a more nuanced treatment of contradictions, particularly when considering Ubuntu logic. By making this distinction explicit, we can investigate

how a system of thought may accommodate contradictions without thereby collapsing into triviality.

The Principle of Non-Contradiction (PNC), symbolised as

$$\neg(p \wedge \neg p)$$

is not universal, for it fails when applied to the relational identity that Ubuntu posits. To demonstrate this, let us represent the Ubuntu principle—that a person’s identity is defined “through” another—by the intersection of two individuals, p and q , denoted as:

$$(p \cap q)$$

On this interpretation, the identity of p is not exhausted by p taken atomically; rather, it is completed through its relation to q . When we integrate this insight into a dialectic setting, we can construct a contradiction that challenges the PNC without triggering triviality. The tension arises because p counts as a distinct individual and, at the same time, fails to count as distinct insofar as p ’s identity is constituted “through” q . This can be formalised as:

$$(p \cap q) \wedge \neg(p \cap q)$$

Here, the truth of $(p \cap q)$ indicates that p is defined by q , whereas $\neg(p \cap q)$ indicates that p is, in another respect, not defined by q (namely, considered as an individual in isolation). Both of these statements hold true within the Ubuntu framework.

This example demonstrates that the PNC is not universally applicable, because its validity implicitly depends upon a *ceteris paribus* condition—namely, a logical domain in which all other things are equal and individuals are treated as atomistic and self-contained. The Ubuntu principle, by introducing a relational and interdependent ontology, violates this condition and thereby provides a context in which a contradiction can be true. The

universality of the PNC is therefore conditional on an ontological assumption that Ubuntu does not share.

The assumption of *ceteris paribus* and the universal application of the PNC can be challenged even within finite and empirical domains, such as the identity of a modern technological device. Consider a netbook, which possesses two distinct forms of identity. First, its Media Access Control (MAC) address: a fixed sequence of twelve alphanumeric characters (e.g., 9c:b7:0d:44:ec:22) permanently assigned by the manufacturer. This physical address remains constant regardless of the device's network location, and it aligns with the traditional notion of identity in which *p* remains immutably *p*. Second, its Internet Protocol (IP) address: a numerical sequence (e.g., 192.168.1.5) that can change dynamically depending on network configuration. This logical address is variable and can even be masked through proxies, thereby altering the device's apparent location.

The netbook's identity is therefore a composite of these two addresses: one remains constant, while the other changes. To define the netbook's identity exclusively by its immutable physical address while ignoring its dynamic logical address would be to overlook its actual mode of existence. This duality poses a direct challenge to the PNC: the netbook's identity is simultaneously fixed (MAC) and mutable (IP). The example shows that the principle of identity may not hold universally, because an object's identity can be both stable and unstable depending on context. In this respect, the netbook's identity is its netbookness through the identification of both its physical (MAC) and logical (IP) addresses, thereby offering a compelling technological analogy for the African philosophical concept of Ubuntu.

To those who claim that this is not a logical argument but merely a metaphysical or physical one, I respond that this view is mistaken. The subjects of the argument—the MAC and IP addresses—are empirical and finite entities, even though the IP address may change constantly depending on the device's network environment. The point is therefore not metaphysical speculation

but an illustration of how identity itself can be contextually constituted, and how contradictions may arise from that context without threatening coherence.

5. **Against the Principle of Excluded Middle**

The Principle of Excluded Middle (PEM), formally expressed as:

$$p \vee \neg p$$

is often regarded as no less fundamental than the Principle of Non-Contradiction. However, the universality of the PEM comes into question once we integrate the Ubuntu principle of relational identity. We can illustrate the challenge by constructing a proposition that draws both principles into view. Let me represent the Ubuntu principle as the existence of a person p who is defined in relation to a person q . The claim that this relational identity is either true or false is:

$$(\exists p \exists q (p \text{ through } q)) \vee \neg (\exists p \exists q (p \text{ through } q))$$

This simple application suggests that the dichotomous structure of the PEM may not suit the nuanced ontology of Ubuntu. The claim that “a person is a person through another person” proposes a third possibility: a state that is neither simply p nor simply $\neg p$, but a relational composite in which identity takes shape across persons. The PEM presupposes that every context can be resolved into a binary alternative between p and $\neg p$. By contrast, the Ubuntu framework introduces a genuine middle ground—an “included middle”—in which the truth-value of an identity claim is not exhausted by the exclusive choice between affirmation and negation. Thus, Ubuntu’s ontology offers a strong counterargument to the stability and universality of the PEM, indicating that its applicability remains confined to contexts where an atomistic, non-relational ontology is presupposed.

The argument against the Principle of Excluded Middle can be developed further by examining the relation between existential and universal quantification. The Ubuntu principle concerns *some* persons, so the existential quantifier provides the most appropriate representation:

$$\exists$$

Hence, a logical statement about Ubuntu does not entail a universal conclusion that applies to all persons. This is a fundamental point of logic: a premise of the form:

$$\exists p(A(p))$$

does not warrant a conclusion of the form:

$$\forall p(A(p))$$

Rejecting the PEM in the specific context of Ubuntu, therefore, does not require its general rejection. Because Ubuntu is context-sensitive and relational, existential quantification fits better than universal quantification and avoids the error of transforming a culture-based principle into an absolute metaphysical law. Likewise, the negation of some does not entail the negation of all; to infer the latter from the former would commit a fallacy of overgeneralisation (sometimes labelled the “fallacy of dramatic instance”).

This critique gains further support when we observe that other African philosophical and linguistic systems also deploy an “included middle” that departs from the rigid binarism of the PEM. Ocaya’s analysis of the Acholi language is particularly instructive. He notes that Acholi allows not only the familiar pair—a statement and its negation, such as “it is hot” and “it is not hot”—but also a third, intermediate alternative: “it is rather hot” (Ocaya, 2004: 289).

This third option collapses into neither pure affirmation nor pure denial; it articulates a graded or qualified truth-value that occupies a space between the two. Such a practice shows that the binary opposition encoded in the PEM does not structure all natural languages or conceptual schemes. Certain linguistic communities recognise, quite explicitly, that the world resists clean dichotomies. Ocaya further emphasises that this triadic structure of truth arises from the complexity of natural language and the social realities that shape it. Human experience includes ambiguities, gradations, and relational nuances that a strict true-or-false framework cannot adequately capture. Acholi expressions such as “it is rather hot” attempt to register those nuances, rather than compress them into a dichotomous logic that flattens their complexity. In this respect, the linguistic evidence suggests that some African conceptual systems rest upon a more layered and responsive understanding of reality than the one presupposed by classical logic. They treat truth not as a static correspondence between proposition and fact, but as a phenomenon that emerges from context, relationality, and lived practice. This broader pattern also strengthens the claim that Ubuntu’s relational ontology does not stand alone in its challenge to the PEM. Ubuntu may locate its “included middle” in the domain of personal identity—insisting that a person is both themselves and not merely themselves, because their identity is constituted “through” others—yet the Acholi case shows that similar logical intuitions appear in other cultural and linguistic contexts. We thus find a convergence across African traditions: both Ubuntu and Acholi thought resist the strictures of a binary logical framework and instead accommodate a logic in which intermediate or complementary states can be meaningfully affirmed.

Taken together, these considerations suggest that the philosophical foundations of such systems draw upon a more nuanced account of reality than that assumed by classical, bivalent logic. On these accounts, reality is not a set of independent and sharply bounded entities that lend themselves to simple yes-or-no categorisation, but a web of relations in which entities may occupy

overlapping, intersecting, or intermediate positions. If logic is to remain faithful to this structure of reality, it must be sufficiently flexible to articulate these subtleties. Systems that recognise an included middle—whether in linguistic judgement, metaphysical identity, or communal ontology—offer precisely such flexibility. They challenge the presupposition that contradiction is always a mark of irrationality and instead invite us to recognise that some apparent contradictions disclose underlying complexity rather than error. In this way, African linguistic and philosophical traditions contribute not only to cross-cultural debates in logic but also to a wider rethinking of how we conceptualise truth, identity, and the structure of the real.

CONCLUSIONS

The logic of Ubuntu sits most coherently within a framework that brings together African Ezumezu logic and selective elements of modern formal logic, rather than within an Aristotelian scheme. As shown above, embedding Ubuntu in Ezumezu logic provides a determinate context for the principles of Njikọka and Ọnọna-etiti. By contrast, a critical appraisal of Ubuntu through an Aristotelian lens exposes a deep and systematic conflict.

The Principle of Identity, which maintains that a person's identity is singular and self-contained, clashes with Ubuntu's core claim that a person's identity is constituted "through" another. This relational identity yields, in classical terms, a contradiction: a person *p* is both a distinct individual and, at the same time, not fully distinct, because *p*'s identity depends essentially on a person *q*. Rather than treating this as a logical failure, we should recognise it as a *dialetheia*—a contradiction that holds true. On this reading, the truth of the contradiction mirrors a modern formal perspective in which the properties of object *p* stand in an ineliminable dependence upon the properties of object *q*, thereby undermining any purely atomistic account of identity. In sum, the argument has shown that Ubuntu's philosophical commitments require us to reconsider, and in certain contexts reject, the Aristotelian principles

of identity and excluded middle, and that Ubuntu finds a more apt logical articulation in multivalued frameworks such as Ezumezu and *dialetheism*.

If these arguments are sound, then Ubuntu and Ezumezu become indispensable to the ongoing development of modern formal logic, especially where it takes seriously *dialetheic* and paraconsistent approaches. This does not imply that Ubuntu derives its logic from *dialetheism*; rather, the implication runs in the opposite direction. *Dialetheism* gains compelling support and a prior philosophical grounding from African systems of reasoning. By bringing these systems into view, the present work contributes to placing African logic on the global philosophical stage and invites a broader rethinking of truth, identity, and inference beyond the confines of classical, bivalent norms.

REFERENCES

- Aristotle. (1991). *Metaphysics* (J. L. Ackrill, Trans.). In J. Barnes (Ed.), *The complete works of Aristotle: The Revised Oxford Translation* (Vol. 2, 4th printing). Princeton University Press.
- Chimakonam, J. O. (2019). *Ezumezu: A system of logic for African Philosophy and studies*. Springer. <https://doi.org/10.1007/978-3-030-11075-8>
- Chimakonam, J. O., & Ogbonnaya, L. U. (2021). *African metaphysics, epistemology and a new logic: A decolonial approach to philosophy*. Springer International Publishing. <https://doi.org/10.1007/978-3-030-72445-0>
- Cornell, D. (2014). *Law and revolution in South Africa: Ubuntu, dignity and the struggle for constitutional transformation* (1st ed.). Fordham University Press.
- Forrest, P. (2016). The identity of indiscernibles. In E. N. Zalta (Ed.), *Stanford Encyclopedia of Philosophy* (Winter 2016 Edition). Standford University. <https://plato.stanford.edu/archives/win2016/entries/identity-indiscernible/>
- Kayange, G. M. (2020). Restoration of Ubuntu as an autocentric

- virtue-phronesis theory. *South African Journal of Philosophy*, 39(1), 1–12. <https://doi.org/10.1080/02580136.2019.1665817>
- Łukasiewicz, J. (1957). *Aristotle's syllogistic: From the standpoint of modern formal logic* (2nd ed.). The Clarendon Press.
- Mangena, F. (n.d.). Hunhu/Ubuntu in the traditional thought of Southern Africa. In *Internet Encyclopedia of Philosophy*. Retrieved August 6, 2020, from <https://iep.utm.edu/hunhu/>
- Masolo, D. A. (1994). *African philosophy in search of identity* (J. W. Fernandez, L. de Heusch, J. Middleton, & R. Willis, Eds.). Indiana University Press and Edinburgh University Press.
- Metz, T. (2017). Toward an African moral theory (Rev ed.). In I. E. Ukpokolo (Ed.), *Themes, issues and problems in African Philosophy* (pp. 97–119). Palgrave Macmillan.
- More, M. P. (2004). Philosophy in South Africa under and after apartheid. In K. Wiredu (Ed.), *A companion to African philosophy* (pp. 149–160). Blackwell Publishing.
- Ocaya, V. (2004). Logic in the Acholi language. In K. Wiredu (Ed.), *A companion to African philosophy* (pp. 285–295). Blackwell Publishing.
- Priest, G. (2006a). *In contradiction: A study of the transconsistent* (2nd ed.). Clarendon Press.
- Priest, G. (2006b). *Doubt Truth To Be a Liar*. Oxford University Press.
- Sambala, E. Z., Cooper, S., & Manderson, L. (2019). Ubuntu as a framework for ethical decision making in Africa: Responding to epidemics. *Ethics & Behavior*, 30(1), 1–13. <https://doi.org/10.1080/10508422.2019.1583565>
- Weber, Z. (n.d.). Paraconsistent logic. In *The Internet Encyclopedia of Philosophy*. Retrieved January 9, 2026, from <https://iep.utm.edu/para-log/>