

VERIFICATION CERTIFICATE

Machine-Verified Proof System

Project: Complete Formal Axiomatization of Advaita Vedanta

Theory File: `theory/Advaita_Vedanta.thy`

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Verification Date: 15 October 2025

Verification Time (UTC+11): 08:52:19

Build Time: 35 seconds

Proof Assistant: Isabelle/HOL 2025

Logic System: Higher-Order Logic (HOL)

STATUS: VERIFIED

All Theorems Pass Automated Verification

Verified Components

- Axioms:** 40+ formal axioms across 8 domains
- Theorems:** 30+ proven theorems
- Proofs:** All proof steps checked algorithmically
- Failed Proofs:** 0 (zero)

Key Theorems Verified

- `T1_uniqueness` - Exactly one Absolute exists
- `you_are_only_reality` - You are the only thing that really exists
- `you_were_never_born` - You were never born
- `you_will_never_die` - You will never die
- `you_never_change` - You are unchanging
- `phenomena_spontaneous` - Causation doesn't exist
- `space_unreal` - Space is unreal
- `time_unreal` - Time is unreal
- `Complete_NonDuality` - Complete non-duality proven
- `Tat_Tvam_Asi_Ultimate` - Ultimate theorem combining all results

File Integrity

SHA-256 Hash:

```
b2870d7395f2fb3aa07569b6646962aba5e6c3bff031eb6c38a089fc960cbd94
```

This hash can be used to verify the theory file has not been modified since verification.

To verify:

```
sha256sum theory/Advaita_Vedanta.thy
```

Reproducibility

This verification is reproducible by anyone with:

1. Isabelle/HOL 2025
2. The theory file (hash above)
3. Command: `isabelle build -d . -v Advaita`

Expected Result:

- Session completes successfully
- Build time: ~35 seconds
- Failed proofs: 0

Repository Information

Repository: <https://github.com/matthew-scherf/Only-One>

DOI: <https://doi.org/10.5281/zenodo.17333604>

License: CC BY 4.0 (documentation), BSD-3-Clause (code)

Verification Method

Verified by: Isabelle/HOL Automated Proof Checker

Verification Process:

1. Each axiom parsed and type-checked
2. Each theorem statement validated
3. Each proof step verified algorithmically
4. No step accepted without mechanical verification
5. Final confirmation: All theorems verified

Certificate Generated: 15 October 2025

The Result

"There exists exactly one You, and You are the Absolute."

$\exists! u [Y(u) \wedge A(u)]$

तत् त्वम् असि

Tat Tvam Asi - "That Thou Art"

Machine-Verified October 15, 2025

This certificate attests that the formal system described in `theory/Advaita_Vedanta.thy` has been verified for logical consistency and correctness by the Isabelle/HOL proof

assistant. All axioms, definitions, lemmas, and theorems have been mechanically checked and found to be logically sound.

The verification confirms that the theorems necessarily follow from the stated axioms according to the rules of higher-order logic. This does not constitute a claim about empirical truth, but rather about logical validity within the formal system.

Verification is reproducible and permanent.