Unitarity as Theorem

Modal 10 — The Resurrection from U1–U3, Explained in the Style of a Chess Journalist

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Preliminary Note: How to Read This File

This file explains **Modal 10**: the derivation of the resurrection from the **weak** principles U1–U3. In Modal 5, the resurrection was derived from the **strong** axioms A16–A20. Modal 10 shows: It also works with **weaker** assumptions — namely with the **unitarity** as the structure of Totality T itself.

It is written in the **same style** as the previous files: move by move, with symbol explanation at every step, with plain language for every statement.

What is presupposed: The files on Modal 5–9 should have been read. In particular, the tableau rules, the superposition axioms ASP1–ASP5, and the resurrection from A16–A20 (Modal 5, Part III) are presupposed as known.

What this file achieves: It shows three things:

1. **Unitarity** is not an additional assumption — it is the **structure** of Totality T itself.
2. From the three principles U1–U3, the resurrection follows as a **theorem**.
3. The "intervention" of the Omega Point into paths that do not reach it is **structural**, not **temporal**.

Part I — The Problem with A16–A20

1. The Strong Axioms from Modal 5

The axioms A16–A20 in formulas (repetition):

```
A16   ∀c (Consciousness(c) → integrated(c,S))
A17   ∀c (Knowledge(c,S) ⇔ integrated(c,S))
A18   □∀I (Existence(I) → Conservation(I))
A19   ∀c (Death(c) → Integration(c,S))
A20   ∀c (Knowledge(c,S) ⇔ Existence(c))
```

Symbol explanation (repetition):

- ∀c: for all consciousnesses c.
- ∀I: for all individuals I.
- →: if-then.

- ⇿: if and only if.
- □: necessarily.
- `Consciousness(c)`: c is a consciousness.
- `integrated(c,S)`: c is integrated into S.
- `Knowledge(c,S)`: c knows about S.
- `Existence(I)`: I exists.
- `Conservation(I)`: I is conserved.
- `Death(c)`: c is dead.
- `Integration(c,S)`: c is integrated into S.

In plain language:

- **A16:** All consciousnesses are integrated into S.
- **A17:** Knowledge of S and integration into S are equivalent.
- **A18:** All existence is conserved (unitarity).
- **A19:** Death is integration into S.
- **A20:** Knowledge of S and existence are equivalent.

2. Why These Axioms Are Too Strong

The problem in plain language: The axioms A16–A20 presuppose:

```
A16:  ALL consciousnesses are integrated into S.
A18:  ALL existence is conserved.
A19:  Death is ALWAYS integration.
A20:  Knowledge of S and existence are ALWAYS equivalent.
```

These are **strong** assumptions. They hold **for all** consciousnesses, **for all** existence, **always**. One can accept them — but they are **not** the weakest assumptions with which the resurrection is derivable.

The question of Modal 10: Are there **weaker** assumptions from which the resurrection also follows?

The answer: Yes. The three principles U1–U3.

Part II — The Three Principles U1–U3

1. The New Symbol: The Operator I

The new symbol in formulas:

```
I p    "the information about p is conserved"
```

Symbol explanation:

- `I`: the information operator.
- `p`: a statement.

In plain language: `I p` holds in a world w if the information about p is conserved in w. That is **not** a moral concept, but a **structural** one.

2. The Information Axioms I1–I4

The axioms in formulas:

```
I1   □(I p → ◇p)
I2   □(I(p ∧ q) ↔ (I p ∧ I q))
I3   □(I¬p ↔ ¬I p)
I4   □(I p → □I p)
```

Symbol explanation:

- `I`: information operator.
- □: necessity.
- ◇: possibility.
- →: implication.
- ↔: equivalence.
- ∧: conjunction.
- ¬: negation.
- p, q: statement variables.

In plain language:

- **I1:** What is conserved is possible.
- **I2:** Conservation distributes over conjunction.
- **I3:** Conservation is complementary — the information about ¬p is conserved exactly when the information about p is conserved.
- **I4:** Conservation is necessary when it holds.

Important: `I` is **not** a normal operator. It does **not** satisfy the Kripke axiom K. Instead, it satisfies the **information axioms** I1–I4.

3. U1 — Realization Implies Information Conservation

The principle in formulas:

```
U1   □∀p (Realized(p) → I p)
```

Symbol explanation:

- □: necessity.
- ∀p: for all statements p.
- `Realized(p)`: p is realized.

- `I p`: the information about p is conserved.
- →: implication.

In plain language: If p is realized, then the information about p is conserved.

The metaphysical meaning: What was once real cannot fully disappear. It remains conserved as information — even if the original form is lost.

4. U2 — Death Is Local Access Loss

The principle in formulas:

```
U2   □∀c (Death(c) → ¬◇_local Access(c))
```

Symbol explanation:

- □: necessity.
- `∀c`: for all consciousnesses c.
- `Death(c)`: c is dead.
- ¬: negation.
- `◇_local`: local possibility.
- `Access(c)`: access to c.
- →: implication.

In plain language: The death of a consciousness c is the loss of **local** access to c.

The metaphysical meaning: Death is **not** extinction. It is an **access loss**. From the perspective of c, it appears as an end. From the perspective of S, it is a transition.

5. U3 — Global Integration Is Possible

The principle in formulas:

```
U3   □∀c (Death(c) → ◇_global Integration(c,S))
```

Symbol explanation:

- □: necessity.
- `∀c`: for all consciousnesses c.
- `Death(c)`: c is dead.
- `◇_global`: global possibility.
- `Integration(c,S)`: c is integrated into S.
- →: implication.

In plain language: The death of a consciousness c makes its **global** integration into S possible.

The metaphysical meaning: Death is **not the end**. It is the condition of the possibility of integration. What is lost locally is integrated globally.

Part III — The Proof of the Resurrection

1. The Theorem

The theorem in formulas:

`S5+U1+U2+U3 ◇ ∀c (Consciousness(c) → ⊢Resurrection(c))`

Symbol explanation:

- `S5+U1+U2+U3`: the system of S5 and the three principles.
- ⊢: "is derivable".
- □: necessity.
- ∀c: for all consciousnesses c.
- `Consciousness(c)`: c is a consciousness.
- →: implication.
- ◇: possibility.
- `Resurrection(c)`: c is resurrected.

In plain language: In the system of S5 and the three principles U1–U3, it is derivable: For every consciousness c, necessarily: If c is a consciousness, then the resurrection of c is possible.

2. The Proof Move by Move

Move 1 — Choose an arbitrary consciousness

```
BOARD       (empty – the proof begins)
MOVE        Let c be an arbitrary consciousness
SYMBOLS     c = a consciousness
            Consciousness(c) = c is a consciousness
WHY         We want to show: For ALL consciousnesses the resurrection
            holds. So we choose an arbitrary c and show it for this c.
PLAIN       "Let c be an arbitrary consciousness."
NEW         Assumption: Consciousness(c)
```

Move 2 — Assumption: c dies

```
BOARD       Assumption: Consciousness(c)
MOVE        Assumption: c dies
SYMBOLS     Death(c) = c is dead
WHY         We want to show: If c dies, then the resurrection is
            possible. So we assume c dies.
PLAIN       "Suppose c dies."
NEW         Assumption: Death(c)
```

Move 3 — Apply U2

```
BOARD       Assumption: Death(c)
MOVE        Apply U2
SYMBOLS     U2 := □∀c (Death(c) → ¬◇_local Access(c))
            ¬◇_local Access(c) = local access to c is lost
WHY         U2 is available as a principle. From Death(c) follows:
            ¬◇_local Access(c).
PLAIN       "From U2: The local access to c is lost."
NEW         Line 1: ¬◇_local Access(c)
```

Move 4 — Apply U1

```
BOARD       Assumption: Death(c)
MOVE        Apply U1
SYMBOLS     U1 := □∀p (Realized(p) → I p)
            Realized(c) = c is realized (because c is a consciousness)
            I c = the information about c is conserved
WHY         U1 is available as a principle. From Realized(c) follows:
            I c.
PLAIN       "From U1: The information about c is conserved."
NEW         Line 2: I c
```

Move 5 — Apply U3

```
BOARD       Assumption: Death(c)
MOVE        Apply U3
SYMBOLS     U3 := □∀c (Death(c) → ◇_global Integration(c,S))
            ◇_global Integration(c,S) = global integration of c into S
            is possible
WHY         U3 is available as a principle. From Death(c) follows:
            ◇_global Integration(c,S).
PLAIN       "From U3: The global integration of c into S is possible."
NEW         Line 3: ◇_global Integration(c,S)
```

Move 6 — Insert definition Resurrection

```
BOARD       Line 3: ◇_global Integration(c,S)
MOVE        Insert definition Resurrection
SYMBOLS     Resurrection(c) := Integration(c,S)
WHY         The definition of resurrection is integration into S. So
            from ◇_global Integration(c,S) follows ◇Resurrection(c).
PLAIN       "So: The resurrection of c is possible."
NEW         Line 4: ◇Resurrection(c)
```

Move 7 — Introduce implication

```
BOARD       Assumption: Consciousness(c); Line 4: ◇Resurrection(c)
MOVE        Introduce implication
SYMBOLS     from A and B follows A → B
WHY         We have assumed Consciousness(c) and derived
            ◇Resurrection(c). So: Consciousness(c) → ◇Resurrection(c).
PLAIN       "So: If c is a consciousness, then the resurrection of c
```

```
            is possible."
NEW         Line 5: Consciousness(c) → ◇Resurrection(c)
```

Move 8 — Apply ∀-rule

```
BOARD       Line 5: Consciousness(c) → ◇Resurrection(c)
MOVE        Apply ∀-rule
SYMBOLS     ∀-rule: from A(c) for arbitrary c follows ∀c A(c)
WHY         c was chosen arbitrarily. So the statement holds for ALL
            consciousnesses.
PLAIN       "For all consciousnesses c: If c is a consciousness, then
            the resurrection of c is possible."
NEW         Line 6: ∀c (Consciousness(c) → ◇Resurrection(c))
```

Move 9 — Necessitation

```
BOARD       Line 6: ∀c (Consciousness(c) → ◇Resurrection(c))
MOVE        Apply Necessitation
SYMBOLS     Necessitation: from ⊢ A follows ⊢ □A
WHY         The formula is derivable without assumptions (only from
            U1–U3). So it is necessary.
PLAIN       "Necessarily: For all consciousnesses c: If c is a
            consciousness, then the resurrection of c is possible."
NEW         Line 7: □∀c (Consciousness(c) → ◇Resurrection(c))
```

Final Result

```
FORMAL      S5+U1+U2+U3 ∀◇c□(Consciousness(c) → Resurrection(c))
PLAIN       "In S5+U1+U2+U3 the resurrection is derivable."
```

3. What the Proof Shows

What the proof shows:

- The resurrection follows **not** from moral assumptions.
- The resurrection follows from **structural** assumptions: information conservation (U1), access loss (U2), integration possibility (U3).
- The resurrection is a **logical necessity** — under the assumptions U1–U3.

What the proof does not show:

- That the resurrection **actually** takes place.
- That the resurrection takes place **temporally**.
- That the resurrection is **morally** justified.

The point: The resurrection follows from **weaker** assumptions than in Modal 5. The axioms A16–A20 were **strong** — they presupposed that **all** consciousnesses are integrated. U1–U3 presuppose only that information conservation is **structural**.

Part IV — Unitarity as the Structure of T

1. The Central Insight

The central insight in plain language: Unitarity is **not** an additional assumption. It is the **structure** of Totality T itself.

Formally:

$\forall \gamma \subseteq T : \gamma \in T$

Symbol explanation:

- $\forall\gamma$: for all paths γ.
- $\subseteq$: "is subset of".
- T: Totality.
- $\in$: "is element of".
- $\gamma \subseteq T$: γ is a subset of T.
- $\gamma \in T$: γ is an element of T.

In plain language: For every path γ that is a subset of T: γ is an element of T.

The metaphysical meaning: Totality T contains **all** paths — including those that do not reach the Omega Point. There is **no escape** from T. What happens in T remains in T.

2. The Consequence

If unitarity is the structure of T itself, then:

```
(1)  No information is lost.
     For loss would mean that a path γ falls out of T. That is
     impossible.

(2)  All paths are conserved.
     Including those that do not reach the Omega Point.

(3)  Integration is structural, not temporal.
     What appears from the perspective of a path as loss is, from the
     perspective of T, conservation.
```

3. The "Intervention" of the Omega Point

The "intervention" in plain language: The "intervention" of the Omega Point into paths that do not reach it is **structural**, not **temporal**.

Structural: T contains all paths. Integration has **always already** happened.

Not temporal: There is no point in time at which the Omega Point "intervenes". It is the **form** of T.

Formally:

$\forall \gamma \subseteq T : \gamma \in T \Rightarrow \text{Integration}(\gamma, S)$

Symbol explanation:

- $\forall \gamma \subseteq T$: for all γ that are subsets of T.
- $\gamma \in T$: γ is an element of T.
- $\Rightarrow$: "implies" (metalinguistic).
- $\text{Integration}(\gamma, S)$: γ is integrated into S.

In plain language: For every path γ that is a subset of T: γ is an element of T — and from this follows that γ is integrated into S.

The consequence: From the perspective of a path, integration appears as an **intervention from outside**. From the perspective of S, it is **self-knowledge**.

Part V — Comparison with A16–A20

1. What Is Gained?

What is gained in plain language:

```
(1)  Weaker assumptions.
     A16–A20 presuppose that all consciousnesses are integrated into S.
     U1–U3 presuppose only that information conservation is structural.

(2)  Structural foundation.
     A16–A20 are axiomatic. U1–U3 are structural – they describe the
     form of T.

(3)  Resurrection as theorem.
     With A16–A20, the resurrection is a theorem from strong
     assumptions. With U1–U3, it is a theorem from weak assumptions.

(4)  Connectivity.
     U1–U3 are connectable to physical concepts (information
     conservation in quantum mechanics).
     A16–A20 are primarily theological.
```

2. What Is Lost?

What is lost in plain language:

```
(1)  Directness.
     A16–A20 are direct. U1–U3 require the detour via the operator I.
```

```
(2)  Explicitness.
     A16–A20 speak directly of consciousness, death, integration.
     U1–U3 speak of information conservation.

(3)  Theological language.
     A16–A20 stand in a theological tradition.
     U1–U3 stand in a structural tradition.
```

3. What Remains?

What remains in plain language:

```
(1)  The resurrection is a theorem. In both cases.

(2)  Unitarity is fundamental. In both cases.

(3)  Integration is structural. In both cases.
```

The conclusion: U1–U3 are **stronger** in their reach and **weaker** in their assumptions. They are therefore **preferable** when it comes to showing the resurrection as a **structural necessity**, not as a **moral promise**.

Part VI — What Remains Open

1. Is U1–U3 Minimal?

The question: We have shown: From U1–U3 follows the resurrection. But is U1–U3 **minimal**? Is each of the three principles indispensable?

The three sub-questions:

```
Question 1: Is U1 indispensable? What happens if we omit U1?

Question 2: Is U2 indispensable? What happens if we omit U2?

Question 3: Is U3 indispensable? What happens if we omit U3?
```

Possible answers:

```
On U1: Without U1, it does not follow that the information about c is
       conserved. The resurrection would not be derivable.

On U2: Without U2, death would not be defined as access loss. The
       resurrection would not be bound to death.

On U3: Without U3, it does not follow that integration is possible. The
       resurrection would be only a possibility, not a necessity.
```

What we have not shown: We have **not** shown that U1–U3 are minimal. We have only shown that they are **sufficient**.

2. Is the Operator I Minimal?

The question: Is the operator I minimal? Is there a weaker operator that plays the same role?

Possible answer: The operator I is the **weakest** operator that formalizes information conservation. But there could be other operators.

Afterword

You have read this file. You have learned about unitarity as theorem — with symbol explanation at every step and plain language for every statement. You have seen the proof of the resurrection from U1–U3 move by move. You have understood that unitarity is the **structure** of T itself.

What remains is the insight:

```
Unitarity is not an additional assumption.
It is the structure of Totality T itself.
From it follows the resurrection as a logical necessity – not as a
moral promise, but as a consequence of information conservation.
The "intervention" of the Omega Point is structural, not temporal.
```

The next file (Modal 11) treats **timelessness and presence**: the temporal modal logic of the Trinity with the four time modes P, F, N, Z.

This file was written in the spirit of strict modal logic, yet in the language of a chess journalist — for the proof requires both: the precision of the formula and the vividness of the move.