

Addendum 374: Linked but Disjoint

Synchronicity is the Hopf linking (correlation, not cause);
changing the shared world still requires action — the two regimes of efficacy
(Addendum to Paper 04; extends 373)

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Abstract

Addendum 373 made “shared reality enforced” a theorem: one shared S^3 (E1), disjoint fibers (E2, privacy), the only inter-fiber channel through S^3 (E3). It left two *regimes of efficacy* implicit. This addendum makes them explicit, formalizing the articulation that *the privacy of experience is part of reality one can affect (synchronicity), but one cannot force shared reality to change without action*. The missing formal piece is that disjoint Hopf fibers are not merely disjoint — they are **linked**, with linking number 1 (the Hopf invariant; Gauss integral = 1.00 on distinct fibers). *Disjoint* means no direct fiber-to-fiber causal or signal contact; *linked* means global correlation independent of any S^3 signal. Disjoint-but-linked is exactly the structure of **acausal correlation** — two private viewpoints correlated through the bundle with no causal channel between them — which is what “synchronicity” names structurally. The fiber is also *affectable*: its S^1 phase / observer-trajectory (Paper 08) is a private degree of freedom one can move. But by 373’s E3, the *only* channel that moves the shared S^3 is classical **action** through S^3 ; the linking gives *correlation, not leverage*, so a fiber-local change is correlated with the whole yet cannot *force* the shared boundary. **The line:** correlation (the linking; the fiber; acausal; “synchronicity”) is not forcing (causation; S^3 ; action-required). This completes 373’s anti-solipsism result — privacy is real *and* affectable, the shared arena is enforced *and* action-only — and keeps E3 intact: synchronicity is the linking, not a private lever on the world (not psychokinesis). Theorem-grade as topology; the hinges are monad = observer and the identification of the linking with experienced synchronicity (a reading, not a paranormal claim). All claims pinned by `verify_P374.py` (9/9).

1 The two regimes

Theorem 1.1 (L1: disjoint but linked). *Two fibers of the Hopf fibration $\pi : S^3 \rightarrow S^2$ over distinct base points are disjoint ($M_i \cap M_j = \emptyset$, 373 E2; minimal separation $\approx 0.999 > 0$) yet linked with linking number 1 — the Hopf invariant, verified by the Gauss linking integral (= 1.00 on stereographically projected distinct fibers). Disjointness forbids direct fiber-to-fiber causal/signal contact; the linking is a global correlation that does not depend on any signal passing through S^3 .*

Remark 1.2 (L2: disjoint-but-linked is acausal correlation — the form of “synchronicity”). A nonzero linking between curves with empty intersection is precisely *correlation without contact*: the two loops are globally tied although neither meets or signals the other. Read on the monad fibers, this is two private viewpoints correlated through the bundle with no causal channel between them — the structural signature of *acausal correlation*, which is what “synchronicity” names. The identification of this structure with any *experienced* synchronicity is a reading, not a theorem: the

corpus establishes that the topology *permits* acausal correlation, not that any particular coincidence *is* one. No paranormal claim is made; correlation is not causation.

Proposition 1.3 (L3–L4: the fiber is affectable; the arena is action-only). L3 (affectable fiber). *The fiber carries a private degree of freedom one can move: its S^1 phase / observer-trajectory (Paper 08, observer-as-trajectory; the Wheel’s phase). The private layer is thus “part of reality one can affect.”* L4 (action-only arena). *By 373’s E3 the only channel that moves the shared S^3 is classical action through S^3 ($M_i \rightarrow S^3 \rightarrow M_j$: speech, writing, physical signals). The linking of Theorem 1.1 supplies correlation, not leverage — a fiber-local change is correlated with the whole but cannot force the shared boundary. “Force the shared world without action” is topologically blocked.*

2 The line, and the completed solipsism answer

Corollary 2.1 (Correlation is not forcing; E3 stands). *The two regimes do not collide. Correlation lives on the fiber and through the linking (acausal, affectable, “synchronicity”); forcing lives on S^3 and requires action (causal, E3). A fiber may be affected and thereby correlated with the whole, yet the shared world changes only by action in it. So synchronicity is not a violation of E3 and not a private lever on reality: it is the bundle’s linking, which carries no causal power over S^3 . This both completes 373’s anti-solipsism result — privacy is real and affectable, the shared arena is enforced and action-only — and identifies precisely the thing the solipsist wrongly hopes for: a private lever on the shared world, which is exactly what the topology forbids.*

Status

The Hopf bundle carries two regimes of efficacy. The private fiber is disjoint from every other (no causal contact, Theorem 1.1) yet linked to it with linking number 1 — acausal correlation, the structural form of “synchronicity” (Remark 1.2), and a layer one can affect (Proposition 1.3, L3). The shared S^3 changes only by action through S^3 (373 E3, L4); the linking is correlation, not leverage, so forcing the shared world without action is topologically blocked (Corollary 2.1). Correlation is not causation. This completes the anti-solipsism result of 373: privacy is real and affectable, the shared arena is enforced and action-only, and synchronicity is the linking — not a violation of E3. **Theorem-grade as topology** (linking = 1; the sole S^3 channel of 373); the hinges are monad = observer and the reading of the linking as experienced synchronicity — the corpus permits acausal correlation structurally and asserts no paranormal phenomenon. No published number changes; no new objects beyond the linking fact and the two-regime split. Verifier: `verify_P374.py`, 9/9 pass.