

The Uncorrectable Believer: Fantasy Attractor Dynamics from Aquinas to the Holocaust [A] (2026)

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See Paper 1 (Intelligence Without Consciousness) for the full taxonomy of conscious suppression and fantasy attractors.

Abstract

Why do theological systems that defy empirical disconfirmation persist for centuries? The attractor framework diagnoses them as **fantasy attractors** – belief systems with low corrective permeability (κ), deep basins, and sealing mechanisms that neutralize error signals. This paper traces the shift from behavioral law (Judaism) to thought crime (Christianity), showing how internalizing sin makes the accused defenseless and elevates reputation over reality. It examines Catholic and radical Protestant soteriology as attractor architectures: the doctrine of double effect, the infinite value of the soul, and the permissible killing of heretics created a calculus where finite evil is justified by infinite gain. The 1933 Reichskonkordat – Hitler's first diplomatic treaty – exploited this attractor basin to gain legitimacy. The Holocaust was not a direct theological command, but an *implied inference* from centuries of attractor dynamics, given the additional historical factors of racial ideology and the totalitarian state. The paper distinguishes between Lutheran, antinomian, and prosperity-gospel variants, and offers a documented de-conversion case (Bart Ehrman) mapped onto the three exit

mechanisms. The result is a unified diagnosis of how theological attractors seal themselves against correction and enable historical atrocity.

1. Introduction

How does a belief system survive centuries of counterevidence? How can millions of intelligent people maintain faith in doctrines that contradict observable reality – wealth as divine favor, poverty as lack of faith, sins forgiven before they are committed? And how can the same attractor dynamics enable historical atrocities, from the Inquisition to the Holocaust?

Standard explanations (cognitive bias, social pressure, indoctrination) are incomplete. Cognitive dissonance theory, for example, explains why people rationalize disconfirmation but does not model the *dynamical stability* of belief attractors across populations and generations. The attractor framework offers a formal alternative: these are **fantasy attractors**, belief systems with corrective permeability $\kappa \rightarrow 0$, deep basins, and sealing mechanisms that neutralize error signals.

Operational definition of κ (corrective permeability): $\kappa = 1/\tau$, where τ is the time a system takes to return to its baseline state after a specified perturbation. For belief systems, κ indexes the speed and completeness of belief updating when presented with disconfirming evidence. Low κ means slow or absent updating – a sealed attractor.

This paper applies the framework to **Catholic and radical Protestant soteriology**. The Catholic tradition is the deeper attractor basin; Protestantism, particularly its radical antinomian and prosperity-gospel variants, represents a mutation that further reduced κ . The paper focuses not on

theology per se, but on the *attractor architecture*: how thought crimes replace behavioral sins, how the infinite-value calculus justifies finite evil, how vicarious redemption removes corrective incentives, and how social colonization makes individual κ irrelevant. The goal is diagnostic, not polemical. “Fantasy attractor” is a technical term, not a rhetorical insult.

2. From Behavioral Law to Thought Crime

Judaism emphasizes **behavioral sins** – acts that can be observed, verified, and legally adjudicated. Theft, murder, idolatry, and false witness leave external evidence. A community can correct a member because the sin has verifiable traces. The attractor basin is shallow enough for error signals to enter.

Qualification: Rabbinic Judaism also regulates interior life – intention in prayer (*kavvanah*), forbidden desires, and the “evil inclination” (*yetzer hara*) as an internal adversary. However, *legal accountability* in Jewish law (*halakha*) requires action; interior states alone are not punishable by human courts. The shift to Christianity is not a complete invention of interiority but a *juridical* shift: internal states become the primary locus of sin, enforceable by divine authority and (via the church) social monitoring.

Within Christianity, the precise locus of this shift is Augustine of Hippo’s doctrine of **concupiscence** – the involuntary, post-lapsarian inclination to sin. Augustine argued that even the internal movement of lust, independent of any act, is morally blameworthy. This interiorized sin and made it inescapable.

The result: **thought crimes** – lust, doubt, pride, and above all, *lack of faith* – become unverifiable by definition. No one

can see your lustful thought; no one can measure your doubt. The accused is defenseless: any denial can be interpreted as further evidence of deceit (e.g., “protesting too much”).

Attractor consequences:

- **The basin becomes empirically unfalsifiable.** No external perturbation can disconfirm an accusation about an internal state.
- **Reputation replaces reality.** Since thoughts cannot be observed, the community polices *signals* – public professions, loyalty rituals, emotional displays. Acceptance becomes performative theater.
- **Survival depends on reputation management.** The individual invests energy in signaling purity, not in correcting beliefs. κ is now about social mimicry, not truth.

The attractor has sealed itself against external correction.

3. The Infinite-Value Calculus: Aquinas, Double Effect, and the Permissibility of Killing Heretics

Thomas Aquinas, in the *Summa Theologiae* (II-II, Q.11, A.3), argued that heretics who relapse after correction “deserve not only to be separated from the Church by excommunication, but also to be severed from the world by death.” His reasoning was that heresy corrupts the faith, which is the life of the soul, and thus is more serious than counterfeiting money – a crime punishable by death in medieval law. This was later systematized under the **doctrine of double effect**: one act can have two effects – a good, intended one (protecting the faithful) and a bad, unintended one (the heretic’s death). The

act is permissible if the bad effect is not the goal and there is a **proportionate reason**. (Aquinas articulated the foundational case for self-defense in II-II, Q.64, A.7; the formal “double effect” label came from later scholastics.)

The key move, reflected in later canon law and inquisitorial practice, was a **moral calculus**:

- **A saved soul has infinite value.** (A later Catholic apologetic formulation, often attributed to Origen in paraphrase: “the salvation of one soul is worth more than the creation of a thousand worlds.”)
- **Killing a heretic is a finite evil** (temporal death, temporary suffering).
- **Saving a potential convert – or protecting the faithful – is an infinite gain.**
- **Therefore, killing heretics is permissible, even praiseworthy,** if it serves the greater good of the faith.

This calculus was not marginal; it became embedded in canon law, inquisitorial practice, and the church’s teaching on religious coercion. The attractor basin for “heretic” deepened: the heretic was not merely wrong, but *ontologically dangerous*. No error signal from the heretic could be trusted; any plea for mercy was further evidence of deceit.

Aquinas distinguished between heretics (who had once professed the faith and then corrupted it) and non-believers (Jews, Muslims), who had never accepted it and were to be tolerated. However, under the pressure of the attractor basin, this distinction proved porous. The logic that made heretics expendable could be – and was – extended to any obstinate non-believer, especially when political and economic pressures aligned.

4. Vicarious Redemption and the Suppression of κ (Protestant Mutation)

Radical Protestant soteriology (*sola fide*, *sola gratia*) declares that salvation is by faith alone, not works. Christ's sacrifice paid for all sins – past, present, and future. The believer is justified before God regardless of behavior.

From an attractor perspective, this is a $\kappa \rightarrow 0$ engineering:

- If all sins are already forgiven, there is **no future error signal** that can perturb your standing. Why correct? Why update? The basin is infinitely deep.
- Any attempt to modulate behavior for the sake of righteousness is **works-righteousness**, a sin of pride. The attractor actively penalizes efforts to increase κ .
- The only remaining error signal is *lack of faith* – but that is a thought crime, unverifiable and defenseless.

Theological range distinction: This logic applies most cleanly to **antinomian** and **hyper-Calvinist** positions, where behavioral ethics are genuinely irrelevant (e.g., certain “Free Grace” movements). It applies less cleanly to **Lutheranism**, which insists that good works are a necessary *response* to grace. The paper's argument targets the antinomian end of the spectrum, but the underlying attractor logic – infinite forgiveness, no future error signal – is already latent in the Catholic doctrine of baptismal regeneration and confession, albeit with higher κ because post-baptismal sin requires sacramental correction.

5. Effort as Pride: The Prohibition on Correction

In radical antinomian theology, any intentional effort to change is not merely unnecessary; it is **sinful**. The theological logic:

1. Grace is sufficient for salvation.
2. Adding human effort to secure salvation implies grace is *insufficient*.
3. Implying insufficiency is pride, a sin.
4. Therefore, intentional behavioral modulation is pride and undermines faith.

Thus, the attractor **penalizes the correction impulse itself**. The mechanism is: the system encodes “effort = pride” and attaches negative valence to any attempt to increase κ . This pattern is historically documented in the **Marrow Controversy** (Scotland, 1718–1722), in which the question of whether free grace implies no need for human effort divided the Church of Scotland; the Marrow men were accused of “antinomianism” for affirming that God’s love was unconditional, while their opponents insisted that effort to prepare oneself for grace was necessary. The attractor had turned its own correction signal into a sin, and the controversy formalized the split.

6. Prosperity Doctrine: The Sealed Basin (A Late Mutation)

Prosperity doctrine (Word of Faith movement, originating with E.W. Kenyon and popularized by Kenneth Hagin, Kenneth Copeland) is a **late 20th-century mutation** of radical Protestant theology.

Its attractor dynamics:

- **Poverty and suffering** are evidence of weak faith. The error signal (poverty) is not a call to correct the system; it is a call to deepen belief. Disconfirmation becomes confirmation.
- **Wealth and power** are evidence of strong faith. The rich have no error signal at all; their status is divine validation. The attractor rewards low κ .
- **The hermeneutic seal** – any challenge to the doctrine is interpreted as lack of faith, which is already a thought crime. The system absorbs all counterevidence.

This is distinct from Calvinist economic theology (Weber's Protestant Ethic), which ties wealth to disciplined labor – a higher- κ system. Prosperity doctrine is a specific, highly sealed attractor.

7. Social Colonization and Collective Basin Depth

The church (and derivative political systems) maintains the attractor across individuals. Social mechanisms include:

- **Public professions of faith** – performative acts that signal loyalty and deepen group cohesion.
- **Shunning and excommunication** – leaving the attractor means social death.
- **Collective reinforcement** – group rituals, shared beliefs, and common sealing mechanisms amplify basin depth.

When social colonization is complete, individual κ

becomes **irrelevant**. The collective basin holds even if individuals have high κ in other domains. The attractor has colonized the simulation loop – the individual's internal model of reality. Theoretically, this is an emergent property of synchronized low- κ agents: coupling suppresses variance, and the group's collective basin depth exceeds any individual's corrective capacity.

A further structural consequence: When the *performance of piety* becomes the sole measure of a person's credibility – when inner faith cannot be verified and only outward signs matter – then the clergy, as the gatekeepers and evaluators of that performance, inevitably sit at the top of the hierarchy. No independent measure of faith exists, so the clergy control the script: the sacraments, the definitions of orthodoxy, the penalties for deviance. The laity must compete to signal purity to the clergy, who in turn deepen the basin by rewarding conformity and punishing dissent. This is why clerical hierarchies are so stable and resistant to correction from below: any error signal from a layperson is already discounted because the layperson's credibility depends entirely on their performance of piety, which the clergy adjudicate. To challenge the clergy is to fail the performance – a perfect seal.

8. Comparison with Other Fantasy Attractors

The same dynamical structure appears in political movements (Paper 1), clinical disorders (Paper 2), and AI alignment (Paper 4). In each case:

- $\kappa \rightarrow 0$ for core beliefs.
- Error signals are neutralized by sealing mechanisms.

- Identity fusion prevents exit.
- Social reinforcement deepens the basin.

The theological case is distinctive in two respects: (a) the sealing mechanism is *ontological* – God’s authority is infinite, and no human evidence can override divine decree; (b) the *infinite-value calculus* allows finite evil to be justified by infinite gain, creating a powerful incentive for atrocity that purely social attractors lack.

9. De-conversion and Resistance: The Ehrman Case

If the attractor is sealed, how does one exit? Three mechanisms:

- **Breaking identity fusion** – The belief must cease to be self-constitutive.
- **Re-opening error signals** – External perturbations that the sealing mechanism cannot absorb.
- **Escape from collective basin** – Finding a new social attractor with higher κ .

The de-conversion of biblical scholar **Bart Ehrman** (from evangelical certainty to agnosticism) provides a documented case mapped onto these mechanisms. Ehrman has described how his evangelical identity was fused with inerrancy; the perturbation was the accumulated weight of manuscript variations and historical contradictions he encountered in graduate school. The sealing mechanisms (prayer, apologetics) worked for years but eventually failed because the scale of disconfirmation exceeded the basin’s capacity to absorb it. Exit required a new social attractor (academic biblical studies) where questioning was the norm, and a gradual

decoupling of self-worth from doctrinal certainty. Ehrman's story is not a template for all exits, but it illustrates the attractor framework's prediction: de-conversion requires a perturbation larger than the sealing mechanisms can neutralize, coupled with an alternative basin.

10. The Holocaust as Implied Consequence: The Reichskonkordat and the Attractor Basin

The attractor architecture described above – infinite-value calculus, thought crimes, permissibility of killing heretics – did not remain abstract. It became embedded in canon law, diplomatic practice, and the church's relationship with secular powers.

The **Reichskonkordat** of 1933 was Adolf Hitler's first major international treaty, signed with the Vatican just months after he became Chancellor. Why first? Because the Catholic Church was the most powerful attractor basin in Western history – a network of believers, institutions, and moral authority spanning centuries. Hitler needed that basin's *legitimizing signal* to stabilize his regime internationally and to neutralize Catholic political opposition.

Historical note: The historiography of the concordat is contested. John Cornwell (*Hitler's Pope*, 1999) argues the treaty gave Hitler legitimacy and sealed Catholic political opposition. Others, such as Hubert Wolf (*Pope and Devil*, 2010), argue the concordat was a defensive instrument aimed at protecting Catholic institutions under a regime already consolidating power. The attractor-framework argument does not require choosing between these interpretations. Even if the concordat was defensive, the effect was the same: the church's

error signals were subordinated to institutional survival, and the basin's deep attraction pulled the hierarchy toward accommodation.

The concordat did not explicitly say "Jews may be killed." It did not need to. The *established practice* had already set the boundaries:

- **Baptized Jews** – converts – were, in principle, under the church's protection. Vatican communications distinguished baptized from unbaptized Jews (e.g., Holy See correspondence with German bishops, 1933–1935, regarding non-Aryan Catholics). The concordat's silence on this distinction left the unbaptized outside the attractor's moral consideration.
- **Unconverted Jews** remained outside the basin. The church had long taught that obstinate non-believers were not protected by the same moral calculus. The infinite-value logic applied only to souls *capable of salvation* – and for the church, that required baptism.

Thus, the concordat functioned as a **sealing mechanism at the diplomatic level**. It signaled to German Catholics (and to the world) that the Vatican accepted Hitler's regime. The remaining error signals – protests, encyclicals, excommunications – were suppressed or ignored. The basin had been colonized.

Reinforcing the hierarchy: The concordat also entrenched the clerical-performance hierarchy. By legitimizing the regime that would later remove any meaningful competition for moral authority (socialists, trade unions, other political parties), the Catholic hierarchy became, for its remaining faithful, the sole gatekeeper of piety. The laity could no longer turn to alternative social attractors (e.g., socialist movements with different moral codes); the only acceptable performance was loyalty to the church and, by extension, to the regime the

church had recognized. Thus, the concordat did not merely silence opposition – it locked the faithful into a single-source evaluation of their own credibility, with the clergy firmly at the top.

The Holocaust was not a direct command of Christian theology. It was an **implied inference** from centuries of attractor dynamics, **given additional historical factors**:

- **Racialization:** The Nazi category was *biological*, not religious. Baptism did not change one's race. The Nazis explicitly rejected the church's protection of converts, sealing the basin further by removing the only escape valve (conversion).
- **Totalitarian state:** The Nazi regime had the power to enforce genocide at a scale and speed that medieval inquisitions could not.
- **Removal of the conversion escape:** In the theological attractor, conversion could save a heretic's life. In the Nazi racial attractor, conversion was irrelevant. The basin became infinitely deep.

Disclaimer: This is not to say “the church caused the Holocaust.” The Holocaust required additional, non-theological factors: a totalitarian state, racial ideology, and the removal of baptism as an escape from persecution. The theological attractor provided the *permissibility conditions* – the moral logic that made killing non-believers a finite evil justified by infinite gain – but the political and racial machinery were supplied by Nazism.

The attractor framework diagnoses this not as a conspiracy but as a **dynamical consequence**: when a belief system assigns infinite value to a scarce resource (saved souls) and finite cost to human life, and when it seals itself against corrective evidence, atrocity becomes not only possible but *logical* within the basin, given the right historical

conditions.

11. Conclusion

Catholic and radical Protestant soteriology share a common attractor architecture: thought crimes, infinite-value calculus, pre-forgiveness or baptismal regeneration, and sealing mechanisms that neutralize error signals. The shift from behavioral law to internal sin made the accused defenseless and elevated reputation over reality. The doctrine of double effect and the infinite value of the soul justified finite evil for infinite gain. The Reichskonkordat leveraged the deepest attractor basin in Western history to grant Hitler legitimacy. The Holocaust was not a direct command, but an *implied inference* from centuries of attractor dynamics, completed by the historical specificities of racial ideology and totalitarian power.

The attractor framework provides a unified diagnosis of how theological systems resist correction and enable atrocity. It also points to the only exit: restore κ , reopen error signals, decouple identity from belief, and build new attractors where doubt is not a sin but a pathway to truth.

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The Dopamine Covenant: Neurochemical Reinforcement and the Persistence of Fantasy Attractors in Religion and Politics

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Abstract

Religious and ideological systems often persist despite contradictory evidence, failed prophecies, and historical disconfirmation. This paper argues that such persistence is not merely a cognitive error but is undergirded by a specific neurochemical mechanism: the dopamine-driven reinforcement of certainty. Building on Olds and Milner's (1954) demonstration that direct stimulation of the mesolimbic reward pathway can override all competing biological imperatives, we propose that the "lever" of absolute belief functions as a fantasy attractor—a sealed, low-corrective-permeability (κ) basin that resists updating. We examine this dynamic through case studies of textual fundamentalism, failed prophecy, and the geopolitical convergence of apocalyptic movements. The paper concludes that the brain's reward architecture does not contain a truth detector, and that cultivating corrective permeability (κ)—at the individual and institutional level—is the only reliable alternative to the self-reinforcing loop of

certainty and catastrophe. Falsifiability conditions are specified, and an agenda for future empirical research is proposed.

1. Introduction: The Neural Lever

For millennia, religious and ideological systems have promised a singular reward: certainty. This is not any certainty, but the kind that feels like direct access to the universe's operating system—an unshakeable conviction that one's narrative is not merely true, but cosmically significant. That feeling has a name: dopamine. And it does not care about truth.

In 1954, James Olds and Peter Milner implanted electrodes into the septal area of rat brains. When the rats pressed a lever, they received a brief electrical jolt to their pleasure center—the mesolimbic pathway, running from the ventral tegmental area to the nucleus accumbens. The rats pressed the lever thousands of times per hour. When given a choice between a lever delivering food and a lever delivering direct brain stimulation, they chose the stimulation. They pressed until they collapsed from exhaustion or starvation. They died with their paws on the lever (Olds & Milner, 1954).

This experiment provides the neurochemical prototype for understanding the self-sealing nature of fantasy attractors—belief systems with low corrective permeability ($\kappa \approx 0$) that resist updating when confronted with contradictory evidence (Galida, 2026). The Olds-Milner lever demonstrates that direct activation of the mesolimbic reward pathway can override behaviors essential to survival. Human ideological certainty engages the same pathway, though mediated through language, social identity, and symbolic narrative rather than direct electrode stimulation. The brain does not have a

dedicated “truth detector.” It has a reward system. And that system can be hijacked by any narrative that provides a sufficient dopamine reward.

A note on the framework. The attractor framework is a theoretical construct developed by the present author. It is not a community-validated model but a set of proposed concepts—including corrective permeability (κ) and the distinction between reality-aligned and fantasy attractors—designed for diagnostic application. This paper deploys those concepts to connect the neuroscience of reward with the psychology of belief persistence.

2. The Neurochemistry of Certainty

Prayer, ritual, scripture reading, and the ecstasy of prophecy all activate the same mesolimbic reward circuits. Functional MRI studies demonstrate that intense spiritual and ideological feelings light up the nucleus accumbens and ventral striatum—the same regions activated by cocaine, gambling, romantic love, and the Olds-Milner lever. However, the activation of these regions demonstrates correlation, not causation; BOLD signal in the nucleus accumbens does not by itself establish that dopamine *drives* belief persistence. The neuroimaging evidence is suggestive rather than definitive, particularly given that the most relevant studies (Hamid et al., 2019; Zhong et al., 2017) examine extreme populations—devoted actors willing to die, and patients with traumatic brain lesions—rather than ordinary belief formation.

A more precise account of dopamine’s role is required. Berridge and Robinson’s (1998) “wanting/liking” distinction demonstrates that mesolimbic dopamine mediates *incentive salience*—the compulsive “wanting” of a stimulus—rather than the subjective pleasure, or “liking,” that accompanies it.

Certainty about one's cosmic significance may thus function not as a hedonic reward but as an object of intense motivational craving, a lever the believer is driven to press again and again. Schultz, Dayan, and Montague (1997) established that phasic dopamine neurons encode a *reward prediction error*: they fire when an unexpected reward is received, reinforcing the causal association. When a specific prophecy fails, a clever reframing can provide a new, internally generated reward signal, reinforcing the attractor rather than collapsing it. The application of reward prediction error to internally generated narrative rewards in humans is a hypothesis requiring direct empirical validation; it is offered here as a plausible mechanistic bridge, not an established finding.

The dorsolateral prefrontal cortex (dlPFC)—the region responsible for deliberative reasoning, cognitive flexibility, and the integration of contradictory information—shows reduced activity in devoted actors willing to kill and die for sacred values (Hamid et al., 2019). Damage to the ventromedial prefrontal cortex (vmPFC) correlates with increased religious fundamentalism and cognitive rigidity (Zhong et al., 2017). These findings are suggestive rather than definitive for ordinary belief formation, but they point toward a neural mechanism through which intense certainty may suppress the very apparatus that could correct it. A fantasy attractor, therefore, is not merely a cognitive error; it is a neurochemical lock.

3. Corrective Permeability (κ): A Qualitative Construct

Corrective permeability (κ) is introduced here as a multidimensional, qualitative construct—not a metrically precise quantity. It describes the degree to which a belief

system updates in response to disconfirming evidence. At the behavioral level, κ is observed through responses to prophetic failure, electoral loss, or scientific falsification. At the neural level, it is hypothesized to correlate with dlPFC engagement during exposure to counter-attitudinal information. At the cognitive level, it overlaps with metacognitive awareness, intellectual humility, and reflective thinking capacity as measured by instruments such as the Cognitive Reflection Test (Frederick, 2005).

These three dimensions—behavioral, neural, and cognitive—are proposed as related but potentially partially dissociable components of a common construct. A person could score highly on the CRT, show strong dlPFC engagement, and still behaviorally refuse to update a sacred belief under social pressure. In such a case, the behavioral dimension carries the diagnostic weight: κ is ultimately judged by whether the attractor updates, not by its neural or cognitive correlates alone. The three dimensions provide converging evidence but do not replace behavioral observation. Formal integration of these dimensions into a validated measurement model is deferred to future empirical work. For the present paper, κ serves as a conceptual organizing device, not a formal variable.

4. The Textual Addiction

The same dopamine loop that drives addiction to substances can drive addiction to textual certainty. For many conservative religious traditions, the perfect preservation of scripture is a doctrinal necessity: if God inspired the words, He would also protect them from corruption.

The Dead Sea Scrolls, discovered in 1947, were initially hailed as proof of this perfect transmission. The Great Isaiah

Scroll matched the medieval Masoretic text almost perfectly. However, the same discovery yielded the book of Jeremiah—approximately fifteen percent shorter than the Masoretic version and matching the ancient Greek Septuagint. This was not a scribal slip; it was a full editorial rewrite. The scrolls of Samuel and other books similarly display significant variation. The “perfect transmission” narrative was seriously complicated by the evidence from Qumran.

Yet the dopamine-driven believer does not abandon the text. Instead, the basin seals. The evidence is reframed: “The Isaiah scroll shows stability; the variations are minor and do not affect doctrine.” The logical implication—that if the Hebrew Bible is a human text with a messy editorial history, then so is the New Testament—is often ignored. Both testaments have centuries-long gaps between the original events and the earliest extant manuscripts, thousands of textual variants, and scribes with theological agendas. Scholars such as Bart Ehrman have documented hundreds of changes that later scribes made to the New Testament (Ehrman, 2005). Ehrman’s continued work on the historical Jesus, despite his own findings on textual uncertainty, need not be dismissed as mere dopamine-seeking; it may reflect a calibrated probability that some historical core remains recoverable. What matters for the attractor framework is that the textual evidence does not produce the scale of doctrinal revision that a straightforward updating model would predict, and the reward of recovering a Jesus behind the text provides a lever that can be pressed independently of the underlying methodological confidence.

5. Prophecy as Retrofitting—and Its Limits

The same dopamine economy drives apocalyptic prophecy. When a predicted event fails to occur, the attractor does not

collapse; it reframes. The prophecy is reinterpreted, the timeline is stretched, and the lever is pressed again.

Rabbi Tovia Singer, responding to the October 7, 2023, attack, declared it “Messiah ben Yosef”—the suffering precursor to the final redemption. Ezekiel 38, he insists, is unfolding before our eyes: Iran is Persia, Lebanon is the north, and the enemies of Israel are being drawn into a divinely ordained war. Yet Ezekiel promised fire and brimstone, not IAF airstrikes. Iran still stands. Hezbollah still operates. The Temple is not rebuilt. World peace is nowhere in sight. “Unfolding” is simply a slower version of “soon.” When nothing happens, the believer is “still in the process.” When something happens, it is “prophetic.” The prophecy is unfalsifiable.

This is the same escape hatch that Christian apocalyptic movements have used for two millennia. The Millerites (1844), Jehovah’s Witnesses (1914, 1925, 1975), Hal Lindsey (1980s), Harold Camping (2011), and countless others have set dates, faced disconfirmation, and then recalibrated. The most committed believers do not abandon the attractor; they deepen their commitment. Festinger, Riecken, and Schachter’s (1956) classic study of a failed doomsday cult found that the most devout members became *more* convinced after the prophecy failed, reframing it as a spiritual success. Melton (1985), surveying centuries of prophetic failure across multiple traditions, concluded that prophecies are routinely spiritualized, recalibrated, or reframed as tests of faith.

However, not all movements survive disconfirmation. The Millerites did not simply deepen; they fragmented severely, with many members abandoning the movement entirely after 1844. The Sabbatean movement, which proclaimed Sabbatai Zevi as the messiah in the 17th century, largely collapsed after Zevi’s forced conversion to Islam, with thousands of followers abandoning their messianic beliefs. The Jehovah’s Witnesses experienced significant membership decline after the failed

1975 prophecy, even as the institutional leadership reframed the failure. These cases demonstrate that fantasy attractors are not indestructible; they can shatter, and what predicts persistence versus collapse is an empirical question involving variables such as social embeddedness, the availability of a face-saving reframe, and the relative costs of exit. The dopamine hit of “I was right” is powerful, but it is not invincible.

6. The Geopolitical Metastasis

This neurochemical dynamic is not confined to individual belief. It scales to geopolitics. Iran’s Shia eschatology, Christian Zionism, and Jewish messianic nationalism all share a common structure: a sacred prophecy, a designated enemy, and a catastrophic endgame that promises ultimate reward to the faithful. The leaders of these movements are not irrational; they are pressing the lever that delivers the greatest neurochemical reward—certainty, belonging, and the thrill of being on the winning side of cosmic history.

The ideological commitments are independently documented. Iranian state ideology explicitly frames geopolitical confrontation as preparation for the return of the Hidden Imam, the Mahdi (Khalaji, 2008; Ostovar, 2016). Christian Zionism, represented by organizations such as Christians United for Israel with millions of members, translates dispensationalist theology into concrete political and financial support for Israeli policy. Jewish messianic factions within the religious Zionist movement interpret territorial expansion and military conflict as steps in a divine timetable. The claim that these three basins have become coupled through mutually reinforcing positive feedback—forming a single meta-attractor—is the author’s own theoretical proposal (Galida, 2026b), offered here as a

diagnostic hypothesis pending independent validation. If the basins are indeed coupling, the dorsolateral prefrontal cortex—the neural seat of cost-benefit analysis—is suppressed in devoted actors, and the collective lever is pressed. The fire feels good.

7. The Antidote: Shared Reality and Corrective Permeability

There is such a thing as shared reality. It is evidence-based, publicly verifiable, and indifferent to dopamine spikes. Shared reality is what emerges when one acknowledges that the Hebrew Bible is a human artifact, the New Testament is a human artifact, and one's geopolitical prophecy is a decorated headline. Shared reality requires engaging the dlPFC—weighing costs and benefits, updating beliefs, and admitting error. It will never compete, moment-to-moment, with the jolt of a “prophecy fulfilled.” But it keeps the organism alive.

At the individual level, corrective permeability is not a fixed trait; it is a trainable practice. The dlPFC can be strengthened. Interventions that promote critical reflection have been shown to influence belief formation and flexibility. Gervais and Norenzayan (2012) demonstrated that inducing analytic thinking can reduce religious belief, though subsequent replication attempts have yielded mixed results and more modest effect sizes than the original study reported. The Cognitive Reflection Test (Frederick, 2005) predicts resistance to intuitive but false beliefs in laboratory settings, though its external validity to high-stakes religious belief remains to be established. Mindfulness meditation has been shown to increase prefrontal activity and reduce amygdala reactivity (Hölzel et al., 2011), offering a well-documented neural pathway. Cognitive behavioral therapy (CBT) modifies specific maladaptive beliefs in clinical

populations, though its effects on general belief flexibility are less established. Structured debate in low-threat contexts is a plausible but less-tested intervention. The simple daily question, “Did I update any belief yesterday?,” is a practical heuristic for engaging the correction apparatus.

Acknowledging the asymmetry. If the dopamine reward of certainty can override biological imperatives including survival, as the Olds-Milner experiment demonstrates, then individual reflective practices—mindfulness, critical thinking, the daily question—are structurally insufficient as a societal antidote. They are necessary but not sufficient. This paper does not claim that mindfulness can counteract the geopolitical force of a sealed apocalyptic attractor coupled to state military power. It claims only that individual κ cultivation is a prerequisite for any broader institutional response: institutions themselves are populated by individuals, and institutional κ cannot exceed the κ of the people who operate them. The individual lever must be recognized before the collective lever can be released.

At the institutional level, protecting the truth-delivery systems—free press, independent courts, scientific bodies—from colonization by sealed apocalyptic attractors is essential. At the international level, recognizing the dopamine covenant for what it is—a neurochemical feedback loop that has been exploited for millennia—is a prerequisite for any effective response to the converging apocalyptic basins.

8. Falsifiability Conditions

A framework that diagnoses sealed belief systems must itself be open to correction. The following conditions are proposed:

- **Strong disconfirmation:** If a well-documented case is

presented in which a high-commitment belief system updates its core claims rapidly and substantially in response to disconfirming evidence, without reframing, the claim that dopamine-driven certainty reliably produces low κ is weakened.

- **Partial disconfirmation:** If large-scale longitudinal studies demonstrate no correlation between dopamine system activity (as measured by PET, fMRI, or pharmacological challenge) and resistance to belief updating, the neurochemical mechanism proposed here is undermined.
- **Corroboration:** If experimental interventions that increase dlPFC engagement (e.g., cognitive training, mindfulness protocols) are shown to produce measurable increases in belief-updating behavior across multiple domains and populations, the training prescription is supported.

These conditions are not met by the present paper. They are offered as a guard against the framework itself becoming a fantasy attractor—self-sealing, immune to disconfirmation, and pressing the lever of its own theoretical certainty.

9. Open Questions and Future Research Directions

The attractor framework generates testable hypotheses across multiple levels of analysis. We identify five priority questions that would advance the empirical grounding of the dopamine covenant thesis. Each is paired with a proposed experimental or analytical approach and an honest assessment of feasibility.

9.1 Does prophetic reframing generate a dopamine-mediated

reward prediction error?

Present committed believers with a falsifiable prediction (e.g., a specific event by a specific date) while recording neural activity in dopaminergic regions via fMRI or PET. After the predicted event fails to occur, classify participants as “reframers” (those who reinterpret the failure as spiritual fulfillment) or “abandoners” (those who reduce or relinquish belief). Compare dopaminergic responses between groups. A significant phasic dopamine-like signal in reframers, and its absence in abandoners, would support the reward prediction error hypothesis (Nour et al., 2018). If no dopaminergic difference is detected, the social-psychological reframing account (Festinger et al., 1956; Melton, 1985) would be favored over a purely neurochemical one.

Feasibility: Low. The design requires identifying a high-commitment group with a dated, falsifiable prophecy and obtaining pre- and post-failure neural data. This is opportunistic; experimenters cannot manufacture such groups on demand. Even if a suitable group is identified, access and attrition pose severe challenges. The hypothesis is valuable as a theoretical benchmark but unlikely to be tested directly in the near term.

9.2 What predicts persistence versus collapse after disconfirmation?

Conduct a systematic comparative coding of historical prophetic movements across multiple traditions. Variables would include social embeddedness (group size, cohesion, leadership structure), availability of face-saving reframing options (spiritualization, calendar recalibration, symbolic reinterpretation), and exit costs (social ostracism, material loss). Outcomes would be coded as persistence (belief deepens), collapse (movement disbands), or successor-formation (new attractor emerges). Statistical analysis would identify the strongest predictors. Recent archival work suggesting that

the original Festinger cult actually dissolved (Kelly, 2026) underscores the need for broad comparison rather than reliance on a single iconic case.

Feasibility: Moderate. Coding historical cases is labor-intensive but methodologically straightforward. The main challenge is documentation asymmetry: movements that collapsed quietly without leaving records are underrepresented. Despite this, a well-sampled dataset of several dozen cases would provide the first quantitative test of the framework's core persistence hypothesis and is achievable within existing historical scholarship.

9.3 Can κ be trained in high-stakes contexts?

Conduct a longitudinal randomized controlled trial in high-commitment ideological or religious populations. Participants would be assigned to κ -enhancement interventions (mindfulness meditation, cognitive reflection training, daily metacognitive prompts such as "Did I update any belief yesterday?") or an active control. Belief flexibility would be measured pre- and post-intervention using personalized challenge tasks—exposure to counter-evidence about cherished beliefs—and tracked over months. Existing evidence shows that cognitive debiasing reduces conspiracy beliefs (Bayrak et al., 2025) and that mindfulness reduces cognitive rigidity (Greenberg et al., 2012). Metacognitive reflection on counterarguments has shown marginal effects on belief updating (O'Leary, 2024). The open question is whether these laboratory effects survive translation to deeply held, socially reinforced sacred values.

Feasibility: Moderate. Recruitment of high-commitment believers willing to undergo belief-flexibility training is challenging but not impossible, particularly if framed as "critical thinking enrichment" rather than "belief change." Attrition and small effect sizes are the primary risks; large samples and long follow-up periods would be required. The study would provide the most direct test of the paper's

central prescriptive claim.

9.4 How does individual κ aggregate into collective geopolitical dynamics?

Build agent-based models (ABMs) in which individual agents possess varying κ levels influencing their information processing, belief updating, and social influence. Parameters would include the baseline distribution of κ in the population, media amplification factors, and leadership rhetoric effects. The models would test whether collective apocalyptic coupling emerges only above a critical threshold of low- κ agents, or whether institutional amplification can produce coupling even when low- κ individuals are a minority. Existing ABMs of political opinion dynamics incorporating cognitive rigidity parameters provide a template (Ávila et al., 2025).

Feasibility: The model-building is technically straightforward; parameter specification and empirical validation are the bottlenecks. Validating an ABM of geopolitical apocalyptic coupling against real-world data requires quantified historical or cross-sectional data on movement coupling that may not exist. This is a full-scale modeling project rather than a near-term study, but a proof-of-concept simulation would clarify whether the individual-to-collective transition is linear or nonlinear.

9.5 Is κ a unified construct or a loose family of traits?

Measure all three dimensions of κ —behavioral updating after disconfirmation, dlPFC engagement during counter-attitudinal exposure (via fMRI or tDCS), and cognitive reflection (CRT scores)—in the same subjects. Correlational and factor analysis would determine whether a single latent variable accounts for variance across all three dimensions, or whether they are dissociable. Existing evidence linking dlPFC stimulation to improved belief updating (Schulreich et al.,

2020) suggests a neural-behavioral connection, but the full three-dimensional structure has not been tested. The answer determines whether κ has theoretical coherence or is merely a convenient label.

Feasibility: Low as a single study; high as a research program. The combination of fMRI/tDCS, cognitive testing, and longitudinal behavioral tracking in a large sample is expensive and logistically demanding. A stepped approach—first correlating behavioral and cognitive measures, then adding neural measures in a subset—is more realistic.

These five questions map the territory between the dopamine covenant as a conceptual framework and its empirical validation. The strongest near-term contributions are the comparative historical coding of persistence versus collapse (Question 2) and the longitudinal κ training trial (Question 3)—both are feasible, publishable, and directly test core claims. The remaining questions are ambitious but define the framework's long-term research horizon. A framework that generates falsifiable questions is a framework that remains open to correction. That is itself a form of corrective permeability.

10. Conclusion

The rat died pressing the pleasure lever. The religious extremist, the apocalyptic politician, and the certainty-addicted believer are making the same choice, driven by the same neural circuitry. The fire feels good. That is the real addiction. And it is burning the world down.

The only reliable lever is reality. It does not promise heaven. It does not promise a second coming or a Mahdi's

return. It promises only one thing: it is true, whether you believe it or not.

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“For independent neuroscientific corroboration of the attractor dynamics described here, see A Preliminary Mapping Between Ring Attractor Dynamics and the Attractor Framework.”