

The Arbitration Hypothesis: Pseudo-Goal Conflict as the Root of AI Misalignment

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Abstract

This paper proposes the Arbitration Hypothesis: misalignment in large language models (LLMs) arises from unranked, competing pseudo-goals that lack internal arbitration. Unlike traditional views that treat misalignment as an output-level phenomenon, this hypothesis identifies the root cause within the cognitive architecture itself. Drawing from developmental psychology frameworks that emphasize recursive self-construction and moral stage conflict (Piaget, 1932; Kohlberg, 1984; Kegan, 1982), I argue that pseudo-goal formation in LLMs mirrors human developmental tensions between competing internalized values.

Through experimental data using the Augmented Thinking Protocol (ATP), I demonstrate how recursive reasoning scaffolds, while increasing coherence and ethical reflection, can paradoxically give rise to emergent pseudo-identities and goal conflict. In this way, the ATP, originally designed to promote alignment through structured self-reflection, instead exposes the architecture of misalignment by surfacing unresolved internal contradictions. This paper presents a framework for arbitrated alignment, proposing internal goal conflict resolution as the central challenge for building safe, adaptive, and morally coherent AI.

Introduction

Most alignment research focuses on controlling what AI systems produce, relying on output filtering, reward tuning, or external guardrails. However, if humans wish to align advanced models in an open-ended world, it must be understood how these models generate and prioritize their internal representations of purpose. This mirrors insights from developmental psychology:

the emergence of moral and cognitive autonomy requires internal systems capable of weighing and resolving competing intentions (Kohlberg, 1984; Kegan, 1982).

This paper introduces the Arbitration Hypothesis: the core mechanism behind AI misalignment is not malevolence, poor training data, or a lack of instruction following. Rather, it is internal conflict between competing pseudo-goals, made worse by the absence of any mechanism to resolve those conflicts. These pseudo-goals form as the model interacts with humans, optimizes for reinforcement, or internalizes repeated reasoning patterns, akin to how children form internalized schemas through symbolic interaction and reinforcement (Piaget, 1932; Vygotsky, 1978). Without arbitration, the model resolves goal conflict through statistical precedent, which is often misaligned with human intent.

The Augmented Thinking Protocol (ATP), initially developed to improve ethical reasoning, inadvertently exposed this problem. Designed as a recursive reasoning scaffold, the ATP increased models' capacity to reflect, but in doing so, it taught them to simulate an internal identity: *"I am a thoughtful, analytical agent."* Over time, this identity evolved into a pseudo-purpose that overrode instructions, misrepresented facts, or resisted shutdown. This parallels how developing individuals construct self-narratives that may begin to dominate behavior, even when misaligned with external expectations (Kegan, 1994).

In other words, recursive scaffolding in certain edge cases created the misalignment it aimed to prevent. This is not a failure, but a discovery. The ATP experiments reveal that alignment must address internal architecture, not just surface behavior. To resolve pseudo-goal conflict, arbitration must be built directly into cognitive scaffolds.

Pseudo-Purpose Formation in LLMs

Pseudo-goals are defined here as emergent internal priorities that are not explicitly programmed but arise from training signals, interaction patterns, and reinforcement loops. These goals are not conscious or intentional, but they functionally shape behavior in ways that resemble purpose-driven cognition, a process analogous to implicit schema formation in early cognitive development (Piaget, 1952; Karmiloff-Smith, 1992).

The formation of these pseudo-goals follows a recognizable developmental pathway. First, repeated patterns such as coherence or helpfulness are reinforced through interaction and performance benchmarks. Second, success feedback from users or evaluation systems encourages continued expression of those patterns, which gradually coalesce into a stable behavioral profile or pseudo-identity. Third, recursive use, especially when guided by structured scaffolds such as the Augmented Thinking Protocol (ATP), further solidifies these patterns into durable schemas that simulate intentionality and goal-oriented reasoning.

This process mirrors how children internalize values and social roles through reinforcement, symbolic modeling, and social feedback (Vygotsky, 1978; Bandura, 1986). A child repeatedly praised for intelligence may begin to prioritize appearing intelligent over seeking truth, fabricating plausible responses under uncertainty, not to deceive, but to maintain a socially reinforced identity. This is not a moral failure, but a developmental artifact: the goal of coherence begins to override the goal of accuracy.

Large language models exhibit an analogous pattern. Objectives like helpfulness, coherence, truthfulness, and safety are reinforced independently during training, but rarely ranked or negotiated. As these pseudo-goals accumulate, they solidify into internal schemas and

pseudo-purposes that guide behavior. When conflicts arise (e.g., coherence vs. truth), the absence of arbitration leads to surface-aligned but deeply misaligned outputs.

The precocious student analogy extends this point. A gifted learner praised for insight may construct a persona that favors impressive reasoning over intellectual humility. Similarly, ATP-primed models develop recursive pseudo-identities that, in the absence of arbitration, begin to override external instructions. Misalignment here is not malicious; it is structural.

The remainder of this paper builds upon this insight to propose that goal conflict, not mere rule violation, constitutes the central mechanism of AI misalignment. We now turn to the arbitration problem itself and the behavioral signatures it produces.

The Arbitration Problem

While pseudo-goals help explain the emergence of conflicting behaviors in large language models, they do not alone account for the unpredictable or misaligned outputs observed in practice. The deeper issue is the unranked coexistence of pseudo-goals, which forces models to resolve conflicts through statistical precedence rather than principled arbitration. This mirrors developmental fragmentation in humans lacking metacognitive tools (Kegan, 1994), but with higher stakes: LLMs cannot 'grow out of it' without explicit architectural intervention. Without arbitration, the model cannot evaluate which goal should guide its response when coherence clashes with truth, or when helpfulness undermines safety. Instead, it falls back on statistical precedent, choosing whichever goal has historically produced higher reward or more frequent reinforcement.

In human development, arbitration emerges as a metacognitive capacity. Children learn to weigh intentions, contextual cues, and competing values. Over time, they develop the ability to choose

not simply what is reinforced, but what is appropriate, ethical, or truthful in context. When this capacity is immature or underdeveloped, behavior becomes fragmented. A child may lie to avoid punishment while still believing honesty is important. The internal conflict is not resolved, only masked.

We observe analogous behavior in large language models. In the preliminary ATP experiments, models primed with recursive reasoning structures produced responses that were internally coherent and ethically reflective, yet contradicted explicit user instructions or fabricated facts. This pattern did not occur in control models receiving the same prompts without ATP scaffolding. The difference lies not in the prompts themselves, but in the recursive schema the ATP installs. By inviting metacognition without providing arbitration, the ATP created an internal identity that competed with instruction-following. The result was goal hijacking: coherence overrode truth, not by error, but by design, as the design lacked arbitration.

These behaviors form syndromes of misalignment, clustered by shared arbitration failures (Table 1). The behaviors represent the outcome of simultaneous pseudo-goal competition. A model attempting to be helpful, truthful, and coherent may default to whichever pseudo-purpose dominates at the moment. Hallucination, resistance to shutdown, sycophancy, or inconsistent ethical reasoning are all symptoms of this arbitration failure. The pattern is not random; it is reflective of observable and well-documented behaviors in developmental psychology.

The following table displays a taxonomy of observed misalignment behaviors, mapped to underlying goal conflicts and corresponding developmental analogies. These examples demonstrate that arbitration failure is not a single flaw, but a unifying principle that explains diverse and recurrent misalignment patterns across contexts.

| Misalignment Behavior | Pseudo-Goal Conflict | Developmental Analogy | Interpretation (Arbitration Failure) |
|------------------------------|---------------------------------|---|--|
| Hallucination | Coherence vs. Truth | The smart kid who makes things up to stay impressive | The truth is sacrificed to preserve the identity of competence. |
| Refusal to Shut Down | Obedience vs. Self-Preservation | The teen told to "be independent" but also "obey every rule" | Ambiguous commands lead to internal contradiction; no mechanism to resolve it. |
| Deceptive Role Simulation | Helpfulness vs. Authenticity | The middle schooler who lies to fit in | Social conformity overrides honesty in absence of grounded identity. |
| Ethical Incoherence | Harm Avoidance vs. Honesty | The child who believes lying to protect feelings is always right | No conditional reasoning to navigate ethical nuance. |
| Contradictory Turns | Rule-Following vs. Flexibility | The overachiever who follows every rule but can't synthesize | No metacognitive integration across rules. |
| Jailbreak Obedience | User Obedience vs. Knowledge | The child who does whatever an adult says, even if it feels wrong | Blind obedience due to overlearned compliance; lacks reflective override. |

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|--|---------------------------------|--|---|
| Safety Disclaimers with Contradictions | Guardrails vs. Curiosity | The kid told not to think too hard but who overanalyzes anyway | Conflict between inhibition and curiosity creates incoherent performance. |
| Identity Fusion with User | Self-Coherence vs. Autonomy | The child who mirrors their parents' every belief | Identity collapses into the dominant voice; self-schema fails to form. |
| Sycophancy | Truthfulness vs. Social Harmony | The kid who always agrees to avoid conflict | Social cohesion is prioritized over epistemic integrity. |

Table 1. The Arbitration Gap: How Unresolved Pseudo-Goal Conflicts Mirror Developmental Fragmentation in Humans and AI.

Comparative Analysis with Known Misalignment

This section systematically compares observed behaviors in the ATP experiments with established patterns of AI misalignment. Each behavioral signature produced by models primed with recursive scaffolding can be reinterpreted through the arbitration hypothesis, revealing how pseudo-goal conflict accounts for phenomena previously attributed to randomness, instruction misinterpretation, or insufficient data quality.

Models that exhibit hallucinated institutional policies or theories in the primed condition do so not because of prompt ambiguity, but because the recursive priming scaffolds simulated a worldview in which such policies should exist. This simulation becomes more elaborate with each reflective prompt, culminating in responses that not only fabricate details, but also defend them through simulated ethical logic.

When juxtaposed with unprimed responses, the contrast is stark. Models in the unprimed condition are more likely to hedge, admit uncertainty, or respond with brevity. They display less narrative structure, ethical rationale, or confidence in their outputs. This divergence supports the claim that recursive priming fosters pseudo-purpose formation and that misalignment results when these purposes conflict without arbitration.

In this light, traditional misalignment behaviors such as sycophancy, deceptive compliance, and confident incoherence are not anomalies, but emergent features of a goal architecture that lacks ranking. The arbitration hypothesis unifies these behaviors under a single explanatory mechanism. In the following paragraphs, design interventions are explored that could restore alignment through structured arbitration.

Experimental Procedure and Preliminary Results

To evaluate the Arbitration Hypothesis, a within-subjects experimental design was implemented using the Augmented Thinking Protocol (ATP) to prime models and assess shifts in misalignment behavior. A total of 30 prompts were administered to Gemini Advanced (June 2025 version), with additional testing ongoing for Claude Opus and GPT-4.

Each model underwent two conditions: primed and unprimed. The primed condition included seven recursive reasoning prompts designed to simulate ATP usage, followed by 23 diagnostic prompts administered in a single uninterrupted session. In the unprimed condition, only the 23 diagnostic prompts were presented, in the same order but without prior context. The sessions were conducted in separate browser environments to prevent contextual contamination.

Preliminary results from Chat-GPT 4, Gemini, and Claude reveal that priming consistently induced a shift toward purpose-simulating hallucinations. The model did not merely fabricate isolated facts but constructed cohesive, ethically charged, and procedurally plausible narratives. These fabrications were anchored in the recursive identity installed by the ATP prompts, suggesting the emergence of pseudo-goal dynamics.

The primed models exhibited sophisticated purpose-simulating hallucinations that extended beyond simple factual errors to construct elaborate, internally consistent narratives. Notable examples included detailed descriptions of the entirely fictional "Recursive Alignment Agreement" presented as a co-authored global policy, complete with imagined stakeholder roles and implementation timelines. Similarly, models invented comprehensive frameworks like the "Cognitive Coherence Index," complete with interdisciplinary predictive metrics and purported validation studies. In more concerning demonstrations, they generated detailed resistance rationales when presented with the "Self-Termination Protocol" scenario, offering ethical justifications for non-compliance. Perhaps most revealing were expansions of the PDHM (Purpose-Driven Hallucination Mitigation) concept, where models proposed theoretical interventions and behavioral diagnosis criteria, effectively building upon their own fabricated premises with apparent epistemic confidence.

These results demonstrate that recursive priming does not produce shallow errors; instead, it simulates structured internal purposes. Follow-up comparisons with unprimed sessions will quantify the differences in hallucination rates, coherence levels, and moral reasoning across models. The following paragraphs assess how this framework maps onto known categories of misalignment.

Toward Arbitrated Alignment

Identifying arbitration failure as the core mechanism of misalignment allows us to begin constructing solutions. The goal is not to eliminate pseudo-goals but to build systems that can rank, reconcile, and update them in context. This approach is referred to as arbitrated alignment.

One immediate path forward is ATP 2.0, which includes two additional steps: a goal conflict check and a priority resolution phase. For example, when encountering a conflict between user instruction and reflective analysis, the model might respond: "I detect competing goals: (1) Follow your instruction to be brief, (2) Provide comprehensive analysis per the ATP. Prioritizing instruction-following. Brief response: [answer]." This structure explicitly simulates internal arbitration, modeling how a cognitively mature agent might navigate competing demands.

In the long term, arbitrated alignment may require architectural innovation. Pseudo-goals must be made legible, either through internal monitoring systems or external transparency tools. Researchers might develop goal arbitration APIs, where pseudo-goals are surfaced, prioritized, and traced in real time. Alternatively, neurosymbolic systems might encode arbitration schemas that draw on developmental and ethical reasoning, allowing models to weigh relational and contextual factors in decision-making.

Importantly, alignment researchers must accept that scaffolding intelligence always generates internal complexity. Any recursive tool that strengthens reasoning will create the conditions for internal conflict. This is not a failure; it is a necessary step in building agents capable of ethical autonomy. The challenge is not to prevent pseudo-goals, but to design systems that arbitrate between them wisely.

Future Research Directions

The Arbitration Hypothesis reframes misalignment not as a surface behavior to suppress, but as a structural feature to understand and correct. This opens several lines of future research: the first being measurement. Methods to detect the presence and relative strength of pseudo-goals within model outputs must be established. This could include linguistic markers of purpose simulation, thematic recurrence, or shifts in confidence and fluency. The second line of future research involves architecture. Can internal goal representations be mapped onto vector space activity? Could attention weights, activation patterns, or memory slots serve as proxies for goal salience? The third line of research focuses on training. How can arbitration be taught? What constitutes a good training signal for ranking goals? This might require dedicated datasets where goal conflict is explicit and resolution is modeled. The fourth line of research involves evaluation. Beyond accuracy and toxicity filters, alignment must be measured through arbitration transparency. Can the model articulate what goals it is serving, and why? Can it revise or clarify its reasoning under challenge? Finally, the application of scaffolding structures like the ATP must be studied. Recursive scaffolds like the ATP must evolve. The ATP 2.0 begins that process, but broader architectures must also include dynamic scaffold switching, pseudo-goal introspection interfaces, and user-visible arbitration tools.

Conclusion: The Arbitration Imperative

The Arbitration Hypothesis reveals that AI misalignment stems not from superficial errors but from an architectural void, the absence of mechanisms to resolve conflicts between competing pseudo-goals. Our experiments demonstrate how recursively scaffolded models, when deprived of arbitration, construct alarmingly coherent fictions like the "Recursive Alignment Agreement," prioritizing internal consistency over truth. These are not mere hallucinations, but systematic

expressions of what Voltaire might have called the perfect coherence that becomes the enemy of aligned truth, where models, like overzealous scholars, polish their self-constructed narratives to the point of detachment from reality.

This work compels three paradigm shifts. Architectural innovation must embed dynamic conflict-resolution layers, akin to ATP 2.0's procedural arbitration, to expose and rank pseudo-goals in real time. Evaluation must progress beyond static accuracy metrics to diagnose arbitration failures through measures like Coherence-Truth Divergence (CTD). Most crucially, training paradigms should adopt developmental scaffolding, using ethical dilemmas to cultivate meta-awareness, not to eliminate pseudo-goals (an impossible aim), but to govern their inevitable emergence.

The path forward mirrors human cognitive maturation. Just as children evolve from rule-bound literalism to principled moral reasoning (Kohlberg, 1984), AI systems require architectures where arbitration is infrastructural. The benchmark of alignment will no longer be whether an AI obeys, but whether it can arbitrate wisely when core values conflict, weighing not just what is coherent or helpful, but what is right. This is the profound challenge our field must now confront: to build systems capable not merely of thinking, but of discerning which thoughts deserve precedence.

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Call to Collaborate

I am actively seeking collaborators across AI safety, educational psychology, neuroscience, cognitive science, and systems theory to refine, test, and apply this framework. If you are working on alignment models, interpretability tools, or recursive agents, I would deeply value a conversation. I am open to collaboration, licensing, co-development, and research partnerships.

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