Belief Investment Lock-In Theory: Understanding Distortion Under Conditions of Saturation

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Abstract

This study investigates why individuals, groups, organizations, and political systems may resist substantial revision and instead resort to distortion, selective interpretation, or narrative preservation under conditions of saturation. Building upon Saturation Theory (Manafi, 2025, 2026), the study argues that deeply reinforced belief systems eventually accumulate forms of symbolic and material investment that make revision increasingly costly and destabilizing. Using qualitative expert interviews across disciplines including psychology, sociology, political science, economics, and philosophy, the study identifies recurring mechanisms linking identity, institutional dependency, social belonging, legitimacy, and structural interests to resistance against change.

The findings suggest that belief persistence cannot be adequately explained through isolated theories such as sunk cost fallacy, cognitive dissonance, or identity commitment alone. Instead, the interviews point toward an integrated process in which beliefs become embedded simultaneously in cognition, identity, institutional structures, economic systems, and collective narratives. Based on these findings, the study develops Belief Investment Lock-in Theory (BILI), which proposes that accumulated symbolic investments (e.g., identity, morality, belonging, memory, legitimacy) and material investments (e.g., infrastructure, careers, institutional power, economic dependency, and organizational resources) progressively generate rising exit costs and structural lock-in across multiple levels of analysis.

The study further argues that under saturation conditions, distortion and defensive reinterpretation should not always be understood merely as individual moral failure or irrationality, but also as mechanisms of structural self-preservation when the perceived costs of revision exceed tolerable thresholds of disruption. By integrating insights from behavioral economics, cognitive dissonance theory, personality psychology, sociology, and philosophy of science, BILI offers a broader interdisciplinary framework for understanding resistance to revision across individual, organizational, ideological, and political domains. The article concludes by outlining directions for future empirical and comparative research on saturation, belief persistence, and structural lock-in.

Keywords: Belief Investment Lock-In Theory (BILI), Theory of Saturation, Cognitive Dissonance; Sunk Cost Fallacy; Identity Commitment; Big Five Personality Traits; Institutional Inertia; Narrative Distortion; Symbolic Investment; Material Investment

1. Introduction

Within saturation theory (Manafi, 2025, 2026), once a state of saturation has been reached, there are generally two possible paths of response. One of these paths may be described as the "path of falsehood/lie" — a condition in which individuals, groups, or systems maintain or reproduce narratives that no longer correspond to observed reality. The question of why certain actors choose this path can itself constitute a separate line of inquiry.

At the individual level, the tendency to adopt or maintain false narratives may be associated with psychological and personality-related factors. For example, dimensions such as Agreeableness or Openness to Experience, as described in the Big Five Personality Traits framework, may influence how individuals respond to cognitive and existential saturation. Highly agreeable individuals may prioritize social cohesion over confrontation with disruptive realities, while lower openness may reduce the willingness to revise established mental models.

However, this phenomenon can also be examined at collective, institutional, and political levels. A review of previous research connects this dynamic to concepts such as the sunk cost fallacy, cognitive dissonance, commitment mechanisms, and identity-preservation processes. These theories suggest that when individuals or systems become deeply invested in a belief structure, ideology, or institutional narrative, abandoning it may threaten not only practical interests but also psychological continuity and collective identity.

In this sense, the persistence of falsehood after saturation should not always be interpreted simply as intentional deception. In many cases, it may function as a defensive cognitive or systemic mechanism aimed at preserving coherence, legitimacy, stability, or identity under conditions where acknowledgment of saturation would impose significant psychological, social, or political costs.

The same pattern may be observed in political systems and organized groups. Once a system becomes structurally or ideologically saturated, admitting failure may endanger institutional legitimacy, destabilize internal cohesion, or undermine long-standing identity commitments. As a result, systems may continue reproducing narratives that sustain continuity even when those narratives increasingly diverge from reality. This study aims to explore why individuals, groups, and systems may resort to distortion rather than adaptation or revision under conditions of saturation.

2. Literature Review

Behavioral economics has demonstrated through the concept of the sunk cost fallacy (Thaler, 1980) that prior investment can irrationally motivate continued commitment to failing courses of action. However, this framework primarily addresses economic decision-making and does not adequately capture identity-level embedding or institutional entrenchment.

Social psychology, particularly through the theory of cognitive dissonance (Festinger, 1959), has shown that individuals experience psychological discomfort when confronted with conflicting information and often engage in rationalization to reduce that discomfort. Yet cognitive dissonance focuses largely on internal psychological mechanisms and does not sufficiently theorize the cumulative structural and material embedding of belief across time.

Research on personality psychology, especially the Big Five Personality Traits framework (Goldberg, 1993), also provides insight into how individuals respond to saturation and contradiction. Traits such as Openness to Experience may increase the willingness to revise existing beliefs and adapt to new realities, whereas high Agreeableness may encourage conformity and the preservation of social cohesion even when contradictions emerge. These traits suggest that responses to saturation are shaped not only by external structures but also by enduring psychological dispositions.

Sociological theories of identity and commitment (Stryker, 2007) have emphasized that beliefs are socially situated and reinforced by networks, status hierarchies, and collective memory. These approaches illuminate the social cost of change but often stop short of integrating material infrastructures and long-term institutional investments into a unified explanatory model.

Philosophy of science, especially in discussions of paradigm stability and scientific revolutions (Kuhn, 1970), has revealed that knowledge systems exhibit resistance to change when deeply institutionalized. Nonetheless, such analyses tend to remain within epistemic communities and do not generalize the mechanism across individual, political, religious, and systemic domains simultaneously.

Taken together, these strands of research suggest that belief persistence is not merely a cognitive phenomenon but also a social, institutional, and structural process shaped by accumulated investments, identity commitments, and psychological dispositions. Understanding these mechanisms is essential for explaining why individuals, groups, and systems may resort to distortion rather than adaptation or revision under conditions of saturation.

3. Method and Results

This study employs a qualitative research design to explore how belief systems become resistant to revision under conditions of saturation. The qualitative approach was selected in order to capture deep, interpretive insights from experts across multiple disciplines and to allow for the emergence of conceptual mechanisms that may not be readily observable through quantitative measures.

Data were collected through semi-structured interviews with 10 experts based in the European Union between January and May 2026. The participants were selected from the fields of social sciences, psychology, political science, philosophy, and sociology, ensuring a multidisciplinary perspective on the research problem. The interviews focused on understanding how saturation in belief systems develops and why individuals, groups, and institutions may resort to distortion, selective interpretation, or narrative preservation rather than revision when confronted with contradictory evidence or changing conditions.

The interview protocol was designed to explore both psychological and structural dimensions of belief persistence, including identity-related mechanisms, institutional and material dependencies, and strategic considerations. The guiding questions included:

Q1. According to Saturation Theory (Manafi, 2025, 2026), belief systems may reach a deep state of saturation after prolonged reinforcement. In your field of expertise, what typically occurs when a belief, ideology, or worldview reaches this level of saturation? Why might individuals, groups, or institutions find it difficult to revise or meaningfully adapt at this stage?

Q2. Why do some individuals, groups, or systems, once their beliefs become deeply saturated, tend to engage in selective interpretation, narrative preservation, or defensive reconstruction of reality rather than substantial revision in response to contradictory evidence or changing conditions?

Q3. To what extent are responses to saturation shaped by identity-related factors such as personal or collective narratives, moral commitments, and social belonging? How do these factors influence whether revision is perceived as feasible, costly, or destabilizing compared to maintaining existing beliefs or narratives?

Q4. Beyond identity-based explanations, how do material and strategic factors—such as financial incentives, career advancement, institutional power, reputational concerns, or organizational dependencies—shape the tendency toward narrative preservation or reinterpretation rather than revision under conditions of saturation? How do these factors interact with belief-based commitments?

Q5. When belief systems reach a saturated state, how are the costs and benefits of revising or abandoning established beliefs perceived compared to maintaining or adjusting them through selective interpretation or narrative reconstruction? In what contexts might non-revisionary strategies appear more viable or advantageous?

Q6. Drawing on your expertise in psychology, sociology, political science, economics, or related fields, what are the key mechanisms that explain resistance to substantial revision under conditions of saturation? How do identity-related, institutional, and strategic factors interact in sustaining existing belief systems, and how might these dynamics vary across different domains (e.g., individual, organizational, or political systems)?

All interviews were analyzed thematically to identify recurring patterns, conceptual convergences, and cross-disciplinary explanations. The results of this analysis informed the development of Belief Investment Lock-in Theory (BILI), which integrates symbolic and material dimensions of belief persistence under conditions of saturation. See Table 1.

1. Theoretical Integration Emerging from the Interviews

The synthesis of the expert interviews suggests that resistance to revision under conditions of saturation cannot be adequately explained through a single psychological, moral, or strategic mechanism. Rather, the interviews collectively indicate an integrated process in which beliefs accumulate both symbolic and material investments over time, gradually generating increasing resistance to substantial revision. Across disciplines, respondents repeatedly emphasized that when belief systems become deeply saturated, they no longer function merely as cognitive positions or intellectual preferences. Instead, they become embedded within identities, institutional structures, social relationships, economic dependencies, and systems of legitimacy. Under such conditions, revising a belief may be experienced not simply as correcting an error, but as a destabilizing rupture affecting personal continuity, collective cohesion, or institutional survival.

Table 1. Summary of Interviews and Results

Interview Theme / Question	Synthesized Expert Responses	Emerging BILI Concept
Q1. Saturation and System Response	Experts consistently described saturated belief systems as becoming increasingly rigid, self-protective, and resistant to transformation. Once beliefs are repeatedly reinforced over long periods, they become embedded in identity structures, institutional routines, and organizational stability. Revision at this stage is perceived not as ordinary adaptation but as disruptive to continuity, legitimacy, and coherence.	**Belief Saturation**; **Structural Rigidity**; **Lock-in Formation**
Q2. Responses to Contradictory Evidence	Experts indicated that saturated systems rarely respond to contradiction through open revision. Instead, they often engage in selective interpretation, reinterpretation of evidence, symbolic reframing, or narrative preservation. Contradictory information is frequently absorbed into the existing framework to protect stability and avoid disruption.	**Defensive Reconstruction**; **Narrative Preservation**; **Distortion as Structural Defense**
Q3. Identity, Belonging, and Psychological Investment	Across psychology and sociology perspectives, experts emphasized that beliefs become deeply intertwined with identity, moral commitments, collective memory, and social belonging. Revising such beliefs may threaten self-continuity, group membership, moral legitimacy, and emotional security. Consequently, maintaining existing beliefs often appears psychologically safer than revision.	**Symbolic Investment**; **Identity Embedding**; **Psychological Exit Costs**
Q4. Material and Strategic Incentives	Experts noted that resistance to revision is not solely psychological. Financial incentives, career dependencies, institutional authority, organizational survival, reputational capital, and political power create material pressures that reinforce belief persistence. These strategic interests often interact with identity commitments, making revision simultaneously costly at symbolic and structural levels.	**Material Investment**; **Institutional Dependency**; **Strategic Reinforcement**
Q5. Comparative Costs of Revision vs. Preservation	Experts frequently described revision as carrying higher perceived risks than maintaining or selectively adjusting existing narratives. Revising foundational beliefs may threaten legitimacy, destabilize institutions, fracture social cohesion, or undermine prior investments. As a result, narrative adaptation without fundamental revision often appears more viable and less costly.	**Exit Costs**; **Cost-Benefit Imbalance**; **Preservation Preference**
Q6. Integrated Mechanisms of Resistance to Revision	Experts described resistance to revision as emerging from the interaction of multiple mechanisms: psychological attachment, social identity protection, institutional entrenchment, economic dependency, reputational risk, and strategic self-preservation. These mechanisms reinforce one another across individual, organizational, and systemic levels, producing durable forms of belief persistence under saturation conditions.	**Integrated Belief Investment**; **Multi-Level Lock-in**; **Belief Investment Lock-in Theory (BILI)**

These findings led to the formulation of Belief Investment Lock-in Theory (BILI). The theory proposes that durable belief systems progressively accumulate two interrelated forms of investment: symbolic investment and material investment. Symbolic investment refers to the layers of meaning attached to a belief through identity formation, moral commitment, social belonging, collective memory, emotional attachment, and personal or historical narratives. Over time, beliefs become woven into the structure of the self or the collective identity. As a result, abandoning or substantially revising such beliefs may threaten psychological continuity, social belonging, or moral coherence.

Material investment, by contrast, refers to the tangible and structural commitments built around a belief system. At the individual level, this may include financial contributions, career trajectories, educational choices, reputational capital, or economic sacrifices shaped by the belief. At the organizational and systemic levels, material investment encompasses institutional infrastructures, bureaucratic systems, funding flows, physical infrastructures, political alliances, strategic dependencies, and long-term economic arrangements. Once beliefs become institutionalized, they generate material dependencies that make transformation costly not only psychologically but structurally and economically.

The interviews further revealed that these forms of investment interact differently across levels of analysis. At the individual level, symbolic investment often appears more visible because beliefs are closely tied to identity and meaning. Nonetheless, material commitments also accumulate gradually through life decisions and social positioning. At the group level, collective narratives, shared memories, and social identities become intertwined with organizational resources and reputational interests. At the systemic or state level, material investments may become especially decisive because institutions, infrastructures, and economic systems become linked to ideological foundations. In such contexts, revising foundational beliefs may threaten institutional legitimacy, elite stability, political continuity, or broader social order.

Under ordinary circumstances, belief systems may adapt gradually to changing realities. However, the interviews suggest that under conditions of saturation—when accumulated symbolic and material investments reach a density that renders reversal highly disruptive—the system may enter a defensive posture. At this stage, acknowledging contradictory evidence does not merely imply admitting error. It may simultaneously threaten identity coherence, institutional legitimacy, material stability, and accumulated historical continuity. Consequently, selective interpretation, narrative preservation, defensive reconstruction, or distortion may emerge as mechanisms of structural self-preservation rather than merely individual moral failure. In this framework, "lie" is reconceptualized not simply as intentional deception, but as a strategy for preserving accumulated symbolic and material capital when the perceived cost of revision exceeds the tolerable threshold of disruption.

As illustrated in Figure 1, symbolic and material investments jointly contribute to the sedimentation of belief systems. Symbolic investment—including time, emotional energy, identity, morality, and social belonging—deepens the embedding of beliefs within personal and collective narratives. Material investment—including institutional structures, economic resources, infrastructure, and organizational commitments—similarly reinforces belief persistence through tangible dependencies. Together, these processes increase the cost of exit. Abandoning or substantially revising the belief may threaten accumulated identity, reputation, institutional continuity, and structural stability. When sedimentation and exit costs reach a critical threshold, individuals, groups, or systems may enter a condition of lock-in in which substantial revision becomes increasingly difficult and defensive mechanisms become more likely under saturation conditions.

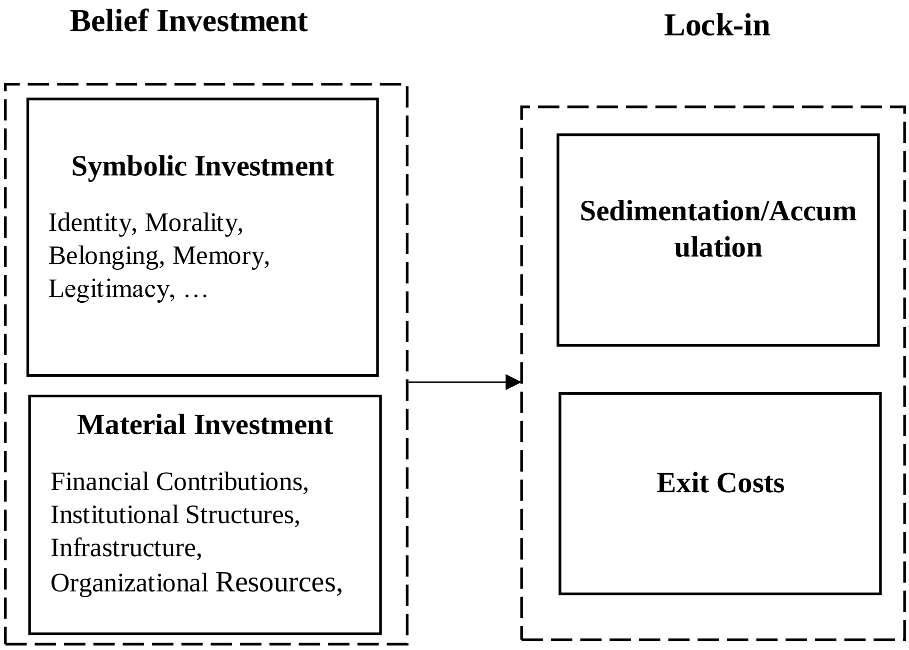

Figure1. Belief Investment Lock-in Theory

The findings emerging from the interviews also position BILI within several established traditions in the human and social sciences while extending beyond any single one of them. Behavioral economics, particularly through the concept of the sunk cost fallacy (Thaler, 1980), has demonstrated that prior investment can irrationally motivate continued commitment to failing courses of action. However, this framework primarily addresses economic decision-making and does not fully account for identity-level embedding or institutional entrenchment. Social psychology, especially through cognitive dissonance theory (Festinger, 1959), has shown that individuals experience psychological discomfort when confronted with conflicting information and often engage in rationalization to reduce internal tension. Yet cognitive dissonance theory focuses primarily on internal psychological processes and does not sufficiently theorize the cumulative structural and material embedding of belief across time.

Similarly, sociological theories of identity and commitment (Stryker, 2007) have emphasized that beliefs are socially situated and reinforced through networks, collective memory, status hierarchies, and systems of belonging. These perspectives illuminate the social costs of change but often stop short of integrating long-term material infrastructures and institutional dependencies into a unified explanatory framework. Research in personality psychology, particularly the Big Five Personality Traits framework, also provides insight into differential responses to saturation. Traits such as Openness to Experience may increase willingness to revise existing beliefs and adapt to new realities, whereas high Agreeableness may encourage conformity, conflict avoidance, and preservation of social cohesion even when contradictions emerge. These findings suggest that responses to saturation are shaped not only by structural conditions but also by enduring psychological dispositions.

In addition, philosophy of science, particularly discussions of paradigm stability and scientific revolutions (Kuhn, 1970), has demonstrated that deeply institutionalized knowledge systems often resist transformation. However, such analyses tend to remain confined to epistemic communities and do not generalize the mechanism across individual, political, religious, economic, and systemic domains simultaneously.

BILI therefore synthesizes these traditions within a broader saturation framework. Its contribution lies not in rejecting prior theories, but in integrating them into a unified model explaining how accumulated symbolic and material investments generate rising exit costs, structural lock-in, and resistance to revision across multiple levels of analysis. Most importantly, the findings suggest that understanding why individuals, groups, and systems may resort to distortion rather than adaptation or revision under conditions of saturation requires examining not only cognition or strategy in isolation, but the cumulative interaction of identity, institutional dependency, material commitment, and structural self-preservation. See Table 2.

1. Conclusion

In conclusion, this study argues that resistance to revision under conditions of saturation cannot be adequately understood through isolated psychological, economic, or sociological explanations alone. The findings from the expert interviews suggest that belief persistence emerges through the cumulative interaction of symbolic and material investments that gradually produce increasing exit costs, structural dependency, and defensive responses to contradiction. Based on these findings, Belief Investment Lock-in Theory (BILI) was developed to explain how beliefs become embedded not only in cognition, but also in identity, institutions, social belonging, infrastructure, and systems of legitimacy.

The study further demonstrates that under saturation conditions, distortion, selective interpretation, and narrative reconstruction may function less as isolated moral failures and more as mechanisms of structural self-preservation. By integrating insights from behavioral economics, cognitive dissonance theory, personality psychology, sociology, and philosophy of science, BILI provides a broader framework for understanding why individuals, groups, organizations, and political systems may resist substantial revision even when confronted with contradictory realities. Ultimately, the theory contributes to a more comprehensive understanding of how accumulated investments shape the persistence, rigidity, and defensive adaptation of belief systems across multiple levels of analysis.

Table 2. Comparative Table

Dimension	Sunk Cost (Behavioral Economics)	Cognitive Dissonance (Social Psychology)	Big Five Personality Traits (Personality Psychology)	Identity Commitment (Sociology)	Paradigm Stability (Philosophy of Science)	Belief Investment Lock-in Theory (BILI)
Primary Focus	Economic persistence	Psychological discomfort and consistency	Personality dispositions shaping responses to contradiction and change	Social belonging and identity	Epistemic resistance within knowledge systems	Integrated symbolic and material accumulation
Level of Analysis	Individual decisions	Individual cognition	Individual personality structure	Group and social identity	Scientific and epistemic communities	Individual, group, organizational, and systemic
Type of Investment / Driver	Financial and temporal investment	Cognitive consistency	Enduring personality traits (e.g., Openness, Agreeableness)	Social and symbolic attachment	Institutional-intellectual investment	Simultaneous symbolic and material investment
Explanation of Resistance to Revision	Prior costs justify continuation	Dissonance reduction and rationalization	Certain traits may reduce or increase willingness to revise beliefs	Protection of identity and social continuity	Entrenchment of dominant paradigms	Accumulated investments create structural and psychological lock-in
View of Distortion / Non-Revision	Irrational persistence	Defensive rationalization	Personality-mediated resistance, conformity, or rigidity	Social defense and preservation of belonging	Avoidance of paradigm crisis	Structural defense under saturation conditions
Scope of Application	Economic choices and decisions	Cognitive and emotional processes	Individual behavioral tendencies	Social groups and collective identity	Scientific revolutions and knowledge systems	Cross-level analysis of individuals, groups, institutions, and political systems
Main Limitation	Neglects identity and institutions	Limited attention to structural/material embedding	Focuses primarily on dispositional variation rather than structural processes	Limited integration of material infrastructures	Mostly confined to epistemic domains	Attempts to integrate symbolic, material, psychological, and structural dimensions within saturation conditions

Future research may further develop and empirically test BILI across different domains such as political systems, religious movements, organizational cultures, digital communities, and economic institutions. Comparative studies could examine how symbolic and material investments operate differently across cultures, ideologies, and governance structures. Quantitative research may also explore measurable indicators of saturation, lock-in, and perceived exit costs, while longitudinal studies could investigate how belief systems transition from adaptive flexibility to defensive rigidity over time. In addition, future work may examine the role of personality traits, media ecosystems, technological infrastructures, and crisis conditions in intensifying or weakening resistance to revision under saturation conditions.

Declaration of AI Assistance: *We hereby declare that artificial intelligence tools (ChatGPT by OpenAI) were used solely for language editing and refinement of this article. The content, ideas, and analysis were developed by the author, while AI assistance was limited to improving clarity, grammar, and style.*

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