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Modeling Hoaxing as a Structured Behavioral Process: Constraints, Signatures, and Explanatory Limits

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Abstract

Hoaxing is frequently invoked as a global explanation for anomalous biological reports associated with Bigfoot, yet it is rarely examined as a structured human behavior subject to incentives, constraints, and detectable patterns. This paper evaluates hoaxing as a competing explanatory model by treating it as an intentional process rather than a rhetorical dismissal. Drawing on research in deception, rumor propagation, and social signaling, the analysis examines where hoaxing plausibly accounts for reported material, which evidence classes are most vulnerable, and what statistical and behavioral signatures would be expected if hoaxing were the dominant driver of the report corpus. The goal is not to minimize the role of hoaxing, but to delimit its explanatory reach and clarify its function as a filtering rather than terminating explanation.

1. Introduction: Hoaxing as Explanation vs. Hoaxing as Process

In skeptical discourse, the assertion that anomalous reports are “hoaxes” often functions as a conversational endpoint rather than an analytical claim. While intentional deception undeniably occurs in domains involving folklore, cryptids, and extraordinary claims, invoking hoaxing without examining its structure obscures more than it clarifies (Fine, 2007).

This paper treats hoaxing not as a residual category for inconvenient data, but as a **behavioral process** with identifiable motivations, operational limits, and observable signatures. If hoaxing explains a substantial portion of the Bigfoot report corpus, it should do so in ways that are consistent, scalable, and empirically recognizable. Where it fails to meet those criteria, its explanatory scope must be correspondingly constrained.

2. Defining Hoaxing in Analytical Terms

For the purposes of this analysis, **hoaxing** is defined as the intentional fabrication or manipulation of evidence or testimony with the aim of deceiving others. This definition explicitly distinguishes hoaxing from:

- misperception or honest error (Kahneman, 2011),
- exaggeration without intent to deceive (Allport & Postman, 1947),
- cultural storytelling or mythic embellishment (Dégh, 2001),
- interpretive disagreement about ambiguous stimuli (Nickerson, 1998).

Hoaxing may occur at different scales, ranging from solitary acts to coordinated efforts, and may be motivated by attention, amusement, financial gain, ideological expression, or participation in folklore. Analytical clarity requires that these forms be separated from non-deceptive error, as each carries different implications for evaluating a report corpus.

3. Why Hoaxing Is a Plausible Partial Explanation

There are strong reasons to expect hoaxing to appear in any long-running body of anomalous reports. Domains characterized by public interest, ambiguity, and low barriers to entry are especially susceptible to intentional fabrication (Fine & Ellis, 2010).

Historical examples from wildlife reporting, archaeology, and pseudoscience demonstrate that hoaxes can persist long enough to attract serious attention before being exposed, particularly when institutional skepticism is weak or media incentives favor novelty (Feder, 2010).

Additionally, certain forms of claimed evidence—particularly narrative accounts and low-quality imagery—are relatively inexpensive to fabricate and difficult to falsify conclusively. A defensible analytical framework must therefore assume the presence of hoaxing rather than treat it as exceptional.

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4. Evidence Classes Most Vulnerable to Hoaxing

Not all reported material is equally susceptible to intentional fabrication. Hoaxing is most plausible in contexts characterized by anonymity, lack of corroboration, and absence of verifiable provenance. These include:

- single-witness narratives without environmental detail,
- reports emerging rapidly after media attention or popular releases (Goode & Ben-Yehuda, 2009),
- physical “evidence” lacking documented chain of custody (Feder, 2010),
- online submissions with unverifiable origin or identity,
- claims emphasizing dramatic or sensational features over specificity.

Acknowledging these vulnerabilities is not a concession to wholesale dismissal, but a necessary step in evidence triage.

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5. Structural Constraints on Hoaxing at Scale

5.1 Coordination and Consistency

Sustained deception across large geographic areas and long temporal spans requires either improbable coordination or repeated independent fabrication that nonetheless converges on stable features. Most known hoaxes rely on centralized authorship or tightly coupled social networks, limiting their reach and durability (Fine & Ellis, 2010).

5.2 Temporal Persistence

Intentional fabrications tend to exhibit **temporal compression**: rapid emergence, peak attention, and eventual collapse following exposure or waning interest (Goode & Ben-

Yehuda, 2009). By contrast, Bigfoot reports have persisted for decades with relatively stable core descriptors, suggesting dynamics that extend beyond episodic hoax cycles.

5.3 Increasing Cost with Evidence Complexity

The effort required to fabricate convincing evidence rises sharply with complexity. Coherent behavioral descriptions, consistent track morphologies across substrates, and long-duration acoustic patterns impose increasing technical and logistical costs on deception. Research on fraud and deception consistently shows that complexity increases exposure risk and reduces sustainability (Vrij, 2008).

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6. Exemplars: What Known Hoaxes Teach Us

This section presents **three illustrative hoax exemplars**, selected not for notoriety but for the **generalizable lessons** they provide about hoax dynamics.

6.1 Media-Driven Fabrication

Several well-documented scientific and pseudo-scientific hoaxes emerged in tandem with intense media coverage, exhibiting rapid amplification and equally rapid collapse once expert scrutiny was applied. These cases illustrate **media dependence**, wherein attention precedes evidence volume and withdrawal of attention precipitates decline (Fine, 2007; Goode & Ben-Yehuda, 2009).

6.2 Single-Actor or Small-Group Deception

Other hoaxes originated from one or a small number of individuals producing repeated claims or artifacts. These cases demonstrate **centralized authorship**, stylistic consistency, and vulnerability to exposure once patterns are recognized (Feder, 2010). Such hoaxes rarely propagate independently across regions or persist beyond the involvement of their originators.

6.3 Performative or Play-Based Hoaxes

Some hoaxes arise from playful or expressive motives rather than sustained deception. These often feature exaggerated elements, rapid narrative drift, and limited concern for internal consistency. Research on rumor and legend transmission shows that such low-investment fabrications display high feature instability and short lifespans (Allport & Postman, 1947; Dégh, 2001).

Collectively, these exemplars illustrate that hoaxes tend to be temporally bounded, socially localized, and structurally fragile—properties that can be compared against broader report patterns.

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7. Statistical Expectations Under a Hoax-Dominant Model

If hoaxing were the primary driver of the Bigfoot report corpus, several expectations would follow:

- strong temporal clustering around media events,
- rapid mutation of descriptive features,
- concentration near population centers,
- weak correlation with environmental variables,
- decay following exposure or loss of attention (Goode & Ben-Yehuda, 2009).

While some reports exhibit these properties, the persistence and geographic breadth of the overall corpus suggest that hoaxing alone does not account for all observed patterns.

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8. Distinguishing Hoax-Compatible Reports Without Attribution of Intent

The analytical goal of modeling hoaxing is not to identify liars or to adjudicate individual credibility, but to evaluate whether reported observations exhibit structural properties **compatible with intentional fabrication**. Because hoaxing is a human behavior rather than a detectable biological signal, it cannot be inferred directly from content alone. Instead, compatibility must be assessed probabilistically, across multiple dimensions, and without attributing motive or intent to individual reporters.

No single feature reliably distinguishes hoaxing from non-hoaxing. However, research on deception, rumor transmission, and social incentives suggests that hoaxing tends to leave **patterned signatures** across incentives, narrative structure, provenance, and temporal behavior (Allport & Postman, 1947; Fine, 2007; Vrij, 2008).

8.1 Incentive Alignment

Reports are more compatible with hoaxing when they coincide closely with identifiable incentives, such as media attention, public controversy, monetization opportunities, or

social reward. Hoaxes tend to follow attention rather than precede it, with report frequency increasing during periods of heightened public interest and declining afterward (Goode & Ben-Yehuda, 2009).

By contrast, reports less compatible with hoaxing often emerge in the absence of obvious incentive structures, involve no attempt at amplification, and generate no follow-up engagement from the reporter.

8.2 Provenance and Reporting Context

Hoax-compatible reports frequently exhibit weak or opaque provenance, including delayed reporting without explanation, absence of contemporaneous notes, inconsistent chains of custody for physical evidence, or reluctance to permit independent examination (Feder, 2010).

Reports less suggestive of hoaxing more often include mundane contextual detail, partial uncertainty, or admission of ambiguity. Immediate or reluctant reporting, especially when unaccompanied by an effort to publicize the account, reduces compatibility with intentional fabrication.

8.3 Narrative Structure and Optimization

Intentional fabrications tend to be **narratively optimized**. They often present clean story arcs, dramatic escalation, culturally salient motifs, and a degree of internal coherence tuned to audience expectations. Research in deception indicates that fabricated accounts frequently prioritize plausibility and impact over uncertainty (Vrij, 2008).

In contrast, reports less compatible with hoaxing commonly display fragmented structure, awkward sequencing, extraneous detail, or unresolved confusion. Such reports may appear incomplete, unsatisfying, or disappointing even to the witness, reflecting the absence of deliberate narrative shaping.

8.4 Feature Maximalism and Constraint

Hoax-compatible reports often exhibit **feature stacking**, combining multiple extraordinary elements within a single event. These may include clear visual detail, aggressive behavior, vocalizations, and additional anomalous features that collectively exceed what would be expected under constrained observational conditions.

Reports less compatible with hoaxing more often contain a single anomalous element, lack culturally stereotyped features, and remain constrained by environmental or perceptual limitations. Hoaxes tend to over-deliver; constrained observations tend not to.

8.5 Temporal Stability Under Scrutiny

Hoaxes frequently degrade under repeated examination. As inconsistencies are identified, details may drift, new elements may be introduced to patch weaknesses, or prior claims may be reinterpreted. This instability reflects the increasing cognitive and logistical cost of maintaining deception over time (Vrij, 2008).

Reports less suggestive of hoaxing often show stability in core features across retellings, or even a reduction in certainty as witnesses reflect on their experience. Loss of confidence over time is more compatible with honest uncertainty than with fabrication.

8.6 Ethical Constraints on Interpretation

It is essential to emphasize that structural compatibility with hoaxing does not establish intent, nor does the absence of hoax-compatible features constitute evidence of authenticity. Honest observers may produce reports that resemble fabrications, and deceptive reports may appear mundane. Accordingly, hoaxing must be treated as a probabilistic filter rather than a diagnostic label.

The purpose of this evaluative framework is to improve analytical discipline, not to enable accusation.

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9. Hoaxing in Relation to Other Explanatory Models

Hoaxing operates alongside, not in place of, other mechanisms such as misidentification and cultural transmission. Treating hoaxing as a universal explanation risks obscuring the distinct signatures of these processes (Nickerson, 1998). More productively, hoaxing can be modeled as **noise** that must be filtered before evaluating residual patterns.

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10. Synthesis: Hoaxing as Necessary but Insufficient

Hoaxing explains some reports well and many claims superficially. It is an essential consideration in any evaluative framework. However, its structural constraints—limited scalability, temporal fragility, and rising cost with complexity—restrict its ability to account for the full range of reported material.

The presence of hoaxing within a report corpus does not invalidate that corpus, but neither can it be ignored. Hoaxing functions most effectively as a **filtering mechanism**, not as a terminating explanation.

11. Implications for Analysis

Explicitly modeling hoaxing improves analytical rigor by clarifying what it can and cannot explain. Doing so reduces rhetorical overuse, sharpens skepticism, and preserves interpretive discipline. Subsequent papers examine how cultural transmission, evidence modality, and residual patterns interact with the constraints identified here.

References

Allport, G. W., & Postman, L. (1947). *The psychology of rumor*. Henry Holt.

Dégh, L. (2001). *Legend and belief: Dialectics of a folkloric genre*. Indiana University Press.

Feder, K. L. (2010). *Frauds, myths, and mysteries: Science and pseudoscience in archaeology* (7th ed.). McGraw-Hill.

Fine, G. A. (2007). *Rumor, trust, and civil society*. University of Chicago Press.

Fine, G. A., & Ellis, B. (2010). *The global grapevine: Why rumors of terror and threats spread*. Oxford University Press.

Goode, E., & Ben-Yehuda, N. (2009). *Moral panics: The social construction of deviance* (2nd ed.). Wiley-Blackwell.

Kahneman, D. (2011). *Thinking, fast and slow*. Farrar, Straus and Giroux.

Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology*, 2(2), 175–220.

Vrij, A. (2008). *Detecting lies and deceit: Pitfalls and opportunities* (2nd ed.). Wiley.