Special Theory of Nuclear Weapons Corpus: Part II — The Epistemic Event Horizon

Terrence Ross

Independent Researcher

This paper is the second of a three-part Special Theory of the Nuclear Weapons Corpus.

Abstract

The Nuclear Weapons Corpus constitutes a singular structure that embeds all observers and institutions within its field. This paper derives the epistemological limits implied by that singularity. Three postulates—Internal Non-Observability, Breakdown of Inductive Continuity, and Semantic Drift—establish the existence of an epistemic event horizon beyond which classical political, historical, and strategic concepts lose coherence. An invariant relation is introduced to characterize the collapse of referential stability as one approaches the Nuclear Weapons Corpus.

1 Introduction

The Nuclear Weapons Corpus (NWC), previously described as an historical singularity rather than a set of discrete instruments, organizes the field in which all nuclear knowledge is produced. No vantage point external to this field exists. The present analysis examines the epistemological consequences of this condition. When observers and institutions are embedded within the structure they attempt to describe, their descriptive and predictive capacities are governed by that structure. This leads to an epistemic boundary analogous to the event horizon surrounding a gravitational singularity.

This paper derives that boundary from a small number of postulates and formulates an invariant relation that expresses the limiting behavior of nuclear knowledge at the horizon.

2 Internal Non-Observability

Let the NWC be represented as a system S in which all observers $O \subset S$ are necessarily participants. A complete description of S would require a position external to it. Since no such position exists, the structure of the NWC precludes any global or coherent characterization.

Postulate I. *No observer embedded within the Nuclear Weapons Corpus can obtain a complete, stable, or coherent description of the system that contains them.*

This is a structural limitation rather than an informational one. All nuclear doctrines and strategic frameworks are therefore partial and frame-dependent.

3 Breakdown of Inductive Continuity

Prior to the emergence of the NWC, the continuity of political and military history allowed the extrapolation of future events from past patterns. This inductive structure fails near the singularity.

Postulate II. *The inductive continuity of political and historical reasoning collapses as systems approach the Nuclear Weapons Corpus.*

Past conflicts do not model nuclear conditions. Classical induction loses validity under the conditions defined by the singularity.

4 Semantic Drift Near the Horizon

As one approaches the NWC, nuclear terminology loses stable reference. Terms such as *deterrence*, *use*, *defense*, *strike*, *stability*, and *victory* progressively cease to denote coherent or empirically grounded concepts.

Postulate III. *Key nuclear terms undergo semantic drift near the Nuclear Weapons Corpus, losing the referential stability required for coherent description.*

Language becomes ritualistic rather than descriptive. The field imposes conditions under which stable meaning erodes.

5 The Invariant Relation

Let $K(x)$ denote the coherence or referential stability of nuclear knowledge at a conceptual distance x from the NWC, and let $R(x)$ denote the referent corresponding to that knowledge.

As $x \to S$:

$$\lim_{x \to S} \frac{K(x)}{R(x)} = 0.$$

In words: as one approaches the Nuclear Weapons Corpus, the coherence of nuclear knowledge approaches zero.

This expresses the *epistemic event horizon*: the boundary at which classical categories fail to retain descriptive integrity.

6 Consequences for Nuclear Doctrine

From the invariant relation, several consequences follow:

1. **No doctrine can describe the system it attempts to govern.**
   The conditions of observation collapse near the horizon.

2. **Models of nuclear conflict presuppose the continuity they seek to predict.**
   A nuclear detonation is a system-event that terminates the epistemic frame in which modeling occurs.

3. **Stability cannot be defined from within the system.**
   Observers embedded inside the NWC cannot determine the conditions of global stability.

4. **Deterrence lacks empirical grounding.**
   Its logic appeals to inductive continuity, which does not exist near the singularity.

These consequences are not contingent on political assumptions; they derive from the structural properties of the Nuclear Weapons Corpus.

7 Conclusion

The Nuclear Weapons Corpus generates an epistemic boundary beyond which historical induction, strategic reasoning, and linguistic stability fail. This epistemic event horizon marks the limit of meaningful description. A general theory must account for system dynamics and frame transformations within and across this boundary. The conditions for such a theory are established here.

Discussion

1. How does internal non-observability alter the meaning and limits of nuclear expertise?

2. If induction collapses near the singularity, in what sense can nuclear strategy be considered predictive?

3. Can deterrence theory be evaluated scientifically if its central claims cannot be tested or falsified?

4. In what ways do accident scenarios and automated systems challenge the assumption of deliberate control?

5. What forms of oversight are possible within the epistemic event horizon?

6. How might these constraints appear when extended to other global catastrophic risks?

Further Reading

- Nick Bostrom (ed.), *Global Catastrophic Risks* (Oxford University Press, 2008).
- Nick Bostrom, *Superintelligence: Paths, Dangers, Strategies* (Oxford University Press, 2014).
- Garry Wills, *Bomb Power: The Modern Presidency and the National Security State* (Penguin, 2010).
- Robert Jay Lifton and Richard Falk, *Indefensible Weapons: The Political and Psychological Case Against Nuclearism* (Basic Books, 1984).
- Stanley Kubrick (dir.), *Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb* (Columbia Pictures, 1964).