

The Future as the Cause of the Past: Paradoxes in Narrative

Dmytro Lande, Leonard Strashnoy

Abstract

This article explores a specific case of a time paradox in chronicles, where a shaman's prediction of future events leads to an illusion of reverse causality. Through the interaction between the shaman, the chronicler, and the reader, it is analyzed how future events can be perceived as causes of past ones. Cryptological methods are applied to formalize this process, enabling the description of the interaction between prediction, recording, and interpretation. The article demonstrates how the use of cryptological analogies can explain the confusion of chronological links in a narrative, where the future is perceived as the cause of the past.

Keywords: time paradox, chronicle, reverse causality, cryptology, causal relationships, prediction.

Introduction

Time paradoxes are frequently encountered in narrative structures, where cause-and-effect relationships between events are nonlinear. This article examines a specific case of such a paradox in chronicles, where a shaman's prediction of future events influences the reader's perception, resulting in reverse causality. Cryptological methods are employed to formalize this process, structuring the interaction between the shaman, the chronicler, and the reader.

Interaction Model

Let our system consist of three participants:

- S – the shaman (Merlin), who predicts future events.
- N – the chronicler (Nestor), who records events in the chronicle.
- A – the reader (Alice), who interprets the chronicle.

Events are represented as follows:

- E_1 – an event or occurrence recorded in the chronicle.
- E_2 – a future event predicted by the shaman.
- $T(E)$ – the time when event E occurred.

Prediction and Recording

1. Merlin's Prediction:

The shaman predicts a future event E_2 , so $P_S(E_2) = E_2$, with the prediction time $T(P_S(E_2)) < T(E_2)$.

In other words, the shaman predicts future event E_2 , where $P_S(E_2)$ is the prediction of event E_2 , and it occurs before the actual event.

2. Nestor's Recording:

The chronicler records event E_1 along with the cause predicted by the shaman $P_S(E_2)$, i.e.:

$$N(E_1) = \{ E_1, P_S(E_2) \}$$

Here, the chronicler Nestor writes that event E_1 occurred because the future event E_2 was predicted.

3. Alice's Interpretation:

The reader Alice interprets that event E_1 happened because of E_2 , creating a time paradox:

$$A(N(E_1)) \implies T(E_2) < T(E_1).$$

In this case, Alice perceives that the future event E_2 occurred before the past event E_1 , because the cause-and-effect relationship in the chronicle was based on prediction.

The Time Paradox

This paradox arises because the reader interprets the record as proof that the future event E_2 influences the past event E_1 , while in reality:

$$T(E_1) < T(E_2)$$

Thus, the illusion of retroactive causality is created, where the future seemingly influences the past.

Cryptological Analogy

To explain this paradox, cryptological approaches can be applied:

- $P_S(E_2)$ – the prediction, similar to encrypted text.
- E_2 – the future event, which is the "plaintext."
- The chronicler acts as the "encrypter," transmitting the prediction, while the reader is the "decrypter," who attempts to decrypt the information but makes a false interpretation.

Formalization of the Cryptological Analogy:

- $P_S(E_2)$ – encrypted message (prediction).
- E_2 – plaintext (future event).
- $N(E_1)$ – encrypter (chronicler).
- $A(N(E_1))$ – decrypter (reader), who falsely interprets the causal relationship as reversed in time.

Conclusion

Time paradoxes, as illustrated by the chronicle example, can arise from the confusion of chronological cause-and-effect relationships in the narrative. The use of cryptological approaches allows for a structural description of this paradox, showing how the future may seem to cause the past in the reader's mind.