



THE USE OF SCIENTIFIC TERMINOLOGY AS METAPHOR IN JOURNALISTIC TEXTS

Jafar Madraimov

**3rd-year Doctoral Student, Faculty of Foreign Philology,
Urgench State University named after Abu Rayhon Beruni
<https://doi.org/10.5281/zenodo.17549151>**

ARTICLE INFO

Received: 05th November 2025

Accepted: 06th November 2025

Online: 07th November 2025

KEYWORDS

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ABSTRACT

This study explores the metaphorical use of scientific terminology in journalistic texts, particularly focusing on terms originating from exact and natural sciences such as physics, chemistry, biology, and mathematics. In contemporary publicistic discourse, these scientific terms are often adapted metaphorically to convey abstract, emotional, or evaluative meanings beyond their literal technical sense. By analyzing a range of Uzbek journalistic materials, this research investigates the stylistic, cognitive, and communicative functions of scientific metaphors, demonstrating their role in enhancing clarity, expressiveness, and persuasiveness in media texts. The findings reveal how journalists creatively employ scientific concepts to illustrate complex ideas, attract audience attention, and establish credibility while simultaneously reflecting societal engagement with scientific knowledge.

Introduction

Language is not only a tool for communication but also a medium for creative expression. In publicistic discourse, particularly journalism, language must be both informative and engaging. Journalists often face the challenge of explaining complex phenomena or abstract ideas to a broad audience. One effective strategy to achieve this is the metaphorical use of scientific terminology. Scientific terms—originally precise and technical—are transferred into the figurative domain to express abstract concepts, emotional states, or evaluative judgments.

The growing presence of scientific metaphors in journalism reflects several social and cognitive trends. First, it demonstrates increasing public interest and awareness of science. Second, it highlights the cognitive capacity of language users to understand and interpret figurative meanings derived from technical domains. Third, it exemplifies the stylistic creativity of journalists who transform highly specialized vocabulary into accessible, expressive, and persuasive language for readers.

This study focuses on Uzbek journalistic texts and analyzes how precise and natural science terminology is employed metaphorically to enhance publicistic communication. It also examines the linguistic and cognitive mechanisms underlying these metaphorical transformations.

Theoretical Background

Metaphor, according to Lakoff and Johnson (1980), is a fundamental cognitive process through which people understand abstract concepts in terms of more concrete experiences. Scientific metaphors, therefore, serve not only as stylistic devices but also as cognitive tools. They help readers comprehend abstract or complex ideas by linking them to familiar scientific concepts.

In journalism, metaphors play a crucial role in attracting attention, clarifying content, and persuading audiences. Scientific terminology, when used metaphorically, carries connotations of precision, objectivity, and reliability. For instance, terms like “gravity,” “energy,” or “reaction” can be applied metaphorically to social, political, or economic contexts to create vivid imagery and enhance credibility.

Previous studies in linguistics and media studies have emphasized the role of metaphor in publicistic texts (Charteris-Black, 2004; Steen, 2008). However, limited research has focused on the specific domain of scientific metaphors in Uzbek journalism, which makes this study particularly relevant for understanding local linguistic practices and cognitive patterns.

Methodology

The research is based on qualitative and descriptive analysis of contemporary Uzbek journalistic texts published in print and online media over the last five years. A corpus of 150 texts was selected, including newspaper articles, opinion pieces, and feature articles. Scientific terms from physics, chemistry, biology, and mathematics were identified and examined for metaphorical usage.

The analysis involved categorizing the metaphors according to their source domain (science) and target domain (social, political, cultural, or emotional context). The study also considered the frequency of metaphorical usage, stylistic effects, and communicative functions within the texts.

Findings and Discussion

1. Patterns of Metaphorical Use

The study found several recurring patterns in the metaphorical use of scientific terminology. For example:

- **Physics terms** such as “gravity,” “force,” and “energy” were often used to describe social pressures, political influence, or economic dynamics. Example: “The force of public opinion is changing the political landscape.”

- **Chemistry terms** like “reaction,” “compound,” and “solution” were used to explain human interactions, conflicts, and problem-solving strategies. Example: “The new policy provoked a strong reaction among citizens.”

- **Biology terms** such as “evolution,” “adaptation,” and “species” were applied metaphorically to social change, organizational development, or cultural processes. Example: “Local businesses must adapt to survive in the evolving market.”

- **Mathematics terms** like “equation,” “balance,” and “calculation” were employed to illustrate decision-making, strategy, or societal dynamics. Example: “The government is trying to balance the equation between development and environmental protection.”

2. Cognitive and Stylistic Functions

Scientific metaphors in journalistic texts serve several cognitive and stylistic functions:

- **Clarification:** They help readers understand abstract or complex social and political phenomena.

- **Expressiveness:** Metaphors create vivid imagery that engages readers and makes the content memorable.

- **Persuasion:** Scientific terms lend authority and credibility to journalistic arguments, enhancing the persuasive impact of the text.

- **Innovation:** The creative transformation of technical terms into figurative language reflects linguistic flexibility and innovation.

3.Cultural and Social Implications

The widespread use of scientific metaphors indicates a cultural trend in which science and technology increasingly influence everyday language and public discourse. Journalists draw on the authority and perceived objectivity of scientific knowledge to frame social, political, and cultural issues, thereby shaping public perception. This also highlights the role of media as a mediator between scientific knowledge and public understanding.

Conclusion

The metaphorical use of scientific terminology in journalistic texts represents a significant intersection of language, cognition, and culture. By transforming precise and technical terms into figurative language, journalists make complex ideas accessible, engaging, and persuasive for a broad audience. Scientific metaphors enhance clarity, stylistic expressiveness, and credibility in publicistic discourse while reflecting societal engagement with science. This study contributes to a deeper understanding of linguistic creativity, cognitive processing of metaphors, and the role of science in shaping public communication. Future research could explore comparative studies across languages and media types to further investigate cross-cultural patterns of scientific metaphor usage.

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