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Linguosynergetic Approach to Modeling the Concept of “Snake”

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ABSTRACT

The purpose of this study is to analyze the evolution of the concept in the linguosynergetic aspect. This approach allows the concept to be viewed as a dynamic and evolving structure that changes under the influence of sociocultural, cognitive, linguistic, and contextual factors. The research focuses on the multilayered interaction of language systems, cultural contexts, and individual associations in shaping the complex and symbolic concept of “snake”. The methodology includes cognitive and cultural analysis, textual and discourse analysis, synergetic modeling, and comparative cross-cultural analysis. Special attention is given to exploring the polysemy and dynamics of the “snake” concept across various cultural traditions, including Kazakh culture and global mythologies. The main findings reveal that the concept of “snake” is multilayered, encompassing symbolic, mythological, and metaphorical elements. Applying the linguosynergetic approach has made it possible to identify how different meanings, associations, and cultural interpretations interact and contribute to the comprehensive understanding of this concept in language and culture. This article introduces a linguosynergetic approach to modeling the multifaceted concept of “snake,” exploring its dynamic role within language and cognition. By integrating principles from synergetics and linguistics, the study reveals how the semantic network associated with “snake” emerges and evolves through complex interactions among linguistic units and cultural contexts. The relevance of this research lies in its novel methodology, which bridges the gap between traditional semantic analysis and dynamic systems theory, offering fresh insights into the fluid nature of conceptual formation.

Keywords: Linguosynergetic; Concept; Kazakh Culture; Language; Culture

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1. Introduction

Linguosynergetics, as an interdisciplinary field, studies the self-organization and interaction of system elements, offering an effective method for analyzing complex and multilayered concepts in language and cognition. In this study, the concept of the “snake” is examined as a dynamic structure shaped by cultural, mythological, religious, psychological, and linguistic factors. Special attention is given to the variability of meaning and the interaction of different semantic components within this concept.

Key Principles of the Study:

- a. Dynamic Nature of Meaning – The concept of the “snake” evolves across different contexts and historical periods, reflecting cultural and cognitive processes.
- b. Polysemy – The concept encompasses multiple, sometimes conflicting meanings that can either oppose or complement each other.
- c. Systemic Nature – The “snake” is part of a broader cognitive system that integrates mythology, religion, psychology, and science.

Levels of Concept Representation:

- a. Cognitive Level – The snake is perceived as a dangerous or mysterious creature.
- b. Cultural and Mythological Level – The snake symbolizes destruction, rebirth, or spiritual purification.
- c. Semantic Level – The concept is polysemous and context-dependent, creating an ambiguous and multifaceted image.

In many cultures, the snake symbolizes both good and evil: healing in Greek mythology, temptation in Christianity, and power in Egyptian culture. In modern contexts, it may represent fear, manipulation, or environmental threats. This highlights the complexity and versatility of the concept, which continuously transforms under the influence of sociocultural changes.

The purpose of this study is to analyze the evolution of the concept from a linguosynergetic perspective. This approach examines how meanings emerge, transform, and interact within a self-organizing language system. In doing so, the study aims to uncover the dynamic processes through which cultural, cognitive, mythological, and social factors converge to shape conceptual evolution.

Linguosynergetics draws on methods and theories from

various disciplines such as linguistics, psychology, anthropology, mythology, and even natural sciences. This broad integration enriches the study of concepts by incorporating diverse perspectives, leading to a more robust and holistic understanding. The approach focuses on how new, complex meanings emerge from the interactions of simpler semantic elements.

- (1) Feature Linguosynergetic Approach. Emphasizing the role of context, the linguosynergetic approach examines how meanings shift based on cultural, historical, and situational factors.
- (2) Benefit Linguosynergetic Approach. This sensitivity ensures that analyses remain relevant and accurately reflect the nuances of language use across different environments and time periods. This predictive power is valuable for anticipating changes in language and cultural trends, aiding fields such as sociolinguistics and communication studies. This methodological rigor provides a more detailed and accurate depiction of how concepts function and transform within complex linguistic networks. Overall, the linguosynergetic aspect enriches the study of concepts by providing a dynamic, integrative, and multidimensional framework that is well-suited to capturing the intricacies of meaning in human language and thought.

Features and Benefits of Exploring the Snake as a Value from a Linguistic and Synergetic Perspective:

- a. Rich Polysemy and Multilayered Meaning:

Feature. The snake embodies a wide range of meanings—from danger and deceit to wisdom, healing, and transformation – across various cultural, mythological, and literary contexts.

Benefit. This diversity allows researchers to analyze and compare how different layers of meaning interact, providing deeper insights into the symbolic richness and cultural versatility of the snake.

- b. Dynamic and Self-Organizing Nature:

Feature. When viewed through a synergetic lens, the snake is not a static symbol but an evolving one, whose significance emerges from the interplay of simpler semantic elements and cultural factors.

Benefit. This approach captures the fluidity of the

snake's symbolism, highlighting how meanings can shift and reorganize in response to new cultural, social, or historical influences.

c. Interdisciplinary Integration:

Feature. Studying the snake linguistically and synergetically involves integrating perspectives from linguistics, cultural studies, mythology, psychology, and even natural sciences.

Benefit. This broad integration enriches the analysis, allowing for a more holistic understanding of the snake's role as a value in human thought and communication.

d. Contextual and Comparative Analysis:

Feature. The synergetic approach emphasizes how the snake's symbolism varies across different contexts, such as literature, folklore, religion, and modern media.

Benefit. This sensitivity to context enables researchers to reveal both universal themes and culturally specific interpretations, providing nuanced insights into how the snake functions as a symbolic value.

e. Emergent and Predictive Insights:

Feature. By focusing on emergent properties, the approach shows how new interpretations and symbolic layers of the snake can develop over time through the interaction of diverse influences.

Benefit. This not only helps explain current cultural meanings but also offers a framework to anticipate how the symbolism of the snake might evolve in the future.

f. Enhanced Understanding of Symbolic Communication:

Feature. The exploration of the snake as a value in language highlights the role of metaphor, allegory, and other stylistic devices in constructing and conveying complex ideas.

Benefit. It deepens our understanding of how symbolic values are communicated, reinforcing the importance of both literal and figurative language in shaping cultural narratives and identities.

Overall, examining the snake as a value from both linguistic and synergetic perspectives offers a comprehensive framework to understand its multifaceted role in human communication, thought, and culture. This dual approach not only enriches theoretical knowledge but also has practical implications for disciplines such as literature, cultural studies,

and media analysis.

The word "snake" is examined comprehensively through mythological, symbolic, linguistic, religious, and ritual lenses. This multidimensional consideration naturally leads to a linguosynergetic perspective, where the snake is seen as a dynamic, self-organizing concept that emerges from the interplay of various cultural, cognitive, and social factors.

The sources for the linguosynergetic study of the snake as a value are:

Myth and Meaning. Lévi-Strauss's work on the structures underlying myths includes discussions on how natural phenomena, such as the snake, become imbued with complex cultural meanings^[1].

Although primarily an ethnobotanical and anthropological study focusing on Haitian Vodou, Davis touches on snake symbolism as a bridge between life, death, and transformation, offering a case study of how such symbols function in a specific cultural context^[2].

The article analyzes that the snake is not merely a static symbol, but a living, evolving entity whose meaning is constantly changing under the influence of:

- How does the mythological value of the snake change?
- As a universal archetype, what deep symbolic resonance does the snake carry?
- In language, the snake functions through metaphors, idioms, and narratives, allowing its multifaceted symbolism to be expressed and reinterpreted.
- In various religions, what role does the snake play?
- In ritual practices, the snake is often invoked for protection, healing, or as a transformative force.
- What does this reflect about its deep cultural significance?

By integrating these diverse aspects, the linguosynergetic approach reveals how the concept of the snake is formed, maintained, and transformed through self-organizing interactions of its semantic components. This holistic perspective not only enriches our understanding of snake symbolism, but also demonstrates the powerful interplay between language, culture, and cognition.

2. Theoretical Framework

The linguosynergetic approach to modeling the concept of the "snake" represents an interdisciplinary analysis

that integrates linguistics and synergetics theory to explore the meanings and functions of this concept in language and culture. This approach is based on the understanding that the meaning of a word or concept is not static or unambiguous but evolves through the interaction of various factors, including cognitive processes, sociocultural contexts, and the dynamics of language. Khranchenko highlights that the concept of synergistic pragmatic effects in modern English-language media discourse is a fundamental property contributing to the success of persuasive communication. Maslova argues that language functions as a “mirror” (albeit a distorted one) of reality, reflecting a person’s external and internal world. This broad perspective necessitates interdisciplinary research, involving psychology, anthropology, sociology, cultural studies, biology, neuroscience, and even quantum mechanics^[3, 4].

Olimovna defines linguosynergetics as the study of language as a complex, open, nonlinear, fluctuating system that functions and develops according to synergetic principles. Cherkunova et al. view the text as a synergetic semantic system with properties of openness, nonlinearity, disequilibrium, and self-organization, emphasizing how understanding these mechanisms enhances the effectiveness of achieving the pragmatic goals of a text^[5, 6].

Dale emphasizes that a synthetic explanatory strategy is essential for developing a comprehensive understanding of human language, particularly its natural performance^[7]. Carol and Judy assert that the linguistic system operates synergistically, opening new pathways for studying the linguistic code and its implications for future linguistic research^[8].

Lin et al. highlight the effectiveness of the synergetic model in modifying lexical systems and determining similarity thresholds^[9]. Klymenko and Yenikeeva argue that synergetic methodology justifies the presence of “non-systemic,” “irregular,” and “transitional” linguistic phenomena, uncovering the mechanisms of language self-organization and its developmental trends^[10].

Ren and Hu consider synergy in the context of linguistic socialization, emphasizing its role in bilingual and biliteracy learning among children^[11].

Modern studies emphasize the dynamic and variable nature of concepts, which are formed not only at the linguistic level but also as a result of interactions with social, historical, and cultural contexts. The use of neurophysiological meth-

ods, such as magnetic resonance imaging (MRI), provides valuable information about where and how various concepts are activated in the brain^[12]. This enables researchers to trace the neural correlates of the process of understanding and interpreting complex symbolic meanings. However, despite the obvious advantages, there are a number of issues and limitations.

- a. **Spatial and Temporal Resolution Limitations.** Although MRI has high spatial resolution, the temporal resolution of this method may be insufficient for accurately tracking the dynamics of rapidly occurring cognitive processes. This creates difficulties in interpreting how quickly and in what manner changes in concept activation occur.
- b. **The Complexity of an Interdisciplinary Approach.** Studying the dynamics of concepts from a linguosynergetic perspective requires combining methods from linguistics, psychology, cultural studies, and neuroscience. Despite the potential of such an approach, there is a risk of oversimplification or, conversely, excessive complexity in interpreting the data, which necessitates careful methodological elaboration.
- c. **Cognitive linguistics views language as a reflection of human perception and cognitive processes.** Research by Lakoff et al., Genesis, Masschelein, and Schönher focuses on the dynamics of concepts^[13–16]. Ashurova emphasizes that linguistic representations of literary concepts are often expressed through stylistic devices that highlight the most significant imagery, emotional, and evaluative components^[17].

Freund and Giabbanelli define conceptual models as essential precursors to simulation models, as they outline the problem space and identify relevant mechanisms through concept relationships^[18]. Boldyrev and Fedyaeva stress the importance of the anthropocentric factor in linguistic research and the relevance of cognitive and linguistic mechanisms in meaning construction^[19].

Rosch introduced the prototype theory, proposing that concepts are structured around central examples or “prototypes”^[20]. This framework allows for the analysis of how different variations of the same concept can change depending on context and subjective perception.

The concept of the snake is studied in global linguistics from various perspectives, including semantic, cultural, and cognitive dimensions. Stanyukovich examines human-snake

interactions among hunter-gatherers, agriculturalists, and coastal communities, exploring snake symbolism in material culture, body modifications, folk medicine, and shamanistic rituals^[21].

Uzlaner explores the symbolism of the Ouroboros in Gnostic conceptual frameworks, interpreting it as a reference to the closed cycle of nature that entraps the human spirit^[22]. Burnakov et al. discuss traditional Khakas beliefs, where selected individuals could marry snakes that transformed into beautiful women, symbolizing wealth and good fortune^[23]. The snake was also linked to natural elements such as water and mountains, reflecting ideas of sacred spaces, fertility, and ancestral worship. Badmaev notes that chthonic animals, including snakes, possess ambivalent symbolism associated with life energy, fertility, wealth, illness and death^[24].

Synergetic principles such as self-organization, nonlinearity, and feedback loops describe how complex patterns and meanings emerge from simple interactions:

a. Self-Organization:

This principle refers to the spontaneous emergence of structured patterns without external direction. In language, this means that meanings and symbolic associations develop organically through the interaction of various linguistic elements. For snake symbolism, self-organization explains how the image of the snake – initially rooted in basic sensory and cultural associations – evolves into a rich, multifaceted symbol across myths, literature, and everyday language.

b. Nonlinearity:

Nonlinearity implies that small changes can have disproportionately large effects on a system. In the evolution of snake symbolism, a minor reinterpretation or a single influential narrative can dramatically shift the symbol's meaning – transforming it from an emblem of danger to one of wisdom, or vice versa – illustrating how meanings do not change in a simple, incremental fashion.

c. Feedback Loops:

Feedback loops occur when the outputs of a system are fed back into the system as inputs, reinforcing or altering subsequent behavior. In cultural and linguistic contexts, repeated use of snake imagery in texts and rituals reinforces certain associations (such as renewal or danger), while new interpretations can modify these associations over time. This continuous feedback between cultural ex-

pression and symbolic interpretation leads to the dynamic evolution of snake symbolism.

In summary, these synergetic principles help explain how snake symbolism in language and texts emerges, transforms, and adapts over time through the collective and interactive contributions of cultural, mythological, and linguistic factors.

3. Methodology

The study of the concept of “snake” was conducted using a linguosynergetic approach, which allows language to be viewed as a dynamic, self-organizing system where various semantic levels interact. The methodology includes three key components: Materials, Procedure, and Data Analysis.

3.1. Materials

To comprehensively analyze the concept of “snake”, a diverse range of sources was utilized to reflect its polysemy and dynamic nature:

- a. Literary Works — Works of fiction from various eras and cultures where the image of the snake holds symbolic or narrative significance (The Little Prince by Antoine de Saint-Exupéry, The Jungle Book by Rudyard Kipling, The Alchemist by Paulo Coelho).
- b. Folklore and Mythological Texts — Kazakh folk tales, myths, and legends in which the snake symbolizes protection, power, danger, or magic.
- c. Religious Sources — Sacred texts from major world religions (the Bible, the Quran, Hindu and Buddhist scriptures), where the snake is associated with good, evil, temptation, wisdom, or rebirth.
- d. Cultural and Ethnographic Materials – Ethnographic studies of Kazakh traditions, decorative arts (e.g., “zhylanbas” patterns), rituals for protection from snakes, and traditional medicinal practices.
- e. Lexicographic and Semantic Resources – Dictionaries and text corpora in Kazakh and other languages to analyze idiomatic expressions, proverbs, and metaphors related to the snake.
- f. Academic Studies – Publications in cognitive linguistics, cultural linguistics, and linguosynergetics (works by Khramchenko, Maslova, Olimovna) focusing on concept modeling^[3–5].

- g. Media and Advertising Texts – Modern media sources (news, advertising, cinema) where the image of the snake is used as a metaphor for fear, threats, or manipulation.

3.2. Procedure

Procedure for studying the snake as a value from a linguosynergetic perspective:

- (1) Definition of the conceptual field of the snake. We will define the various roles and representations of the snake – as a myth, ritual, religious sign, symbol of good and evil, image of villains, symbol of the virgin, keeper of the hearth, healer and warrior.
- (2) Data collection. We will collect various sources, including myths, religious texts, folklore, descriptions of rituals, literary works and cultural artifacts in which the image of the snake is present. We will also collect linguistic data such as idioms, metaphors and narrative structures in texts that use snake symbolism.
- (3) Interdisciplinary structure. We will integrate methods and theories from linguistics, mythology, cultural studies, psychology and religious studies. We will use ethnographic and historical research to understand the cultural contexts in which snake symbolism develops.
- (4) Linguosynergetic Analysis.
Explores how different meanings (e.g., good vs. evil, healer vs. villain) spontaneously emerge from the interaction of simpler semantic elements of the word snake.
Explores nonlinearity: Considers how small changes (e.g., a reinterpretation in one myth or ritual) can lead to significant shifts in the overall symbolic value of the snake.
- (5) Multi-Level Semantic Analysis.
Mythological Level: Explores how the snake is depicted in ancient myths and legends, noting its roles as a transformative, cyclical, or dualistic figure.
Ritual Level: Analyzes ritual practices that include snake imagery or symbolism to understand its role as a protective or healing agent.
Religious Level: Explores how different religions interpret the snake – as a sign of temptation, wisdom, or divine power.
Symbolic and Cultural Levels: Assess the snake's representation as a symbol of good and evil, as an image of

villains, as a symbol of purity (virginity), as a guardian of the hearth, as a healer, and as a warrior.

Linguistic Level: Collect lexical and idiomatic expressions that include the image of the snake.

Comparative and Contextual Analysis: Compare snake symbolism across cultures and historical periods to identify both universal themes and culture-specific nuances.

Interpretation: Discuss the implications of the findings for broader theories of symbol formation and linguistic evolution.

3.3. Data Analysis

Both qualitative and quantitative methods were employed for data processing and interpretation:

- a. Semantic Modeling – Construction of semantic fields and identification of key conceptual relationships associated with the snake. In order to collect and analyze the collocations of the word “snakes,” we utilized the National Corpus of the Kazakh Language. This corpus provides frequency statistics for each word, allowing us to identify common collocations and patterns of usage in various contexts.
- b. Cognitive Analysis – Reconstruction of mental schemas and cognitive associations related to the snake in the linguistic consciousness of speakers.
- c. Discourse Analysis – Examination of how the “snake” concept functions across various types of discourse (literary, religious, mythological, media).

This comprehensive approach enabled an in-depth study of the “snake” concept as a multilayered and dynamic phenomenon in language, culture, and cognition.

4. Results

In linguistics, a word can transcend its role as a simple signifier of meaning and become a powerful concept that helps shape the way we understand language, thought, and society. This transformation occurs through processes such as contextual expansion, metaphorical extension, theoretical abstraction, and cultural influence. As words evolve into concepts, they become crucial tools for explaining the complexity of human language, culture, and cognition. By examining how words acquire conceptual significance, linguistics

provides insight into how language reflects and shapes the world we live in.

The snake, a symbol laden with both cultural and natural significance, has been an enduring figure in human thought, myth, and language. From ancient mythology to modern interpretations, the snake represents a vast array of ideas, such as transformation, danger, wisdom, sexuality, and the cyclical nature of life and death. This article explores how the synergetics of the snake, meaning its interconnectedness, multifaceted roles, and dynamic patterns of meaning, are represented in language across different cultures and times.

4.1. The Synergy of Symbolism: From Myth to Metaphor

The snake is an ancient symbol that has been imbued with various meanings, often embodying complex ideas through metaphor. One of the most profound and lasting representations of the snake in language is its connection to duality. The concept of duality – life and death, good and evil, creation and destruction – is prevalent in numerous cultures, with the snake as the intermediary.

In the Western tradition, the serpent is frequently associated with evil and temptation, most notably in the biblical story of Adam and Eve. Here, the snake's language or whispers carry the message of disobedience and temptation, leading to the fall of man. This use of the snake as a voice for subversion and chaos ties into the synergetics of the snake in language: the intertwining of light and dark, life and ruin, with the serpent as the key agent of transformation.

However, in many other cultures, the snake symbolizes wisdom and healing. The Greek God Asclepius, for example, is often depicted with a rod wreathed by a snake, representing medicine and the art of healing. In this context, the role of snake in language is more positive, focusing on the transformative power of knowledge and renewal.

4.2. Circularity and Renewal: The Ouroboros

The snake's physical shape – the cyclical movement of its body, the act of shedding its skin – also carries strong synergetic meanings that have been adopted in language and philosophy. The Ouroboros, a serpent eating its own tail, is a powerful symbol of eternity, cyclical renewal, and the interconnectedness of all things. This representation of the

snake encapsulates the process of self-regeneration, with its ceaseless motion symbolizing the continuous flow of life and the perpetual cycle of birth, death, and rebirth.

In linguistic terms, this endless cycle can be reflected in the use of language that highlights recurrence, repetition, and the idea that endings are inextricably tied to new beginnings. For example, the idea of karma in Hinduism and Buddhism, which is often symbolized by a snake, reflects the cyclical nature of actions and consequences, and this cycle is often captured in the language of fate, destiny, and moral retribution.

4.3. The Snake as a Boundary-Crossing Agent

The snake is also often perceived as a creature that moves between boundaries, straddling the realms of the living and the dead, the natural and supernatural. Its ability to slither through cracks, burrow into the earth, and ascend trees grants it a liminal, boundary-crossing quality. In language, the snake thus represents the crossing of physical and metaphorical thresholds – whether these boundaries are those of knowledge, morality, life, or the afterlife.

In many indigenous cultures, the snake is seen as a protector or guide that facilitates transitions between realms, such as between the earthly and spiritual worlds. In the language of these cultures, the serpent might be used as a metaphor for transitions in personal growth, rites of passage, or even the passage of time itself. The snake's metaphorical role as a bridge or guide is also reflected in spiritual and philosophical discourse, where it frequently symbolizes the quest for self-awareness and the pursuit of wisdom beyond the ordinary realm of experience.

4.4. The Sexual and Fertility Symbolism of the Snake

The snake has long been associated with fertility, sexuality, and creative power. Its phallic shape and the regenerative act of shedding skin have made it a potent symbol of sexuality and renewal in many cultures. In language, these associations often emerge in direct metaphors, as well as more subtle references to vitality, lust, and sexual energy.

For example, in some African cultures, the snake is closely linked to fertility rituals, with its serpentine form representing the potential for new life. The duality of its nature – the capacity to both create and destroy – is often

encoded in a language that conveys both the dangers and pleasures of sexuality. The metaphorical use of the snake in this context is often complex and layered, reflecting society's ambivalence toward human desires and the dual nature of the sexual experience.

4.5. The Serpent in Modern Language and Thought

In contemporary usage, the synergetic representation of the snake in language continues to evolve, often influenced by the increasing recognition of its varied symbolic roles. In popular culture, the snake is sometimes portrayed as a villain, embodying deceit and manipulation, yet at other times, it is reimagined as a symbol of empowerment and wisdom.

In psychology, the snake often represents the unconscious or hidden aspects of the psyche, particularly in the work of Carl Jung. Jungian analysis interprets it as a symbol of the "shadow" or the parts of ourselves that we repress or fail to acknowledge. The snake's presence in the language of psychoanalysis and self-reflection thus reflects the synergetic interplay between light and shadow, awareness and oblivion.

The phrase "snake oil," originally referring to fraudulent medicine, has taken on the meaning of deceptive practices or false promises in modern parlance, adding further layers to the language of serpentine symbolism. This modern usage underscores the persistent duality of the snake, which can symbolize both wisdom and deceit, health and illness, truth and falsehood.

4.6. Idiomatic Expressions and Figurative Language

In the English language, snakes frequently appear in idiomatic expressions that shape their conceptual significance. Several idioms involving snakes further extend their

symbolic meanings:

"Snake in the grass": refers to a hidden enemy or a deceitful person. It emphasizes the danger of someone who operates covertly and causes harm from behind the scenes.

"To snake through": describes a winding or twisting movement, often used to depict navigating through obstacles in a winding or serpentine manner, mimicking the physical movement of a snake.

"To take the bait": although not directly referring to a snake, the idiom evokes the idea of the snake as a predator, with its prey being lured into a trap. "Taking the bait" describes falling for a deceptive or tempting situation.

"Like a snake oil salesman": refers to a person who is a fraud or con artist, selling products or services that are ultimately worthless. This is an extension of the snake's association with deception.

"Kiss of the snake": a phrase that is sometimes used to describe a betrayal or a treacherous act that appears sweet or benign at first, echoing the mythological kiss of a poisonous serpent that leads to harm.

4.7. The Snake in Literature

The snake in literature is a versatile symbol that carries a broad spectrum of meanings. It can represent evil and temptation, danger and death, or alternatively, wisdom, transformation, and fertility. Depending on the author's intentions and the context of the work, the snake may evoke fear, awe, or even reverence. Its symbolism reflects the complexity of human experience and the tension between the known and the unknown, the civilized and the primal. The snake serves as a symbol in literature, as illustrated in **Table 1**.

These interpretations were models of the concept of the snake in universal human thoughts. Now we turn to analyzing how the concept of a snake is modeled in Kazakh culture.

Table 1. The snake in literature.

Book Title	Author	Snake Symbolism
The Alchemist	Paulo Coelho	The snake represents transformation and personal growth, symbolized by skin shedding.
The Jungle Book	Rudyard Kipling	The character of Kaa the python embodies wisdom and transformation as he helps Mowgli navigate the dangers of the jungle.
The Little Prince	Antoine de Saint-Exupéry	The snake symbolizes both death and the possibility of a new beginning or transformation.
Harry Potter and the Chamber of Secrets	J.K. Rowling	The giant serpent Nagini is a symbol of Voldemort's power and control over the magical world.
The Lord of the Rings	J.R.R. Tolkien	The dragon Smaug symbolizes greed and destruction, and he possesses immense power and strength.

4.8. Stereotypical Semantics

In Kazakh culture, birds that feed on insects, fish, worms, and reptiles, such as geese, cranes, pelicans, and seagulls, are considered inedible. This is because birds that eat snakes are believed to have tasteless meat. Rivers and lakes in the Kazakh steppe are abundant with lampreys, but the Kazakh avoided eating fish without scales, resembling snakes, considering them unfit for consumption. The phrase “*Balyk zhegen tok bolar, al-darmeni zhok bolar*” (“Fish fills the stomach but leaves one weak”) reflects the low nutritional value of lamprey meat. In global culture, a unique brownish liquid secreted by snake skin glands, known as musk, has been processed for use in perfume production. Additionally, according to Aldashev and Alimkhanov, snake venom is still used in modern medicine^[25]. Historically, Kazakh culture employed irrational methods, such as making a person with a hernia swallow a snake’s tongue to treat the condition.

A universal stereotype associates the snake’s slithering movements with various concepts and phenomena. In particular, it is often used to describe roads. For instance, in Kazakh, a winding path is referred to as “*zhylansha irelengdegen zhol*” (“a road winding like a snake”), describing either a mountain trail or a narrow path trodden through grass.

The Kazakh national dwelling, the *yurt*, was adorned with decorative ribbons made of camel wool. Camel wool was believed to protect against venomous creatures and harmful forces, with its scent driving snakes away. Such ribbons safeguarded the yurt from snakes. Additionally, in ancient times, Kazakhs wrapped yurts with ropes braided from horsehair and wool to prevent snakes from entering. These ropes were durable and resistant to wear while their scent repelled snakes^[26].

In Kazakh stereotypes, steppe wormwood (*artemisia*) is also considered a snake deterrent. Snakes avoid areas where wormwood grows due to its aromatic scent. When spending the night outdoors, Kazakhs would lay wormwood underneath them for protection.

According to global stereotypes, the Kazakh culture also recognizes the *Year of the Snake* in the twelve-year animal cycle. In the Kazakh understanding, the first year is the *Year of the Mouse*, followed by the *Year of the Ox*, *Tiger*, *Rabbit*, *Dragon*, and *Snake*. National stereotypes associate people born in the *Year of the Snake* with sharp tongues,

capable of “stinging like a snake,” while those born in the *Year of the Horse* are considered skittish. In earlier times, the *Year of the Snake* was seen as unfavorable, associated with hardship and unrest. The saying “*Zhylyan zhyly zhylys, zhylyky zhyly uryys*” (“The year of the Snake brings retreat, the year of the Horse brings conflict”) predicted wars, frequent migrations, and displacement.

Traditional Kazakh healers used snake blood to treat wounds, itching, and skin diseases such as eczema. Karutz recorded that the *saryuyek* snake’s fat-rich meat was a remedy for sciatica. One account describes a woman who recovered from the condition by consuming the meat of a *saryuyek* snake under the guidance of healers^[27].

Globally, there is a belief that consuming snake meat aids in bone healing, making fractures mend more quickly.

4.9. Magical Semantics

In Kazakh culture, there are beliefs and superstitions related to snakes. In the research of Divaev, in Kazakh tradition, it is considered improper to open a chest containing valuable and precious items at night^[28]. In this Kazakh custom, it is believed that if the chest is opened at night, a snake might enter. In case of sheer necessity, a magical phrase, “*a snake has entered the chest*,” must be uttered beforehand. In case this magical phrase is not said, it is believed that a snake might bite and kill someone living in the house.

According to other sources, opening a chest at night is associated with thieves. Thieves are believed to operate in the dark, and thus the act of opening a chest at night is seen as an association with theft. Therefore, when opening the chest reluctantly at night, people would say “*a snake has entered*” to metaphorically equate the thief’s hand to a snake. When closing the chest, they would say “*the snake has come out*” before closing it^[29].

In Kazakh folk art, there is a snake-shaped motif called *zhylanbas*, which is based on the snake’s winding movements. The *zhylanbas* motif is painted in various colors and is often used in the decoration of buildings, wall hangings, or the ceilings of houses and domes. However, it was not used on the floor or carpets. This suggests the snake’s elevated status and powerful symbolism. The *zhylanbas* motif was believed to have a protective meaning, guarding against the evil eye, harmful actions, and war.

4.10. Ritual Semantics

In the Kazakh steppe, there is a belief related to gold ore. Gold moves in a liquid state through the earth's crust, breaking through it and flowing similar to a snake. Kazakhs call this phenomenon "migrating gold." This type of gold moves along the surface of the earth, slithering resembling a snake, and it is believed to "scrape" through the earth's crust. When Kazakhs see migrating gold, they believe that if someone cuts themselves (such as their finger) or slaughters livestock and spills blood, the flowing gold will stop. As the flowing gold looks similar to a snake's winding shape, Kazakhs also refer to it as "snake gold"^[30].

When Kazakhs moved to summer pastures and camped in the steppe, they would encircle their camp with a red rope to protect themselves from snakes. The belief was that if a person lay inside the circle of the red rope, neither evil spirits nor snakes would approach, as the snake had sworn not to cross the rope.

In Kazakh culture, to protect against the evil eye or harmful words, a snake's head (a *kauri* shell) would be placed on the child's shirt or at the head of the cradle. The belief was that the evil entity's gaze and attention would fall on the snake's head instead of the child. The snake's head was believed to protect the child from misfortune and the evil eye.

Kazakh jewelry also features a "snake-head bracelet." The ends of the bracelet are designed to resemble the form of a snake's head. This bracelet was worn by young girls and newlywed women to protect against the evil eye and harmful words. In the 20th century, this snake-head bracelet was made of silver, with geometric patterns etched into it using engraving techniques. The bracelet's diameter was 7 cm, and its thickness was 1.5 cm.

In Kazakh nomadic culture, when someone was bitten by a snake, they would use powdered juniper root on the swelling. This remedy was believed to prevent the venom from spreading through the body and help the person survive.

Living in arid regions, Kazakhs developed numerous medicinal methods to protect themselves from snake bites. Despite the comprehensive nature of these treatments, the main focus was on reversing the venom's effects. For instance, in the case of snake bites, remedies included applying a bridle to the wound, turning the sword blade, making incantations, using water for purification, and performing rituals

such as using a cauldron or earth for healing. All of these practices were based on the belief in the divine and mystical powers of God^[31].

A tradition in hunting involves "calling a snake" with the muzzle of a rifle. If a rifle's muzzle misfires or malfunctions, hunters would point it at a snake to fix the issue. This belief stems from ancient views that "representatives of the other world" – evil spirits – would interfere with the rifle's muzzle. Therefore, they believed that pointing the muzzle at a snake could make the evil forces flee.

4.11. Totemic Semantics

In Kazakh fairy tales, women were often depicted as craving snake or even dragon meat. This is because, in Turkic culture, the snake was considered a totemic symbol, believed to possess immense power. The story often goes that when a great warrior is born, his mother eats snake meat, and the child becomes a mighty hero. Additionally, in Kazakh fairy tales, the snake is portrayed as a water spirit in the form of a woman. During the day, she transforms into a beautiful woman, and at night, she turns back into a snake in the water. She then marries a handsome young man.

In numerous fairy tales of the world, the snake is depicted as an evil figure that spits fire. It is also seen as the owner of underground treasures, and in some tales, it is portrayed as the guardian of the underworld, or as a spirit that transports souls to the afterlife. Ancient cultures practiced cruel rituals, where they sacrificed livestock or even humans to appease such monsters.

Kazakhs used magical chants to counteract snake venom. When someone was bitten by a snake, shamans would chant and perform rituals to prevent the venom from spreading through the body. The belief was that the power of the shaman's magic could reverse the effects of the snake's venom. According to Rychkov, perhaps the chants included certain acoustic vibrations that stimulated the victim's nervous system and blood circulation^[32].

Other well-known magical phrases are recited with specific actions, such as performing a *zikr* (chanting) to strengthen the magic^[33].

In Kazakh culture, it is believed that if a cat encounters a snake, the cat's name should not be called. If the cat's name is called to save it, the snake's enchantment will overpower the cat. The snake will use that moment to wrap around

the cat. Thus, magical chanting is understood as a foreign, external force. In Kazakh culture, there was a belief in a snake shaman, a female healer who treated women unable to bear children. She healed them using magical chants.

This method involved frightening the patient by producing sounds similar to a snake's hissing or whispering and physically stroking the body to stimulate the nervous system and awaken the body's hormonal responses. Shamans would call upon spirits with chants such as "The snake with a long body, come, snake, without hesitation..." In such rituals, the shaman would also use the metaphor of the snake to drive away evil spirits, calling the snake to chase away harmful entities.

In some of the chants used to drive away snakes, the word "mari-mari" is used, where "mari" in Persian means "snake."

To reverse the effects of snake venom, shamans would call upon prophets such as Solomon and his son David, or Kambar, who could drive out harmful spirits from their burrows. The practice of reversing snake venom through rituals was particularly common among shamans from the Syr Darya region, where snakes were more frequently encountered in desert areas such as Karakum and Kyzylkum.

In ancient times, the snake was considered a totem, a creature endowed with mystical powers. In Kazakh fairy tales, the snake sometimes transforms into a positive mythopoetic image. For example, in the fairy tale "The Snake-Skin Boy," a child born in the skin of a snake grows up to possess great strength and magical powers. The imagery of snakes also often appears in epic poetry to symbolize the strength of a hero or the extraordinary beauty of a woman.

In traditional Kazakh culture, the word "snake" was never directly used, as it was believed that calling the snake by name would cause it to bite. Instead, euphemistic terms such as "button," "button-head," "whip," "long-worm," or "long-tail" were used. According to Rychkov's research, when a person was bitten by a snake, the shaman would use a chant to reverse the venom [32]. If the shaman correctly named the snake, the venom would reverse, and the snake would burst. Once, after a shaman had performed a chant to remove the venom, a fatigued priest reportedly said, "Please undo my button," and the venom dissipated, causing the snake to burst. It was later discovered that one of the names for the snake was "button".

4.12. Ethnocultural Semantics

In some fairy tales, the snake appears as the "Dragon Wife," possessing the mystical power to bring rain by hissing in arid, hot desert regions. The Kazakh people, living in arid areas, thus considered the snake as a symbol of water, expecting rain from it.

When a livestock's intestines were infested with worms, the remedy involved feeding the animal a snake (called *saryyuek*), which was believed to cure the condition. Similarly, both the gray and striped snakes were believed to bite the lips of cattle, causing swelling. In such cases, the swollen area would be pierced to drain the blood, and milk or sour cream would be applied. If a horse refused to eat, the remedy involved feeding it the head of a live snake. If a snake bit a horse, its wound would be treated with the dried skin of a snake.

When a snake bit a person on the hand or foot, the venom would be prevented from spreading by tightly binding the wound with a string. The wound would be cut, and the venom would be sucked out. The area would then be cauterized with a heated iron. According to Yanushkevich's research, horse sweat contains a substance that can counteract snake venom [34]. It is said that applying the horse's sweat to the bite and then having the victim drink it would help heal the wound. The saying "the snake fears the smell of horse sweat" is known in Kazakh. This is why nomadic people would sleep on blankets soaked in horse sweat when camping.

In Kazakh culture, it is believed that if a snake frequently appears, rain will follow. Additionally, snakes are thought to predict natural disasters. For example, when a snake moves from one place to another, it is believed to signal an upcoming change in weather. If the snake does not enter its den or sleep at the usual time, it is seen as an omen of a mild, long autumn.

There is a belief that certain days of the week are more auspicious. Wednesday, Thursday, and Friday are considered lucky, while Tuesday is thought to be an unlucky day. It is believed that on Tuesdays, the snake lies in the way, and one should not travel or start work. If someone had to travel on this day, they would bury a pinch of salt in the ground for good luck.

In Kazakh tradition, the dried skull of a snake is tied tightly with a string and kept in a chest as a protective charm.

This is thought to prevent snake bites, wolf attacks, and ensure the well-being of both livestock and people.

There is also a tradition where women who are unable to conceive would eat the flesh of a *saryyuek* snake to cure their condition. According to one legend, when the wife of Khan Aralkhan could not satisfy her cravings, a judge named Akjonas advised her to eat either a dragon or a *saryyuek* snake. A hero named Sultanali managed to find seven *saryyuek* snakes. The tale goes on to describe how the wife ate the snake to satisfy her cravings, and it cured her infertility.

4.13. Mythological Semantics

The snake is both a ritual and mythical symbol. According to Lévi-Strauss, «Regardless of whether the myth or the ritual is the original, they replicate each other; the myth exists on the conceptual level and the ritual on the level of action»^[1].

In Kazakh culture, if a snake enters the house, it is not killed. Instead, milk or other white dairy products are poured in front of it as it exits. This is reflected in the Kazakh phrase “*ak kuiyp shygaru*” (pouring out the dairy). The ritual of giving dairy, originating from Kazakh mythological beliefs, involves not killing the snake that enters the house but instead pouring milk, yogurt, or other dairy foods over its head. This is because, according to ancient beliefs, angels would sometimes appear in the form of a snake and wander the earth.

“In the steppe, if a snake is seen, it is killed, but if it is seen inside the house, it is treated well. This is because there is a belief that at times, angels appear as snakes.” The use of white food (such as milk, yogurt, kumis, or shubat) is significant in Kazakh culture, as it symbolizes purity, goodwill, and blessings. Pouring white food on the snake’s head was considered an act of treating it as an angel. Thus, the act of pouring milk over the snake was a symbolic way of responding to evil with kindness. It was believed that through the sacred dairy, evil intentions could be turned away^[35].

In Kazakh tradition, when someone enters the house, the host offers bread and says “have a bite of bread,” ensuring that no guest leaves without a meal. If a guest was not offered bread, they might say, “Even the snake entering the house gets milk poured on it,” expressing disappointment. This phrase reflected the feeling of being neglected or treated

worse than a snake.

In Turkic culture, there is the mythology of the “Samruk bird,” in which one of the main characters is the snake. The snake lies at the base of a large tree, while the bird king resides at the top. These mythological representations portray the snake as a villain, a disruptor of the bird’s nest, and a dangerous enemy.

In Kazakh mythology, the snake is the enemy of birds, while the enemy of the snake is the “Dauit” (a mythical figure – praying mantis). In this tradition, Dauit is depicted as a protector of the snake’s prey, who uses his long legs to remove the snake’s eyes. The swallows, knowing this, bring the Dauit to their nest and tie it up with thread. As the snake climbs and nears the nest, its eyes are gouged out by Dauit, and the snake falls to the ground. According to the work by academician Khaidarov, the saying “If a Dauit enters your house, prosperity will follow” is based on the belief that the Dauit, being close to humans, possesses noble qualities and is inclined to protect both humans and animals (for example, protecting swallow chicks from snakes)^[36]. The presence of Dauit is considered a sign of good fortune.

In Kazakh culture, another enemy of the snake is the bird called “degelek.” Since the degelek also eats snakes, its meat is considered tasteless by Kazakhs. This idea is illustrated in a poem by Kashagan Zhyrau:

“At the top of the mountain with fire,
There is a bird called degelek.
When it whistles in the air,
A thousand snakes’ heads are crushed.”^[37].

From this, the saying “The horse’s enemy is the butterfly, and the snake’s enemy is the stork” became a common Kazakh proverb.

In the traditional Turkic mythological understanding, the snake is considered a representative of the underworld, guarding treasures such as gold and protecting the craft of blacksmithing. In the legend of Ertostik, the main character visits the snake’s kingdom, where he marries the daughter of the snake king. The underworld is also known as the realm of Shahmaran, the snake queen.

In one of the mythological tales, the snake is portrayed as a creature that desires to be seen by humans and serves as a critic who forces people to reflect on their actions. For example, it is said, “If a snake goes a hundred years without being seen by a human, it turns into a dragon. If it goes two

hundred years without being seen, its forehead becomes two inches wide. It can then transform into different creatures (a girl, a woman, an animal). It deceives humans and enters the village unnoticed, only to later devour an entire tribe”.

4.14. Lexical Semantics

A snake is a limbless, long, and slender reptile that slithers with shiny scales. There are several types of snakes in Kazakh, such as the common snake (gray snake), sand snake, striped snake, viper, water snake, etc. The viper is called “оқжылан” (arrow snake) because it strikes similar to an arrow, and its venom can kill a person. Vipers are found in sandy areas where saxaul trees grow. Their bodies are not that long, and they climb onto saxaul branches, coil up, and strike similar to an arrow at a person.

In Kazakh folklore, after living for a long time, a snake’s body gradually shrinks. Such a snake is referred to as “old snake” in popular sayings. In daily life, the word “snake” is often used in negative metaphors or comparisons. People who are deceitful, cunning, and malicious are compared to a “gray snake” or a “striped snake.” Women with bad tongues and who talk too much are also compared to snakes.

In Kazakh, “kaori” is referred to as “snake head” (*zhylanbas*). The snake head is used as a charm, and its purpose is to divert a person’s gaze away from a child or a fast horse and focus it on the person wearing it. This practice is found among all Turkic peoples. For example, in Turkmen, it is called “*yylan bashi*,” in Uzbek “*ilon bashi*,” and in Kyrgyz “*zhylاندyn bashi*.”

There are many terms in Kazakh related to the shape or image of a snake:

Snake head pattern (*zhylanbas ornek*) – a type of horn pattern found in Kazakh folk art, often used in the border of a felt rug.

Snake head awl (*zhylanbas uski*) – a tool used by woodworkers with a pointed end shaped similar to a snake’s head, used for piercing the wooden beams of a yurt.

Snake belly pattern (*zhylanbauyr*) – a decorative motif in jewelry that resembles the belly of a snake. It is believed to bring happiness, prosperity, and a large family to women.

Snake belly whip (*zhylanbauyr kamschy*) – a type of whip whose braiding resembles the body of a snake.

Snake track (*zhylanzhalak*) – a barren land where no

vegetation grows, typically found in dry or desert regions. It refers to land where water from rain or snow has evaporated, leaving it dry and cracked, resembling a snake’s path.

Snake meat (*zhylankarak*) refers to the meat of a slaughtered animal that is lean and lacking fat, comparing it to the shape of a snake – thin and devoid of fat.

Snake fat (*zhylanmai*) – fat obtained from a snake. To collect the fat, the snake is captured, placed in a glass container, and left in the sun. Over time, the fat melts and accumulates at the bottom of the container. Snake fat is used in traditional medicine to treat scabies, joint pain, and various ailments. It is also believed to heal ruptured tendons and fix misaligned bones and joints.

Like a snake bite (*azili zhylan shakkandai*) – a comparison used to describe someone’s sharp, precise words that convey meaning effectively.

Snake glaze (*zhylankoz*) – a type of glaze used to coat ceramic items, making them shiny and durable. This glaze is named after the color of a snake’s eye.

5. Discussion

The analysis of the concept of “snake” through a linguosynergetic approach reveals its multifaceted and dynamic nature across different cultural, cognitive, and linguistic contexts. The study demonstrates that the meaning of the “snake” concept is not static but evolves through interactions between cultural, mythological, psychological, and linguistic factors. This section discusses the key findings and their implications.

5.1. Dynamic and Polysemous Nature of the “Snake” Concept

The research confirms that the concept of the snake is inherently dynamic and polysemous. Its meanings shift depending on cultural, historical, and contextual factors. In some cultures, the snake symbolizes wisdom, healing, and transformation, as seen in Ancient Greek and Egyptian mythologies, where it is associated with deities such as Asclepius and Uraeus. In contrast, in Abrahamic religions, the snake often represents evil, temptation, and sin, particularly in the Biblical story of Adam and Eve. This duality underscores the complex and contradictory nature of the snake as both a positive and negative symbol.

5.2. Interaction of Semantic Layers

The study identifies several interacting semantic layers that contribute to the complexity of the “snake” concept:

- Cognitive Level: At this level, the snake is associated with innate human fears and instincts, often symbolizing danger, secrecy, or unpredictability due to its physical form and behavior.
- Cultural and Mythological Level: Here, the snake carries symbolic meanings shaped by cultural narratives, myths, and rituals. For example, in Kazakh culture, snakes are linked to protection and healing practices, while in African traditions, they symbolize fertility and ancestral spirits.
- Semantic Level: The snake embodies multiple, sometimes conflicting meanings that coexist within language. Idiomatic expressions such as “snake in the grass” reflect deception and betrayal, while others, such as the Rod of Asclepius, symbolize healing and medicine.

5.3. Synergetic Processes in Meaning Formation

The linguosynergetic approach reveals that the meanings of the “snake” concept emerge and transform through self-organization and interaction with other concepts. For example, the symbolic overlap between the snake as both a healer and a threat exemplifies how contradictory meanings coexist and influence each other within a dynamic system. This interaction creates emergent meanings that reflect the evolving cultural and cognitive interpretations of the snake.

5.4. Cross-Cultural Perspectives

Cross-cultural analysis highlights both universal and culturally specific interpretations of the snake. Universally, snakes are often associated with transformation due to their ability to shed their skin, symbolizing renewal and rebirth. However, specific cultural contexts introduce unique meanings: in Kazakh folklore, snakes are linked to magical protection and fertility, while in Mesoamerican mythology, the feathered serpent Quetzalcoatl represents creation and duality. This diversity emphasizes the importance of considering cultural context when analyzing conceptual meanings.

5.5. Conceptual Metaphors and Linguistic Representation

The study also demonstrates how the concept of the snake is deeply embedded in linguistic expressions and metaphors. Idiomatic expressions such as “to snake through” and “snake oil salesman” illustrate how the physical and behavioral traits of snakes are metaphorically extended to describe human actions and societal phenomena. These metaphorical uses reinforce and perpetuate the symbolic associations of snakes within different languages and cultures. The snake is a powerful conceptual metaphor that permeates various cultures, languages, and disciplines. As an archetypal symbol, it embodies dualities and contradictions – danger and wisdom, evil and healing, destruction and renewal. This extended analysis explores how the snake functions as a conceptual metaphor, integrating insights from cognitive linguistics, cultural studies, mythology, and semiotics.

Snake as Danger and Treachery. Represents hidden threats and deceit (e.g., “a snake in the grass”).

Snake as Temptation. Symbolizes seduction and moral testing, as seen in many religious narratives.

Snake as Wisdom and Knowledge. Embodies intelligence and esoteric insight (e.g., the snake-entwined rod of Asclepius).

Snake as Healing and Regeneration. Conveys the idea of rejuvenation through its ability to shed its skin, symbolizing renewal and recovery.

Snake as Transformation. Serves as a metaphor for personal or societal change, capturing the cyclical nature of life.

Snake as Cyclicity. Reflects the eternal cycle of life, death, and rebirth, often linked to natural and cosmic rhythms.

Snake as Fertility. In some cultures, the snake is associated with generative forces and reproductive power.

Snake as the Subconscious or Hidden Forces. Represents the mysterious, often dark aspects of the human psyche and the unknown.

Snake as Evil or Sin. In certain traditions, the snake is a symbol of moral corruption and the embodiment of sin.

Snake as Divine Power or Protection. In other contexts, especially in Eastern traditions, the snake can symbolize protective forces and spiritual power.

Each of these metaphors demonstrates how the snake, as a concept, is richly layered with meaning across different cultural and linguistic contexts.

5.6. Implications for Cognitive and Cultural Linguistics

The findings contribute to cognitive and cultural linguistics by showing how complex concepts such as the snake are constructed and evolve through the interaction of linguistic, cognitive, and cultural elements. The study underscores the value of the linguosynergetic approach in revealing the dynamic and emergent nature of conceptual meanings. This approach can be applied to other culturally significant concepts to uncover how meanings develop and transform over time.

Overall, the analysis of the “snake” concept demonstrates that it functions as a dynamic, multifaceted symbol deeply rooted in cultural, cognitive, and linguistic systems. Its meanings emerge through the interaction of various semantic layers and cultural influences, reflecting both universal human experiences and culturally specific interpretations. The linguosynergetic approach provides valuable insights into the complexity of conceptual structures and their evolution, highlighting the interplay between language, thought, and culture.

6. Conclusions

The comprehensive linguosynergetic study of the snake concept reveals its inherently dynamic, multifaceted, and polysemous nature. The analysis demonstrates that the snake is far more than a simple reptile; it is a powerful symbol that evolves continuously through the interplay of cognitive, cultural, mythological, and linguistic influences. This research underscores several key points:

Dynamic and Emergent Meaning. The concept of the snake is not fixed but develops through self-organizing interactions among diverse semantic layers. As seen in various cultures and historical periods, its symbolism shifts—from an emblem of danger and deceit to one of healing, wisdom, and transformation. The continuous feedback between cultural narratives and linguistic expressions has allowed the snake’s meaning to emerge in complex and sometimes contradictory ways.

Interdisciplinary Integration. By integrating methods and theories from linguistics, cultural studies, mythology, psychology, and even natural sciences, the study highlights the power of a linguosynergetic approach. This interdisciplinary framework not only enriches our understanding of the snake as a symbol but also provides a robust model for analyzing other culturally significant concepts. The ability to capture both universal themes and culturally specific nuances emphasizes the importance of considering multiple perspectives in conceptual research.

Role of Context and Metaphor. The study illustrates how context and metaphor are central to the evolution of the snake’s symbolism. Idiomatic expressions and narrative structures across various languages and cultures reinforce the symbolic dualities of the snake, such as its association with both danger and renewal. These metaphors reflect deep-seated cognitive processes and cultural experiences, underlining the intricate relationship between language, thought, and cultural identity.

Implications for Future Research. The insights gained from this study advocate for further exploration of dynamic conceptual models using linguosynergetic principles. Future research could expand on the integration of neurophysiological methods to trace the cognitive correlates of symbolic meanings and apply similar interdisciplinary frameworks to other complex cultural symbols. This approach offers promising avenues for enhancing our understanding of how symbolic meanings are constructed, maintained, and transformed in an ever-changing cultural landscape.

In summary, the linguosynergetic analysis of the snake exemplifies how a single symbol can encapsulate a rich tapestry of meanings shaped by diverse human experiences. By recognizing the fluidity and interconnectedness of its semantic components, this study contributes to a deeper understanding of the dynamic processes that underlie the evolution of language and culture.

Author Contributions

Methodology, A.A.; validation, T.C.; resources, G.T.; data curation, K.K.; writing—review and editing, N.R. and A.B. All authors have read and agreed to the published version of the manuscript. Authorship must be limited to those who have contributed substantially to the work reported.

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Data Availability Statement

The data used in this study are available from the corresponding author upon reasonable request. Due to the nature of the research, some data may not be publicly available for confidentiality or copyright reasons. Additional information required to verify the study findings can be provided upon request.

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The authors stated that there are no conflicts of interest.

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