



Research Article

A Cognitive-Neurolinguistic Study of Kuriñcippāṭṭu

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Abstract

This paper examines Kuriñcippāṭṭu, one of the major poems of the Pattuppāṭṭu corpus traditionally attributed to Kapilar, through the interdisciplinary perspectives of Cognitive Linguistics, Neurolinguistics, Cognitive Poetics, and Neurocognitive Poetics. Rather than treating the poem merely as a repository of Sangam landscape imagery and love conventions, the study investigates how linguistic structures may organize perception, memory, emotion, embodiment, conceptual mapping, and aesthetic experience in the reader or listener. The study argues that the tiṇai system in Kuriñcippāṭṭu functions as a complex cognitive schema in which geographical environment, sensory imagery, human emotion, social action, and cultural knowledge are integrated into a unified conceptual structure. Mountain, flower, waterfall, animal, season, darkness, and movement do not operate simply as decorative descriptions. They activate interconnected mental representations through which love, anticipation, secrecy, anxiety, social regulation, and emotional transition become intelligible.

Using conceptual metaphor theory, embodied cognition, schema theory, discourse processing, and neurocognitive poetics as interpretative frameworks, this paper proposes that Kuriñcippāṭṭu can be understood as a sophisticated form of cognitive-cultural communication. The poem demonstrates how poetic language recruits sensory simulation, associative memory, affective processing, and culturally shared conceptual frames. The article therefore proposes a Cognitive-Neurolinguistic model for the study of Classical Tamil literature.

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KEYWORDS: Kuriñcippāṭṭu, Kapilar, Cognitive Linguistics, Neurolinguistics, Neurocognitive Poetics, Embodied Cognition, Tiṇai Theory, Sangam Literature, Emotion, Memory.

1. INTRODUCTION

Classical Tamil literature offers an exceptionally rich field for interdisciplinary research. Although Sangam poetry has traditionally been studied through philology, literary criticism, poetics, history, culture, and linguistics, relatively less attention has been given to the cognitive processes that poetic language may activate in its audience.

A cognitive-neurolinguistic approach asks a different set of questions:

- How does poetic language organize mental representation?
- How do sensory images activate memory and imagination?
- How are emotional states linguistically encoded?
- How does landscape become psychologically meaningful?
- How do metaphor, sound, rhythm, repetition, and imagery influence comprehension?
- How may culturally learned literary conventions shape cognitive interpretation?

These questions are especially relevant to *Kuṛiṇcippāṭṭu*. The poem belongs to the *Pattuppāṭṭu* anthology and it was composed by Kapilar. It is associated with the *Kurinji* landscape and the *akam* tradition of love poetry; the poem of 261 lines and associates it with *aṟattoṭu nīṟṟal*.¹

The poem's significance lies not only in its literary beauty but also in the cognitive integration of multiple domains:

Landscape + Sensory Perception + Emotion + Social Knowledge + Language

This paper argues that *Kuṛiṇcippāṭṭu* represents an advanced cultural model of cognition in which environment and emotion are inseparable.

2. OBJECTIVES OF THE STUDY

The present study has the following objectives:

1. To analyse *Kuṛiṇcippāṭṭu* using Cognitive Linguistics.
2. To investigate the neurolinguistic implications of poetic comprehension.
3. To examine the relationship between sensory imagery and emotional processing.
4. To analyse the *Kurinji* landscape as a cognitive schema.
5. To investigate metaphor and conceptual mapping in the poem.
6. To study memory and attention in relation to poetic enumeration and imagery.
7. To connect Tamil *tiṇai* theory with embodied cognition.
8. To propose a Cognitive-Neurolinguistic model for Classical Tamil literary studies.

3. METHODOLOGY

This study is primarily qualitative and interdisciplinary. It combines:

- Textual analysis
- Cognitive linguistic analysis
- Conceptual metaphor theory
- Embodied cognition
- Cognitive poetics
- Neurolinguistic interpretation
- Neurocognitive poetics

The analysis does **not** claim that brain scans were conducted on readers of *Kuṛiṇcippāṭṭu*. Instead, the term “neurolinguistic” is used cautiously to identify plausible relationships between linguistic features and established cognitive processes involved in language comprehension, sensory imagination, attention, memory, and affective response. This distinction is important because literary interpretation should not make unsupported claims about exact neural activation. Neurocognitive poetics itself emphasizes the need to connect literary form with experimentally informed models of cognition and affect rather than reducing literature to simplistic brain localization.²

4. THEORETICAL FRAMEWORK

4.1 Cognitive Linguistics

Cognitive Linguistics views language as closely connected with general human cognition. Meaning is therefore not merely contained in isolated words. It emerges through:

- categorization,
- perception,
- conceptualization,
- imagination,
- memory,
- analogy,
- metaphorical mapping, and
- cultural knowledge.

The cognitive approach is especially useful for poetry because literary language often creates meaning by establishing relationships between domains rather than merely transmitting literal information. Lakoff and Johnson's conceptual metaphor theory is particularly important here. Their central argument is that metaphor is not simply a rhetorical ornament but is closely related to conceptual organization. Metaphorical language can therefore reveal underlying ways of structuring experience.³

4.2 Embodied Cognition

Embodied cognition proposes that human concepts are substantially grounded in bodily and sensory experience. Lakoff's later discussions of embodiment emphasize that conceptual metaphors frequently emerge from correlations in lived experience, such as the association between verticality and emotional evaluation. This approach is highly relevant to *Kuṛiṇcippāṭṭu* because the poem repeatedly invokes:

- mountains,
- waterfalls,
- flowers,
- animals,
- sound,
- movement,
- weather,
- darkness, and
- bodily experience.

These are not abstract philosophical propositions. They are sensory structures through which emotional meaning becomes intelligible.

4.3 Neurolinguistics

Neurolinguistics studies the relationship between language and the brain. It investigates processes such as:

- lexical retrieval,
- sentence comprehension,
- phonological processing,
- semantic integration,
- figurative language processing,
- speech production, and
- reading.

For literary analysis, a neurolinguistic perspective raises the question of how complex poetic structures may place demands on:

attention → semantic integration → memory → imagery → emotional evaluation

Poetry is especially relevant because poetic texts frequently combine sound, meaning, rhythm, imagery, and affective implication. Research in neurocognitive poetics has argued that literary and poetic texts provide useful material for investigating the interaction between cognitive and affective processes during reading.⁵

5. Kuriñcippāṭṭu as a Cognitive Landscape

One of the most important insights offered by a cognitive approach is that **landscape in Sangam poetry is not merely geographical**. The Kurinji landscape represents an integrated conceptual system. It may be represented as follows:

Environmental Element	Cognitive Association	Emotional Significance
Mountain	Height, distance, difficulty	Aspiration, separation, intimacy
Waterfall	Movement and sound	Emotional intensity
Flower	Colour and sensory beauty	Love and attraction
Darkness	Limited visibility	Secrecy and uncertainty
Forest	Complexity and concealment	Mystery and intimacy
Animal life	Movement and instinct	Vitality and environmental presence

Thus, the reader does not cognitively process the landscape as an independent background. Instead: **Landscape becomes an emotional map**. The Kurinji environment creates a conceptual frame within which human love becomes meaningful.

6. Tiṇai Theory as Cognitive Schema

Modern cognitive science frequently uses the concept of a **schema** or mental framework. A schema organizes expectations and helps people interpret complex information.

The Tamil tiṇai system may be productively understood as a culturally developed cognitive schema. The Kurinji schema may be represented as:

Mountain → Night → Lovers → Secrecy → Union → Emotional Intensity

This structure enables rapid interpretation. When a culturally competent reader encounters a Kurinji landscape, the reader does not interpret each image independently. Cultural and literary knowledge activates a network of associated expectations. Thus:

Perception → Cultural Schema → Emotional Interpretation → Literary Meaning

This resembles schema-based models of language comprehension, in which interpretation depends upon the activation of stored knowledge structures.

7. Sensory Imagery and Cognitive Simulation

A central feature of Kuriñcippāṭṭu is its rich sensory world. The poem presents visual, auditory, tactile, and environmental imagery. In cognitive terms, sensory language can encourage readers to construct internal simulations of described environments.

For example, descriptions involving:

- roaring waterfalls,
- mountain slopes,
- flowers,

- vegetation,
- animals,
- movement,

encourage the reader to construct a mental scene rather than simply decode dictionary meanings.

The cognitive process may be represented as:

Word → Semantic Meaning → Sensory Simulation → Mental Image → Emotional Response

This process is particularly significant in poetry. A waterfall, for instance, may contribute simultaneously to:

1. visual imagery,
2. auditory imagery,
3. spatial imagination,
4. environmental atmosphere, and
5. emotional intensity.

The literary image therefore becomes cognitively multidimensional.

8. The Cognitive Function of the Mountain

The mountain is one of the central perceptual structures of Kurinji poetry.

From an embodied perspective, verticality has a direct relationship with bodily orientation. Human beings experience:

- climbing,
- descending,
- height,
- distance,
- physical effort,
- visibility,

through bodily interaction with space. Consequently, mountain imagery may activate embodied spatial knowledge. In Kuriñcippāṭṭu, the mountain environment can therefore function at multiple levels:

- **Literal Level**

A geographical location.

- **Cultural Level**

The recognized landscape of Kurinji tinaḷ.

- **Cognitive Level**

A complex spatial schema involving elevation, movement, distance, and enclosure.

- **Emotional Level**

A symbolic environment for intimacy, anticipation, secrecy, and union.

This demonstrates that poetic meaning operates through **multiple simultaneous levels of processing**.

9. Metaphor and Conceptual Mapping

Conceptual metaphor theory proposes that metaphor frequently involves mapping structures from one conceptual domain onto another. Lakoff describes metaphorical thought as involving mappings between conceptual frames rather than being merely an ornamental linguistic device.⁶ This theoretical perspective can illuminate Sangam poetic language. The general cognitive structure may be represented as:

SOURCE DOMAIN → TARGET DOMAIN

For example:

Natural phenomenon → Human emotion

or:

Landscape → Relationship

or:

Flower → Beauty / Youth / Emotional State

The reader must cognitively establish a relationship between the two domains. This involves:

- analogy,
- semantic association,
- cultural knowledge,
- imagination, and
- inferential processing.

Thus, poetic metaphor becomes a cognitive operation.

10. Neurolinguistic Dimensions of Figurative Language

Figurative language requires more than simple word recognition. Consider the following processing stages:

Stage 1: Lexical Recognition

The reader recognizes the words.

Stage 2: Literal Interpretation

The basic meanings are activated.

Stage 3: Contextual Integration

The reader determines whether literal interpretation is sufficient.

Stage 4: Figurative Mapping

The reader establishes a relationship between conceptual domains.

Stage 5: Emotional Evaluation

The image acquires affective meaning. Thus:

Language → Meaning → Context → Mapping → Emotion

The richness of Kurinčippāṭṭu lies partly in this multi-layered processing. A reader must repeatedly integrate:

- linguistic information,

- landscape knowledge,
- cultural conventions,
- interpersonal relationships,
- emotional expectations.

Therefore, Sangam poetry offers a particularly rich corpus for cognitive-neurolinguistic investigation.

11. Emotion Processing in Kurinčippāṭṭu

The akam tradition is fundamentally concerned with human emotional experience.

Important affective states include:

- attraction,
- love,
- longing,
- anticipation,
- anxiety,
- secrecy,
- social concern,
- emotional uncertainty.

A cognitive-neurolinguistic approach does not treat emotion as something external to language. Instead, language itself provides structures through which emotion is:

1. represented,
2. interpreted,
3. remembered,
4. communicated, and
5. culturally regulated.

Thus:

Emotion is not merely described by language; emotional experience is cognitively organized through language.

This is especially important in Tamil akam poetry because emotions are frequently communicated indirectly through:

- landscape,
- action,
- dialogue,
- symbolic imagery,
- cultural convention.

12. The Cognitive Role of the Toli

The toli or female confidante is a crucial cognitive and communicative mediator in akam poetry. From a discourse perspective, the toli performs several functions:

- interpreting emotional situations,
 - mediating communication,
 - managing social knowledge,
 - regulating disclosure,
 - connecting private experience with social structure.
- Therefore, the toli may be viewed as a **social-cognitive agent** within the narrative system. She understands:
- what the heroine feels,
 - what may be socially communicated,
 - what must remain concealed,
 - how relationships should be interpreted.

This involves a sophisticated representation of other minds. Modern cognitive science describes such abilities through

concepts related to: **social cognition** and **theory of mind**. The poetic structure therefore demonstrates an advanced awareness of interpersonal knowledge.

13. Attention and the Enumeration of Nature

One of the remarkable features associated with *Kuṛiṇcippāṭṭu* is its extensive environmental and botanical description. From a cognitive perspective, enumeration has important consequences. A sequence of multiple natural elements may:

- direct attention,
- increase perceptual density,
- activate associative memory,
- create rhythmic expectation,
- construct a complex mental scene.

The reader processes not simply one object but a network. For example:

Flower → Colour → Smell → Season → Landscape → Cultural Association

Each item can activate additional conceptual information. Thus, enumeration may function as a form of **cognitive scene-building** the reader gradually constructs an internally coherent environmental model.

14. Memory and Poetic Structure

Poetry is closely connected with memory. Classical Tamil literature emerged within strong oral and performative traditions. Features such as:

- rhythm,
- repetition,
- sound pattern,
- parallel structure,
- formulaic expression,

can support memorization. From a cognitive perspective, structured sound patterns may improve the organization of verbal material. The general process may be represented as:

Sound Pattern → Attention → Repetition → Encoding → Retrieval

The mnemonic potential of poetry is therefore not accidental. Poetic form provides organizational structure that may support memory. This principle is particularly relevant when studying ancient literary traditions in which textual transmission and oral performance were historically interconnected.

15. Sound, Rhythm, and Language Processing

Neurolinguistic analysis must also consider the sound dimension of poetry. Tamil poetry involves systematic attention to:

- phonological pattern,
- syllabic organization,
- rhythm,
- alliteration,
- repetition.

Neurocognitive poetics research emphasizes that poetic language often combines linguistic meaning with sound-based and affective features, making poetry a particularly useful domain for examining interactions among language, emotion, and aesthetic experience.⁷ In *Kuṛiṇcippāṭṭu*, sound should

therefore be understood not as a secondary ornament but as part of meaning construction. A poetic utterance can simultaneously produce:

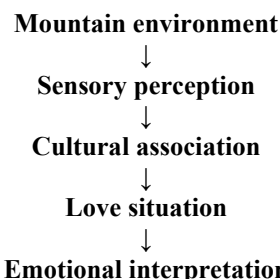
1. semantic meaning,
2. auditory pattern,
3. rhythmic expectation,
4. emotional atmosphere.

16. Embodied Cognition and *Tiṇai*

The relationship between human emotion and environment in Sangam poetry can be reconsidered through embodied cognition. The basic argument may be expressed as follows: Human beings do not experience emotion outside the world. They experience emotion:

- in places,
- through bodies,
- within social relationships,
- through sensory perception.

The *tiṇai* system recognizes this interconnectedness. For example:

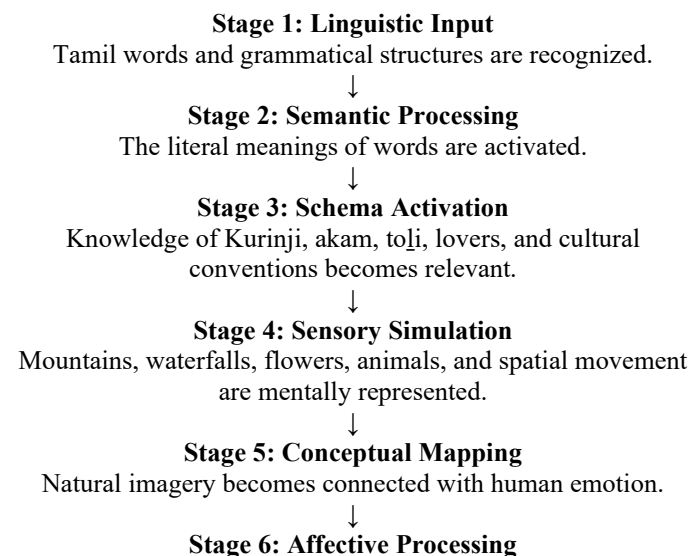


This structure closely resembles contemporary interdisciplinary approaches that connect cognition with bodily and environmental experience. The Tamil poetic tradition therefore provides an important indigenous framework for studying:

Mind–Body–Language–Environment relationships.

17. A Cognitive-Neurolinguistic Processing Model

Based on the present study, the reception of *Kuṛiṇcippāṭṭu* may be represented through the following model:



Love, anticipation, secrecy, and anxiety acquire emotional force.



Stage 7: Aesthetic Integration

The reader experiences the poem as an integrated linguistic, emotional, and cultural whole.

This may be summarized as:

Language → Cognition → Imagery → Emotion → Aesthetic Experience

18. Cognitive Poetics and Kuriñcippāṭṭu

Cognitive poetics provides a bridge between literary studies and cognitive science. It investigates how readers construct literary meaning through processes such as:

- attention,
- imagination,
- conceptual integration,
- perspective-taking,
- emotional response.

This approach is particularly suitable for Kuriñcippāṭṭu because the poem requires readers to integrate:

- natural environment,
- social structure,
- emotional experience,
- symbolic meaning.

The poem does not simply “tell” the reader what to feel. Instead, it constructs conditions under which emotion becomes inferable. This indirectness is cognitively important. The reader participates in meaning construction.

19. Cultural Cognition and Tamil Literary Knowledge

Cognitive interpretation is never entirely individual. Readers interpret literature through culturally shared knowledge. A reader familiar with Sangam conventions understands that:

- Kuriñji signifies a specific emotional and environmental system.
- The *tolī* has a recognized communicative function.
- Natural images may have culturally established associations.
- Love is regulated through social and ethical structures.

Therefore:

Literary cognition = Individual cognitive processing + Cultural knowledge

Without cultural knowledge, a reader may recognize the literal mountain but fail to understand its literary significance. Thus, Kuriñcippāṭṭu demonstrates that literary comprehension depends upon both:

- neural-cognitive capacities, and
- culturally transmitted conceptual systems.

20. DISCUSSION

- ✓ The Cognitive-Neurolinguistic analysis of Kuriñcippāṭṭu reveals several important findings.
- ✓ First, the poem demonstrates that language, environment, and emotion are cognitively integrated.

- ✓ Second, the *tiṇai* system can be interpreted as a culturally structured schema for organizing emotional knowledge.
- ✓ Third, natural imagery functions as a mechanism for sensory simulation and emotional conceptualization.
- ✓ Fourth, metaphor and indirect expression require complex processes of semantic integration and conceptual mapping.
- ✓ Fifth, poetic sound and structured imagery may contribute to attention, memory, and affective engagement.
- ✓ Finally, the poem provides evidence that Classical Tamil literary traditions can make significant contributions to contemporary interdisciplinary fields such as:

- Cognitive Poetics,
- Literary Neuroscience,
- Neurolinguistics,
- Environmental Humanities,
- Emotion Studies.

21. CONCLUSION

Kuriñcippāṭṭu can be understood not merely as a classical poem describing mountain landscapes and love but as a complex cognitive-cultural text.

Its literary structure integrates:

Language + Body + Environment + Memory + Emotion + Culture

A Cognitive-Neurolinguistic approach demonstrates that the Kuriñji landscape functions as a mental schema through which emotional experience is organized. Mountains, flowers, waterfalls, animals, sound, darkness, and movement collectively construct a perceptual environment that enables readers to imagine and emotionally interpret the experience of love. The poem therefore supports an important theoretical proposition:

Tamil classical literature contains sophisticated models of cognition embedded within its poetic structures.

The *tiṇai* system may be studied as a culturally developed cognitive framework; *akam* poetry may be investigated as a linguistic model of emotion; and Tamil poetic imagery may be examined through embodied cognition and sensory simulation. Future research could combine textual analysis with empirical methods such as:

- eye-tracking,
- EEG,
- fMRI,
- psycholinguistic experiments,
- reader-response studies.

Such research could examine how contemporary readers process Sangam imagery and whether culturally trained readers and unfamiliar readers construct different cognitive representations. Thus, Kuriñcippāṭṭu offers a significant meeting point between:

Tamil Studies + Cognitive Science + Linguistics + Neuroscience + Literary Theory.

Footnotes

1. The Project Madurai electronic text identifies Kuriñcippāṭṭu as a work of Kapilar, the eighth poem of the Pattuppāṭṭu collection, associated with Kuriñji *tiṇai*,

- arattoṭu nirral, and consisting of 261 lines. See Project Madurai, *Kuṛiṇcippāṭṭu* of Kapilar. The Naccinārkkiniyar commentary edition likewise describes the work and its literary context.
2. Arthur M. Jacobs, "Neurocognitive Poetics: Methods and Models for Investigating the Neuronal and Cognitive-Affective Bases of Literature Reception," *Frontiers in Human Neuroscience* 9 (2015). The neurocognitive poetics approach connects literary reading with experimentally informed models of cognition and affects.
 3. George Lakoff and Mark Johnson, *Metaphors We Live By* (Chicago: University of Chicago Press, 1980). Their work established the influential view that metaphor is connected with conceptual organization rather than being merely a decorative literary device.
 4. George Lakoff, "Explaining Embodied Cognition Results," *Topics in Cognitive Science* 4 (2012). Lakoff discusses conceptual metaphor as grounded in correlations within embodied experience.
 5. Jacobs, "Neurocognitive Poetics." The article argues that literary and poetic language can provide valuable material for studying interactions among thought, language, imagery, pleasure, and emotion.
 6. Lakoff, "Explaining Embodied Cognition Results." Conceptual metaphor involves mappings between conceptual frames, while linguistic metaphor represents surface manifestations of broader conceptual structures.
 7. Jacobs, "Neurocognitive Poetics," especially the discussion of phonological pattern, sound, rhyme, parallelism, imagery, and emotional processing in poetic reception.

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