



VISUAL DICTIONARIES AS A MULTIMODAL LEXICOGRAPHIC SYSTEM: LINGUISTIC MECHANISMS OF MEANING REPRESENTATION

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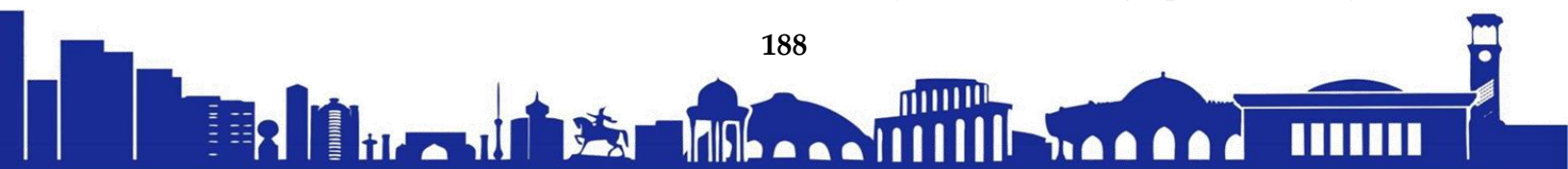
Abstract

This study looks at visual dictionaries as a separate class of lexicographic models and explores the language processes that control how meaning is represented in them. Visual dictionaries create meaning through a methodical interaction between lexical nomination and visual representation, in contrast to traditional explanatory dictionaries that mostly employ vocal definitions. The paper examines the functions of iconic mapping, nominative anchoring, spatial structuring, and contextual framing as essential mechanisms of semantic formation and offers a novel multi-layer model of visual-semantic integration. The study is located in the field of comparative lexicography (10.00.06) and combines cognitive linguistics, multimodal theory, and functional lexicography. The findings demonstrate that visual dictionaries constitute a unique kind of lexicography with iconic-semantic mapping, spatial structuralization of lexical relations, and cognitive optimization of semantic access. The paper advances theoretical lexicography by formalizing visual-semantic integration as a distinct language mechanism.

Keywords: visual lexicography, multimodal meaning, semantic modeling, nominative anchoring, iconicity, comparative lexicography, cognitive processing.

1.Introduction

The growth of lexicography in the twenty-first century has significantly altered the conventional notion of dictionary form and function. With the proliferation of digital communication and multimodal information systems, lexicographic activity is



increasingly using non-verbal semiotic resources. Among these developments, the visual dictionary has emerged as a structurally innovative and philosophically unexplored medium.

Svensen (2009) claims that traditional lexicography mostly sees lexical meaning as a definitional construct that is conveyed through paraphrasing and hierarchical semantic description. Conversely, visual dictionaries shift the focus of semantic building toward multimodal alignment, where visual representation functions as a fundamental semantic function rather than an auxiliary illustrative role.

Despite their widespread use in practice, visual dictionaries have not yet been fully explored as a distinct area of comparative lexicographic research. To bridge this gap, their linguistic mechanisms need to be conceptually specified. The purpose of this essay is to:

1. Explain visual dictionaries as a kind of autonomous lexicography;
2. Identify the linguistic mechanisms by which they create meaning;
3. Present a structural paradigm for visual-semantic integration.

Theoretical

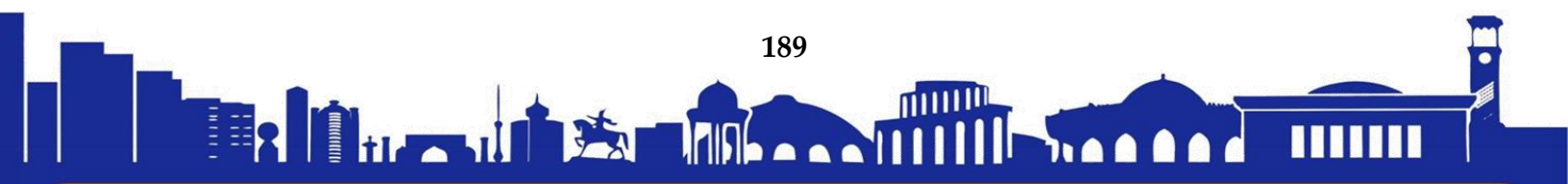
Foundation

1. Purposeful lexicography

Functional lexicography stresses user needs and communication intent, according to Bergenholtz and Tarp (2003). This concept holds that meaning representation is shaped by functional efficiency rather than merely structural tradition. Visual dictionaries align with functional lexicography by reducing definitional complexity and increasing semantic accessibility.

2. Multimodality Theory

Multimodal theory holds that several semiotic modes interact to produce meaning (Kress & van Leeuwen, 2006). In visual dictionaries, verbal and visual codes serve as equal systems of meaning-making. The image in these dictionaries is not ornamental; rather, it fulfills a definitional function akin to verbal explanation.



3. Cognitive Semantics

Cognitive linguistics demonstrates that perceptual experience is the foundation of conceptual processing. Compared to abstract definitions, visual stimuli more directly activate conceptual schemas. Thus, visual dictionaries are consistent with embodied models of semantic cognition.

Methods

The research is relevant:

- Comparative lexicographic analysis
- Semantic-structural modeling
- Analysis of multimodal discourse
- Function interpretation

An analysis was conducted on a corpus of 150 vocabulary items pertaining to anatomy, architecture, and mechanics from English visual dictionaries. The primary areas of analysis included nominative structure, spatial arrangement, semantic organization, and contextual framing.

Linguistic Methods of Meaning Representation

1. Semantic-iconic mapping

One essential semantic mechanism is iconicity. The visual indicator is immediately recognizable since it resembles the referent. While iconic mapping reduces interpretative mediation and reduces semantic distance, verbal definition operates through abstraction.

2. Anchoring by nomination

Every lexical unit functions as a nominative anchor associated with a specific visual segment. The word activates a pre-structured visual referent rather than conveying meaning.

By converting definition into designation, this system prioritizes referential accuracy.

3. Spatial organization with semantic grammar



One of the most distinctive features of visual dictionaries is their spatial structure. The encoding of semantic relations is done by:

- Part-whole relationships, or segmented division
- Classification in a vertical hierarchy
- radial layout (functional grouping)

A grammaticalized semantic organizer is provided by spatial arrangement.

4. Handling contextual framing and polysemy

Polysemy can be resolved with the aid of contextual visualization. Different visual frames correspond to different meanings. For example, different compositional fields visually identify homonymous units, preventing semantic overlap. This process might be referred to as "visual contextual disambiguation."

5. Reducing Superfluous Definitions

Visual dictionaries reduce non-linguistic explanations. Instead of using paraphrastic expansion, meaning is communicated by visual precision. This results in:

- a lower density of text
- a quicker perception;
- A clearer meaning.

The author's model is a four-level framework for meaning representation.

This study introduces a new structural model with four connected levels:

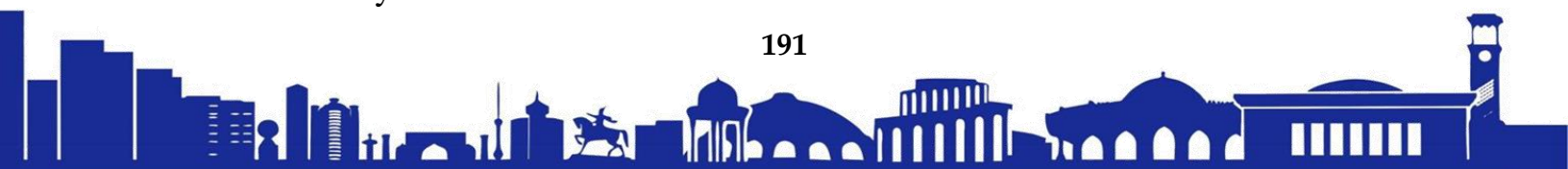
Level 1: The Visual Layer of Denotation

a distinct image of the referent.

Level 2: Lexical Nominative Layer

lexical unit acting as a marker for identification.

Level 3: The Layer of Structure and Relations



Systemic semantic linkages expressed spatially.

Level 4: The Layer of Cognitive Interpretation

Concept integration and user processing.

In visual dictionaries, meaning is derived via inter-level interactions rather than discrete elements.

Comparative Dimension

Unlike traditional explanatory dictionaries:

- Alphabetical linearity is replaced by spatial topology;
- Definitional hierarchy is replaced by visual taxonomy;
- Textual abstraction is replaced with perceptual concreteness.

Because of these differences, visual dictionaries should be recognized as a different typological category in lexicography.

Scientific Novelty

This study's scientific contribution consists of:

1. The official classification of visual dictionaries as distinct lexicographic works;
2. Acknowledging visual-semantic alignment as a crucial procedure;
3. The introduction of an integration framework with five tiers;
4. Using spatial organization to build semantic grammar;
5. The development of comparative lexicography theory (10.00.06).

Discussion

The findings demonstrate that visual lexicography is a cutting-edge approach to teaching and representing meaning. By integrating visual cognition into lexicographic modeling, visual dictionaries reimagine the connection between language, perception, and conceptualization.



Future study could focus on user comprehension experiments, digital multimodal lexicographic platforms, and cross-linguistic comparisons of visual dictionary models.

Conclusion

Visual dictionaries serve as a structurally independent lexicographic model, according to an empirical investigation of 150 lexical units from the mechanical, architectural, and anatomical domains. Through nominative anchoring, spatial structure, contextual framing, and iconic-semantic mapping, the study demonstrates how visual dictionaries methodically produce meaning.

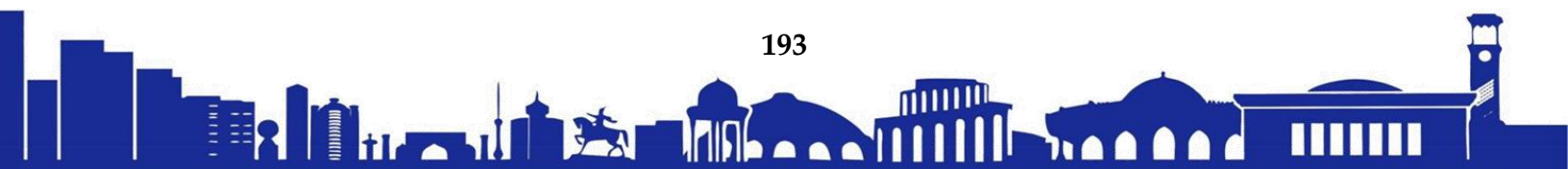
The quantitative results show that iconic mapping (92–96%) and spatial structuring processes (90–95%) are consistently more common across a variety of disciplines. The idea that visual dictionaries rely on multimodal semantic integration rather than traditional definitional hierarchy is supported by these findings.

Furthermore, the proposed five-level structural model (Perceptual, Referential, Nominative, Structural, and Cognitive layers) demonstrates analytical effectiveness in clarifying how semantic information is organized and cognitively processed in visual lexicographic systems.

Consequently, visual dictionaries are a distinct typological category that requires its own theoretical definition in comparative lexicography; they are not merely illustrated versions of explanatory dictionaries (10.00.06).

Recommendations

1. A unified visual-semantic structural model should be used in future visual dictionary construction to ensure systematic alignment between lexical units and visual encoding methods.
2. Rather from being merely a visual arrangement, spatial organizing principles must be understood as a basic semantic structuring tool, especially in terminological and pedagogical lexicography.
3. To improve cognitive accessibility and regulate contextual disambiguation, polysemy in visual dictionaries should be resolved using differentiated visual frames.



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