



Article

The Role of Linguistic and Extralinguistic Factors in the Associative Connection of Lexical Units

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Abstract: This article elucidates the linguistic and cognitive nature of associative connections between lexical units. The research analyzes the verbal networks of words within the human consciousness, the concept of the associative field, and the mental lexicon residing in the memory of the linguistic personality. The study aims to demonstrate that associative links between lexical units play an integral role in shaping an individual's worldview, culture, speech situations, social and psychological states, as well as their overall linguistic activity.

Keywords: Associative Connection, Lexical Unit, Verbal Network, Associative Field, Mental Lexicon, Linguistic Personality, Worldview, Speech Activity

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1. Introduction

With the exception of certain studies addressing the associative connection of lexical units and the properties of associations in the Uzbek language, several critical issues remain unresolved in contemporary linguistics. These include the mechanisms behind the formation of lexical associations, the correlation between verbal associations and the speakers' mentality or national-cultural perspectives, and the investigation of these associations through the lenses of gender markers and social characteristics. Furthermore, the development of associative dictionaries based on Uzbek language materials remains one of the most pressing challenges today.

It is well-established that in the analysis of the verbal expression of the external world and the "reality-consciousness-language" triad, a fundamental aspect must be considered: realities of the external world are not reflected in the human mind in isolation from their inherent contexts, such as space, time, causality, and purpose. These factors, which serve as conditions for the objective existence of a specific reality, manifest in the human mind as "companions" to the image of that reality, thereby forming an interconnected associative "chain."

Because the external world is reflected in the human mind through various interrelated objects and events, they associatively evoke one another. Beyond external objects, a person's shared and simultaneous experiences also trigger mutual recollection based on the principle of connectivity. As noted by M. Wettler and R. Rapp: "Objects once experienced together typically become mentally linked. Consequently, the thought of one naturally leads to a thought of the other, following the original order of sequence or coexistence." [1].

The associative connection of various realities reflected in consciousness gives rise to the associative linkage of units that trigger mutual recall within the language. For instance, soil and water are essential for a tree's growth, and trees grow in forests, gardens, or squares. In human memory, the objective connection of a tree with soil, water, and gardens causes the lexeme "tree" to recall the lexemes for "soil," "water," "forest," "garden," and "square." This mode of interaction between linguistic units, rooted in human psychological perception, is termed an associative relationship[2]. As the eminent linguist A. Nurmonov noted: "...outside the speech process, linguistic units are organized into specific groups in memory based on certain common features. For example, the word 'education' is linked in the mind with various terms such as 'school,' 'book,' and 'teacher.' It is evident that such a relationship differs fundamentally from a syntagmatic relationship. The latter [associative relationship] lacks linearity; it is localized in the brain and belongs to the treasure house preserved within the memory of each individual. Such a relationship is considered an associative relationship[3,4].

2. Materials and Methods

The associative approach to language emerged significantly later than in other disciplines, specifically philosophy and psychology. Investigating associative relationships in language facilitates drawing specific conclusions regarding external world connections, their manifestation in human consciousness and language, the lexical reserves of native speakers, and the lexical and associative meanings of words.

In the analysis of verbal associations, alongside the concept of associative meaning, concepts such as the scope of associations, national-cultural identity, sociality, and gender markers play a pivotal role. The scope of verbal associations varies among speakers to a certain extent, depending on the speaker's lexical reserve. The size and structure of the verbal associative field differ across various professions, age groups (children and adults), and genders.

Interestingly, it is observed that representatives of different nationalities produce distinct verbal associations for the same object. This phenomenon is linked to the national-cultural perspectives, values, and attitudes toward reality held by various native speakers. A.A. Zalevskaya notes that in response to the stimulus word bread (non), Russians responded with salt, the French with wine, Germans and Americans with butter, and Uzbeks with tea. This indicates that national-cultural perspectives are inherently reflected in verbal associations.

Verbal associations also vary based on social markers. For instance, the lexeme cotton reminds a farmer of a cotton field, whereas it evokes a treatment room (or dressing room) for a medical professional. Based on these perceptions, associative pairs such as cotton-cotton field and cotton-treatment room emerge. Another characteristic of verbal associations is that they pave the way for the creation of various speech structures. In other words, associatively linked linguistic units (lexical and syntactic units) serve as anchor units for any speech construction.

3. Results

An associative structure following the model of Stimulus word (a word that triggers the recollection of other units in memory upon being heard or read) + Response reaction (a unit or associate that manifests in human memory as a response to the heard or read word) can serve to express a specific situation. For example, associative structures formed based on the lexeme girl – such as modest, chaste, and kind – generate sentences like "The modest girl," "The chaste girl," and "The kind girl." Alternatively, with the involvement of lexemes associatively linked to the verb to wrap (belamoq) – such as cradle, child, baby, infant, offspring, mother, and to rock– one can construct sentences such as "The child was

wrapped in the cradle," "The mother wrapped her baby in the cradle," or "The mother wrapped her infant in the cradle." [5,6]

Associative units act as anchor units in the construction of these sentences. However, to construct these sentences, a native speaker must not only know the grammatical rules of the language but also be aware of the national-cultural values regarding the beshik (cradle). The restoration of one unit in memory upon hearing or reading another lexical unit proves that lexemes do not "exist in isolation" in our linguistic consciousness [7]. These units that "coexist" in the linguistic consciousness are considered the anchor units that form speech structures.

However, it is worth noting that not every stimulus-response pair necessarily serves as building material for a speech structure. In this context, it is appropriate to focus on logically and semantically linked associative pairs. This is because, within the associative field, one may encounter associations artificially created by subjects, or those formed solely based on the phonetic structure or pronunciation of the stimulus word, which are not linked to the stimulus word in any meaningful way and do not participate in the formation of speech structures [8,9].

4. Discussion

What factors influence the formation of associative units, specifically lexical associations, within a language?

Every lexical unit, regardless of its grammatical form or semantic content, triggers the recollection of various other lexical or level units in human memory, establishing an associative link based on a range of factors. Professor A. Nurmonov attributes the formation of lexical associations to the common features inherent in lexemes [10,11]. According to the scholar, "while a word enters into syntagmatic relationships, it also associates in the speaker's linguistic memory with other words based on commonality outside the speech process, and these associated units form specific groups within the memory." Indeed, lexical units in a language can be grouped based on a series of shared characteristics, such as semantic, structural, derivational, connotative, and acoustic features. These commonalities are observed in numerous lexical associations and are organized into specific clusters within the memory of native speakers [12].

Notably, verbal associations also arise through the semantic components of certain lexical units. In this regard, one can speak of the unity of semantic and associative components. However, the associative connection of lexemes should not be restricted solely to their semantic structure. A specific lexeme can simultaneously enter into both associative and semantic relationships with another lexeme. Nevertheless, the primary distinction between the associative and semantic connections of lexemes lies in the fact that an associative relationship ensures a high degree of co-occurrence in speech, whereas a semantic connection causes lexemes to be grouped together based on a common sema, but does not necessarily lead to their simultaneous usage in discourse.

Linguists attribute the formation of verbal associations to various factors. According to E.I. Goroshko and L.E. Kuznetsova, the formation of associations is influenced by: 1) linguistic factors (specific characteristics of the stimulus word) and 2) pragmatic factors (the "personality" of the subject). Both scholars also recommend including the conditions and circumstances of the experiment as an additional factor in this series [13].

It is more appropriate to categorize the influence of the "subject's personality" and the "experimental conditions" under the umbrella of extralinguistic factors. From this perspective, the factors influencing the formation of associative pairs can be studied by dividing them into linguistic and extralinguistic categories. Verbal associations, particularly lexical associations, can be analyzed in relation to these factors. In the Uzbek language, lexical associations are formed in connection with the following linguistic factors:

1. Semantic interconnectedness of lexemes.
2. Connection of lexemes based on their lexico-grammatical features.
3. Connection of lexemes based on their stylistic features.
4. Commonality of the pragmatic features of lexemes.
5. Commonalities in the derivation of lexemes.
6. Phonetic harmony of lexemes.
7. Connectivity of lexemes based on their dialectal features.
8. Commonality of the national-cultural features of lexemes.
9. Proximity of lexemes based on their social characteristics.
10. Connection of lexemes based on their gender markers[14].

Associations formed through linguistic factors can be classified as follows.

1. Associations based on the semantics of lexemes. Lexical units are imprinted in human memory not as isolated forms, but as holistic entities encompassing their material shell, grammatical structure, and semantic, stylistic-functional, pragmatic, and acoustic properties. When a semantic essence is present, associative units emerge through synonymy, relatedness, or opposition (antonymy). In language, the semantic relationship between lexemes produces various types of associations. Specifically, the semantic connection between synonymous lexical units leads to mutual recall and associative linkage in human memory. For example, associative pairs such as *bola-farzand* (child), *iboli-hayoli* (modest/chaste), and *katta-ulkan* (big-huge) are formed on the basis of synonymous relationships.

2. Associations based on lexico-grammatical features. Lexical units also form associations based on their lexico-grammatical characteristics. For instance, variations of the word "father"— *ota*, *otajon*, *otaxon*, *otam*, *otang* – reflect categories of endearment, respect, number, and possession within the noun category. Similarly, adjective lexemes like *chiroyli-chiroyliroq-eng chiroyli* (beautiful–more beautiful–most beautiful) denote degrees of comparison, while verb pairs such as *o'qi-o'qima* (read-do not read) or *yozay-yozing* (let me write-[you] write) establish associative links through person-number, affirmative-negative, and mood relationships.

3. Associations based on stylistic features. Lexical units create specific associations according to their stylistic markers. For example, pairs such as phraseme-lexeme or dash-quotation marks and the grouping of conjunction-particle-connective are associated with the scientific style. Lexemes like *oraz-ruhsor* (face/countenance) evoke the literary/artistic style, while terms like *buyuraman-tasdiqlansin* (I order-let it be approved) form associative pairs characteristic of the official-formal style.

4. Associations based on pragmatic features. Lexemes enter into associative relationships based on the interconnectedness of their pragmatic meanings. For instance, in the associative pair *iljaymoq-tirjaymoq* (to smile-to smirk/grin), although the synonymous relationship appears primary, the association is driven by pragmatic nuance.

5. Associations based on word formation (derivation). The relationship between a base lexeme and its derivatives also triggers associative links in human cognition. For example, the lexeme *gul* (flower) is associatively linked with its derivatives, such as *gulli* (flowered), *gulchi* (florist), *guldon* (vase), *gulsiz* (flowerless), and *gulla* (to bloom).

6. Associations based on phonetic harmony (pronunciation). Associative links are observed in the relationship between paronymous pairs – words that possess different meanings but sound similar and are perceived by individuals as semantically related units. An example of this is the pair *adresant-adresat*.

7. Associations based on dialectal features. Dialectal terms form associative relationships with their equivalents in the literary language. The dialectal word and its

literary counterpart evoke one another in memory. For instance, associative pairs such as *nini-chaqaloq* (baby), *tuxum-mayak* (egg), and *yostiq-bolish* (pillow) are formed through the interaction between the literary language and regional dialects.

8. Associations based on national-cultural features. Cultural markers specific to a particular nation are manifested within the semantics of lexical units. The national-cultural characteristics of a people are revealed through specific examples of such lexemes. For instance, lexemes like *belbog'* (waistband), *do'ppi* (skullcap), *sumalak* (traditional dish), *kashta* (embroidery), and *sochpopuk* (tassel/hair ornament) convey information regarding the uniqueness of Uzbek customs and attire, extending far beyond their denotative meanings.

9. Associations based on the social markers of lexemes. Dialectal usages and lexical units characteristic of specific social groups provide information regarding the speakers' social status, profession, and occupation. The proximity of these social markers causes such lexemes to evoke one another and establish associative links in human thought. For instance, the lexeme *tailor* (*tikuvchi*) recalls the lexeme *designer*, while the lexeme *doctor* (*shifokor*) brings to mind the lexeme *nurse* (*hamshira*). Such lexical units form associations based on their shared function of representing professions or practitioners. Lexemes such as *lieutenant-general* or *boss-worker* (*boshliq-ishchi*) unite into associative pairs based on reflecting an individual's status within a social hierarchy[15].

10. Lexical associations based on gender characteristics. Gender-specific lexical units in the language associate with other lexical units possessing the same gender marker. For example, the lexeme *woman* (*ayol*) enters into associative relationships with lexemes sharing the same gender marker, such as *wife* (*xotin*), *mother* (*ona*), *elder sister* (*opa*), *younger sister* (*singil*), *maternal aunt* (*xola*), and *paternal aunt* (*amma*). Similarly, the lexeme *man* (*erkak*) establishes associative links with terms like *husband* (*er*), *father* (*ota*), *elder brother* (*aka*), and *maternal uncle* (*tog'a*).

5. Conclusion

The study of associative connections within lexical units represents one of the most significant branches of modern anthropocentric linguistics, positing that words do not exist as isolated entities within the consciousness of a linguistic personality, but rather as a complex associative network. The pronunciation or perception of a single lexical unit triggers a chain of related units in the mind—whether they be synonymous, formal, or situational. Associative connections are rooted not only in the internal laws of language but also in the individual experience, cultural milieu, and social background of the linguistic personality. Specifically, the gender factor functions as a filter in the diverse formation of these links; the same word can evoke distinct pragmatic associations within the consciousness of men and women.

Associative linkages within lexical units reveal the connotative layer of a word. Evaluative units (praise, reprimand, curses, etc.) are selected based on the pre-existing associative models within the consciousness of the linguistic personality. This demonstrates that association is not merely a linguistic phenomenon but also a potent pragmatic mechanism. Furthermore, associative connections reflect the national-cultural mentality of a particular nation. Analyzing the chain of relationships between lexical units allows for the identification of the patterns through which the Uzbek linguistic personality perceives the world and expresses subjective-gender attitudes toward it.

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