Arab World English Journal
INTERNATIONAL PEER REVIEWED JOURNAL ISSN: 2229-9327

Arab World English Journal (AWEJ) Volume 17. Number 3, September 2026 Pp.189-210
DOI: https://dx.doi.org/10.24093/awej/vol17no3.11

Investigating Morphosyntactic Patterns and Metaphorical Interpretation of Compound Words in Walt Whitman's *Song of Myself*: A Construction Morphology Approach

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Received:06/04/2026 Accepted: 08/25/2026 Published:09/10/2026

Abstract:
As a word formation process, compounding is essential to poetry because it enriches the poetic language, making it more compressed, concise, metaphorically dense, and effective. The article aims to investigate the morphosyntactic and metaphorical aspects of the compound words employed by the American poet Walt Whitman in his renowned poem *Song of Myself*. Whitman's way of compounding words is a distinctive stylistic feature that sets his poetry apart from the work of other American poets. He created compound words that are unconventional and innovative. A Constructional Morphology (CM) approach has been employed to analyze the data. The Blending Theory of Metaphor (BTM) was also highly utilized in interpreting any metaphor encoded in the compound words. The data were solely collected from *Song of Myself*. A total of 627 compounds were identified and statistically analyzed, while 10 compounds were randomly selected and qualitatively analyzed. Whitman's creation of compound words is driven by his intention to shed light on certain unique themes that are closely connected to his beliefs, visions, poetic identity, and outlook. This reveals a close connection between Whitman's poetics and the morphosyntactic and metaphorical aspects of his compounds. The article concludes that the syntactic pattern adjective + noun is the most frequent type of compounds used in the poem. It also recommends future studies that further explore other morphosyntactic aspects in Whitman's poetry such as neologisms and borrowings.
Keywords: Blending Theory of Metaphor, compounds, construction morphology, *Song of Myself*, Walt Whitman

How to cite: Ali, A. H., Abdullah, A.A., Gharkan, E.R., & Suleiman. H. A. (2026). Investigating Morphosyntactic Patterns and Metaphorical Interpretation of Compound Words in Walt Whitman's Song of Myself: A Construction Morphology Approach. *Arab World English Journal, 17*(3): 189-210. https://dx.doi.org/10.24093/awej/vol17no3.11

Introduction

Poetry is distinguished from other genres due to its employment of various literary devices and its tendency towards linguistic experimentation, lexical innovation, and semantic condensation that add a multi-layered and expressive meaning to the poetic diction. Therefore, poets carefully choose the linguistic strategies that enhance their poetic discourse. One example of these strategies is compounding that had been extensively employed by the notable American poet, Walter Whitman. Whitman was born on May 31, 1819, in Long Island, New York, nearly fifty miles from Manhattan. (Reynolds, 2000). In his collection, *Leaves of Grass* (1855), Whitman introduced a unique approach to poetry by employing lines of varying lengths based on rhythmic effects rather than recurrent metric feet. He also focused on the variation of words, phrases, and clauses (Abrams, 1999). Lawson (2006) indicates that Whitman shocked many critics, such as Charles Eliot Norton, who pointed out that *Song of Myself* was written in a strange language, a mixture of high and low styles. Whitman's use of language and imagery in *Song of Myself* expresses his sensual feelings and attitudes (Rehman, 2012). His poetry considerably influenced other poets, such as Ezra Pound and Allen Ginsberg (Fatah, 2024). It is marked by the use of slang and colloquial expressions, and informal diction (Tuten, 1992). Another remarkable feature of Whitman's poetry is his effective use of cataloging, particularly in *Song of Myself*, which reflects the equality of all things in modern life (Warren,1995).

Despite that fact that past studies have investigated wording and diction employed by Whitman in his poem *Song of Myself*, compounding has been given insufficient attention. His way of compounding words and endowing them with metaphorical meanings remains adequately unexplored. Therefore, this research attempts to bridge the gap by inspecting the syntactic patterns of compounds and their metaphorical meanings in their poetic context to enable the readers to capture their implicit meanings.

Whitman extensively employs certain word formation processes like compounding to innovatively form new words. In forming compound words, he follows different syntactic patterns. The significance of this research lies in its relation to morphology, metaphor, and stylistics. The paper applies the CM approach to analyze the poet's compounds. The metaphorization encapsulated in such compounds can be interpreted in accordance with the BTM. The overall analysis provides readers interested in stylistics with a stylistic approach that offers deep insight and understanding of poetic language.

This study is organized into different sections. The introduction section tackles the background, problem of the study, objectives, research questions, and significance of the study. The literature review section covers different concepts and theories related to compounding. The methodology section focuses on data collection, research method, and procedures. The results section offers the morphosyntactic and metaphorical analysis of Whitman's compounds, followed by the discussion section that explains the statistical aspect of the themes adopted in creating compounds and enhancing them with metaphorical meanings. The last section is the conclusion, which sums up the basic insights and implications of compounds in Whitman's poem.

Research Objectives

The current research aims at achieving the following objectives:

1- to sort out and count the compounds employed in *Song of Myself* and indicate their percentages.

2- to syntactically and morphologically analyze these compounds to realize the poet's method of structuring the compounds in terms of syntactic patterns and morphological templates.
3- to expound on some compound words that are metaphorically used.

Research Questions

This research attempts to answer the following questions concerning the syntactic patterns of compound words and the metaphorical usage of some of them:

RQ.1: What syntactic patterns does Whitman use in forming the compounds?
RQ.2: Which compound type is the most frequent in Whitman's *Song of Myself*?
RQ.3: What are the metaphorical meanings conveyed by compounds in the context of the poem?

Literature Review

Past studies on *Song of Myself* have chiefly concentrated on stylistic issues, structure, and a range of themes such as democracy, philosophy, nature, spirituality, identity, and individual freedom. Hirsch (2021) argues that *Song of Myself* represents Whitman's celebration of his identity. This poem focuses on the self, which is considered an evolving entity in the human body that eventually melts within the soul (Kumar & Tayal, 2025). He also focuses on individuality, deeming it a symbol of democracy in America (Glayl, 2024). These studies have probed Whitman's philosophical dimensions. Despite the vast scholarship on Whitman's poetry, the syntactic patterns of compounds and their metaphorical usage in *Song of Myself* haven't yet been explored. The lack of research on this topic demonstrates an obvious gap in the scholarship which will be addressed in the present study.

In his MA thesis on Whitman's vocabulary in *Song of Myself*, Taylor (1975) argued that "many compound words … were invented by Whitman himself, revealing his creativity of coining words inspired by his own life experience" (p. 24). Taylor further adds that Whitman's employment of slang compound adjectives such as "loose-gowned", "sharp-lipped", and "sharp-toothed" led to their standardization. Agarwal (2017) researched the language and skills in Whitman's poetry, indicating that the latter freely created compound words and coined new words. Mitić et al. (2025) explored how different complex and simple syntactic structures impact metaphor processing. Based on the questionnaire submitted to the participants, they found that complex syntactic patterns with object or adverbial phrases were rated higher in aptness and quality than the simpler structures. As past studies on *Song of Myself* have not examined the morphosyntactic perspective of compounds, this study attempts to address this gap by applying Brinton's model (2000) to create a systematic classification of the syntactic patterns of compounds, and by using BTM to investigate their metaphorical meaning. By integrating both morphosyntactic and metaphorical analyses, this study provides a new aspect of the poet's lexical creativity and morphological productivity of compounds.

Compounding is a morphological process that combines two or more words to form a new word with a distinct class (Brinton, 2000). Booij (2016) views compounding from a lexical perspective, as a process based on producing lexemes. More specifically, compounding consists of a combination of two words where one word modifies the meaning of the other, thus asserting their binary structures.

According to Plag (2003), compounding has two forms: the first is a root, whereas the second is a free morpheme. He argued that most language users literally interpret compound words by treating the first word as a modifier for the second one. For example, the compound word

toothbrush is interpreted as a brush for cleaning human teeth, rather than the floor. However, this assumption does not apply to all compound words because some of them are metaphoric. For instance, *hot dog* mustn't be interpreted literally as a dog that is hot, because it metaphorically means a delicious sandwich. According to Harley (2006), compounding is entirely productive in different fields. It is considered the dominant word formation process in morphology. Karachun et al. (2020) label nominal (noun) compounds as compound term-nouns whose formation predominantly rely on the need of the society to name new concepts which arise due to scientific progress and technological advancement.

This study seeks to integrate theories of compounding with theories of metaphor to investigate the relation between the morphosyntactic structure and the metaphorical meaning in Whitman's *Song of Myself*. The theories of compounding offer the linguistic architecture, which illustrates the compositionality and the classification of compounds. In contrast, metaphor theory expounds the encapsulation of compound words with conceptual and figurative meanings. Wang and Xu (2025) researched the compositional meaning of compounds. They investigated the use of semantic transparency to explore the impact of the meaning of individual elements on the interpretation of compounds. Based on Interaction theory of Metaphor, Khatin-Zadeh et al. (2026) state that the meaning of metaphor can be obtained from the interaction of two different concepts, such as the compound *wolf man*, which refers to a brave man. The metaphorical meaning of the compound results from the interaction of the semantic content of the two concepts. The Ambiguity Theory of Metaphor states that interpreting the metaphorical meaning of a given expression depends on its literal meaning (Lane, 2024). This can be extended to interpreting the metaphorical meaning of a specific compound by focusing on the literal meaning of the compound's constituent elements. Yang et al. (2026) stated that the conceptual metaphor theory is simply a systematic mapping between two conceptual domains whereby expressions transfer meaning from a source domain to target domain, permitting abstract concepts to be expressed through concrete terms. Thus, metaphorical compounds can be analyzed in terms of source-target relationship. Source domain and target domain are two concepts that occur in diverse knowledge domains to form a conceptual metaphor (Al-Mashhadani et al., 2024). A nominal conceptual metaphor is created by combining two nouns to function as one metaphor. Consequently, integrating the syntactic and the metaphorical aspects enables the researchers to understand the role of the morphosyntactic compositionality of Whitman's compounds in the interpretation of their metaphorical meaning within their poetic context.

Construction Morphology: Form and Meaning

Construction Morphology (CM) is a theory in linguistic morphology that first emerged in 2005, and was developed by Booij (2005). It focuses on the construction of words, more specifically on the systematic combination of form and meaning, which can analyze the syntactic and morphological aspects of the word (Booij, 2010). Hoffmann and Trousdale (2013) point out that the construction approach is derived from Construction Grammar.

Linguistic units are expressed through generalizations, which are referred to as constructional schemas. The notion of a constructional schema is related to the conventionalization of lexical properties in language, as well as the pairing of form and function in complex words. Such pairing contributes to analogical formations on the morphological level (Bauer et al., 2015). Hilpert (2024) states that CM employs a network model of language where this model considers constructions as nodes which are interrelated by various types of connections.

According to Barlow and Kemmer (2000), schema is a cognitive representation that generalizes perceived instances when using similar words in the same constructions, such as the words driver, killer, and player. The word driver is a noun that comprises the constructional schema [[drive]Ver]N. The word drive is a verb constructed with the suffix (-er) to produce a noun indicating an agent, as shown in the schema <[x]Vier]Nj↔ [agent of SEMi]j >. This schema accounts for the relationship between form (noun) and meaning, represented by the suffix (-er), which semantically confirms the noun as the agent that performs the process of driving. Schemas represent word-formation patterns, making possible the generalizations about subsets of complex words. In a more general sense, they can be seen as templates that specify generalizations capturing predictable properties of existing complex words (Booij, 2016).

Bauer (2009) contends that compounding is the most common type of word formation process in the world's languages. English has a productive process for producing right-headed compounds, such as N+N compounds. The most abstract schema for English compounds is the following:
[X i Y j] Yk ↔ [SEM Yj with relation R to SEM Xi] k

According to this schema structure, the left and right arrows express the grammatical categories of the word, which are identical constituents as they share the category variable Y. Through indexes, the schema indicates that the formal head of the compound is considered its semantic head (Barðdal, 2008). A football, for example, is a kind of balls, not a type of feet. It indicates a ball that has some semantic relation with the left constituent, foot. Thus, the constructional approach of analyzing complex words involves the phonological, syntactic, morphological, and semantic levels, where the semantic level examines the semantic properties of the words involved in the compound words.

Paradigmatic Relations of Compound Words

It is worth noting that compounds are formed according to syntactic patterns that follow structural rules. Brinton (2000) explains compounds and their syntactic structures. He presents a set of commonly adopted patterns: pattern (1) N+N>N cornflake, pattern (2) V+N>N crybaby, pattern (3) A+N>N hardware, pattern (4) N+V>V babysit, pattern (5) A+V>V fine-tune, pattern (6) N+A>A headstrong, pattern (7) A+A>A red-hot and finally pattern (8) A+N>A blue-collar. Readers must identify the grammatical class of every word available in the compound to be easy for them to give the resultant word and its class due to this combination. Brinton classifies the compound words into compound nouns, compound verbs, and compound adjectives.

Quirk and Greenbaum (1973) morphologically classified compound words into three types: open or spaced compound, where the compound word has an opening or a space between words, like *full-moon*; a hyphenated compound, which contains a hyphen between the words, such as *father-in-law*; and a closed or solid compound, which has no space or opening between the words, such as *breakfast*. According to Quirk et al. (1985), compound words can be spelled as a single word, such as the word *policeman* or as a hyphenated compound, such as *reach-me-down*, or as two separate words, like *cat food*. However, compounding depends on usage, which means that over time, an open compound such as police officer would turn into a closed compound *policeofficer*, similar to the compound *policeman* (Meyer, 2009). The morphological method for writing compounds in English is not consistent. The hyphen is placed between the two words of the compound when it has been newly innovated or is not commonly used. When a compound has acquired a given currency or permanence, it is often spelled closed as a single word without the

hyphen. When it was coined for the first time, the compound *blackboard* was written as black-board, but today it is spelled as a single word (Akmajian et al., 2010).

Compound words are semantically categorized into endocentric and exocentric compounds. Endocentric compounds consist of headwords which encompass the basic meanings, whereas the other words function as premodifiers, providing more information about the head (Mattiello & Dressler, 2025; Meng & Hilpert, 2024). For example, *goldfish* is composed of the headword fish, and its premodifier gold. On the other hand, exocentric compounds have implicit idiomatic meaning which cannot be predicated from the meaning of their own individual words. For instance, the compound *redcoats* does not refer to coats with red color; rather, it denotes the English soldiers of the seventeenth and eighteenth centuries (Gramley et al., 2021).

Blending Theory of Metaphor

Fauconnier and Turner defined BTM as a cognitive operation which underlies everyday thought and language. It is a process that blends two concepts into a new idea (Eppe et al., 2018). Karrol and Lyssova-Golomzina (2026) contend that BTM is a process in which two elements from two different domains are blended into a new, emergent form, highlighting that conceptual blending focuses on how each domain is perceived. This analytic model involves four spaces. The input spaces 1 and 2 are similar to the source and target domains of conceptual metaphor theory. The third space is the blended space, which represents the integration of the input spaces together. In this blended space, the knowledge of source and target inputs combines into a consistent information structure that is processed in the speaker's mind. The fourth space is the generic space that comprises schematic material shared by input space 1 and input space 2 (Geeraerts, 2010).

BTM was proposed in the 1990s by the linguists Fauconnier and Turner. It attempts to explain the procedures of creating metaphors, including the inferences that language users make, which can be perceived through a complex and dynamic model. A crucial aspect of blending theory is the concept of 'mental space'. As speakers process language, they form a space in their mind to which they move all the bits of information and conceptual knowledge needed to conceive the ideas contained in the metaphor created by the speaker (Knowles and Moon, 2006). Blending theory identifies four spaces in relation to the process of creating metaphor, which can be represented in the following figure:

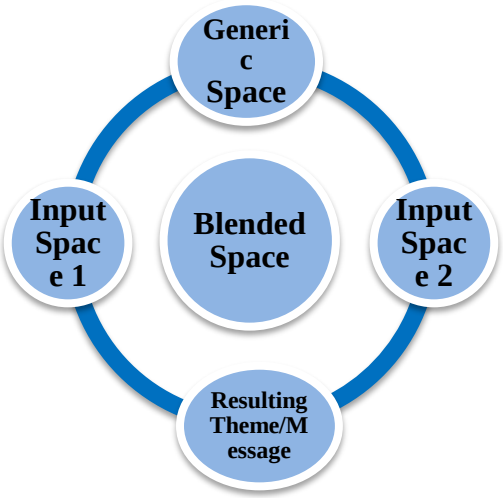


Figure 1. Blending spaces into conceptual metaphor

The two input spaces contain the features that characterize the target and source domains, while the generic space contains the general features common to both input spaces. In the blended space, the data from the other spaces blend: the output of this space is the meaning of the metaphor (Grady et al. 1999). Fauconnier and Turner (2002) declare that the BTM considers metaphor as an analogical mapping, whose interpretation involves projecting partial structures from the input spaces and then blending them to reach the theme conveyed by the language user.

Methods

Data Collection

The method of data collection depends on close textual reading of *Song of Myself*, which is available in Whitman's *The Complete Poems*, edited by Murphy (2005). In total, the poem consists of (52) stanzas and (1335) lines. The researchers read the whole poem word by word and line by line. Then all compounds were systematically selected depending on Brinton's model (2000) and written down in a manual coding sheet. A token-based frequency method was applied. Every single compound in the poem was reported in the coding sheet, encompassing repeated occurrences. The total of 627 includes the token frequency of compounds, which were selected for quantitative analysis, whereas (10) compounds were purposefully chosen and qualitatively analyzed. The reason behind selecting these (10) samples is related to their innovative and original structural complexity. Eventually, this method allowed the verification of the distribution and frequency of the compound words in the whole poem.

Instruments

Three instruments were utilized to identify and analyze compound words. First, a manual coding sheet was used to record each compound word identified in the poem. The coding process involves four stages. Stage (1) identifies the compound word, while stage (2) shows its locational indicator in the poem through full in-text citation. Stage (3) determines its syntactic pattern according to Brinton's model (2000). Stage (4) analyzes the morphological structure of each compound. Second, in the quantitative analysis of the study, IBM SPSS Statistics (version 29) was used to process and statistically analyze the 627 compounds that were detected in Whitman's *Song of Myself*. SPSS was selected due to its reliability and validity in linguistic research. Third, the paper used two theoretical frameworks to analyze the selected compounds qualitatively. The researchers applied the CM model to explore the morphosyntactic composition of the compound words, and the BTM to interpret their figurative meaning. The integration of SPSS with these two linguistic models emphasized a systematic and valid multi-faceted approach, which helped analyze the compounds structurally and semantically.

Research Method

The research is generally descriptive, intending to determine the patterns utilized by the poet. Specifically, this research employs a mixed-method approach, combining qualitative and quantitative methods to provide results that address both qualitative issues and quantitative data, thus enhancing the research conclusions. The quantitative method is concerned with identifying the structures or patterns of Whitman's compound words, and interpreting their metaphorical meaning. This method exhibits the mechanism the poet adopts in creating compound words.

On the other hand, the quantitative method analyzes patterns in terms of statistical data, allowing for the identification of which pattern is more frequent than others in terms of frequency

(numbers) and percentage. Accordingly, SPSS program version (29) is utilized to quantitatively analyze data, and explore the diverse dimensions in Whitman's *Song of Myself*.

Identification and Coding Criteria

The criteria for identifying compounds in *Song of Myself*

The identification of compounds in Whitman's poem relied on certain criteria proposed by Brinton (2000). To differentiate between compound words and syntactic structures or phrases, the following criteria were adopted:

1. Syntactic inseparability: This refers to the elements of the compound that constitute a single lexical unit. As they cannot be separated freely or individually modified without altering the intended lexical meaning.

2. Lexical unit: It means that the whole term or expression functions as one lexical item instead of functioning as a freely syntactic phrase. For instance, the compound word "red-faced" has one single lexical item blushing.

3. Headedness: It indicates the grammatical class of the compound word. It is based on its headword which determines the classification of compounds into noun, verb, adjective, and adverb compounds.

The criteria for identifying metaphorical compounds are based on the following:

Each metaphorical compound was identified by utilizing the Metaphor Identification Procedure (MIP), which was outlined by the Pragglejaz Group (2007). It is based on the following steps: (a) Close reading to determine the contextual meaning of the compound word, which can help recognize whether its meaning is literal or metaphoric. (b). Identifying lexical units, which refers to compounds that denote specific concepts or themes. (c). Comparing the primary meaning of the compound constituents and their contextual meaning. (d). Realizing figurative use of the compound word. Then, the compound words identified in the poem were grouped and conceptually analyzed.

The criteria for classifying Multifunctional Compounds

1. The compound word should be identified within its poetic context, more specifically its poetic line.

2. Inspecting its grammatical function within the sentence to determine its function as a noun, verb, adjective, or adverb.

3. Classifying the compounds according to the set of syntactic patterns established by Brinton's model (2000).

4. Designating one grammatical category to the compounds which best manifests its real function within the context.

Procedures

The analysis was undertaken by adopting different procedures. First, the whole poem was read line by line and word by word in order to identify all compounds used in the poem. Every single item was scrutinized utilizing the identification criteria established by Brinton (2000). All compounds were identified depending basically on headedness. Second, after identifying the compound words in a separate manual coding sheet and classifying them in accordance with Brinton's model (2000), they were analyzed to reveal their syntactic patterns and highlight their

resulting classes and functions. Such a procedure allows the reader to recognize Whitman's unprecedented employment of compound words within the context.

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Third, the second model is Quirk and Greenbaum's (1973) classification of compound spelling patterns, which was adopted for realizing the orthographic classification of compounds created by Whitman. This model helps the readers understand Whitman's original compound formation from a morphological perspective.

Results

This section tackles compounds used by Whitman in two tracks. The first track is to detect the type of formation that each compound undergoes, whether it is a hyphenated form, an open form, or a closed form. The second track is a purely syntactic analysis of compound words, which relies on adopting CM, a framework that deconstructs compounds in terms of syntactic patterns (N+N, or N + N) outlined in Brinton's Model (2000). Eventually, this way of analysis requires examining both the morphological structure, which refers to how words are combined to form compounds, and the syntactic function of each compound, specifically whether the resulting word class of the compound functions as a noun, verb, or adjective.

Morphological Formation of Compounds

The compounds in *Song of Myself* are formed morphologically by depending on three ways of formation, which are proposed by Quirk and Greenbaum's Model (1973). The first one is called open formation, which indicates that there is no opening between the two words of the compound. The second one is called the hyphenated formation, which means that there is a hyphen between the words of the compound. The third way is named the closed formation, which ensures that there is no spacing between the words of the compound, and they are juxtaposed tightly. Table (1) manifests the frequency and percentage of each type of compound formation.

Table 1. *Morphological Formation of Compounds in Song of Myself*

No.	**Compound Type**	**Frequency**	**Percentage**
1	Open Formation	348	55.51 %
2	Hyphenated formation	261	41.62 %
3	Closed formation	18	2.87 %
	Total	627	100 %

The table above provides a statistical analysis of the morphological types of the compound words employed in *Song of Myself*. A total of 627 compound words were identified and classified into open, hyphenated, and closed formations. The table indicates that the open compounds are the most frequent type, ranking first among other categories. Riedmann et al. (2026) refer to open compounds as "space compounds" and underline that they provide significant insight into the cognitive processes that bolster lexical retrieval and comprehension. Open compounds ranked first, with 348 instances, rating (55.51%). The hyphenated type ranked second, with 261 instances and a rate of 41.62%. This relatively small difference between these two types indicates that the poet prefers using both of them. In contrast, the closed compounds are the least frequent type, with 18 examples accounting for (2.87%).

Syntactic Analysis of Compounds

The approach of analysis adopted in this section is Brinton's Model (2000), which is convenient for syntactic analysis. It relies on segmenting the compound into grammatical parts of speech, such as nouns, verbs, adjectives, adverbs, or prepositions, and then determining the resultant grammatical part or class. On the other hand, the position of the compound within the context of the poem plays a crucial role in determining how it functions as a subject or object, premodifier or postmodifier, or object of a preposition. Consequently, the syntactic analysis helps in designating the class of the compound word and its function. Below is the syntactic analysis of some of the compounds found in *Song of Myself*.

1. "And parted the shirt from my bosom-bone, and plunged your tongue to my **bare-stripped heart**." (Stanza 5, Line 8, p. 4)
[[bare]Aj -[strip]v + Aff1] [heart]N]]N ≈ [SEM: one who is heartless]
Syntactic Pattern: [Aj] + [Aj] +[N] = (N) headword
Semantic Output: SEM: Heartless PERSON
2. "The youngster and the **red-faced girl** turn aside up the bushy hill." (Stanza 8, Line 3, p. 6)
[[red]Aj-[face]v + Aff1] [girl]N]]N ≈ [SEM: one who is blushful]
Syntactic Pattern: [Aj] + [Aj] +[N] = (N) headword
Semantic Output: SEM: blushful PERSON
3. "What groans of over-fed or **half-starved** who fall sunstruck or in fits." (Stanza 8, Line 15, p. 6)
[[half]n -[starve]v + Aff1]]Aj ≈ [SEM: one who is not very hungry]
Syntactic Pattern: [N] + [V] = (Aj) headword
Semantic Output: SEM: Heartless PERSON
4. "On a bank lounged the trapper, he was dressed mostly in skins, **his luxuriant beard** and curls protected his neck, he held his bride by the hand." (Stanza 10, Line 14, p. 7)
[[luxuriant]Aj [beard]N PLUR]]N ≈ [SEM: having very thick growth]
Syntactic Pattern: [Aj] +[N] N headword
Semantic Output: SEM: very thick beard
5. "And remember perfectly well his **revolving eyes** and his awkwardness." (Stanza 10, Line 22, p. 7)
[[revolve]v + Aff1] [eyes]N PLUR]]N ≈ [SEM: watching]
Syntactic Pattern: [Aj] +[N] N headword
Semantic Output: SEM: one who watches or anticipates something
6. "Sea of the brine of life and of unshovelled yet **always-ready graves**." (Stanza 22, Line 9, p. 16)
[[always]A -[ready] Aj [grave]N PLUR]]N ≈ [SEM: which receives dead continually]
Syntactic Pattern: [A] + [Aj] + [N] = (N) headword
Semantic Output: SEM: receiving PLACE
7. "And again as I walked the beach under the **paling stars** of the morning." (Stanza 33, Line 4, p. 24)
[[pale]Aj + Aff1] [star]N PLUR]]N ≈ [SEM: faded out]
Syntactic Pattern: [Aj] + [N] N headword
Semantic Output: SEM: which faded out
8. "I understand the **large hearts** of heroes." (Stanza 33, Line 112, P. 27)

[[large]Aj [hearts]N PLUR]]N ≈ [SEM: having sympathetic hearts]
Syntactic Pattern: [Aj] +[N] N headword
Semantic Output: SEM: very sympathetic
9. "Some **half-kill'd** attempted to crawl away." (Stanza 34, Line 112, p. 27)
[[half]n -[kill]v + Aff1]]Aj ≈ [SEM: one who is dying]
Syntactic Pattern: [N] + [V] = (Aj) headword
Semantic Output: SEM: dying PERSON
10. "Sermons, creeds, theology—but the **fathomless human brain**." (Stanza 42, Line 41, p. 36)
[[fathom]v + Aff1 [human]Aj] [brain]N]]N ≈ [SEM: one who is obscured]
Syntactic Pattern: [Aj] + [Aj] + [N] = (N) headword
Semantic Output: SEM: Incomprehensible PERSON

Metaphorical Interpretation of Compounds

Metaphor is a literary device that implicitly compares two different things or objects (Kövecses, 2010). It was also traditionally perceived as a rhetorical tool which conveyed similar concepts through creative language use (Zhang, 2026), but currently, metaphor is regarded as a rhetorical device for substituting one word for another to express a similar meaning (Yu & Wang, 2026). Knowles and Moon (2006) argue that there are two ways to demonstrate the importance of metaphor in everyday language and discourse. Metaphor is the rhetorical method of forming words and their senses, which means concepts and meanings are lexicalized through metaphor. The function of metaphor is reflected in the source domain of metaphor (Hurford et al., 2007). Context is a significant linguistic tool that helps interpret compounds with metaphorical senses. The surrounding words, phrases, or expressions give us some clues about the intended metaphorical meaning. By utilizing the context, one can easily identify the source domain and target domain, and then conceive the metaphorical ideas or themes conveyed through each compound. Below are the metaphorical compounds and their analysis based on the BTM of Metaphor.

1. "bare-stripped heart" (Stanza 5, Line 8, p. 4)
General Space: bare-stripped heart
Input (1): heart-stripped
Input (2): heart
Blending Space (Projection): This indicates that the person in question is heartless. Whitman combined the adjective "bare" with the participial verb "stripped" to describe the heart as emotionless.
2. "red-faced girl" (Stanza 8, Line 3, p. 6)
General Space: red-faced girl
Input (1): red
Input (2): girl
Blending Space (Mapping): The compound word consists of an adjective + verb participial + noun headword. The structure "red-faced" does not describe the color of the girl's face, but rather it expresses the girl's shyness or embarrassment.
3. "**half-starved"** (Stanza 8, Line 15, p. 6)
General Space: being deprived of food.
Input (1): half
Input (2): starving

Blending Space (Projection): The compound adjective "half-starved" describes extreme hunger or deprivation. It refers to those who are malnourished and suffer from illness. Structurally, this adjective consists of two unrelated words; the first is "half", which is a quantifier, while the second is the verb "starved". Their combination reveals the degree of starvation: half, not complete.

4. "luxuriant beard" (Stanza 10, Line 14, p. 7)
General Space: luxuriant beard
Input (1): luxuriant
Input (2): beard
Blending Space (Projection): This refers to a person with a very thick and heavy beard. The adjective "luxuriant" depicts the person's beard as abundant, which symbolizes vitality. Structurally, this adjective modifies the noun headword "beard", but metaphorically describes the person as being strong, active, and healthy.

5. "revolving eyes" (Stanza 10, Line 22, p. 7)
General Space: revolving eyes
Input (1): revolving
Input (2): eyes
Blending Space (Projection): in the above compound, Whitman intentionally employs the verb "revolve" with (-ing) participial form to metaphorically refer to an individual who is carefully watching and observing things or people due to being curious or cautious.

6. "always-ready graves" (Stanza 22, Line 9, p. 16)
General Space: always-ready graves
Input (1): always-ready
Input (2): graves
Blending Space (Projection): this compound indicates that death is unstoppable because the graves are always ready to receive the dead.

7. "paling stars" (Stanza 33, Line 4, p. 24)
General Space: paling stars
Input (1): paling
Input (2): stars
Blending Space (Projection): The Integration of the word pale with the word "stars" metaphorically indicates the vanishing of the darkness and stars due to the emergence of the sun rays in the morning. The metaphorization of this compound is vivid because the adjective pale usually collocates with human beings, as in saying pale girl; otherwise, using it with non-human entities creates a metaphorical sense.

8. "large hearts" (Stanza 33, Line 112, P. 27)
General Space: large hearts
Input (1): large
Input (2): heart
Blending Space (Projection): It implicitly refers to a person who is sympathetic, kind, strong, and resilient. The compound "large hearts" symbolizes the bravery and strength of the kind-hearted people. The adjective "large" is often used to describe the size of a concrete object, but this compound word metaphorically indicates someone's kind-heartedness or strength and resilience or steadfastness.

9. "half-kill'd" (Stanza 34, Line 112, p. 27)
General Space: half-killed

Input (1): half
Input (2): killed
Blending Space (Projection): This compound refers to the suffering that some individuals experience and their determination to cling to life. Semantically, there is nobody who is killed to a half degree. Therefore, the "half-killed" metaphorically denotes that some soldiers hold on to life, despite being severely wounded.
10. "fathomless human brain" (Stanza 42, Line 41, p. 36)
General Space: fathomless human brain
Input (1): fathomless
Input (2): brain
Blending Space (Projection): it describes a person who is mysterious. The word 'fathomless' indicates the immenseness of the human brain and emotional potential. Consequently, Whitman depicts any individual's brain as incomprehensible, which means that you cannot know what he is planning or thinking.

The analysis of any form of metaphor involves two elements: the source domain and the target domain, which decode the components of the metaphor. According to Blending theory, it requires four elements, with the major elements being the two input spaces, which are akin to the source-target domains in Lakoff and Johnson's conceptual metaphor theory (1980). However, the above analysis has shown that Whitman has adopted different syntactic patterns or schemas that perform different syntactic functions within the context. Metaphorically, he is skillful in coining compound words and encapsulating them with metaphorical senses. For example, he metaphorically used a triple compound to describe a heartless person in his construction "bare-stripped heart", where he employed the source adjective "bare" and a participial verb functioning as an adjective, both of which precede the noun headword "heart". Compounds such as "luxuriant beard", "paling stars", "large hearts" that follow the adjective + noun pattern are commonly used by the poet.

In constructing compounds, Whitman relies on the adjective because it creates a metaphor when it precedes or collocates with an unusual noun. For example, the adjective pale is usually used to describe the human face or skin, i.e., having a light-colored face or skin, which is an indication of illness. Still, Whitman used it to describe the stars that were vanishing gradually with the coming of early morning. He constructs compound words by investing adjectives with metaphor.

Discussion

This study was conducted to answer the three research questions below.
RQ. 1: What syntactic patterns does Whitman employ in forming the compounds?
This question aims at identifying the syntactic patterns used by Whitman in *Song of Myself*. The poet employed specific syntactic patterns which include adjective + noun, adjective + adjective + noun, verb + noun and adverb + adjective + noun. The investigation of syntactic patterns in the poem was conducted using Brinton's model (2000).

RQ. 2: Which compound type is the most frequent in Whitman's poem?
The second question seeks to identify the most frequently used compound. The analysis unveils that the poet incorporates four compound types: nominal, verbal, adjectival, and adverbial. The nominal compound type was noticeably the most predominant in the poem. The following subsection addresses both questions and provides more interpretation of the findings.

Types and Frequency of Compounds Used by Whitman

The statistical analysis examines the frequency and percentage of the compound words that are used as nouns, verbs, adjectives, as well as adverbs. The ratio of these compounds has been calculated to determine their frequency. Table (2) illustrates the outcomes:

Table 2. *Types and Frequency of Compounds in Song of Myself*

No.	**Grammatical Class of Compounds**	**Frequency**	**Percentage**
1	Noun (Nominal Type)	597	95.22 %
2	Verb (Verbal Type)	15	2.39 %
3	Adjective (Adjectival Type)	13	2.07 %
4	Adverb (Adverbial Type)	2	0.32 %
	Total	627	100 %

The table above divulges that compound words that belong to the noun category (nominal constructions) are the most recurrent in *Song of Myself*. They comprise (597) nominal compounds, and are rated (95.22%). This proves Whitman's heavy reliance on noun compound words that function as subjects or objects, or subject complements. Fakih and A-Shawafi (2015) contend that nominal compound type is a universal morphological construction which has "lexical and syntactic implications" (p.132). However, this type of nominal compound has different constructions or syntactic patterns with noun headwords. It has an adjective + noun pattern or an adjective + adjective + noun pattern or a verb + noun pattern or an adverb + adjective + noun pattern, but the most common observed pattern is the adjective + noun. Verbs are the second most frequent compound words. (15) Verbs were used and rated (2.39%), while adjectives were used (13) times, which were rated (2.07%). This manifests that the use of adjectives and verbs has somewhat similar frequency, or they are at the same level of percentage. The adverb category has shown the lowest frequency in the poem, where (2) compound words were used, with a (0.32%) frequency rate.

The purpose of creating metaphorical compounds in *Song of Myself* is to communicate complex and subtle themes that might not be conveyed through single metaphorical words. Combining two diverse words from different fields creates an intricate metaphorical image which cannot be produced through a single word. For instance, the metaphorical compound *life-blood* consists of two different words, which are semantically unrelated; the word life denotes the concept of living, combined with the word blood, which denotes human vitality. Their combination implies the continuity of human life.

Using the metaphorical single word life in a specific context does not create a vivid and effective image. Whitman employs metaphorical compounds to exhibit his stylistic innovation, offering intricate metaphorical images that prompt readers to think deeply about the metaphors and their implicit meaning. Creating metaphorical compounds reveals Whitman's potential for combining two or more words that have different denotations, yet when combined, they convey a single theme. The cognitive aspect is pivotal for analyzing the vivid metaphors embedded in a wide range of poetic lines. However, these metaphors reflect different issues including the poets' thoughts, emotions, concepts, and cultural backgrounds (Bao et al., 2025).

RQ. 3: What are the metaphorical meanings conveyed by compounds in the context of the poem? This question concentrates on interpreting the metaphorical meanings and themes communicated through a range of compounds by relying on the context. The following subsections further explain the study findings.

Metaphorization of Compound Words

Whitman's employment of metaphorical compounds in "*Song of Myself"* manifests his linguistic innovation, which enhances the poem's effective imagery while also bolstering its main themes of unity, citizenship, the natural cycle of life represented by life and death, and inclusivity in America. Conceptually, metaphors are an effective device that convey abstract ideas through vivid images (Pham & Nguyen, 2026). He formed the metaphorical compound "sun-soaked", which metaphorically symbolizes the permeation of the sun's influence on everything in our lives.

Unlike single-word metaphors, metaphorical compounds add complex, impressive imagery, diverse ideas, and intricate meanings to the poem. The analysis of compound words requires a cognitive method in order to comprehend how their meanings are encoded and how they are integrated with each other in the sense that compound words can exploit body parts to express metaphorical ideas (Holmes et al., 2018). Metaphorical compound words frequently draw their meanings based on their relationship with other forms, such as verbs and nouns (Kim, 2014).

Whitman metaphorized many compound words, following the abstract-plus-concrete word formula. However, he focuses on the adjective or noun that precedes the noun headword in order to synthesize the metaphor. For example, "luxuriant beard" consists of the abstract word "luxuriant" and the concrete word "beard". This metaphor refers to a very thick beard or a heavy beard. Another example is "friendly bees", which also comprises the abstract idea "friendly" and the concrete noun "bees". Metaphorically, "friendly" is an abstract word denoting a kind of bees that do not hurt people or sting them. The phrase "delicious gurgles" is a metaphorical expression that has an adjective + noun pattern where the adjective is abstract, while the noun "gurgles" is concrete. The poet described the mockingbird's nice gurgles.

He also utilized other compounds that follow the syntactic pattern adjective + verb (participial) + noun headword, such as "yellow-crowned heron", which metaphorically describes a bird with a crown-like form that is yellow. He formulated different patterns of compounds that encompass metaphor, such as the adjective + adjective + noun pattern, and the adverb + verb (participial) + noun pattern. The latter is represented in the metaphorical compound "down-hearted doubters", and the other pattern is noun + noun, but the first noun modifies the second noun that functions as a headword. However, the metaphorical compound word "rich apple-blossomed earth" is complex because it consists of an adjective + noun + participial verb + headword noun. This compound bears a metaphorical meaning that denotes a farm with many apple trees full of blossoming flowers, indicating the Spring season. Ptiček and Dobša (2023) confirm that the conceptual metaphor theory is based on mapping one domain (source) to another domain (target) as explained in the example "argument is war" where "war" represents the source domain, while "argument" represents the target domain. Such a mapping occurs at both the linguistic and cognitive levels, which influences our understanding of the world and the phenomena we encounter in our daily life. According to Ali et al. (2025), conceptual metaphor arises from the tension between the poetic context and reality.

It is noticed that the poet builds up his metaphorical compounds depending on the source domain – target domain relation; the source domain represents the concept that one derives from a given field, whereas the target domain indicates the field to which metaphorization occurred. Suleiman and Elmula (2025) emphasize that metaphor can transfer meaning from the source domain (e.g., "darkness") to the target domain (e.g., "despair"). Meanwhile, Conceptual Metaphor Theory structures metaphor as a cognitive tool, where sensory experiences (source domain) map onto abstract ideas (target domain). Accordingly, Ali and Ayyed (2023) demonstrate that a

conceptual metaphor is a juxtaposition of two unrelated objects combined to create a given theme that encapsulates an intended meaning. Whitman adopts certain ideas in synthesizing metaphors, such as nature, mountains, hills, fields, crops, birds, stars, sun, moon, and noon. Also, he depicts people by using the words “butcher-boy”, “red girl”, “old-faced infants”. Human body parts were also employed in metaphorical compound words.

Thematic Classification of Compound Words

The process of classifying compound words into seven themes is based on the following procedures:

1. Classifying the compounds into seven themes based on an inductive method which divides each compound into a given theme depending on the primary concept it represents in the context of the poem. Kuzmíková and Kuzmík (2024) ensure that metaphors portray different themes, but they can be understood within their immediate context.

2. Any ambiguous compound word was assigned to the category which best reflects its contextual meaning. This procedure enables readers to grasp the meaning of the compound word smoothly.

Whitman’s creation of compounds is driven by his intention to shed light on certain unique themes that are closely connected to his beliefs, visions, poetic identity, and outlook. His compounds encode key themes. (1) Nature is one of the vital themes which Whitman expresses through different images depicting the natural elements like "long-lived swan" and "curling grass. Khair et al. (2022) emphasize that nature operates as a driving force for Whitman. (2) Human body parts are used to conceptualize different themes. Hendrokumoro et al. (2024) point out that body parts are associated with entities and intentions in diverse cultures. Whitman forms several compounds that denote human body parts, such as "revolving eyes", "half-shut eyes", and "dizzy ears". (3) Work is one of the major themes in Whitman's *Song of Myself*. It reflects the dignity, the strength and the democratic spirit of the nation. Compounds reflecting work include "deck-hands" and "masculine work". (4) Urban/ built environment refers to the urban landscapes in the modern city. The poet uses compounds that symbolize urban life and environment, such as "beach-parties", " black stems" and " long-leav’d corn". (5) Temporal issues (time) indicate the continuity of life and immortality. The poet creates compounds like "harvest-time loads", "minute-hand" and "warm noon". (6) War/conflict embodies struggle, battle, and violence in the American community. This theme is conveyed through compounds such as "fratricidal war" and "battle-lanterns". (7) Spirituality/Metaphysicality signifies the immortality, unity, and transcendence of the human soul. This theme is expressed in compounds, such as " robust soul" and " wallowing soul". The chart below illustrates the thematic distribution of compound words.

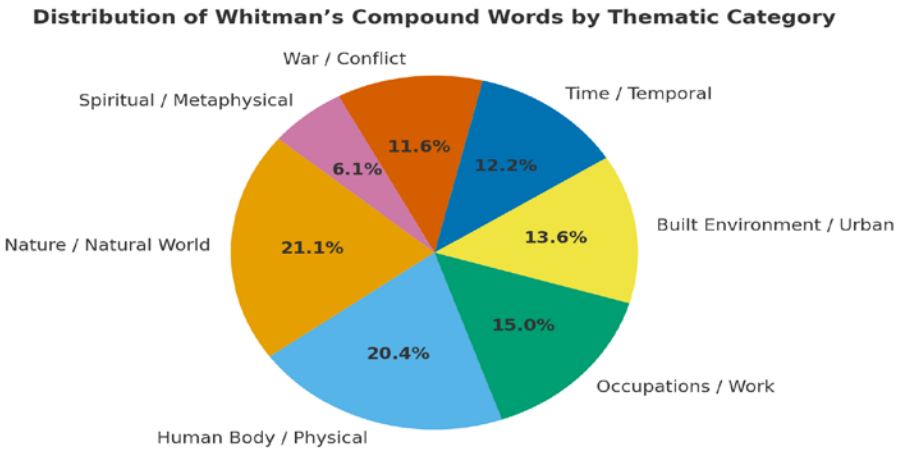


Figure 2. Distribution of Whitman’s compounds by thematic category

The statistical analysis of the total compound words indicates that they are distributed among seven themes. The theme of nature appears in (132) compounds, and rated (21.1%). The theme of the human body is conveyed through the use of (128) compounds which rated (20.4%). The theme of work or occupation was seen in (94) compounds, whose percentage reached (15.0%). The theme of urban or built environment was observed in (85) compounds, which rated (13.6%). The theme of temporal issues was used in (76) compounds and rated (12.2%). The theme of war or conflict was utilized (73) times in different compounds and registered a percentage of (11.6%), which uncovers his focus on political conflicts or wars. Whitman used the theme of spirit in (39) compound words with a percentage of (6.1%), but this theme was considered scarce as compared to the above ones. Consequently, these frequencies and percentages showed that Whitman's poetic themes are varied. However, themes of nature, body parts, occupations, and urban life are highly recurrent and more frequent than the others.

Conclusion

Whitman produced a large number of compounds that follow various syntactic patterns. The analysis of his compounds has revealed that he utilized four types of compounds. The findings show that nominal compound was the most frequent type, while verbal, adjectival and adverbial types were less commonly used. Additionally, he employed three compound formation types: the open formation, hyphenated formation, and the closed formation. The open and hyphenated formations were the dominant types, while the closed formation type occurred less frequently.

Concerning the metaphorical compounds, Whitman encapsulates several compounds with metaphorical meaning which can be predicated from the context and the words surrounding the compound word. Metaphorical meanings were primarily conveyed through nominal compounds. The results also indicate that the poet utilized compounds to convey different themes. The themes of nature, body parts, work, environment, temporal issues and war were commonly denoted in the compounds, but the themes of nature and body parts were the most recurrent themes.

The study presents different contributions to three fields of linguistics. In the field of morphology, the current study offers a regular analysis of Whitman's formation of compounds with different syntactic patterns. Thus, it reinforces the morphosyntactic creativity in innovating compounds systematically and in revealing poetic style. Also, this study contributes to metaphor studies because it underscores the mechanism used by the poet to enrich his compounds with metaphors, which convey symbolic meanings. Further, it enriches stylistics and literary studies because it asserts the role of compounds in shaping poetic language and Whitman's innovative literary style. Consequently, readers and scholars can make use of the analytic framework of this study to enable them to interpret compounds in any poetic context. Future studies may extend to investigate the morphological structures and metaphorical extension of neologisms and borrowings in *Song of Myself*.

Funding: This research is not funded
Acknowledgments: We thank the editorial board for their time, patience and efforts. We are also greatly indebted to the research reviewers for their scholarly advice and feedback that contributed to improving the quality of the research.
Conflicts of Interest: The authors declare no conflict of interest.
Authenticity: This manuscript is an original work.

Artificial Intelligence Statement: AI and AI-assisted technologies were only used to revise the reference list according to APA style, and to create figure (2) which shows the thematic distribution of Whitman's compounds. After using the tools, the authors reviewed and edited the content as needed and took full responsibility for the publication's content.

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