# A Cognitive Linguistic Perspective on English Compounds and Portmanteau Words

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# Preface

Past research on morphological devices focused more on the processes that follow regular morphological and grammatical patterns. Such a focus has resulted in the marginalisation of several creative, productive word-building processes like acronyms, clipped words, and portmanteau (or blend) words. These morphological devices were considered non-morphological and ungrammatical because they did not fit all the necessary and sufficient conditions under the binary feature methodology used by many theories, including generative linguistics. Notwithstanding its various invaluable contributions, this methodology has left several linguistic phenomena unexplained, considering them as exceptions.

The present book compares the concepts of compounding and blending. In the literature, while the former is considered a regular grammatical and morphological process, the latter is considered non-morphological and grammatically irregular. Thanks to the aforementioned limitations, the current book proposes an alternative theoretical framework that can explain all morphological processes that assist in expanding the English vocabulary. It is believed that the book has significant implications for categorising word formation processes in general, and compounds and blends in particular. We also hope that the book will also inspire more researchers from diverse domains, especially morphology, linguistic typology, and psycholinguistics, to re-evaluate the other "irregular" morphological devices.

It is worth noting that the current book is informed by pioneering prototype theory studies, especially those of Rosch et al. [28,29,61], Cruse [23,24], Aitchison [27], and Lakoff [5,44]. Also, the source schemas proposed in this book were inspired by Adams's research [7], although the approach she used differs from that of this study. Finally, sincere gratitude is extended to the School of Humanities, Universiti Sains Malaysia.

<div align="right">Hicham Lahlou</div>

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# Chapter 1: Introduction

Based on the linguistic literature, word formation is considered a productive and dynamic process that systematically expands English vocabulary. Word formation processes, such as compounding, derivation, and clipping, enable language users to create new words from existing ones in order to express newly encountered situations [1] and meet changing communicative needs resulting from technological, societal, and cultural developments. For instance, compounds have contributed significantly to the vocabulary of modern English [2], which is why linguists are interested in them.

The present book investigates two morphological processes: compounds and blends. Traditional linguistic research deemed compounds grammatical, garnering linguists' interest, whereas blends were viewed as ungrammatical, leading to their being overlooked. Compounds and blends, therefore, were deemed drastically different. The main objective of this book is to examine compounding and blending in order to provide an alternative categorisation of these two morphological processes, specifically from a cognitive linguistic perspective. Two types of cognitive approaches are employed: categorisation by prototypes and categorisation by source schemas.

Past research has focused on compounds, leading to an invaluable understanding of their morphological and syntactic features. While there are semantic studies on compounds, they are limited in scope and tend to focus on individual aspects of the morphological process rather than addressing all the aspects. This leaves a gap in understanding the comprehensive mechanisms involved. The idea that emerges is that a neologism originates from a cognitive process within the speaker's mind, which the listener can understand. A neologism is a uniform process, regardless of the prevailing aspect. The focus on a singular aspect is flawed, irrespective of the effort made. A study that investigates all the aspects of neologisms would be more rational.

In contrast to compounds, blends have been largely studied phonologically and relatively morphologically. Semantic studies of blends have been limited. Focusing on compounds and blends from a singular viewpoint has led to a more difficult situation, leaving several phenomena unexplained. This issue arises from past research that has examined these

morphological processes, emphasising syntactic and morphological aspects at the expense of semantic and conceptual ones. These aspects are more important because people form compounds and blends in their minds before using them in conversation.

Based on the above-mentioned single-oriented approach, compounds and blends are deemed fundamentally distinct. Despite the traditional dichotomy's simplicity and elegance, it raises many issues. The forms of compounds and blends are different, as while compounds consist of complete constituents, blends consist of only parts of words. Despite such a difference, one can intuitively understand that they are like two sides of the same coin, sharing key similarities, especially at the conceptual level. What is intriguing about this point is that whenever an individual hears a blend, they automatically think of a compound. To comprehend the meaning of a blend, one should figure out its contributing (or source) words, or linguistic units forming a new complex word, which constitutes in itself a compound. For example, when English users hear blends like *brunch*, *boost*, and *smog*, they do not perceive them as individual words. To comprehend the meanings of blends, one must identify their source words or constituents, namely *breakfast* and *lunch*, *boom* and *hoist*, and *smoke* and *fog*, which are structured in the same way as compounds.

This situation suggests that compounds and blends are interconnected. This postulate challenges the claim that blends are beyond the domain of grammar. It also questions the idea that compounds and blends are drastically distinct morphological processes. These neologisms may be more efficiently analysed utilising an approach that includes all the diverse features contributing to their creation. This approach promotes the conceptual component, which forms the basis for generating them. The current book tries to integrate these two factors when analysing the connection between English compounds and blends.

In the literature on word formation, blends have received less attention than compounds. This disparity arises from the classical, or Aristotelian, methodology. Under this framework, an entity either belongs or does not belong to a category. If it fails to satisfy all conditions, it is not deemed a member. As a result, blends have been disregarded in several linguistic domains, notably grammar and word formation. Most studies fundamentally distinguish blends from compounds. This is because blends consist of fragments of words, not whole words or free morphemes, according to the classical methodology, especially generative grammar. Based on what has been discussed thus far, there are three unresolved problems with compounds and blends:

1. To what extent is the border between compounds and blends clear?

2. How do compounds and blends converge or diverge?

3. What source schemas underlie the coining of compounds and blends?

To answer the first question, the current study employs a dataset to identify whether all cases are clearly classified as compounds or blends, utilising the classical categories and criteria, or whether there are cases that challenge the traditional categorisation. To answer the second question, the study explores the dataset to determine the similarities and dissimilarities between these coinages and proposes an alternative integrated categorisation of them. To answer the final question, the research examines their internal semantic structure to determine if the same source schemas underlie them.

The authors' hypothesis is that compounds and blends are not so radically different that they are excluded from the scope of morpho-grammar and word formation, as the traditional methodology claims. The present study tests this assumption using two observations. First, the line between compounds and blends may not be clear; cases of compounds and blends may not fit neatly into the existing categories of compounds and blends. In such a case, the postulate that blends and compounds are drastically different is refuted. These word formation processes can instead be classified with a single category that exhibits family resemblance.

Second, the conceptual processes that underpin the creation, as well as understanding, of compounds and blends may be similar. In this case, the conceptual processes that underpin them deserve careful examination. This study is a modest initial endeavour in this regard. If compounding and blending employ similar conceptual patterns, the assertion that they are not fundamentally different and belong to a single category is reasonable.

The main reason blends, in contrast to compounds, have been disregarded in grammar and word formation is that they do not generally follow morpho-grammatical rules. Blends are primarily a product of euphony; however, their significant contribution to the richness of English vocabulary needs us to rethink their linguistic status. In fact, only a few blends are lexicalised, but English speakers' tendency to generate them in their daily language use suggests that they constitute a very productive neologism. An investigation into blending categorisation is vital to account for such a creative and productive word formation process and determine its precise categorical status.

Past research postulates that compounds and blends are fundamentally different; however, the association between their formations remains unsettled within the domain of linguistics. In fact, compounds and blends are usually not interchangeable. For example, no English compound equivalent to the blend *smog* can be employed, as in the unacceptable coining of *\*smoke fog*[1]. This explains that if a blend is coined, a compound equivalent is unnecessary, as both forms serve a similar lexical function. Thus, this conclusion indicates that both morphological processes are comparable.

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[1] The asterisk (*) is used here to show that such examples are not acceptable in English.

In English, there are very few exceptions that have both forms. For instance, the compound *Channel Tunnel* can be used interchangeably with the blend *Chunnel*. Turner and Fauconnier [3] use the same example, arguing that the word *Chunnel* differs from the word *Channel Tunnel*. The phrase *the tunnel under the English Channel* and the word *Channel Tunnel* merge the conceptual domains of CHANNEL and TUNNEL. However, the blend *Chunnel* encompasses an extra integration, combining not only concepts but also their phonological elements. This linguistic phenomenon extends beyond blends and is also observed in other language areas. It is analogous to the concept of free variation, defined as "the phenomenon in which two or more linguistic items can occur in the same environment without signalling any change in meaning" [1,266]. Given the association between blend and compound formations, it is significant to explore the nature of their relationship.

Research [4,5,6,58] has proven that linguistic categories are also cognitive categories. Thus, this study emphasises the conceptual and semantic characteristics that underpin categories, compounds, and blends, along with other relevant aspects. An approach to categorisation, whether general or linguistic, should be cognitive. Categories are prototypical and have unclear boundaries. This approach emphasises the conceptual basis of both the members and the category itself. It could offer a deeper insight into how language users create neologisms and explain all the data, instead of treating "non-conforming" data as exceptions. Studying compounds and blends from a cognitive linguistic perspective can help reveal the conceptual and linguistic structures of these morphological processes rather than just their morphological form.

This chapter gave the reasoning and context for the analysis of compounds and blends, outlined the present study's objectives, and discussed a possible solution to the challenges associated with their categorisations. The next chapter will examine compounds and blends and the approaches used, as well as the concept of prototypicality, which is presented as an alternative to solving the problem of categorisation.

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# Chapter 2: The Concepts of Compounds and Blends

## 1 Introduction

Compounding and blending are two key productive morphological processes that contribute to the English language's diversity and richness. Linguists have extensively studied compounds, while blends have received comparatively less attention due to their deviation from grammatical rules. This assessment is based on the classical methodology, which excludes entities that do not fulfil all essential category conditions. The present study employs a cognitive methodology to examine both compounds and blends. The present chapter defines and classifies compounds and blends, as well as discusses the past research on these word formation processes. The chapter also reviews the concept of prototypicality, which is used to categorise compounds and blends.

### 1.1 Defining and Classifying Compounds

Adams [7] asserts that a compound is "the result of the (fixed) combination of two free forms, or words that have an otherwise independent existence" [7,30]. Free morphemes like *check* and *point*[2] are juxtaposed to form the compound *checkpoint*. Such a definition offers an interesting illustration of compounding. However, English contains numerous compounds that are formed by combining more than two words, such as *video game console*, *next-door neighbour*, and *wastepaper basket*.

According to Langacker [8], a compound is "a lexical unit in which two or more lexical morphemes are juxtaposed" [8,81]. Acknowledging that a few compounds comprise more than two constituents offers a more accurate understanding, although most English compounds typically comprise two constituents. Langacker [8] states that compounds are typically binary in nature; in other words, they usually consist of exactly two

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[2] Italics are used to indicate linguistic units.

constituents juxtaposed together. Compounds with more than two constituents can be decomposed into a series of binary compounds [8].

For example, the compound *next-door neighbour* constitutes a binary compound made up of the constituents *next-door* and *neighbour* and the constituents *next* and *door*, respectively. This binary characteristic, therefore, is pertinent in the process of compounding. Nevertheless, for accuracy purposes, the definition should mention that a compound may sometimes consist of more than two lexical morphemes.

The definitions discussed above convey the impression that all compounds are made up of free morphemes. But English does consist of compounds in which a morpheme can be bound. The compound *cranberry*, for example, is composed of *cran*, a bound morpheme, and *berry*, a free morpheme. Yet, the word *cranberry* is classified as a neoclassical compound. Halpern [9] describes a compound as the combination of two or more words, with their lexical meanings, to construct a single lexical unit. Halpern [9] asserts that practically it is not necessary for compound morphemes to be free, although he does not mention that in his definition. Having discussed Adams [7], Langacker [8], and Halpern's [9] definitions of compounds, which show their diverse nature and quality, the next section examines the diverse classifications of compounds.

Classifying compounds is similarly diverse and complex. According to Bauer [10], compound nouns can be classified into four groups according to semantic criteria:

    a.   Endocentric compounds:

        Compounds which are hyponyms of head constituents, as in the example of *tooth decay*, which is a type of decay.

    b.   Exocentric compounds (or Bahuvrihi in Sanskrit):

        Compounds, which are not hyponyms of head constituents, as in the example of *a pickpocket*[3], which is not a kind of *pocket*. As such compounds do not have a clear semantic head, they are usually considered metaphorical.

    c.   Appositional compounds:

        Compounds with two head constituents. For example, the compound *maidservant* can be a hyponym of the words *maid* and *servant*.

    d.   Copulative compounds (also called dvandva in Sanskrit):

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[3] The meaning of this word is extended both metaphorically and metonymically.

Compounds that do not function as hyponyms of any compound constituents and refer to distinct entities which merge to create the entity characterised by the compound, as in the example of *Rank-Hovis*.

Some argue against the genus-species compounds (e.g., *\*humanman* and *\*animalhorse*) in which the defining component is already implied in the head constituent, as it always expresses the subgroup's primary defining feature meant by the compound [10]. However, this rule has exceptions. Such seemingly redundant compounds are common in the English language [10], for example, *pathway, palm tree*, and *puppy dog*. These compounds are also referred to as "clarifying compounds" or "classifying compounds" [11,12]. Bauer's [10] classification of compounds is a structural one, with the concept of headedness being pervasive, whether present, absent, or shared.

Besides the main categories of compounds, extra types exist, namely reduplicative (repetitive) compounds and synthetic (verbal) compounds [59]. Reduplication has identical or similar constituents, such as *hush-hush* (meaning "silent") and *tick-tock* (meaning "the sound of a clock"). Synthetic compounds have heads that are derived from verbs and affixes (generally *-ing*, *-er*, and *-en*), such as *shoemaker* and *family planning*. Fabb [59] also categorises compounds mainly by their structure.

Adams [7] proposed a distinct categorisation of compounds, integrating grammar and meaning. The study focused on the relationships between compound constituents, sometimes using grammatical relations and other times semantic relations. Her categorisation is presented as follows.

1) Subject -Verb, for example, *snakebite*

2) Verb – Object, for example, *plaything*

3) Appositional:

   "B which acts as, has the function of A", "B of which A is a particular instance", and "B is an A". Examples are *houseboat*, *panic reaction*, and *fighter plane*.

4) Associative:

   "B is part of A", "B belongs to A", "B is typically associated with A", and "B is produced or derived from A". Examples are *eyeball*, *will-power*, and *candlelight*.

5) Instrumental:

   "B which prevents or cures against A", "B which is the means of preserving A", and "B which causes or promotes A". Examples are *raincoat*, *safety belt*, and *flu virus*

6) Locative:

   "A is a place where or a time when B is or happens". Examples are *living room*, and *daydream*.

7) Resemblance:

   "B which is in the form of, has the physical features of, A", and "B which reminds one of A". Examples are *piggy bank*, and *frogman*.

8) Composition/Form/Content:

   A component specifies the other based on a concrete characteristic. Examples are *ivory tower*, *plate glass*, and *inkblot*.

9) Adjective-Noun, for example, *fine art*

10) Names, for example, *plywood*

11) Other, certain cases do not fit into any of these categories, for example, *telephone directory*. [7,64-88]

The classification above is detailed and highlights the semantic aspect. Nevertheless, it is incomplete because some compounds are still unclassified, and some constituent relations are defined according to their grammatical rather than semantic aspect. Adams's [7] categorisation has significantly contributed to the conceptual categorisation proposed in the current study. The preceding examples of compound definition and classification demonstrate that compounds are not consistently written in a uniform manner. Given this variation, a brief examination of English compound spelling is warranted prior to discussing blends.

Compounds may appear as single (or closed) words, like *raincoat*, hyphenated forms, like *self-esteem*, or open forms, like *trade union*. Some compounds appear in multiple orthographic forms, such as *dataset* and *data set*, *log-in* and *login*, and *wordformation*, *word-formation*, and *word formation*. Given such variation, many linguists claim that compound spelling is inconsistent [7,47]. Although the diversification of compound spelling has been widely acknowledged, few proposals have explicated this diversity.

Langacker [8] observes that compound spelling is inconsistent, potentially due to their intermediate linguistic status. Such a status encompasses features of individual words, as compounds function as single complex units, and of word sequences, since they comprise more than one lexical morpheme. Other linguists argue that compounds in English are generally written as separate words. As these compounds become more established in the language, they often shift to a hyphenated form and eventually to a closed form. A good example is the compound *web site*, which shifted to *web-site*, and then to *website*, as it became lexicalised. Huddleston and Pullum [48] assert that two

general tendencies are worth noting. First, established compounds are more likely to be written in a closed form than more recent ones (cf. *dishwasher* and *chip-maker*). Second, American English tends to use hyphens somewhat less than British English.

Halpern [9] asserts that compounds, in their appearance, are combined free forms that have evolved to be interpreted as noun phrases. Some compounds progress through a hyphenation stage and may eventually become single words, although certain lexemes consistently remain separate. He emphasises that all forms of compounds are equally valid. The orthography does not determine the lexemic status of a string [9]. This observation highlights that a compound constitutes a unified concept, regardless of whether it is closed, hyphenated, or open. While this study does not delve into the debate surrounding orthographic conventions, it is necessary to acknowledge the relevance of orthography, as it influences the categorisation of compounds. The present study adopts a neutral stance regarding orthographic conventions for compounds.

## 1.2 Defining and Classifying Blends

Blends, or portmanteaus, received particular focus from Lewis Carroll, who incorporated multiple portmanteaus in his novel *Through the Looking-Glass, and What Alice Found There*. This is especially evident in the poem "Jabberwocky", which serves as a prominent example of nonsense poetry [50]. Blends did exist before Carroll, such as the mid-1500s blend *foolosopher* from *fool* and *philosopher*, which means "a person who makes spurious, ridiculous, or trivial statements as if they were profound or philosophical; a pseudo-philosopher" and a "foolish person who is thought to be wise by others" [51]. However, they were rare and contentious because of their indefinite etymology. Overall, Carroll's creative and playful coining of portmanteaus has contributed to the creation of hundreds of blends and the expansion of the English vocabulary.

Carroll [49] defines *a portmanteau* word in *Through the Looking Glass*: "Well, 'slithy' means 'lithe and slimy.' 'Lithe' is the same as 'active'. You see it's like a portmanteau - there are two meanings packed up into one word" [49,126-127]. A blend is defined as a portmanteau, originally referring to a large travelling bag that opens into two equal parts, analogous to the combination of splinters from source words. The specific splinters fused in portmanteau formation are clarified in the Oxford Dictionary [45], which defines a portmanteau word as one created by joining the first part of one word to the end of another. Examples include *blaxploitation*, derived from *black* and *exploitation*, and *digerati*, formed from *digital* and *literati*. Some blends incorporate more than two splinters, as illustrated by *turducken*, which combines splinters from *turkey*, *duck*, and *chicken*. The term portmanteau has become outdated and is rarely used by contemporary linguists.

Cannon [16] provides a more detailed definition, describing a blend as the telescoping of two or more distinct forms into a single unit, or the superposition of one form upon another. Nevertheless, previous definitions do not acknowledge blends that do not combine the initial fragment of one source word with the final fragment of another. For example, some blends combine the initial fragments of both contributing words, as in the word *codec*, which derives from *coder* and *decoder*.

Lehrer [17] also notes that a blend does not always need to combine the first fragment of a source word and the last fragment of another. She explains this by digging into how blends work and the rules that shape them. For example, if a splinter precedes a whole word or another splinter, it needs to be the initial splinter of a word, as in *Chunnel* from *channel* and *tunnel*. If a splinter follows a whole word or another splinter, it can be either the last splinter of a word, like *busnapper* from *bus* and *kidnapper*, or the first splinter of a word, like *codec* from *coder* and *decoder*. The start of a blend cannot be the end of a word [17]. The earlier discussion shows that defining a blend is difficult. This is mainly because there are several ways of defining them. Linguists have used different systems to classify blends, so it is useful to briefly examine some of these classifications.

Pyles and Algeo [18] explain that in blends, both the sounds and meanings of the source words are partly combined, either intentionally or by chance. For example, someone might create a blend like *needcessity* from *need* and *necessity* when they have two similar terms in mind. These types of blends result from accidental tongue slips, which is why they are referred to as nonce words. However, they can weave their way into the vocabulary through frequent use and demonstrated utility. Additionally, many blends are intentionally created, such as *guesstimate* from *guess* and *estimate*, to allow the word creator to avoid responsibility for potential inaccuracies [18].

Bauer [10] offers one of the key blend categories in the following:

a.  Blends comprising only splinters of the contributing words, for example, *Chunnel* derived from *Channel* and *Tunnel*.

b.  Blends in which both bases are fully present, such as *swelegant* (also *swellegant*) from *swell* and *elegant*, reflecting overlap in spelling, pronunciation, or both.

c.  Blends that resemble formations from other word-formation processes, particularly neoclassical compounds, for example, *autocide* from *automobile* and *suicide*.

Bauer's [10] classification of blends is structural, emphasising the many forms that blends can assume. It addresses only their morphological as well as grammatical forms, not their internal semantic structures.

In contrast to Bauer's structural approach, Adams [7] classifies blends according to the relationships among their constituents, as shown below.

1. Subject-Verb blends, for example, *screamager*, formed from *screaming* and *teenager*

2. Verb-Object blends, exemplified by the word *breathalyser*, which is created from *breath* and *analyser*

3. Appositional (coordinative) blends, for example, *escalift* from *escalator* and *lift*

4. Appositional (non-coordinative) blends, in which the initial element specifies or qualifies the second, as exemplified by the word *slanguage*

5. Instrumental blends, as in the example *automania*, formed from *automobile* and *mania*, meaning "mania caused by automobiles"

6. Locative blends, for example, the word *Chunnel*, derived from *Channel* and *Tunnel*, and *daymare*, formed from *day* and *nightmare*

7. Resemblance blends, for example, the blend *bomphlet*, which is created from *bomb* and *pamphlet*

8. Composition compounds, where the first component is the material from which the second is made, as in *plastinaut* from *plastic* and *astronaut*

9. Adjective-Noun blends, for example, the blend *permalloy*, from *permeable* and *alloy*

10. Blends of the punning type, which are not easily classifiable, for example, *foolosopher* from *fool* and *philosopher*.

Adams's [7] categorisation listed above examines the relationship among blend constituents, integrating both grammatical and semantic relations. It utilises grammatical categories such as subject, verb, and object. Simultaneously, the classification refers to semantic relations such as resemblance, composition, and instrument. This classification is significant because it demonstrates the interaction between grammar and meaning. Nevertheless, the proposed classes are limited to either semantic or grammatical categories, and the criteria are not comprehensive. Some examples remain unclassified, as illustrated by class (10). Adams's classification highlights that both compounds and blends share the same internal structure. However, she observes that blends resembling compounds in their structure do not constitute a significant category of word formation. "Compound-blends", as defined by Adams, are rarely used. Following the presentation of basic definitions and classifications of compounds and blends, previous approaches to these neologisms will now be reviewed.

## 1.3 Approaches Compounding and Blending

Aronoff [19] describes blends as "oddities". These words depend on spelling, which is not universal, since it is not required for language use [19]. Although blends are common in English, generative grammar finds them awkward. This is because they cannot be predicted by a rule without using unclear concepts like euphony, which are difficult to define in generative terms.

Beard [20] argues that blending, in contrast to grammatical derivation, is typically a conscious and logical, not grammatical, process. When a reference involves part A and part B, the resulting word should include elements from the words for A and B [20]. For example, the word *boost* is formed from *boom* and *hoist*, with the splinters *boo* and *st*, derived from the source words. These splinters do not conform to grammatical boundaries. However, the relationship between blends and their source words, especially in comprehension, challenges this view. To comprehend the sense of the blend *clantastical*, for instance, one must first identify its contributing words *clandestine* and *fantastical*. The link between splinters and contributing words suggests that the shift from whole words to fragments concerns representation rather than a strict division between words and their representative parts. This issue will be explored further in a later chapter.

Downing [21] observes that, in contrast to compounds, blends typically consist of synonymous or nearly synonymous words. There are some compounds in which the referents of the first component ($N^1$, as defined by Downing) are equivalent to those of the second component ($N^2$). However, such compounds are generally limited to onomatopoeic reduplications, such as *quack quack* [21]. These forms are considered unacceptable due to their redundancy. Nevertheless, few exceptional cases of lexicalised forms, such as *palm tree*, seem to rely heavily on contextual factors [21]. The relationship between the constituents of a reduplicative compound can convey classification in certain contexts, while in other cases it lacks semantic content. This raises the issue of whether the categorical label *blend* is redundant. Adams's [7] classification of blends partially addresses this issue by demonstrating that blends are not always synonymous or nearly synonymous, as illustrated by examples such as *automania* (from *automobile* and *mania*) and *Chunnel* (from *Channel* and *Tunnel*).

Štekauer [22] proposes an approach to compounds and blends where productive and regular Word Formation Rules generate all naming units created through the word formation process. Each direct result of a Word-Formation Rule or Type is predictable. Productivity, as defined by Štekauer [22], refers to a collection of Word Formation Types that fulfil naming requirements within a particular conceptual-semantic field of a language. Such a cluster of Word-Formation Rules ensures the creation of new naming units within a specific conceptual and semantic field as required. Each cluster

demonstrates complete (100%) productivity. Štekauer [22] argues that using frequency of usage as a criterion for determining the status of existing words is problematic, citing the ambiguity of "common use" and the limitation that frequency can only be measured for words that already exist [22]. According to this analysis, the word formation process comprises five distinct mental levels:

1. At the conceptual level, the object designated is systematically analysed and classified into the following categories: SUBSTANCE, ACTION (subdivided into ACTION PROPER, PROCESS, and STATE), QUALITY, and CONCOMITANT CIRCUMSTANCE, which includes PLACE, TIME, and MANNER,

2. At the semantic level, "the semantic marker" is structured,

3. At the onomasiological level, one semantic marker is chosen to serve as the onomasiological base, indicating a category such as class, gender, or species. Another semantic marker is chosen as the onomasiological mark, which specifies the base. The mark is further divided into the determining component, which distinguishes between the specifying and specified elements, and the determined constituent,

4. At the onomatological level, the onomasiological structure is assigned linguistic units according to the Form-to-Meaning Assignment Principle (FMAP). Concrete morphemes are then chosen, and

5. At the phonological level, forms are created, assigned stress patterns, and subjected to phonological rules. [22,11-13]

For illustration, this process can be exemplified by developing a term for an individual whose occupation involves driving a vehicle to transport goods.

At the conceptual level:

It is SUBSTANCE[1], which is Human.

The Human carries out ACTION.

ACTION, which is the Human's Profession, concerns SUBSTANCE[2].

SUBSTANCE[2] is a type of Vehicles.

These vehicles are intended to carry different types of goods, etc.

At the Semantic level:

[+ MATERIAL] [+ ANIMATE] [+ HUMAN] [+ ADULT] [+ PROFESSION],

[+ MATERIAL] [- ANIMATE] [+ VEHICLE] [+ TRANSPORTATION], and so on.

At the onomasiological level:

SUBSTANCE[1] - SUBSTANCE[2] refers to the onomasiological base and the leftmost component of the onomasiological mark.

In the logical Obj-Act-Ag model, the Agent corresponds to the onomasiological base (SUBSTANCE[1]), the ACTION is the determined component of the mark, and the Object is the determining component of the onomasiological mark, which is SUBSTANCE[2].

At the onomatological level:

In the Obj-Act-Ag model, the Agent is chosen from *man*, *-er*, *ist*, and so forth, the Action is from *drive*, *operate*, steer, etc., and the (logical) Object from *truck*.

At the Phonological level:

The new naming unit, that is, *truck driver*, is given its stress pattern and subjected to phonological rules.

A key issue concerns the treatment of compounding and blending within this method. According to the proposed mental stages, compounds go through all mental levels, as illustrated by Štekauer's example of *truck driver*. In contrast, blends do not follow all these stages; instead, they are considered a two-step process. It involves "coining an auxiliary 'full version' naming unit consistent with the onomasiological model of word-formation…then formally reduced in an unpredictable (and hence, irregular) way which cannot be captured by a regular Word-Formation Type" [22,33]. The initial step resembles compounding, whereas the subsequent step pertains to the lexical component. Due to their irregularity and unpredictability, blends are considered unproductive. Consequently, Štekauer excludes blends from word formation, arguing that word formation patterns must be entirely (100%) productive, regular, and predictable.

Although blending is generally regarded as a peripheral word formation process, it lies within the category of word formation. Excluding blends solely due to their status as a two-step process lacks justification. Although shortening a compound into a blend may not generate a new meaning, many English words are classified as products of word formation even when they do not introduce novel senses. For example, Grzega [12] demonstrates that not all words formed through word formation processes convey new meanings, as illustrated by the terms *Afro-American* or *African American*, which serve as alternatives to the outdated term *Black* in America [12,10].

The entire process of blending is unique, whether it comprises five or two steps. Blends are typically not substituted for their source words or compounds, which supports this assertion. Speakers consistently choose either blends or compounds. For example, the

compound *smoke fog* is not used as an alternative to the blend *smog*. This observation indicates that the second step may be integrated into the five mental stages required for blending, rather than treating each step separately. Consequently, these two processes should be viewed as complementary rather than drastically different. When both steps of blending are recognised, the entire process produces a new sense.

Bauer [13] describes morphological processes as a network. At the centre are affixation, back-formation, and neoclassical compounding. Clipping, blending, and acronyms are outside this core and considered less morphological. The network does not establish a strict boundary between core and non-morphological elements. Instead, morphological phenomena gradually transition into related linguistic processes. Affixation best represents the core. Other processes may influence morphology but might not qualify as morphological. As the link to affixation gets weaker intermediate steps increase, a process is less likely to be considered morphological [12].

Neoclassical compounds are an example of such links, as they are comparable to blends. Both morphological processes involve the combination of two constituents that are neither potentially free nor distinguishable from one another. The word *autocide*, for example, illustrates two distinct senses: a neoclassical compound meaning "self-destruction" and a blend referring to "suicide in an automobile". Additionally, the relationship between morphological processes is evident in the similarity between blends and acronyms, as both are formed from non-meaning-bearing word segments.

Bauer [12] emphasises the significance of conceptualising morphological processes as a network. In this network, certain processes occupy more central positions than others. However, this analysis is limited to the structural form of these processes. For example, the fragments forming blends and acronyms are regarded as "non-meaning-bearing", following Bauer's [12] terminology. Given this, if the splinters from blends and acronyms do not inherently carry meaning, it is necessary to explain how listeners interpret these neologisms. In response, listeners typically identify the source words from which these splinters are derived. They then infer their meanings. Therefore, the splinters in blends and acronyms are not isolated elements but represent entire source words, which enables them to convey meaning.

Algeo [13] challenges Flexner's [14] view that all words, including acronyms, compounds, and blends are clearly defined. While the core of each type of word formation is clear, the boundaries can be unclear. For instance, he points out that *scuba* is an acronym for *self-contained underwater breathing apparatus*. However, it is less certain whether *Nabisco*, from *National Biscuit Company*, or *sitcom* from *situation comedy*, should be considered acronyms or belong to other types of words. Algeo [13] believes confusion in the traditional taxonomy of word-making comes from unclear definitions and inconsistent criteria. He also notes the focus on only one characteristic

of word formation without considering the overall taxonomy or ambiguous cases. Still, the traditional system has been widely used and generally works well. This is likely because it implicitly follows an underlying coherent scheme of classification [13].

Algeo [13] identifies nine diachronic criteria, framed as questions, to clarify the implicit classification scheme: (i) Is the new lexical item derived from existing words (etyma)? (ii) Is the etymon a borrowed word? (iii) Does the item combine two or more etyma? (iv) Is the etymon shortened in the new item? (v) Does the etymon lack a formal exponent in the new item? (vi) Is the formation of the new item motivated by phonological factors? (vii) Do the etyma include more than one base? If only one etymon is present, does it contain multiple bases, or if multiple etyma are present, do at least two contain bases? (viii) Is the new item derived from written rather than spoken etyma? (ix) Does the item introduce new morphs to the language?

Criteria (i) and (iv) define a compound as a word class consisting of two or more unshortened etyma, exemplified by *flu virus*, which derives from *flu* and *virus*. In contrast, a blend is a word class containing two or more etyma, with at least one being shortened, as illustrated by *faction*, formed from *fact* and *fiction*. Criterion (vii) specifies that a compound contains at least two bases, as in *earthquake*[4], whereas a blend does not contain two bases, as seen in *fleep* (from *flying* and *jeep*), which has no base, and *daymare* (from *day* and *nightmare*), which has only one base. According to criterion (ix), a compound does not generate a new morph but instead forms a new lexeme from existing morphs, such as *windmill*. Conversely, a blend produces both a new lexeme and a new morph, as in *Chunnel*, derived from *Channel* and *tunnel*. Emphasising the distinctions between compounds and blends aligns with the taxonomic and definitional objectives of the nine criteria.

Diachronic criteria often differ significantly from synchronic criteria. Comparing these processes can clarify how the synchronic system responds to diachronic change. Algeo [13] observes that, in contrast to the lexicon, phonology and syntax have received considerable scholarly attention. The lexicon functions as a system that integrates phonology, syntax, and semantics; in other words, the word is primary [13].

Algeo [13] presents an approach with several advantages. This framework highlights the lexicon, which is often marginalised in generative grammar, underscores the significance of diachronic perspectives on word formation, and treats morphological processes as a continuum rather than discrete categories. However, Algeo does not address the conceptual mechanisms underlying morphological processes. Instead, the analysis remains focused on morphological form, thereby leaving the integration of conceptual foundations unresolved. According to Algeo, words precede meaning, yet meaning

---

[4] This classification does not address compounds consisting of a single base, specifically neoclassical compounds.

resides in the mind; thus, words function as representations of mental processes. Although language appears semantically rich, many linguists infer that meaning is inherent in words. Nevertheless, meaning is determined by context and exists primarily in the cognition of language users [15,27].

## 1.4 The Concepts of Prototypes and Categories

Most current approaches to compounds and blends adopt a classical framework, categorising these processes as either members or non-members of specific linguistic classes. Compounds are typically included within grammar and word formation, whereas blends are excluded from these categories and are therefore seen as fundamentally distinct from compounds. As previously said, this view is based on the Aristotelian categorisation followed by many linguistic frameworks, notably generative linguistics.

Taylor [4] outlines the classical Aristotelian approach to categories in the following. In this framework, a category is specified by a set of necessary and sufficient features. For instance, the category MAN is defined by the characteristics TWO-FOOTED and ANIMAL, as in Aristotle's definition of man as a two-footed animal. If an entity does not exhibit any of these properties, it is excluded from the category. Furthermore, the defining features are considered sufficient when an entity exhibits all of them. Features are binary; an entity either possesses a feature or does not, and membership is absolute. In this approach, properties are evaluated on an all-or-nothing basis. Categories are characterised by clear boundaries, so entities either belong to a category or do not. Additionally, all members within a category are regarded as equal, with no members considered more prototypical than others [4]. It is important to note that this approach excludes certain possible members from the category. As a result, prototype linguists and theorists have strongly challenged the classical view of categories.

The traditional approach to categories has been challenged on two main grounds. First, for most natural categories, it is not possible to establish a set of necessary and sufficient criteria, since what is considered necessary often lacks sufficiency. Second, category members do not occupy equivalent positions. Prototypical members, which are examples that best represent the category, possess full membership within the category. In contrast, non-prototypical members exhibit a lower degree of membership, determined by their similarity to the prototypes [23,24]. Therefore, certain members of a category are regarded as more representative than others. For example, robins are typically viewed as more representative of the category BIRD than ostriches. Prototypical examples are more frequently used, more closely aligned with the category name, and are accessed and processed more rapidly than less typical members [23]. Conversely, if categories are defined solely by features common to all members, no single member can serve as a better exemplar than another. Furthermore, if categories are determined exclusively by

inherent characteristics, they should remain independent of the cognitive and perceptual processes involved in categorisation, such as human neurophysiology, motor functions, and abilities related to perception, memory, organisation, and communication [5].

Cruse [23] identifies three dimensions of centrality: well-formedness, typicality, and quality. To illustrate, a one-legged bird is considered a less prototypical instance of the category BIRD than a two-legged bird, as it deviates from the canonical form. Nevertheless, the concept of well-formedness does not fully account for the categorisation of compounds and blends. Specifically, blends typically do not conform to the canonical form and appear less well-formed than compounds. Moreover, a derived word that retains only part of its contributing word structure may be seen as less representative than one composed of complete words. According to Cruse [23], such blends are less well-formed rather than ill-formed, and this difference is evident only at the morphological form level. Nevertheless, both morphological processes share similar functions and distributions, as they can serve as nouns, adjectives, or verbs, as demonstrated in Table 3.2 as well as Appendices A and B.

In the context of typicality, an exemplar possesses the most frequently observed characteristics and lacks distinctive or uncommon attributes. For instance, within the United Kingdom, a blackbird is regarded as a more representative member of the category BIRD than an eagle, as it more closely aligns with the average size and features of birds commonly encountered in that region [24,60,61].

An example is considered high in quality if it is described as "a shining example of an X" or "typifies an X at its best". For instance, a mango may be regarded as a better example of APPLE than an apple when evaluated by quality attributes such as flavour and juiciness. In contrast, an apple is a more typical example of FRUIT than a mango based on typicality [23,25]. However, the validity of quality as a standard for identifying the best exemplar of a category is questionable. Attributes such as flavour and juiciness are subjective and depend on individual preferences, which can vary significantly among individuals. Therefore, these attributes cannot serve as reliable criteria for determining the best exemplar, highlighting the fundamental limitations of using subjective quality as a basis for category membership.

A probabilistic model of prototypes posits that instances of a concept may differ in the extent to which they share specific properties, resulting in varying degrees of category membership [26]. In some prototype models, features are hierarchically ordered according to their salience. The prototype represents the most characteristic example within a class, such as the "reddest red" or the "most cup-like cup". The prototype forms the centre of a category, with other members exhibiting progressively less representativeness.

Aitchison [27] argues that individuals mentally conceptualise ideal bird characteristics. They assess whether a pterodactyl, for example, qualifies as a bird by comparing it to a prototypical bird. It does not need to possess all prototype attributes to be classified as a bird; a reasonable correspondence is sufficient, even if it is not an exemplar [27]. Several experiments have tested this hypothesis. Eleanor Rosch, a pioneering psychologist, examined whether individuals perceive certain birds as "birdier" in the category BIRD, certain vegetables as more "vegetable-like" in the category VEGETABLE, and certain tools as more "tooly" in the category TOOL. The results indicated that specific items were consistently identified as prototypical examples within their respective categories. For instance, a robin is frequently identified as a prototypical bird, a pea as a prototypical vegetable, and a chair as a prototypical piece of furniture [27,28,29,4,61]. However, these prototypical examples may vary across cultures and are not necessarily universal. This research demonstrates that individuals do not perceive all category members equally, nor do members need to possess all attributes of an ideal prototype. Therefore, prototype-based categorisation explains phenomena that classical frameworks cannot address.

Aitchison [27] identifies two primary advantages of the concept of prototypicality. First, it clarifies how individuals categorise atypical instances within a category. For example, a penguin is classified as a bird because it sufficiently resembles the prototypical bird, despite lacking certain typical features. Second, prototypicality accounts for the classification of impaired examples. A robin with only one wing, which cannot fly, is still recognised as a bird, even though it deviates from the prototype [27]. In contrast, classical categorisation struggles to accommodate such cases, as it requires all category members to possess all defining properties.

A prototypical approach to categories is characterised by four main features. First, prototypical categories display varying degrees of prototypicality. Second, they possess a family resemblance structure. Their semantic structure consists of a radial number of clustered and overlapping readings focused around more central examples. Third, their boundaries are blurry, so some entities belong clearly, while others are ambiguous. Finally, it is not possible to define prototypical categories with a fixed set of necessary features [30].

This categorisation task is more complex than suggested by classical theory. While simplicity is a desirable attribute, it must not compromise the explanation of both linguistic and extra-linguistic phenomena. For example, generative grammar, which employs a binary feature system for the sake of economy and simplicity, exemplifies this limitation. In componential analysis, the binary methodology reduces distinctions between word senses to a single feature, either + (plus) or - (minus), indicating the presence or absence of the semantic feature. As a result, this approach addresses only prototypical, clear-cut examples and is therefore inadequate. It treats numerous linguistic

phenomena as exceptions and fails to provide explanations for them. Ultimately, the complexity of categorisation arises from the intricate structure of categories, which include cognitive categories, concepts, prototypes, graded membership, and fuzzy boundaries.

Prototype effects occur in both non-linguistic conceptual structures and linguistic structures. This phenomenon arises because linguistic structure relies on a general cognitive apparatus, specifically category structure. Linguistic categories represent a subset of cognitive categories [5]. Therefore, compounds and blends can be classified as cognitive categories, as their creation and understanding depend on general cognitive mechanisms. The source schemas underlying the formation of compounds and blends will be examined in detail in a later chapter.

The preceding discussion has addressed the significance of prototypicality in human categorisation and outlined the cognitive approach's advantages over the classical model. The concept of prototypicality has been considered in general terms, since multiple prototypical frameworks exist and a comprehensive review goes beyond the scope of the current research. Basic-level categorisation, which is more closely aligned with the linguistic and morphological focus of this study, may provide a more suitable framework for analysing compounds and blends. The following section examines this type of categorisation.

## 1.5 Basic-level Categories

Lakoff [5] notes that research by Berlin and his colleagues [31] and Hunn's [32] research demonstrates that the biological genus level is psychologically fundamental for Tzeltal plant and animal taxonomies. The genus occupies a central position within the hierarchy: UNIQUE BEGINNER > LIFE FORM > INTERMEDIATE > GENUS > SPECIES > VARIETY [5]. Similarly, Rosch et al. [28] identified the psychologically basic level as the midpoint of taxonomic hierarchies. To illustrate these findings, consider the example of taxonomic hierarchies, adopted from Lakoff [5].

**Table 2.1**

*The Three-Level Hierarchy [5]*

| | | |
|---|---|---|
| SUPERORDINATE | ANIMAL | FURNITURE |
| BASIC LEVEL | DOG | CHAIR |
| SUBORDINATE | RETRIEVER | ROCKER |

Lakoff's examples *retriever* and *rocker* in Table 2.1 serve as subordinate instances of the basic level categories DOG and CHAIR, respectively. Additional subordinate

examples include *dachshund*, *St. Bernard*, *living-room chair*, and *kitchen chair*. Lakoff [5] identifies several characteristics of basic-level categories.

Perception: Overall perception shape; single mental image; fast identification.

Function: General motor program.

Communication: Shortest, most commonly used and contextually neutral words, first learned by children and first to enter the lexicon.

Knowledge Organisation: Most category member features are stored at this level [5,47].

Knowledge is usually organised at the basic level in the following way: People usually list a few features for members at the superordinate level (e.g., FURNITURE, VEHICLE, MAMMAL). Most knowledge is listed at the basic level (e.g., CHAIR, CAR, DOG). At the subordinate level (ROCKING CHAIR, SPORTS CAR, RETRIEVER), there is usually less knowledge than at the basic level. Lakoff [5] explains that most information is organised at the basic level, drawing on Berlin et al. [31] and Hunn's [32] suggestion that gestalt perception, or seeing the overall part-whole configuration, defines this level. Tversky and Hemenway [33] support this view, noting that the basic level stands out because people link it to certain attributes, especially those connected with parts.

At the basic level, human knowledge is structured around part-whole relationships. Dividing objects into parts controls several things. First, parts are typically related to specific functions. Our knowledge about functions is closely associated with knowledge of object parts. Second, parts determine the overall shape and perception of an object. Third, individuals interact with objects through their parts. Part-whole divisions are therefore essential for selecting appropriate motor programs. For example, a handle is not only characterised by its long and thin form, but also by its suitability for grasping by the human hand [33].

Basic-level categories are defined by maximising the features shared among their members and minimising features shared with members of other categories [4]. The following example clarifies the scope of basic, superordinate, and subordinate categories.

**Figure 2.1**

*The Two-Axe Categorisation (adopted from Taylor [4])*
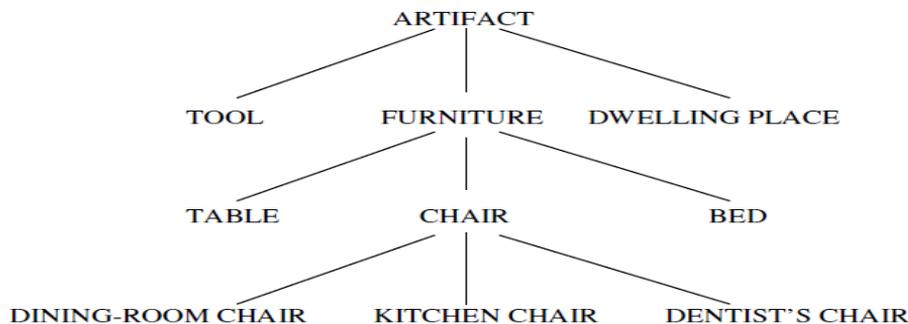


A category system consists of both vertical and horizontal dimensions. The vertical dimension indicates the degree of inclusiveness within a category, as demonstrated by the hierarchical relationship among FURNITURE, CHAIR, and KITCHEN CHAIR. Conversely, the horizontal dimension concerns the distinction between categories at an equivalent level of inclusiveness, for example, CHAIR, TABLE, and BED.

Figure 2.1 illustrates the challenge of identifying attributes that uniquely distinguish objects classified as FURNITURE from other household ARTIFACTS. Superordinate categories represent abstract categories whose members share only a limited set of attributes. Consequently, the category FURNITURE is more effectively defined by enumerating its typical members, such as beds, tables, and chairs, rather than by specifying essential features. At the basic level, categories like *chairs* possess attributes not shared by other types of furniture, such as beds or tables. At the subordinate level, members share numerous attributes, many of which overlap with other categories. For example, kitchen chairs and dining-room chairs share several characteristics. The category kitchen chair maximises shared attributes among its members but does not achieve maximal distinction from other categories at the same hierarchical level [5].

The consideration of attributes remains relevant even when cognitive structures are primarily understood as gestalt formations. Gestalt principles guide human interaction with concrete reality. For example, in basic-level categories, the whole is often perceptually and cognitively simpler than its constituent parts, leading to the comprehension of parts in relation to the whole [5]. However, attributes retain significance because they provide the dimensions along which different objects are perceived as similar. As Langacker [8] notes, attributes include "the commonality [that speakers] perceive in arrays of fully specified, integrated units" [4,63].

Figure 2.1 shows that the superordinate category FURNITURE comprises CHAIR as a prototypical example. Subordinate categories offer more specific information about members of a basic-level category, although their structures closely resemble those of

the basic-level categories [34]. They are employed for increased specificity, and their classification is determined by the basic-level category. This process often results in the use of compounds and composite terms to express subordinate categories [34]. Typically, entities are categorised at the subordinate level by referencing the basic-level category, which is generally simple and contains a single morpheme, either lexical, as in the example of *chair*, or grammatical, as in a simple noun. Compounds and blends are generally categorised according to their basic level contributing words.

This chapter defined and classified compounds and blends and reviewed their main analytical approaches. The chapter also examined prototypicality, emphasising the basic-level category approach as the most suitable method for categorising the word formation processes analysed in this study. The next chapter will discuss the method employed in the current study.

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# Chapter 3: How the study worked? Categorising compounds and blends by prototypes and source schemas

## 1 Introduction

This chapter describes the methodology employed in the study, details the analytical approach for determining the categorical status of compounds and blends, and presents the compiled data used for analysis.

### 1.1 Categorising by Prototypes and Source Schemas

This book investigates the relationship between compounds and blends. It proposes an alternative framework for their categorisation, distinct from classical approaches outlined in Chapter 2. The method, employed by traditional linguists including generative grammarians, classifies entities strictly as category members or non-members, which fails to account for numerous linguistic phenomena. According to the Aristotelian approach, blends are excluded from grammar [19, 20], as well as word formation [22]. Consequently, blends are regarded as fundamentally distinct from compounds.

This study employs a cognitive linguistic approach to categorisation to critically assess the limitations of traditional definitions and classifications of compounds and blends. The process of categorisation, particularly determining category membership, is fundamentally cognitive. Categorical judgements and the categories themselves are grounded in human experiences, including bodily, physical, social, and cultural dimensions. Based on this premise, the distinction between compounds and blends is evaluated as separate categories or as members of a unified category. The unified category framework in cognitive linguistics requires that compounds and blends exhibit varying degrees of prototypicality and are shaped by similar source schemas or conceptual structures. Consequently, compounds and blends can be considered members

of a single category if they demonstrate a prototypical categorisation pattern, characterised by gradations of prototypicality and indistinct category boundaries.

Cognitive categorisation is favoured over classical categorisation because it allows for gradual membership. Classical categorisation, in contrast, rigidly classifies category members. Basic-level categorisation may be the most appropriate prototypicality framework for analysing compound and blend categories. In this categorisation framework, these coinages are subordinate to their contributing words, which function as basic-level categories. Compounding and blending, therefore, share several overlapping characteristics. Prototype categorisation will address the first two research questions: the extent to which the border between compounds and blends is clear and whether compounds and blends converge or diverge. To address the third research question, an examination of the internal semantic and conceptual structures of these morphological processes will be conducted to determine the source schemas underpinning compound and blend coining.

## 1.1 The Data

The compound corpus includes one hundred words from previous studies, including Adams [7], Aronoff and Fudeman [35], Bauer [10], Hatcher [36], and Libben [37]. The blend corpus also comprises one hundred words, taken from earlier research, notably Adams [7], Bauer [10], Frath and Hamm [38], Lehrer [17], and Quinion [39]. To ensure relevance, two hundred words - one hundred for each morphological process – were selected based on their frequency and use in previous discussion in linguistics. This selection also aimed to maintain the principle of diversity in the data. The principle of diversity is pertinent to the current study for numerous reasons. This diversity principle provides the study with a broader basis for categorising compounds and blends using prototypes. A varied set of data will enable the authors to precisely determine the fuzzy boundary between compounds and blends. Moreover, it will help test out a comprehensive set of source schemas that motivate these morphological processes in English.

The corpus for the analysis consists of compounds and blends that include only two constituents. They have the same grammatical categories: nouns, verbs, and adjectives. Table 3.1 exemplifies these grammatical classes.

**Table 3.1**

*Compound and Blend Grammatical Categorie*s

|  | **Noun** | **Adjective** | **Verb** |
|---|---|---|---|
| **Compound** | *scarecrow* | *sun-bathing* | *fingerprint* |
| **Blend** | *mockney (mock + cockney)* | *smever (smart + clever)* | *guesstimate (guess + estimate)* |

These word formation processes are constructed from components with various grammatical structures. Compounds often include grammatical structures like noun + noun, for example, *birth control*, noun + verb, as in *earthquake*, verb + noun, as in *killjoy*, adjective + noun, as in *fine art*, verbal noun + noun, as in *drinking water*, and noun + verbal noun, as in *family planning*. Blends use similar combinations: noun + noun, for example, *boatel* (formed from *boat* and *hotel*), verb + noun, as in *singspiration* (from *sing* and *inspiration*), verb + verb, as in *boost* (from *boom* and *hoist*), noun + adjective, as in *mantastic* (from *man* and *fantastic*), adjective + noun, as in *apronym* (from *appropriate* and *acronym*), adjective + adjective, as in *clantastical* (from *clandestine* and *fantastical*), verbal noun + noun, for example, *advertainment* (from *advertising* and *entertainment*), noun + verbal noun, as in *spamdexing* (from *spam* and *indexing*), or adjective + verbal noun, for example, *attractivating* (from *attractive* and *captivating*).

The data on compounds and blends covers a wide range of grammatical categories and structures to ensure diversity. Compilation was chosen over other collection methods to maximise the variety of examples collected. The aim is to examine the relationships between these neologisms and propose a unified cognitive categorisation of them. Furthermore, including data from previous works supports continuity in the linguistic argument. On the other hand, collecting new data from reference books or dictionaries would take more time and may not yield as varied results, because many blends are not lexicalised and hence fall outside the scope of such sources.

The analysis in this study proceeds in two stages. The first stage examines the issue of category boundaries and explores potential alternative prototypical categories. The second stage investigates the cognitive motivations underlying compounds and blends through the application of source schema categorisation.

The first stage involves analysing the data to determine if there is a clear boundary between compounds and blends. This analysis tests whether the traditional view that compounds and blends are drastically different holds true, or if they are reasonably similar and belong to a unitary category. Only after these boundaries are defined can the relationship between the two types of word formation be explained using the basic-level categories approach.

The second stage examines the conceptual motivations underlying compounds and blends. The dataset is analysed to determine the internal semantic structure of each morphological process. This approach assesses whether compounds and blends exhibit shared conceptual schemas. If both are derived through similar source schemas and conceptual motivations, this finding supports their categorisation within a unitary category, such as NEOLOGISM. This study proposes ten source schemas, as shown in Table 3.2.

**Table 3.2**

*Compounds and Blends' Source Schemas*

| Source schema Label | Source schema Paraphrase |
|---|---|
| Action | X is the agent of the action Y<br>X is the patient of the action Y |
| Location | X is located at Y<br>Y is located at X |
| Purpose | X is for Y<br>Y is for X |
| Apposition | X specifies Y<br>X is an example of Y<br>Y is an X |
| Instrument | Y prevents against or preserves X |
| Causal | X causes Y<br>Y causes X |
| Resemblance | Y resembles X |
| Composition | X is a characteristic of Y<br>Y is made of X |
| Whole-Part | Y is part of X |
| Containment | X is contained in Y<br>Y is contained in X |

In the paraphrases of the source schemas, the symbol X indicates the first component of compounds or blends, and the symbol Y indicates the second constituent of these morphological processes. The dataset will be analysed by applying these source schemas to determine how similar their conceptual motivations and derivational processes are.

During data analysis, two main limitations emerged. First, some source schemas underlying the construction of compounds and blends overlap; specifically, multiple source schemas may motivate the formation of a compound or blend. Second, ambiguity sometimes arises about which component of these words is central - that is, the first or the second component. For example, with the Apposition Schema, it is unclear if X, the first member, specifies Y, the second member, or the reverse. The word *brunch* (from *breakfast* and *lunch*) could be interpreted as "a breakfast that is a lunch", or "a lunch that

is a breakfast". In such instances, the authors choose the most appropriate subschema based on introspection and make a collaborative judgement on the schema resolution.

This chapter examined the categorical approach for analysing compounds and blends and outlined previous linguistic methodologies. It detailed the data collection and analysis procedures and identified limitations encountered during the analytical process. The subsequent chapter provides a comprehensive analysis of the collected data.

# Chapter 4: Results and discussion

## 1 Introduction

This chapter examines the classical view that compounds lie within word formation and grammar, while blends are excluded, resulting in their classification as fundamentally distinct categories. The data on compounds and blends is analysed to decide if all examples are clearly classifiable or if ambiguous cases are present. A prototypical categorisation of each neologism is then presented. The source schemas underlying the formation of compounds and blends are then examined to determine whether they converge or diverge.

### 1.1 The Relationship between Compounds and Blends

The traditional approach often treated compounds and blends as drastically different entities. However, the differences between these morphological processes have been overstated by the either-or methodology. A comprehensive analysis should address both distinctions and similarities, as well as ambiguous cases, to clarify the degree of variation within and between compounds and blends. This approach demonstrates that the distinction is gradual rather than absolute, supporting a more accurate model of linguistic categorisation. The data set includes clear differences, shared features, and ambiguous examples.

The key dissimilarities between compounds and blends are shown below.

    a.   Blends show less regularity, predictability, and productivity compared to compounds[5].

---

[5] Here, the distinction is considered a matter of degree, not an absolute difference, which contrasts with Štekauer's [22] argument, as previously discussed.

b. Compounds are formed from multiple etyma (i.e., full morphemes), whereas blends are formed from multiple etyma, with at least one being truncated [13]. For example, *cut-throat* is a compound of two free morphemes, whereas *chattire* (*chat* + *satire*) is a blend that includes one full morpheme and a word's splinter.

c. A linguistic blend, as opposed to a compound, can generate a new morpheme, like *(a)thon*.

Such differences are both acceptable and anticipated within cognitive linguistics, as they represent inherent attributes of categories. The book does not seek to challenge these distinctions. Nevertheless, a linguistic analysis of neologisms should not only consider the differences but also the similarities among category members or their attributes to attain an exhaustive elucidation of all the members in a category. As previously discussed, this issue stems from the traditional approach's postulate that a member must fulfil all necessary and sufficient conditions to belong to a category and resemble other members; otherwise, it is excluded from the category.

An alternative perspective would conceptualise membership as a gradable phenomenon, recognising that all categories exhibit varying degrees of membership rather than a binary distinction. This framework makes it possible to include all the members of a category. Feature-based (or criterial) categories may reject some category members due to minor differences, thereby adding bias and undermining the validity of research findings. More productive research would also focus on identifying the similarities between compounds and blends. This approach may facilitate their classification within a shared linguistic category.

The main similarities are outlined in the following.

a. Both belong to the same category, "neologism", as each form results in a new combination [17,360].

a. Understanding a blend entails knowledge of its two source words. Typically, a blend is comprehended by referencing the corresponding compound, which must also be understood [17,363]. For example, the blend *stagflation* is only meaningful if the listener recognises the meanings of *stagnation* and *inflation*, which combine to denote "a condition of the economy where stagnant demand occurs with severe inflation" [45].

b. Compounds and blends follow a similar conceptual process where multiple lexical items merge to generate a novel sense. The word *chairman*, for instance, takes the sense of "the president of a committee or meeting" from the combination of the words *chair* and *man*. Similarly, the words *motor* and *hotel* combine to construct *motel*, which means a "hotel made for motorists".

The similarities listed above are often viewed as oddities or excluded from classification when applying a strictly binary framework to compounds and blends. If an item fails to satisfy all necessary and sufficient conditions, it is excluded from membership, and any existing similarities are disregarded. Adopting a gradable perspective on differences can address these oddities and provide a rationale for recognising such similarities.

A key reason for exaggerating the differences between compounds and blends is the tendency to treat linguistic domains such as morphology, phonology, syntax, and semantics as autonomous. Therefore, research has focused on the morphosyntactic features of compounds and the phonological characteristics of blends. This methodology usually disregards the semantic aspect in the examination of neologisms, encompassing both compounds and blends.

While morphological and syntactic investigations of compounds have made significant contributions, their focus on only morphological form has left many questions about compounds and blends unresolved. Syntactic literature on compounds has provided an insightful comprehension of headedness, suggesting that most compounds are right-headed, as in the examples *candlelight*, *fine art*, and *gentleman*. However, several counterexamples remain, particularly exocentric compounds, whose meanings are non-literal and lack a clear head (cf. Lahlou and Imran [52,53]). Morphological studies have clarified the processes involved in forming compounds from two free morphemes, such as *safety belt*, *searchlight*, and *puppy dog*. Nevertheless, these studies have not accounted for the attestation of compounds like *handcuffs*, *houseboat*, and *girlfriend* are attested, in contrast to the unattested forms *footcuffs*, *houseship*, and *womanfriend*. Addressing this gap requires analysis of semantic and cognitive factors underlying these morphological processes, as perceived by language users. Therefore, research on linguistic categorisation of compounds and blends should consider all aspects from conceptualisation to word physical structure.

Blends are typically formed based on phonological principles, leading several linguists to analyse them primarily through phonology. The prototypical phonological similarities between the source or contributory words, particularly at the consonant level, support this view. For instance, a consonant from the first constituent may be replaced by one from the second, as in the example of the blend *edutainment* (from *education* and *entertainment*), in which /k/ is substituted with /t/. The consonant replacements encompass sounds that share the same phonetic characteristics. In this instance, both are voiceless stops. Another example is the blend *Cineplex* (from *cinema* and *complex*), in which /p/ replaces /m/, and both are bilabial stops [40]. Certain blend constituents are so phonetically similar that listeners cannot detect any deletion, as in the example of *swelegant*.

The degree of similarity differs among blends. Certain blends show greater phonological resemblance to their contributory words than others. Focusing on only a single linguistic feature, even if it is prevalent, results in an incomplete examination of linguistic phenomena. Every linguistic characteristic, irrespective of its relative contribution, must be considered in order to achieve a comprehensive elucidation. Such an approach is acceptable because a word reflects a concept in a form that can be shaped morphologically, phonologically, or syntactically.

If the contributory words do not exhibit phonological similarity, a blend is not typically formed. In such cases, a compound is more likely to emerge when new words are required from etyma (or source words) with no phonological resemblance. Barlow [15] notes that both source words are activated during the creation and comprehension of a blend. For example, both source words of *boldacious*, that is, *bold* and *audacious*, are activated during its derivation as well as comprehension. Contributory words serve as inputs to the blend, and their form similarity facilitates the creation of a blend when communication demands a close relation of their meanings [15].

A comprehensive analysis of compounds and blends should prioritise semantic factors, since the initial processing of these structures is conceptual and semantic. All linguistic components, including semantics and phonology, influence these phenomena to varying degrees. Compounds and blends may share a common conceptual and semantic continuum, with differentiation occurring gradually at the phonological or form level.

After establishing the importance of both differences and similarities between compounds and blends, as well as the necessity of including both in analysis, a further issue emerges regarding the nature of these differences. Specifically, it is necessary to determine if the identified differences apply to all compounds and blends, or if certain cases remain ambiguous and cannot be classified definitively as either. This is significant because defining a category only by its prototypical examples is inadequate. Instead, it is essential to examine if the border between these morphological processes is clear. In this connection, Algeo [13] asserts that word formation diverse classes are ill-defined; while the centre of each class is clear, the boundaries are blurry. Prior to analysing the dataset and evaluating the characteristics of each word formation process, it is pertinent to discuss the concept of fuzziness, which features prototype category membership. The concept of fuzziness may help address and clarify the aforementioned ambiguous or unresolved examples.

In cognitive linguistics, category boundaries are often characterised by both fuzziness and overlap. Core category members are clearly defined, whereas peripheral members are ambiguous. The following figure provides a visual representation of this concept.

**Figure 4.1**

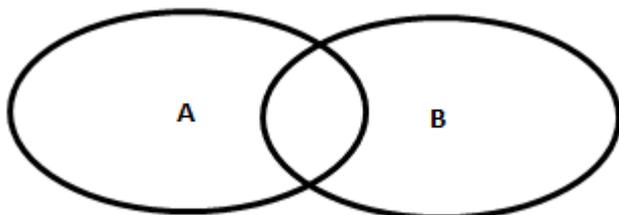*Overlapping Categories Representation*



Figure 4.1 above illustrates distinct areas where members are assigned to category A, category B, and an intermediate interchange area, in which members are associated with both categories. This intermediate area highlights the blurred border between the categories A and B. Prototypical compounds are made up of whole words (or free morphemes), such as *fine art*, *background*, and *candlelight*. Prototypical blends are created by shortening both etyma, as in *brunch* (from *breakfast* and *lunch*), *advertainment* (from *advertising* and *entertainment*), and *arfé* (from *art* and *café*). Consequently, prototypical compounds and blends exhibit clear differences in physical (observable) structure.

A significant analytical challenge occurs when only one etymon is shortened, resulting in the retention of one or more constituents in the derived form. In such cases, distinguishing compounds from blends is difficult. This aligns with Bauer's [10] opinion. Words like *mantastic* (formed from *man* and *fantastic*), *escalift* (from *escalator* and *lift*), *squangle* (from *square* and *angle*) are closer to blends due to the overlap of their constituent parts. Instances like *busnapper* (from *bus* and *kidnapper*), *bombphlet* (from *bomb* and *pamphlet*), and *daymare* (from *day* and *nightmare*) closely resemble compounds, since they combine free morphemes with clipped forms. Because these types of words are so similar, it is often challenging, especially for listeners, to decide if they are compounds or blends.

Blending is a productive morphological process that enriches language and vocabulary. This process contributes to the creation of new affixes. Some instances are *–burger*, derived from *hamburger*, *-cade*, from *motorcade*, *-gate*, from *Watergate*, *-(a)holic*, from *workaholic*, *-rati*, from *glitterati*, and *-(a)thon*, from *telethon*. Cannon [16] employed similar instances, citing Bauer [10,16] and Soudek [16,41], who suggested that such forms developed from linguistic blends. However, these instances present considerable complexity. Linguists differ on whether affixes are abstracted from blends or originate from other existing words. The sources of affixes are diverse. Analysis of the dataset reveals classification challenges for items with affixes derived from blends and blend-

like words. Certain examples are derived from non-blend words, others from blends, while several remain difficult to categorise.

The analysis demonstrates that certain affixes, previously ascribed to blending, originate from different morphological processes. For example, the suffix *-burger*, long considered the product of blending, actually arises from the truncation of lexical item *hamburger*. The word *hamburger* itself is a shortened form of *Hamburger steak*, named after the city of Hamburg in Germany [42]. According to Frath and Hamm [38], the word *hamburger* is not a blend but rather the result of the semantic reanalysis and morphemisation of a single polysyllabic parent word. In this process, the term *hamburger* is segmented into *ham* and *burger*, with the semantic focus shifting to *burger*. In this context, *burger* functions as a productive suffix or a stand-alone noun, facilitating the formation of compounds, such as *cheeseburger* and *chicken burger*. Previous misunderstanding of morphological processes by linguists is significant because it suggests that the distinction between compounds and blends in these instances is insufficiently clear.

The misconception should not be applied to all affixes associated with the blending process. For example, *motorcade* blends *motor* and *cavalcade*, and the suffix *–cade* has generated words like *aquacade and aerocade*. These examples are classified as compounds, not blends, since *-cade* functions as a suffix and does not originate from the source word's final part in these formations. Determining whether *motorcade*, *aquacade*, or *aerocade* is a compound or blend depends on their etymology. Such words share a structure comprising a morpheme and (-)*cade*[6], which diminishes the distinction between compounds and blends in these cases.

A further complexity arises when it cannot be determined whether an affix originates from a blend. This issue is particularly evident when multiple blends are formed concurrently and share the same constituent. For instance, *infotainment* and *infomercial* are blends of *information* and *entertainment*, and *information* and *commercial* respectively [46]. Once the clipping *info-* is established, distinguishing the origins of related forms such as *infodump* and *infonaut* becomes challenging. In addition, the exclusion of certain examples from dictionaries, likely due to their informal or nonce status, complicates definitive classification. While a detailed discussion of affix origins or blend epistemology falls outside the scope of this book, referencing these phenomena is necessary to illustrate the challenges in identifying specific compounds and blends and to highlight the ambiguous boundary between prototypical compounds and blends.

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[6] Brackets are utilised here to show the likelihood that the element *cade* functions as a suffix or splinter of the word *motorcade*.

A further category of lexical items that challenge the distinction between compounds and blends includes forms that function as both blends and neoclassical compounds. Examples include *autocide*, *arcology* (also referred to as *archology*), and *Eurocrat*. The term *autocide* is a neoclassical compound meaning "a self-destroyer or a suicide" [43]. Alternatively, it may also be seen as a blend of *automobile* and *suicide*. In the same way, *archology* is a neoclassical compound, which denotes "doctrine of the origin of things or science of government" [43], or a blend, coined from *architectural ecology*. The term *Eurocrat* also exemplifies this duality. It can be formed as a neoclassical compound combining a clipped from with the morpheme *kratos* (from Greek), meaning "power". Alternatively, it may be interpreted as a blend of the words *European* and *bureaucrat*. These instances show that compounds and blends share identical forms, thereby obscuring the border between these word formation processes.

The foregoing analysis proposes that the morphological processes under investigation represent a continuum rather than strictly fundamentally distinct categories. The data set demonstrates both distinctions and similarities, as well as ambiguous boundaries between them. While prototypical compounds can be differentiated from prototypical blends, their boundaries often overlap. The primary distinction between compounds and blends appears to be merely in their morphological form: compounds typically consist of complete words, whereas blends are formed from parts of words. This raises the question of how both processes should be systematically categorised.

## 1.2 Cognitive Categorisation of Compounds and Blends

Compounds and blends can be classified according to previously identified characteristics: differences, similarities, and ambiguous cases. The taxonomic hierarchy in Table 4.1 below shows this classification.

**Table 4.1**

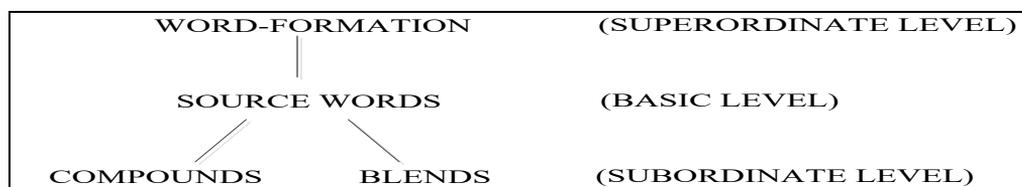*Compound and Blend Taxonomic Hierarchy*

| SUPERORDINATE | WORD FORMATION | |
| --- | --- | --- |
| BASIC LEVEL | SOURCE WORDS | |
| SUBORDINATE | COMPOUNDING | BLENDING |

The taxonomic hierarchy shown above is visually represented in Figure 4.2.

**Figure 4.2**

*Compound and Blend Hierarchy*

```
┌─────────────────────────────────────────────────────────────────┐
│        WORD-FORMATION              (SUPERORDINATE LEVEL)           │
│               │                                                    │
│         SOURCE WORDS               (BASIC LEVEL)                   │
│            ╱     ╲                                                 │
│   COMPOUNDS        BLENDS          (SUBORDINATE LEVEL)             │
└─────────────────────────────────────────────────────────────────┘
```

An important feature of this hierarchy is that both compounds and blends are subordinate to the basic level. Both processes originate from source words. Emphasising the basic level clarifies its relationship with subordinate categories. These subordinate forms depend on pre-existing source words in the language, such as nouns and adjectives. Words like *boost* and *flu virus* are contingent on the prior existence of words like *boom*, *hoist*, *flu* and *virus*. Therefore, the formation of compounds and blends depends on basic-level categories during production and potentially during comprehension. However, this dependence is not absolute but partial. Some compounds and blends show some degree of dependence on their contributory words. For example, the word *blaccent*, derived from *black* and *accent*, and *homework*, from *home* and *work*, represent specific types of accent and work, respectively. However, the senses of the contributory words do not completely correspond to those of the derived words. Instead, they inherit only selected semantic features from their contributory words. For example, learners may do their homework in the library rather than at home. Likewise, the word *blaccent* may refer to the accent adopted by a white person raised in a community in which *blaccent* is predominant. These instances show that these phenomena possess different features, despite retaining some characteristics from their source words.

Certain compounds and blends do not typically derive their meanings directly from their constituent words. For instance, the compound *pickpocket* refers to a person, not a type of pocket. Similarly, the blend *thighscraper* (formed from *thigh* and *skyscraper*) denotes a type of clothing rather than a kind of skyscraper. These cases require consideration of encyclopaedic knowledge and contextual information for accurate interpretation. Overall, compounds and blends are parallel, as both are constructed from pre-existing words at the basic level. The question remains as to how they compare at the horizontal level.

Differences along the horizontal axis often occur at the subordinate level, as these structures tend to be more elaborate and show greater variation. This variation is mainly a matter of prototypicality. Specifically, compounds tend to be more prototypical than blends. This distinction is illustrated in Figure 4.3.

**Figure 4.3**

*Compound and Blend Prototypicality*
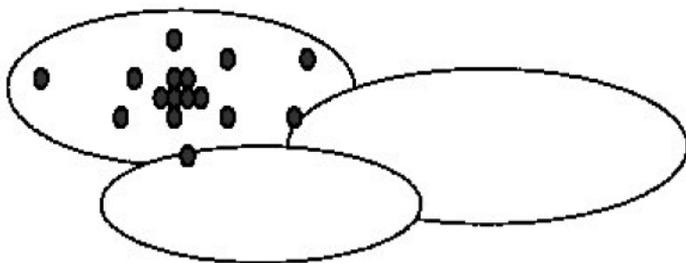


Prototypical compounds are regarded as better examples than prototypical blends because they retain a nearer structural relationship to their contributing words, such as adjectives, nouns, and verbs. This proximity enhances their salience for listeners. Furthermore, typical compounds consist of the complete words, which are simpler and occur more frequently in language. As a result, they are more representative within the lexicon. For example, the words *plywood* and *return ticket* are generally considered more prototypical members of the contributing word category than the words *splisters* (from *splinters* and *blisters*) or *geep* (from *goat* and *sheep*). However, these cases show that prototypical compounds and blends differ in their morphological form. Less typical examples do not have this difference. The idea of gradual difference is explained below.

Prototypical compounds are usually identified more rapidly than prototypical blends. In compounds, listeners do not need to infer omitted constituent parts. However, such distinctive process does not occur in all cases. For example, in the telescoped blends *shamateur* (derived from *sham* and *amateur*), *guesstimate* (from *guess* and *estimate*), and *slanguage* (from *slang* and *language*), both contributing words are fully represented. This phenomenon contributes to the previously discussed fuzzy boundary between compounds and blends. Kaunisto [55,56,57] defines ideal blends as those in which the ending of the first contributing word overlaps with the beginning of the second contributing word, without any deletion; deletion of word parts may compromise the comprehensibility of the blend [55,56,57]. Differences in grammatical and morphological form are permissible when compounds and blends have literal meaning or are endocentric. For example, the compound word *family planning* and the blend *smog*, which is formed from *smoke* and *fog*, illustrate this phenomenon. In these cases, the meanings of the derived words retain only some features of the original contributing words. In contrast, exocentric neologisms whose senses are not understood from their source words, such as *plaything* and *thighscraper*, do not demonstrate this distinction. Due to the lack of psycholinguistic data regarding comprehension, it cannot be concluded that compounds are processed more rapidly. Both types of processes may be

interpreted using encyclopaedic knowledge and contextual information rather than solely through the meanings of their constituents.

The hypothesis that blends are difficult to comprehend lacks empirical support [17]. Lehrer conducted an experiment to ascertain new blends. Respondents received two sets of questionnaires: one consisting of isolated blends and another featuring sentences with blends in context. Initially, respondents identified the source words, evaluated the blends as either effective or ineffective, and indicated their familiarity with each word. Subsequently, they classified the blends by comparing them to other blends, to other neologisms, and to other words within the questionnaire. Respondents were asked to identify the source words and provide interpretations. The findings largely supported Lehrer's [17] hypotheses, which are listed below.

a. Blends are easier to identify in context,

b. Blends are more easily identified when a greater part of the contributing words' material is retained.

c. Blends are easier to recognise when the contributing words occur with higher frequency in the language.

d. Blends are easier to recognise when there are fewer words in the neighbourhood of the source words, and

e. Blends are more easily identified when one fragment is recognised, as its meaning can help identify the other fragment [17].

Lehrer identifies blending as a significant source of neologisms and a productive word formation process. This finding highlights the need for systematic investigation into blending and its underlying mechanisms, specifically the aspects outlined in the five hypotheses above, which may apply to other lexical items. In contrast, compounds are used more frequently, demonstrate greater stability, and are more lexicalised. This difference likely results from the greater scholarly attention given to compounds and the fact that blends are influenced by the phonological similarity of their contributing words.

Overall, prototypical compounds and prototypical blends show vertical similarity and minor horizontal differences. These differences are attributed to prototypicality rather than categorical discreteness. Within basic-level categorisation, both similarities and differences are observed between the prototypical forms of these morphological processes. This dissimilarity occurs only in terms of grammatical and morphological form, not meaning. Less prototypical forms of these coinages do not display this distinction, as they occupy an intermediate area between the prototypical cases of both morphological processes.

This section examined the dataset to assess the degree of dissimilarity between compounding and blending. The primary distinction between them lies at the level of grammatical and morphological form, particularly in their prototypical forms. Compounds and blends exhibit considerable similarity due to their blurred border. The next section investigates the source schemas underlying both morphological processes to evaluate the hypothesised conceptual similarity between them.

## 1.3 Source Schema Categorisation

Before analysing the source schemas underpinning compounds and blends, the distinction between these two morphological processes must be clarified. Compounds result from a combination of complete words, whereas blends are formed from fragments of words. This distinction is based on the contrast between whole lexical forms and their constituent parts. A central issue is whether these parts are categorically distinct from wholes. Prototypical parts, in particular, represent rather than contrast with whole forms.

The constituent fragments function metonymically. Metonymy refers to the use of one entity to represent another related entity [44]. For example, the word *Kuala Lumpur* is frequently employed as a metonym for *Malaysia* in various contexts, thereby extending the reference of the city to the entire nation [54]. This process also occurs in linguistic blends. In the blend *shoat*, the splinter *sh* stands for *sheep*, while *oat* stands for *goat*. Such metonymic extensions are common in everyday language. For instance, the compound *redskin* denotes an American Indian, and the acronym *NATO* refers to the North Atlantic Treaty Organisation.

Compounds and blends combine not only words or splinters but also concepts. For example, both *Chunnel* and *Channel Tunnel* express the same concept. Based on the discussion so far, the distinction between the forms of representative compounds and blends is no longer valid, as their components are metonymic rather than fundamentally different. Having addressed this variation, we can now examine the conceptual and semantic derivation.

Compounds and blends are fundamental elements of the English lexicon. Word formation is systematically motivated by source schemas derived from speakers' experiences and knowledge. Ten source schemas that generate compounds and blends are suggested for analysis in the dataset (see Table 3.2). The following subsections present and discuss the source domains motivating compounds and blends, with illustrative examples. The analysis aims to determine whether all source schemas motivate their derivation or are limited to specific categories.

Data analysis indicates that Action Schema formulas 1 and 2, shown below, occur in both compounds and blends.

1.  X functions as the agent, defined as the initiator of action Y[7]

2.  X functions as the patient, defined as the entity that undergoes action Y

The instances below explain the first formula.

(1)      (a) *earthquake*

         (b) *screamager* (from *screaming* and *teenager*)

The compound *earthquake* in example (1a) exemplifies the Action Schema first formula. In this case, the constituent *earth* serves as the agent of the quaking action. Likewise, the blend *screamager* in example (1b) consists of *teenager*, which functions as the agent of the screaming action.

The following examples illustrate Formula (2).

(1)      (c) *cut-throat*

         (d) *busnapper* (from *bus* and *kidnapper*)

In the word *cut-throat* in (1c), the constituent *throat* functions as the patient of the action cutting. Similarly, *bus* in the blend *busnapper* in (1d) serves as the patient of the action kidnapping. The compound *cut-throat* is further extended by metonymy to refer to a murderer, specifically a person who cuts throats, through metonymy. These examples demonstrate that both compounds and blends conform to Action Schema.

The Location Schema encompasses both spatial and temporal dimensions, as both share the concept denoted by the preposition *at*. In this context, *at* represents various locative functions, including *at*, *on*, and *in*. This schema comprises two formulas.

1.  X is located at Y

2.  Y is located at X

The first formula related to the spatial dimension is shown in examples (2a) and (2b).

(2)      (a) *swimming pool*

         (b) *motel* (from *motor(ist)* and *hotel*)

The compound noun *swimming* pool denotes the location (the pool), where swimming occurs. Likewise, the word *motel* denotes the location (the hotel) where motorists stay. Both examples can also be formed by motivation of the Purpose Schema, as the

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[7] X and Y denote the respective components of compounds and blends. Specifically, X represents the first component and Y represents the second component.

compounds and blends may also indicate the purpose: "pool for swimming" and "hotel for motorists", respectively. This suggests that schema overlap may occur at times.

Instances (2c) and (2d) below illustrate the Location Schema second formula.

(2)      (c) *school-teacher*

           (d) *boatel* (from *boat* and *hotel*)

The lexical item *school-teacher* refers to someone who works in a school, indicating the teacher's location. Similarly, the blend *boatel* describes a hotel situated on a boat. It is worthy of note that the word *boatel* may also refer to a hotel intended for boat travellers, which derives through the Purpose Schema.

As for the temporal dimension of the Location Schema, the first formula can be explained in (2e) below.

(2)      (e) *rush hour*

The term *rush hour* refers to the time or specific times when traffic is heaviest, usually at the start and end of the workday. In contrast, the data set contains no examples of blends that follow the Location Schema formula (1) in relation to temporal reference.

Examples of formula (2) are illustrated in (2f) and (2g).

(2)      (f) *daydream*

           (g) *wintertainment* (from *winter* and *entertainment*)

The constituent *dream* in the compound *daydream* refers to an activity occurring during the day. Similarly, *entertainment* in the blend *wintertainment* denotes entertainment that takes place in winter.

Overall, both word formation processes are derived from the Location Schema. Although the dataset for blends does not contain any examples of the Location Schema formula (1) related to time, this finding is not significant, as blends are derived through the Time Subschema regardless of whether X or Y represents the temporal element.

The Purpose Schema is formulated as follows.

      Y is for X

Instances of the Purpose Schema are provided in (3a) and (3b) below.

(3)      (a) *drinking water*

           (b) *motel* (from *motor*(*ist*) and *hotel*)

The word *drinking water* refers to water intended for consumption. And the word *motel* merges *motor* and *hotel* to refer to hotels designed for motorists. This demonstrates that the Purpose Schema underlies the coining of both neologisms.

The Apposition Schema consists of three formulas.

1. X is an example of Y

2. Y is an X

3. X specifies Y

Illustrations of the Apposition Schema formula (1) are provided in (4a) and (4b).

(4)    (a) *panic reaction*

       (b) *dancercise* (from *dance* and *exercise*)

The word *panic* in example (4a), which constitutes the initial constituent of *panic reaction*, is an example of *reaction*. Likewise, the word *dance*, the initial constituent of *dancercise* in (4b) is an instance of the word *exercise*.

Instances of the Apposition Schema formula (2) are provided in the subsequent examples.

(4)    (c) *fighter plane*

       (d) *brunch* (from *breakfast* and *lunch*)

In examples (4c) and (4d), the word *plane* in *fighter plane* is *fighter*. The word *lunch* in the blend *brunch* is *breakfast*. There is ambiguity regarding whether *brunch* is a type of *breakfast* or a type of *lunch*. While this point is valid, "Y is an X" is preferable to "X is a Y" because *brunch* is usually taken at lunchtime, not breakfast time. It is worth noting that the compound fighter plane also fits the Apposition Schema formula (1); that is, fighter is an instance of plane.

Both compounds and blends that derive through the Apposition Schema formula (3) are present in the data. The following examples illustrate these findings.

(4)    (e) *hunchback*

       (f) *shamateur* (from *sham* and *amateur*)

In example (4e), the constituent *hunch* in the compound *hunchback* specifies the constituent *back*, indicating a back that is characterised by a hump. This compound is further extended by metonymy to refer to a person with a humpback. The word *sham*, in the blend *shamateur*, specifies *amateur*, referring to an amateur who acts as a

professional. Therefore, the Apposition Schema underpins the production of both compounds and blends.

The Instrument Schema consists of one formula.

Y prevents against or preserves X

Examples of this formula are provided in (5a) and (5b) below.

(5)    (a) *raincoat*

    (b) *radome* (*radar* + *dome*)

The constituent *coat*, in the word *raincoat*, prevents or protects against *rain*, which refers to getting wet. The word *dome* in the blend *radome* preserves the *radar antenna*, whose initial component *radar* stands for *radar antenna*. These examples show that the Instrument Schema underlies the creation of both these neologisms.

The Causal Schema consists of the formulas below.

1. X causes Y

2. Y causes X

Examples (6a) and (6b) illustrate the Causal Schema formula (1).

(6)    (a) *hay fever*

    (b) *beermare* (from *beer* and *nightmare*)

In the compound *hay fever*, the constituent *hay* is the cause of *fever*. And the constituent *beer* in the blend *beermare* is the cause of *nightmare*.

The dataset consists of compound and blend examples, which are motivated by the Causal Schema formula (2). See examples (6c) and (6d).

    (c) *flu virus*

    (d) *stimulighting* (from *stimulation* and *lighting*)

Examples (6c) and (6d) illustrate that the constituent *virus* in the word *flu virus* is the direct cause of *flu*, and the constituent *lighting* in the word *stimulighting* is the cause of *stimulation*. Therefore, the creation of both processes is driven by the Causal Schema.

The Resemblance Schema is formulated as follows.

Y resembles X

Examples of this formula are provided in (7a) and (7b) below.

(7)     (a) *frogman*

        (b) *bomphlet* (from *bomb* and *pamphlet*)

Example (7a) shows that the component *man* in the word *frogman* resembles *a frog*. Likewise, the component *pamphlet* in the word *bomphlet* resembles *a bomb*. Therefore, the Resemblance Schema underpins the formation of both compounds and blends.

The Composition Schema consists of the following formulas.

1. X is a characteristic of Y

2. Y is made of X

Examples (8a) and (8b) below illustrate the Composition Schema formula (1).

(8)     (a) *thunderstorm*

        (b) *fleep* (from *flying* and *jeep*)

In the compound *thunderstorm*, the constituent *thunder* is a feature of the *storm*. Likewise, in the blend *fleep*, *flying*, or moving quickly, is a characteristic of the *jeep*.

Instances of the Composition Schema formula (2) are described as follows.

(8)     (c) *ivory tower*

        (d) *plastinaut* (from *plastic* and *astronaut*)

In example (8c), the second constituent of the word *tower* is made of ivory. The word *ivory tower* is metaphorically extended to "a privileged life far from normal difficulties". Similarly, in example (8d), the second component or splinter of the blend, *astronaut*, is made of plastic. These examples demonstrate that the creation of both morphological devices are motivated by the Composition Schema.

The Whole-Part Schema can be formulated as follows.

        Y is part of X

Instances (9a) and (9b) illustrate this formula.

(9)     (a) *eardrum*

        (b) *bungaloft* (from *bungalow* and *loft*)

Examples (9a) and (9b) demonstrate that the Whole-Part Schema underlies the formation of both morphological processes. The second constituent *drum*, in the word *eardrum*, is part of the first constituent *ear*. And the second constituent *loft* in the word *bungaloft* is part of the initial constituent *bungalow*.

The Containment Schema consists of two formulas.

1. X is contained in Y

2. Y is contained in X

To illustrate formula (1), consider the following examples.

(10) (a) *bookcase*

(b) *keytainer* (from *key* and *container*)

The component *case* in the word *bookcase*, is a container of *book*. Similarly, the component *container* in the lexical item *keytainer* is a container of *key*. The Purpose Schema may also motive the formation of *bookcase*, in which a case is intended for holding books, and *keytainer*, which denotes a small case designed for carrying keys.

The data also includes instances of both processes based on the Containment Schema formula (2).

(10) (c) *bone marrow*

(d) *squangle* (from *square* and *angle*)

The constituent *marrow* in the word *bone marrow* is contained in *bone*. And the word *angle* in the word *squangle* is inside *square*. This shows that both compounds and blends can be coined by motivation of the Containment Schema.

In a nutshell, the analysis indicates that the temporal Location subschema, represented as 'X is located at Y', is the only schema formula in the dataset that does not generate blends. This absence does not affect the central argument of this study, as the formation of blends are driven by the Temporal Location subschema, whether the location is Y or X. Furthermore, both morphological processes may be formed using the Location Schema. They are produced according to identical conceptual criteria, indicating that their underlying source schemas are comparable. However, an additional issue remains regarding the relationship between grammar and lexicon.

In an earlier chapter, the authors discussed the traditional linguists' exclusion of blends from both word formation and grammar. It has been suggested that blends should be incorporated into both word formation and grammatical analysis. Based on the source schemas discussed, compounds and blends share the same underlying conceptual process. Although some scholars maintain that compounds are primarily grammatical and blends are primarily lexical, this distinction is largely irrelevant. Setting aside the grammatical-lexical dichotomy, the distinction between these categories is gradual. Blends typically exhibit more lexical than grammatical characteristics. Therefore, as shown in Figure 4.4, compounds and blends are best conceptualised as existing along a continuum, with lexical properties (X) on one side and grammatical properties (Y) on the other.

**Figure 4.4**

*The grammar-lexicon continuum*

$$X > P1 > P2 \ldots . > Pn > Y$$
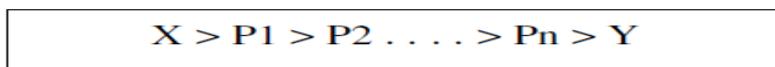
This grammaticalisation framework clarifies the positioning of compounds and blends along a continuum between grammatical and lexical forms. Prototypical compounds exhibit greater grammatical characteristics, whereas prototypical blends display more lexical properties. Less typical examples, including neoclassical compounds and telescopic blends, occupy intermediate positions on this continuum. Consequently, distinctions traditionally drawn between compounds and blends become less significant when all cases are considered within a model that integrates prototypicality and gradable boundaries.

This chapter examined the features of compounds and blends in the dataset and presented systematic linguistic arguments to determine whether these categories are drastically different, as traditionally asserted. The study examined two hundred words, equally divided between compounds and blends, to assess the degree of distinction between them. The results showed that although prototypical examples of each word formation process are identified, the boundaries between them are ambiguous. Many examples are difficult to classify exclusively as compounds or blends. Therefore, compounds and blends should be viewed as existing along a continuum rather than as drastically different categories. Furthermore, the words or constituents combined in compounds and the fragments merged in blends show metonymic relationships instead of binary oppositions. Analysis of the source schemas underlying both compounds and blends reveals that blends are formed using the same conceptual model as compounds. This supports the conclusion that these word formation processes are fundamentally similar.

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# Chapter 5: Conclusion

This book investigated the relationship between compounds and blends. The research proceeded in two stages. First, a dataset was analysed to assess whether these neologisms are drastically distinct categories. Second, the source schemas underlying the derivation of these neologisms were examined to determine if they have the same conceptual motivation.

Following the first-stage analysis, many words in the data set occupy an intermediate position between compounds and blends, which makes it difficult to decide whether they are compounds or blends. The boundaries between these word formation processes are blurred, thereby refuting the traditional dichotomy between them. To address this, a prototypical framework is hence proposed, positing that compounds and blends exist along a continuum within a single category. Within this framework, prototypical compounds and blends represent the endpoints of this continuum, distinguished by minor differences in the grammatical and morphological form.

In the second stage, the only difference identified between compounds and blends in terms of form or shape is elucidated as a metonymic extension. The whole words present in prototypical compound structures are not fundamentally different from the constituent parts of prototypical blends; instead, they are metonymic in nature. The investigation into the conceptual motivation for the formation of compounds and blends demonstrated that they are equally derived through the ten source schemas. These findings further support the book's argument that compounds and blends are categorically comparable.

The results of the two-step analysis support the primary hypothesis. Compounds and blends exhibit similar conceptual patterns, and items resulting from these patterns are technically comparable, regardless of surface form variation. In compounds and blends, form variation is attributable to metonymy as a conceptual mechanism. When evaluating the categorical status of neologisms, the conceptual structure, specifically the source schemas deriving them, is the most significant level. Therefore, distinctions between phonological and syntactic types, or between lexical or grammatical forms, are not problematic. Compounds and blends exist along a continuum from lexicon to grammar.

Traditional research on compounds and blends, in contrast, is limited by focusing on a single aspect, like syntax, and treating it as independent from other points along the continuum.

The present study analysed a dataset of two hundred words, which, despite its limited size, is sufficiently diverse. Future research utilising a larger dataset would likely increase representativeness and reveal additional patterns in compounds and blends. The source schemas that this book proposes are based on the data available and are not exhaustive or definitive about the conceptual motivations for creating English compounds and blends. New source schemas may appear as novel neologisms are created. The question raised here is whether the prototypicality and source schema concepts that explicate the similarities between compounds and blends can also be applied to other kinds of morphological processes like acronyms.

Existing literature primarily examines compounds from grammatical or syntactic perspectives, often neglecting other factors influencing compound formation. This narrow focus leaves several phenomena, such as exocentric and appositional compounds, insufficiently explained and frequently categorised as exceptions. Similarly, blends receive limited attention within syntax-oriented studies. Most studies on blends address phonological aspects, resulting in a significant lack of comprehensive literature on blends. Consequently, relevant material on blends is scarce, particularly in relation to the present study.

This book presents the argument that compounds and blends are categorically equivalent, based on the premise that both are motivated by and derived through similar source schemas. The analysis of the data set substantiates these arguments. Although the current findings serve as a foundation for future research and may invite differing interpretations, the issues and insights regarding the categorical status of compounds and blends discussed herein are considered both accurate and significant for understanding their interrelationship.

Prototypical categorisation suggests that the factors influencing the formation of compounds and blends exist along a continuum. Distinctions between blends and compounds, including grammaticality, regularity, and productivity, become less significant under this framework. Grammatical considerations are not independent but are closely linked to the lexicon. This view contests the validity of classical categorisation in word formation and promotes future research on other linguistic categories like modals and articles, using non-Aristotelian approaches. The Aristotelian model treating categories as absolute has made several contributions to linguistic theory but has also left several unresolved exceptions. The method adopted in the current study considers linguistic categories gradable rather than binary. Traditional approaches have imposed rigid dichotomies on compounds and blends, categorising compounds as

grammatical and blends as non-grammatical. The results of the study indicate that a prototype-based, cognitively oriented categorisation, supported by fuzzy logic, offers a more comprehensive account of compounds and blends than classical logic.

Further research should also investigate compounds and blends in languages other than English to determine whether the relationship observed in English is consistent cross-linguistically. Investigating corresponding phenomena across languages will illuminate whether the difference between compounds and blends sustains the same prototypical basic-level categorical status. This analysis will assist in comprehending whether the relationship and underlying schemas identified in English are universal or culture specific.

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# Appendices

## Appendix A
## Corpus of Compounds

| Compounds | | | |
|---|---|---|---|
| background | family planning | ivory tower | raincoat |
| bee sting | fault-finding | jackknife | redskin |
| birth control | fighter plane | killjoy | return ticket |
| bloodshed | fine art | landlord | rush hour |
| blood test | fingerprint | lazybones | safety belt |
| board game | fireplace | lifeboat | scarecrow |
| bone marrow | flashlight | lipstick | searchlight |
| bookcase | flu virus | living room | school-teacher |
| breakfast | Fortune-hunting | maidservant | shellfish |
| bullseye | frogman | matchbox | shoe-maker |
| butterfingers | gentleman | morning coffee | snakebite |
| candlelight | girlfriend | mountain range | sunbathing |
| car park | guidebook | newspaper | swimming pool |
| checkpoint | hamburger | nightmare | swimsuit |
| codfish | handcuffs | palm tree | teacup |
| cold war | handwriting | panic reaction | television |
| courtyard | hay fever | password | thunderstorm |
| cranberry | headline | pathway | time-consuming |
| cut-throat | homework | pickpocket | tooth decay |
| daydream | horsepower | piggybank | trade union |
| drinking water | houseboat | plate glass | typewriter |
| eardrum | hovercraft | plaything | wastepaper basket |
| earthquake | hunchback | plywood | will-power |
| eyeball | inkblot | postman | windmill |
| fairytale | ironing board | puppy dog | word formation |

## Appendix B
## Corpus of Blends

| Blends | |
|---|---|
| Advertainment (advertising + entertainment) | cineplex (cinema + complex) |
| advertorial (advertising + editorial) | clantastical (clandestine + fantastical) |
| apronym (appropriate + acronym) | Cocacolonisation (Coca-Cola + colonisation) |
| archology (architectural + ecology) | codec (coder + decoder) |
| arfé (art + café) | dancercise (dance + exercise) |
| attractivating (attractive + captivating) | daymare (day + nightmare) |
| autocide (automobile + suicide) | dawk (dove + hawk) |
| ballute (balloon + parachute) | digerati (digital + literati) |
| beermare (beer + nightmare) | docudrama (documentary + drama) |
| behortment (behaviour + deportment) | dramality (dramatic + reality) |
| bit (binary + digit) | dynetic (dynamic + magnetic) |
| blaxploitation (black + exploitation) | edutainment (education + entertainment) |
| blaccent (black + accent) | escalift (escalator + lift) |
| boatel (boat + hotel) | faction (fact + fiction) |
| boldacious (bold + audacious) | fantabulous (fantastic + fabulous) |
| Bollywood (Bombay + Hollywood) | fleep (flying + jeep) |
| bomphlet (bomb + pamphlet) | foon (fork + spoon) |
| boost (boom + hoist) | Frankenword (Frankenstein + word) |
| brunch (breakfast + lunch) | geep (goat + sheep) |
| bungaloft (bungalow + loft) | ginormous (gigantic + enormous) |
| busnapper (bus + kidnapper) | guesstimate (guess + estimate) |
| cattalo (cattle + buffalo) | glassphalt (glass + asphalt) |
| chattire (chat + satire) | herrible (horrible + terrible) |
| chortle (chuckle + snort) | hurricoon (hurricane + balloon) |
| Chunnel (Channel + Tunnel) | infomercial (information + commercial) |

| Blends | |
|---|---|
| Infotainment (information + entertainment) | smog (smoke + fog) |
| keytainer (key + container) | soundscape (sound + landscape) |
| liger (lion + tiger) | spamdexing (spam + indexing) |
| mantastic (man + fantastic) | Spanglish (English + Spanish) |
| melodrama (melody + drama) | splisters (splinters + blisters) |
| mockney (mock + cockney) | spork (spoon + fork) |
| motel (motor + hotel) | squangle (square + angle) |
| motorcade (motor + cavalcade) | stagflation (stagnation + inflation) |
| mousewife (housewife + mousy) | stimulighting (stimulation + lighting) |
| needcessity (need + necessity) | swacket (sweater + jacket) |
| oildraulic (oil + hydraulic) | swelegant / swellegant (swell + elegant) |
| opinionnaire (opinion + questionnaire) | telegogue (television + demagogue) |
| Oxbridge (Oxford + Cambridge) | televangelist (television + evangelist) |
| plastinaut (plastic + astronaut) | thermistor (thermal + resistor) |
| psychergy (psychic + energy) | thighscraper (thigh + skyscraper) |
| radome (radar + dome) | threatmantic (threatening + romantic) |
| screamager (screaming + teenager) | thwack (thrash + whack) |
| Republicrat/Demopublican (Republican + Democrat) | tigon (tiger + lion) |
| seavacuation (sea + evacuation) | touron (tourist + moron) |
| shamateur (sham + amateur) | toystalgia (toy + nostalgia) |
| shoat (sheep + goat) | transceiver (transmitter + receiver) |
| singspiration (sing + inspiration) | vodkatini (vodka + martini) |
| skort (skirt + short) | wintertainment (winter + intertainment) |
| slanguage (slang + language) | workaholic (work + alcaholic) |
| smever (smart + clever) | zebrule (zebra + mule) |