A Construction Grammar Approach to the Innovative Use of [unless x]

Uma abordagem da Gramática de Construções para o Uso Inovador de [unless x]

Wellington Mendes Junior (iD)
wellington.mendes@ufu.br
Universidade Federal de Uberlândia, Uberlândia, MG, Brasil.

Elisa Mattos (iD)
mattos.elisa@gmail.com
Universidade de Brasília, DF, Brasil (FAPDF).

Abstract

This study analyzes the construction [unless X] as based on the Construction Grammar framework (cf. Fillmore et al., 1988; Goldberg, 1995, 2006; Bybee, 2010), in association with the Corpus Linguistics (McEnery; Hardie, 2013; Sinclair, 2005) methodology. The construction [unless X] characterizes as an innovative use of the word "unless", in which the conjunction isn't followed by a subordinate clause, as it can be seen in "don't add Coca Cola unless diet" or "he was so calm unless tried" or "I can never tell the season unless winter". Motivated by the findings of Mendes Junior and Mattos (2021), who reported high rates of productivity in the construction [because X] (e.g. "I'm excited for my holidays because tired"), we propose a model that accounts for the new constructional properties of "unless". Data were collected through the iWeb Corpus (Davies, 2018), which contains 14 billion words extracted from about 22 million web pages. Preliminary analysis shows that the construction [unless X] heavily favors verbs in the past participle, adjectives, adverbs and nouns in the [X] slot. Moreover, the [X] slot cannot be filled by interjections, pronouns, conjunctions and prepositions, as opposed to [because X]. Following Fillmore et al. (1988), [unless X] can be understood as codable, formal, extra-grammatical construction. We suggest that [unless X] often behaves similarly to the traditional use of 'unless', though it tends to favor reduced clauses and is mainly used in more informal contexts.

Keywords: Unless; Construction Grammar; Corpus Linguistics; Internet.

Resumo

Este estudo investiga a construção [unless X] com base nas premissas da Gramática de Construções (cf. Fillmore et al., 1988; Goldberg, 1995, 2006; Bybee, 2010), em associação com a metodologia da Linguística de Corpus (McEnery; Hardie, 2013; Sinclair, 2005). A construção [unless X] representa um uso emergente, no qual a conjunção "unless" não é seguida por uma oração subordinada, como visto em frases como "don't add Coca Cola unless diet" ou "he was so calm unless tried" ou "I can never tell the season unless winter". Motivados pelos achados de Mendes Junior e Mattos (2021), que reportaram altas taxas de produtividade na construção [because X] (e.g. "I'm excited for my holidays because tired"), propomos um modelo que contemple as novas propriedades construcionais de "unless". Os dados foram coletados através do iWeb Corpus (Davies, 2018), que contém 14 bilhões de palavras extraídas de cerca de 22 milhões de páginas da web. Análises preliminares mostram que a construção [unless X] favorece fortemente verbos no particípio passado, adjetivos, advérbios e substantivos na posição [X]. Além disso, a posição [X] não pode ser preenchida por interjeições, pronomes, conjunções e preposições, diferentemente de [because X]. Seguindo os critérios classificatórios de Fillmore et al. (1988), [unless X] pode ser entendida como uma construção codificável, formal e extragramatical. Sugerimos que [unless X] frequentemente se comporta de maneira semelhante ao uso tradicional de "unless", embora tenha uma tendência a favorecer orações reduzidas e seja principalmente usada em contextos mais informais.

Palavras-chave: *Unless; Gramática de Construções; Linguística de Corpus; Internet.*

1. Introduction

The word "unless" has played a pivotal role in the English language, functioning as a conjunction followed by a subordinate clause to express conditional statements. However, in recent years, an innovative usage of this construction has surfaced, challenging established grammatical conventions.

Traditionally, "unless" has served as a negation marker in conditional statements, signifying that an action or event will occur only if a specified condition is not met. For instance, in the sentence, "I will go to the beach unless it rains," the condition is the absence of rain. If it does not rain, the action (going to the beach) proceeds. This conjunction is a fundamental tool for crafting conditional sentences, allowing speakers and writers to convey nuances of contingency and exception in their communication.

Nevertheless, a recent linguistic shift has introduced the construction "[unless X]," departing from the conventional structure of "unless" followed by a subordinate clause. This unconventional usage is illustrated by examples extracted from the microblogging platform X (former Twitter):

1. "I can never tell the season unless winter in Riverdale because Betty will be in a sweater".

2. "Am normally not the kind of person to get excited about things to buy online (unless, books :3) but these are just lovely".

3. "Quite rare for me not to be in a good mood. Unless tired".

4. "Today I had 3 pieces of Texas Chicken and it was too much, need to cut back to two pieces from now on unless starving. Also, their Mala Chicken is pretty good".

As demonstrated in examples 1-4, the innovative use of "[unless X]" departs from the conventional usage of "unless" in intriguing ways. Firstly, it eliminates the need for a full subordinate clause to express a condition, frequently opting for a single word or a concise phrase as the condition. In the instances mentioned earlier, "unless" is followed by a noun phrase (e.g., winter in Riverdale), a noun (e.g., books), an adjective (e.g., tired), and a verb in the -ing form (e.g., starving). This departure from the standard structure challenges the usual expectations associated with conditional statements.

Secondly, this unconventional usage of "unless" appears to function more as a marker of exception or limitation rather than strict negation. In traditional usage, "unless" typically negates the action or event when the condition is met. In contrast, in the examples above, "[unless X]" introduces an exception or limitation that is not necessarily linked to negation. For instance, in example 2, the speaker expresses a lack of enthusiasm for online shopping but makes an exception for books. This does not represent strict negation but rather a nuanced expression of preference, akin to using "except for". Now consider examples 5 and 6.

5. "new year, new us? lol just kidding. unless... 👀"

6. "Slowly making my way towards my nsfw era?... Jkjk I could never. Unless...."

Unlike examples 1-4, where the term "unless" is succeeded by words from various categories, instances 5 and 6 showcase "unless" being followed by an emoji or positioned at the absolute end of a sentence. This inventive application of "unless" appears to offer a whimsical method to propose a hypothetical situation, typically following a statement that initially dismisses or minimizes it. The implication is that a proposition initially presented as a joke might be taken seriously upon reconsideration. This usage has seen a surge in popularity on social media platforms like X (formerly Twitter), potentially originating from the template [what if I [clause]… haha just kidding… unless…?], typically used as a meme. This usage is illustrated in Figure 1.

Figure 1. Innovative use of "unless" in meme culture.

As seen in Figure 1, the ellipsis following "unless" adds a sense of suspense, leaving the statement open-ended and inviting speculation or imagination. In instance 1a, the implication is that upon reflection, the author might genuinely consider placing their bed adjacent to the interlocutor's. In 1b, the tweet's author humorously suggests that the man featured in the images might be contemplating the re-release of an already well-received video game (Skyrim). Consequently, these examples can be characterized as a lighthearted approach to conveying a bold or surprising idea, while maintaining a casual, non-committal tone. This clever linguistic trend reflects the dynamic and creative nature of online communication, where language is constantly evolving and being repurposed in novel ways (McCulloch, 2018).

This departure from traditional "unless" usage has sparked our curiosity, motivated by the findings of Mendes Junior and Mattos (2021), who reported a high degree of productivity in the "[because X]" construction (e.g., "I'm excited for my holidays because tired"). To gain a deeper understanding of the emergence of "[unless X]," our study employs the Construction Grammar framework, which focuses on the form-meaning pairings of linguistic units. This approach enables us to analyze how "[unless X]" is structured and how it conveys meaning in context.

The current research is justified in its exploration of the inventive use of "unless" in digital communication, echoing Gretchen McCulloch's (2018) advocacy for embracing novel constructions online. McCulloch stresses understanding language as it's used, rather than rigid adherence to rules—a view in sync with the Construction Grammar framework. Thus, the analysis

of emerging patterns across the internet mirrors language's fluidity, showcasing how users adapt tools for effective communication.

Our analysis is also grounded on the premises of scholars such as Fillmore (1988), Goldberg (1995), and Bybee (2010), who have reported on the intricate relationship between grammar and language change. By incorporating the methodology of Corpus Linguistics, we aim to analyze a large corpus of online data, identifying patterns and trends in the usage of "[unless X]." This empirical approach allows us to observe how this construction is employed on the internet, shedding light on its frequency, distribution, and potential grammatical constraints.

This paper comprises six sections, commencing with this introduction. The following section provides an in-depth exploration of the word "unless" in English. The third section introduces the Construction Grammar (CxG) framework. The fourth section outlines the research methodology, including details about the corpus, filtering processes, and analysis criteria. In the fifth section, we present the results of our analysis. Finally, the sixth section offers research conclusions, followed by the references section.

2. The conjunction "unless"

Consider the following passage, which describes the etymology of "unless" as per the etymological dictionary "Etymonline":

> "mid-15c., earlier *onlesse*, from *(not) on lesse (than)* "(not) on a less compelling condition (than);" see **less**. The first syllable originally was **on**, but the quality of negation in the word and the lack of stress changed it to *un-*. "*Except* could once be used as a synonym for *unless*, but the words have now drawn entirely apart" [Century Dictionary]" (Etymonline, 2023, n.p.).

As detailed by the entry above, the origins of "unless" can be traced back to the mid-15th century when it was spelled "onlesse." This early form of the word consisted of two parts: "on" and "lesse." The "on" component carried the meaning of "not," while "lesse" referred to a condition or situation that was "less compelling" than another.

In essence, "onlesse" meant "not on a less compelling condition than," indicating a situation where something would not occur unless a certain condition, which was considered more compelling, was met. Over time, the initial "on" sound gradually transformed into "un," and "onlesse" evolved into "unless," the form we use today.

Furthermore, as per the Century Dictionary (cited in Etymonline, 2023), the term "except" used to function as a synonym for "unless." Over time, as language naturally transforms, these two words have developed distinct meanings and usages, with the conjunction "unless" adopting a more conditional role. Nevertheless, as mentioned in the introduction, the usage patterns of "unless" and "except" may be in the process of converging once more, particularly through the utilization of the [unless X] construction. Consider the examples 7-8 below.

7. "Americans can't speak about food, unless junk food."

8. "@flula is the funniest person on the planet! I say if you are an adult, don't drink breast milk. Dis awkward. Unless Game of Thrones."

As shown in examples 7-8, there are instances where the words "unless" and "except" appear to be converging once more. In example 7, the writer suggests that Americans cannot discuss food, except when it comes to junk food. Similarly, in example 8, the writer states that it is awkward to drink breast milk, except in the context of the Game of Thrones TV series, where this action is normalized. This convergence implies a fluidity in the English language, where words and constructions evolve and adapt over time. Furthermore, these examples reveal that the unconventional use of "[unless X]" appears to function as an indicator of exception or limitation rather than strict negation. While traditional usage of "unless" implies that the action or event will not occur if the condition is met, the examples provided earlier demonstrate that "[unless X]" introduces an exception or limitation that does not necessarily result in negation. Instead, it allows speakers and writers to express preferences, nuances, or special circumstances.

The reasons for the emergence of the "[unless X]" construction in online settings have not been thoroughly explored until now, except for the current study. We have chosen to refer to this innovative usage as "[unless X]" based on a similar construction called "[because X]," where "X" represents a lexically open position that can be filled with words from different grammatical categories. For example, sentences like "But Iowa still wants to sell eggs to California, because money" and "We assume he is going to win, because R-Oklahoma" illustrate this pattern (Mendes Junior; Mattos, 2021, p. 11).

Initially, when the "[because X]" construction first gained attention, many scholars classified it as "[because NOUN]" because it was often associated with nouns. However, this classification turned out to be too narrow and became less common in the literature as

subsequent research revealed instances of "because" being used with other complements. The "[because X]" construction has been extensively discussed in the works of Bohmann (2016), Kanetani (2016), Walla (2016), and Mendes Junior and Mattos (2021). These studies concur that the "[because X]" construction primarily features nouns, adjectives, and interjections in the "[X]" position, often resembling the prepositional use of "because."

Thus, a pertinent question arises regarding which word categories are favored by the [unless X] construction. In alignment with the study conducted by Mendes Junior and Mattos (2021), we conducted the analysis of a substantial corpus of data, employing the Construction Grammar (CxG) framework to examine the [unless X] construction in greater detail. The following section details the premises of the CxG.

3. Construction Grammar

Construction Grammar (CxG) represents a diverse collection of grammatical theories and models that place constructions at the forefront of linguistic analysis. Within CxG, languages are seen as comprised of sets of conventional features encompassing syntax, pragmatics, semantics, prosody, and more. These features are understood as inseparable pairings of form and meaning, forming a continuous spectrum of lexical and grammatical elements (Hoffmann; Trousdale, 2013). Consequently, CxG rejects the notion of morphological or syntactic derivational constraints. In this view, grammar doesn't possess a distinct syntax module, as posited by Generative Grammar (Bybee, 2010).

In CxG, the term "form" within constructions encompasses various combinations of syntactic, morphological, or prosodic features. Remarkably, even phonological aspects can find representation within construction schemas. According to CxG, the connection between meaning and form is understood broadly, encompassing lexical semantics, event structure, diathesis, pragmatics, and discourse structure. This perspective encourages a holistic approach to understanding language phenomena.

The CxG model applied in this study is based on the insights of Goldberg (1995, 2006) and the categorizations of Fillmore *et al.* (1988). Grammatical constructions, rooted in the interplay of form and meaning within a sequential structure, can exhibit varying degrees of fixedness or openness, thus contributing to a language speaker's conceptual repertoire.

Goldberg (1995) contends that constructions carry their own meanings, sometimes independently of the specific lexical items used. Consider Goldberg's examples (1995, p. 2) in (9) and (10) below. While (9) implies that bees are located in only one part of the garden, (10) suggests that the entire garden is teeming with bees. Despite their shared lexical items, these examples reveal significant semantic distinctions based on the different constructions they employ, albeit with subtle variations.

9. "Bees are swarming in the garden".

10. "The garden is swarming with bees".

The evolution of natural languages involves the gradual integration of diverse constructions into the linguistic toolkit of speakers. According to Goldberg (op. cit.), a construction emerges when one or more of its characteristics cannot be entirely or strictly predicted from existing knowledge of other language constructions. Nonetheless, this doesn't imply that constructions lack regularities. Linguistic constructions frequently exhibit prototypical structures and form networks of hierarchical associations (Goldberg, 1995; Bybee, 2010).

In the CxG framework, the lexicon and grammatical components dynamically facilitate variations and linguistic changes, as argued by Bybee (2010). For instance, in the case of "[unless X]," certain lexical items may have acted as attractors for the construction's emergence, enabling the linguistic community to acquaint themselves with "new" syntactic, morphological and pragmatic parameters associated with this conjunction.

Seminal research in construction grammar has demonstrated that seemingly idiosyncratic expressions are a significant component of a language's grammar and knowledge. However, these expressions are typically not explained by traditional atomistic grammatical models (Fillmore *et al.*, 1988). A more effective approach to understanding seemingly irregular or non-syntactic constructions is to view them as elements that contribute to larger networks of linguistic phenomena. These constructions exist beyond the scope of regular syntactic relationships but still interact with the broader grammar system. Fillmore *et al.* (1988) offer an overarching schema for the categorization of these constructions. The specific criteria for their classification will be expounded upon in the following subsections.

3.1 Encoding vs. decoding constructions

Encoding constructions are characterized by their transparent and direct relationship between the individual words and the overall meaning of the expression. In encoding constructions, the meaning is primarily compositional, relying on the literal meanings of the constituent words and standard grammatical rules. According to Fillmore *et al.* (1988, p. 505), "answer the door" is an encoding construction because it adheres to the conventional usage of "answer" and "door" and can be understood by adding up the meanings of these words. Similarly, the idiom "wide awake" can be classified as an encoding construction because it relies on the standard meanings of "wide" and "awake" without requiring figurative or non-literal interpretations.

In contrast, decoding constructions involve non-compositional, figurative, or non-literal interpretations. The meaning of a decoding construction cannot be derived by a simple summation of the meanings of its parts. Instead, it requires recognizing a specific, often culturally or contextually bound, idiomatic meaning. For instance, "kick the bucket" (Fillmore *et al.*, 1988, p. 505) is a decoding construction, as it metaphorically refers to the act of dying, and the meaning isn't readily apparent from the individual words "kick" and "bucket". Similarly, the idiom "pull a fast one" (Fillmore *et al.*, 1988, p. 505) can be classified as a decoding construction because it doesn't involve the use of words with their conventional, literal meanings, and its interpretation cannot be derived by a simple summation of the meanings of its parts.

3.2 Grammatical vs. extragrammatical constructions

Grammatical constructions are those that seamlessly integrate into the grammatical structure of a sentence. They adhere to standard syntactic and grammatical rules, and their presence doesn't disrupt the overall grammaticality of a sentence. According to Fillmore *et al.* (1988, p. 505), "spill the beans" is a grammatical construction because it functions as a transitive verb phrase, conforming to typical grammatical patterns. Likewise, "blow one's nose" (Fillmore *et al.*, 1988, p. 505) can be classified as a grammatical construction due to the fact that it consists of a verb followed by a possessive pronoun and a noun, which follows the conventional grammatical structure of transitive verbs in English.

Conversely, extragrammatical constructions are characterized by their deviation from standard grammatical structures. They often appear as fixed phrases or expressions that do not neatly fit into the usual grammatical framework. Instead, they function as adverbial, adjectival, or other types of phrases that are not readily analyzed based on their grammatical constituents. The example "By and large" (Fillmore *et al.*, 1988, p. 505) constitutes an extragrammatical construction, as it doesn't follow conventional syntactic patterns and functions more as an adverbial phrase. In a similar fashion, the phrase "sight unseen" (Fillmore *et al.*, 1988, p. 505) is classified as an extragrammatical construction because it is a fixed phrase where the adjective "unseen" follows the noun "sight" in a way that does not conform to standard adjective-noun ordering in English, making it an unconventional and extragrammatical expression.

3.3 Substantive vs. formal constructions

Substantive constructions carry fixed constituents, which are incorporated in the lexicon as a single, crystallized unit. According to Fillmore *et al.* (1988, p. 508), "let alone" is a substantive construction because it functions as a cohesive, indivisible phrase with a specific meaning that cannot be easily predicted from the meanings of its individual words. In this construction, "let alone" typically serves to emphasize the contrast between two elements, with the second element being more extreme or significant than the first, and its meaning is not entirely transparent based on the meanings of "let" and "alone" by themselves.

Formal constructions, on the other hand, are lexically open, in which some of its constituents are underlyingly empty and which can be later filled in accordance with specific rules of the construction. For example, "the bigger they come, the harder they fall" (Fillmore *et al.*, 1988, p. 510) follows a formal construction because it exhibits a comparative correlative structure. In this construction, the constituents "the bigger they come" and "the harder they fall" are connected by the comparative [the X-er, the X-er] pattern, in which specific adjectives and nouns can be filled in the X slots to create various expressions with similar structures. This construction provides a template for expressing relationships of increasing magnitude or intensity without specifying the exact lexical items in advance.

In essence, Fillmore's classification system offers a comprehensive framework for understanding the intricate nature of idiomatic and constructional language use, shedding light on how these expressions interact with grammar, convey meaning, and contribute to effective communication within a language. This classification schema will serve as the basis for categorizing the [unless X] construction under investigation in this study. The following section will expound upon our research methodology.

4. Methodology

To account for the [unless X] construction, this study employed the iWeb Corpus, a vast repository of English texts derived from the internet. This corpus, published by Davies (2018) and hosted on the English Corpora platform, boasts a staggering 14 billion words compiled in 2017. Our investigative approach and analysis were rooted in the established methodologies of Corpus Linguistics (LC), following the guidelines set forth by Sinclair (2005).

We initiated our analysis by searching for the [unless X] construction. To do so, we input the word "unless" into the search dialogue box, followed by a tag indicating the grammatical category of the X component within the construction. The following tags are available in the iWeb Corpus and were included in our data selection process: (1) noun.ALL (returns a list of nouns of any category), (2) verb.ALL (returns a list of verbs of any category), (3) adj.ALL (returns a list of adjectives of any category), (4) adv.ALL (returns a list of adverbs of any category), (5) art.ALL (returns a list of definite and indefinite articles), (6) det.ALL (returns a list of determiners), (7) pron.ALL (returns a list of pronouns), (8) prep.ALL (returns a list of verbs of prepositions), (9) conj.ALL (returns a list of conjunctions), (10) interj.ALL (returns a list of interjections). Although specific subclasses can also be searched in the iWeb Corpus, they were not considered because the ".ALL" parameter retrieves data from all subclasses of the respective part of speech. Subsequently, we inserted a full stop (".") after each tag, thereby constraining the production context to a single lexical item within the X category. This approach was adopted to prevent results that fell outside our research scope, such as instances of "unless" followed by subordinate clauses, which did not align with our study objectives. By doing this, when utilizing the [unless NOUN.] label, for example, we encountered occurrences like "I'll be working in April unless holidays" instead of undesired outcomes like "I'll be working in April unless holidays intervene."

After employing the method described above, the iWeb Corpus yielded a total of 5,572 [unless X] instances, which underwent a process of filtering and categorization. This phase was conducted manually, as it necessitated a thorough examination of each result to identify errors, interferences, and irrelevant instances. The following criteria were applied: (1) language: we focused exclusively on English texts, excluding any in other languages from our analysis. (2) Content appropriateness: texts containing derogatory content were omitted from consideration. (3) Sentence structure: Only complete sentences were included, ensuring that each contextually meaningful construction was properly considered. (4) Repeated content: texts that were shown more than once were not quantified. (5) Sentence structure: in case of subordinate clauses preceding "unless" still showing in the list, these sentences would also not be quantified. The data cleaning process reduced the number of instances available for analysis to 3,145 tokens. Although this number remains suitable for conducting the study, it underscores the importance of carefully verifying online corpora obtained through web crawling during the data treatment process. Following the filtering stage, the remaining [unless X] instances were categorized based on whether the word in [X] was a noun, adjective, adverb or verb. These instances will be discussed in greater detail in the following section.

5. Results

The total occurrences of [unless X] were distributed between "unless" followed by a noun, adjective, adverb, and verb, as illustrated in Figure 2.

Figure 2. [unless X] rates in the iWeb Corpus.
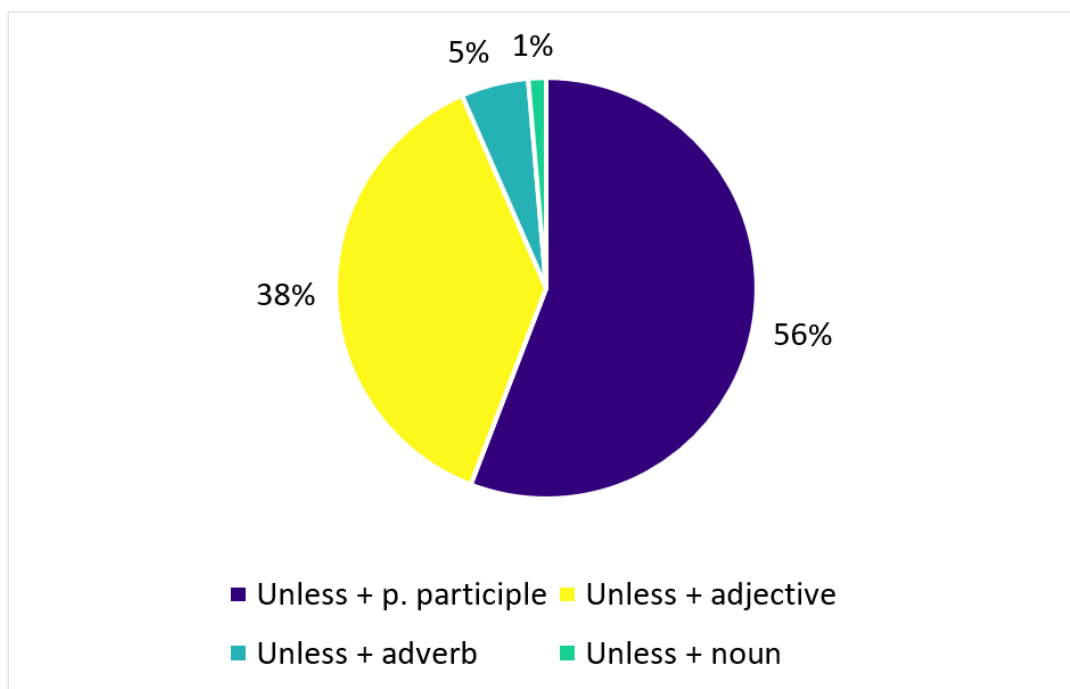
Source: author's compilation.

Results indicate a strong preference for past participle verbs (56%) and adjectives (38%) in the [X] slot, while adverbs and nouns accounted for only 5% and 1% of the occurrences, respectively. This result differs from the rates reported in studies that evaluated the construction [because X], such as those of Schnoebelen (2014), Bohmann (2016), and Mendes Junior and Mattos (2021), in which the X position was filled primarily by nouns. Results also indicate that the corpus did not retrieve any occurrences of "unless" followed by verbs other than past participle forms, nor by pronouns, prepositions, conjunctions, interjections, articles, or other determiners.

When considering "unless" followed by past participle verbs, the most common occurrences were "unless specified," "unless noted," and "unless requested." Furthermore, in the context of "unless" followed by adjectives, the most frequent instances were "unless necessary," "unless faulty," and "unless defective." It is noteworthy that past participles often exhibit similar grammatical characteristics to adjectives (Trask, 2013), which could elucidate their higher frequency rates. Additionally, when examining "unless" followed by adverbs, the predominant instances included "unless otherwise," "unless gradually" and "unless intentionally." Lastly, when considering "unless" followed by nouns, the prevailing cases were "unless government," "unless emergency," and "unless monsters".

Overall, the analysis suggests that the [unless X] construction is rather versatile and can be used to express a wide range of conditions, exceptions and requirements. The choice of elements (participial verbs, adjectives, adverbs or nouns) in the X slot of the construction influences the nature of the condition being described, whether it relates to actions, qualities, adverbial circumstances or concrete entities. This variety in usage demonstrates the flexibility of English grammar and how constructions like [unless X] can convey specific meanings based on linguistic choices.

5.1 Constructional properties of [unless X]

To assess the "unless X" construction, we investigated its everyday occurrences in English and categorized these instances according to the principles outlined by Fillmore *et al*. (1988).

According to Fillmore *et al.* (1988), linguistic constructions can be classified according to three parameters. First, they may fall within the realm of encoding constructions, where the congruence between form and meaning remains intelligible and does not require prior instruction. Notable examples encompass "answer the door" and "wide awake." Conversely, they may fall within the realm of decoding constructions, whereby their production requires instruction or prior experiential knowledge, as it is evident in "kick the bucket" and "pull a fast one." Second, linguistic constructions may be classified as grammatical - adhering to the grammatical rules of the language, as illustrated by "spill the beans" and "blow one's nose" - or extragrammatical, as exemplified by "by and large", "first off" and "sight unseen." Lastly, constructions may be classified as substantive - characterized by fixed and crystallized lexical elements, such as "let alone" and "all of a sudden" – or formal, characterized by slots that can be occupied in accordance with the construction rules, as observed in "the bigger they come, the harder they fall" and "now watch me drop it".

Regarding the first parameter, we suggest that the [unless X] construction fits within the category of encoding constructions. This form/meaning pairing is intuitively understood by language users without needing prior experience or explicit instruction. To illustrate this point, consider the following example from the iWeb Corpus: "Custom items and custom length items are not returnable unless defective." This instance shows that the [unless X] construction maintains its conditional meaning while having a syntactic structure similar to the [unless +

subordinate clause] construction, where only an obsolete verb phrase is omitted ("[…] unless the items are defective"). This omission does not make the sentence unclear or unintelligible.

Regarding the second parameter, we posit that [unless X] should be regarded as an extragrammatical construction, owing to the presence of constituents that defy conventional principles of English grammar. Exemplar instances extracted from the iWeb Corpus include:

(11) "This material will remain in the Dean's Office throughout the process, unless requested."

(12) "Don't use your laptop, iPad, etc., to write down everything unless necessary."

(13) "That pimple on your nose will not resist the power of tree tea oil unless otherwise."

(14) "[…] there should be no contact between 2 parents unless emergency."

The examples from 11-14 exhibit "unless" followed by a past participle, an adjective, an adverb, and a noun, respectively, contravening the anticipated structure involving a subordinate clause. The inclusion of past participles, adjectives, adverbs, and nouns within the [X] slot represents an emerging phenomenon in English, with non-existent documentation in the extant literature. Hence, by virtue of its operation within distinct sequence patterns specific to the construction itself, we posit that [unless X] is best characterized as an extragrammatical construction.

Finally, with regard to the third parameter, we perceive [unless X] as a formal construction, as outlined by Fillmore *et al.* (1988). According to their framework, formal constructions are lexically open, featuring empty constituent positions that can be filled following specific construction rules. As demonstrated in the previous examples (1-4), the [X] slot of the [unless X] construction is lexically open, as it can be filled with various lexical items from different grammatical categories. This renders [unless X] as a construction with substantial potential for productivity in the English language.

Concluding remarks

This research, anchored in the Construction Grammar framework (Fillmore *et al.,* 1988; Goldberg, 1995, 2006; Bybee, 2010) and utilizing Corpus Linguistics methodology (McEnery; Hardie, 2013; Sinclair, 2005), investigated the innovative use of the [unless X] construction. This construction signifies a novel application of "unless," where the conjunction is not followed by a

subordinate clause, as demonstrated in phrases such as "don't add Coca Cola unless diet" or "he was so calm unless tried".

Our initial analysis reveals that the [unless X] construction predominantly favors past participle verbs and adjectives in the [X] slot, whereas adverbs and nouns yielded low rates of occurrence. Moreover, unlike the [because X] construction, the [X] slot in [unless X] does not seem to accommodate interjections, pronouns, conjunctions, and prepositions, as indicated by the absence of these categories in the iWeb Corpus.

Echoing Fillmore *et al.* (1988), we interpret [unless X] as a codable, formal, extra-grammatical construction. It is codable as it represents a form/meaning pairing accessible to language users without the prerequisite of prior experience or explicit instruction. It is extra-grammatical due to the presence of constituents that defy conventional principles of English grammar. It is a formal construction as it is lexically open, featuring empty constituent positions that can be filled following specific construction rules.

In summary, our findings suggest that [unless X] often behaves similarly to the traditional use of 'unless', though it tends to favor reduced clauses and is primarily used in more informal contexts. This construction, with its preference for certain types of words in the [X] slot, exhibits the same kind of patterned inventiveness that McCulloch (2018) identifies in online slang. The [unless X] construction also exemplifies language evolution in real time, a key point in McCulloch's work. As users experiment with and adapt the [unless X] construction, we can observe these changes as they occur, much like the evolution of 'LOL' vs 'lol' based on a user's first social internet experience. These contexts foster linguistic innovation and play, contributing to the ongoing evolution of language in the digital age. This study, therefore, adds to our understanding of the dynamic nature of language in the context of digital communication.

Future research could explore whether certain platforms or communities favor this construction more than others, and if so, why. Additionally, the specific rules governing the [X] slot could be further clarified with different corpora. While our study has identified some general patterns, there may be exceptions or additional constraints that we have not yet uncovered. Finally, a comparative study of [unless X] and other similar constructions, such as [because X], could shed light on broader patterns and trends in language evolution in digital contexts. This

would contribute to a more nuanced understanding of how digital communication is shaping emerging constructions.

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