A Comprehensive Review of Change-of-State Constructions across Languages with a Focus on English

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ABSTRACT

Change-of-State (COS) constructions reveal essential aspects of language, bridging syntax, semantics, and pragmatics. Current research trends have highlighted gaps in understanding cross-linguistic patterns within COS constructions. This study addresses these gaps by investigating how COS constructions are encoded in English compared to Mandarin, Spanish, Hindi, and Russian, focusing on morphosyntactic structures and argument roles. The study involved analyzing documented linguistic data, employing Construction Grammar and thematic role frameworks to assess verb morphology, syntax, and argument structure. Key findings reveal both universal tendencies and language-specific differences in expressing state changes. These results enhance the theoretical framework for understanding language variability in COS expressions. This research underscores the significance of COS constructions in linguistic typology and proposes directions for further investigation, especially in underrepresented languages and alternative syntactic frameworks.

Keywords:

Change-of-State, Syntax, Construction Grammar, Cross-Linguistic

Introduction

Literature in Construction Grammar has been significantly influenced by seminal works produced by Chomsky (1965), Jackendoff (1990), and Levinson (1983), which demonstrate the relevance of these constructions to syntactic structure, lexical semantics, and pragmatics, respectively. Given the wide range of COS (Change-of-State) structures that occur across human languages, understanding these constructions is crucial for explaining how language dynamically encodes changes in state and perception, ultimately shedding light on the mechanisms that support naturalistic language processing.

This paper systematically investigates the features of COS constructions across multiple dimensions, specifically their complex manifestations in syntax, semantics, and pragmatic packaging. By conducting a thorough cross-linguistic analysis**,** this study refines our understanding of the phenomena and contributes substantive insights into how language variation can be explained within the Construction Grammar framework (Goldberg, 1995).

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The paper is organized as follows: it first provides a historical overview of the theoretical frameworks under which COS constructions have been conceptualized and investigated in various linguistic theories. These are then contrasted with the structural and semantic characteristics of COS constructions in English, serving as a foundation for future cross-linguistic comparisons. The study includes an analysis of COS constructions in different languages, drawing on traditional grammar (Radford, 2004), functional linguistics theory (Halliday et al., 2014), and thematic roles (Dowty, 1989). Additionally, languages that have not been extensively explored in this context - such as Mandarin (Huang, 1997), Spanish (Bergen & Chang, 2005), and Hindi (Michaelis & Lambrecht, 1996) - are considered to broaden the scope of cross-linguistic exploration.

Results are synthesized to capture both universal and language-specific characteristics of COS constructions. The paper concludes with a discussion of theoretical inroads and potential directions for typological and experimental research to achieve a comprehensive cross-linguistic understanding of these core constructions in information structure.

Historical Background

Global Research on Change-of-State

Circumstances of state (COS) changes, a subset of all COS events, are particularly prominent linguistic phenomena with implications for both language theory and cognitive science, as they facilitate the expression of state transitions. This offers a glimpse into one of the fundamental operations that govern our ways of interacting with the world. The progress made in syntax, lexical semantics, and pragmatics can be traced back to three seminal works: Chomsky (1965), Jackendoff (1990), and Levinson (1983). It is crucial to elucidate therapist-experiencer constructions, as they provide an illuminating case study for analyzing COS constructions in general. By their nature, involving both perceptual and state-change meanings, they shed light on how language construction truly functions.

Linguistic research has long recognized a deep and vivid tradition in the study of changes of state (COS) that spans generations and theoretical orientations. This indicates that COS constructions follow directly from a general theory of grammar rather than one where rules are added somewhat haphazardly to account for specific phenomena (Chomsky 1965). Consequently, they have been interpreted as transformations in terms of transfers from deep to surface structures. These transformations demonstrate how new structures can emerge when syntactic rules are applied. This is evident in sentences such as “the ice melted,” where the surface representation of a change of state in the subject (the subject becomes de-iced) becomes clearer in comparison to the more abstract deep structure.

Expanding this into an analysis of the function of change-of-state constructions in everyday speech, Levinson (1983) examined how speakers deploy such structures to format states of affairs and events as interactionally plausible, contextually conditioned designs. Levinson’s analysis grounds the communicative considerations of COS constructions in more pragmatic factors, such as speaker choice and listener interpretation. This perspective reveals how discourse is shaped through meaning negotiation and, as a result, how these constructions actively contribute to meaning-making.

Turning to another line of research, Jackendoff (1990) studied the lexical semantics of change-of-state verbs and proposed the concept of a complex semantic representation as an explanatory construct for how the meanings of these expressions are linked in the mental lexicon. The author analyzed the behavior of verbs such as *melt* or *break*, and argued that, in addition to thematic

roles, this could only be captured with reference to argument structures -there is more to how the verb encodes these kinds of changes of state. His work addresses the fundamental question of how sentence elements correspond to types of state changes, specifically what it means for a given anticausative verb to occupy different sentence positions.

These works together constitute a comprehensive system that guides all essential aspects of change-of-state constructions (syntax, semantics, pragmatics). They open the door to investigating these constructions in different languages and contexts, highlighting their significance not only for theoretical linguistics but also for applied linguistic research. Thus, the study of COS constructions is of interest both for the theory of language and its practical applications.

Emergence of Construction Grammar

Construction Grammar represents a theoretical revolution in linguistics, reshaping how linguists have traditionally viewed constructions. Goldberg (1995) advanced this position by formally establishing the 'construction' as the basic unit of a form-based grammar, essentially a form/meaning pairing, an expression that embodies meaning in its own right. While traditional linguistic theories view expressions as pairings of forms and meanings stored together in the mental lexicon, Construction Grammar aligns these observations with active cognitive processes rather than mere storage or memory. This perspective enables cross-linguistic generalizations across a wide variety of languages and phenomena. In Construction Grammar, constructions retrieved from memory and activated during production retain their habitual semantics because they are patterns crystallized over the course of history. This view underscores the fluidity of language - how structures adapt to new contexts or evolve with usage over time. The Construction Grammar model also seeks to account for all constructions in a language without competition, unlike models that allow for multiple linguistic theories within and across languages. This work has reshaped linguistic research in the 21st century by challenging and revising our understanding of how constructions operate, both across languages and within individual languages.

However, little progress has been made in this direction, and there is a lack of detailed cross-linguistic comparison of different change-of-state constructions. According to William Croft (2003), cross-linguistic considerations may offer valuable tools for analyzing linguistic universals and constructions. These approaches not only expand the scope of research but also provide alternative viewpoints on how different languages lexicalize their change-of-state meanings (Bochnak & Matthewson 2018).

Overview of Construction Grammar

Definition and Scope

Construction Grammar is a theory of linguistics that emphasizes how constructions are the basic pieces or units of grammar, where a construction is defined as an association between form and meaning. The Construction Grammar view goes beyond more traditional linguist approaches that consider syntax and semantics as quite distinct: it argues that a construction pairs particular grammatical forms with corresponding functions directly troubing at the idea of there being any kind of division between form and function, which is characteristic to all Langacker's cognitive grammar from 1980 through his work on construals in various domains. The integration of both structural and referential similarity relations in this model is consistent with proposals that the knowledge about natural language as a whole should not be considered just an abstract set of rules but rather involves learned pairings between form and function.

Constructions can range from extremely complex and specific to very simple ones. These ranges from simple morphemes (prefixes, suffixes), through individual words and idiomatic expressions to complex syntactic patterns such as sentence frames(Goldberg 1995). Every construction algorithm mixes meaning and form in its own way, is important for matching up what we say to how our hearers should react. It might consist of a word followed by an element that provides its argument structure, thereby serving as the template for constructing sentences with enough meaning to understand what is being said.

This notion is in agreement with the view of language as a unified whole, and suggests that comprehending or producing linguistic expressions requires accessing these stored form-meaning pairs from the mental lexicon. As Fillmore (1968) has shown, constructions exist at a level deeper than surface structure and each is characterised by well defined roles which are related to one another in particular ways. Constructions are the linguistic mirror images of cognitive processes, and accordingly represent ways in which speakers conceptualize their experiences so that they can be translated into proper linguistically structured forms (Langacker 1987).

Construction Grammar also assumes that these form-meaning pairs are not fixed but fluid: they change over time with language use and accommodate new communicative needs. This extends to novel expressions that speakers create by manipulating old patterns or meshing parts drawn from different ones (Goldberg, 1995). Croft (2001) points out that constructions are important for the study of linguistic variation because they often differ drastically in form between languages even though each construction type is a common way to encode similar meanings.

So in all, construction grammar incorporates numerous types of constraints on constructions to put forth a unified vision of language as an integrated network. It combines syntactic, semantic and pragmatic aspect dimensions in an integrated way that confers on it a more holistic framework for linguistic analysis than what traditional frameworks provide. This theory amplifies our ability to grasp how linguistic knowledge is organized, retrieved and employed in communication by identifying constructions as basic elements of language.

Key Theories and Contributions

Fillmore (1968) - Case Grammar

Fillmore (1968) introduced the notion of Case Grammar, which is a model that analyzes semantic and syntactic properties by roles (also called thematic). According to this approach, each verb constrains the roles (agent corresponding doer of action and patient consisting receiver) that its arguments play. These functions are important in connecting a sentences syntactic structure to its semantic meaning. In this sense, Case Grammar turned to be the first attempt of understanding verbs along with its roles in sentence meaning. Fillmore has made an important step in this direction by making explicit the relation between syntactic positions and thematic roles, which became a theoretical basis for further theories of argument structure as meaning conveying machinery. This formalism has played a central role in the development of our understanding of case marking strategies for semantic roles across languages.

Langacker (1987) - Cognitive Grammar

Langacker (1987) developed Cognitive Grammar, a model of grammar incorporating insights from human cognition. Grammar is considered here as a network of symbolic units, with constructions regarded as schematic representations of types of recurrent language use. Linguistic representation is often viewed as a form of conceptual knowledge and constructions analyzed in terms of our ability to categorize- or generalize over -experience, the approach exemplified by Cognitive Grammar (CG) theory for instance.

Cognitive Grammar by Langacker basically changed the way we view grammar to be an entirely conceptual phenomenon. He suggested that symbolic units at all levels of the language use-from morphemes to sentences- actually denote structures in thought. This theory deals with how language constructions are the result of our cognition, a development that gives us an elegant deterministic model for seeing how linguistic forms tie meanings to cognitive processes.

Goldberg (1995) - Cognitive Construction Grammar

Goldberg (1995) extended to the cognitive construction grammar perspective, where constructions are learned pairings of form and meaning that detailed link syntax with semantics as well as pragmatics. This perspective views constructions as a spectrum of specific idiomatic phrases through broad grammatical rules and all provide templates for the production/understanding of language.

Through his research, Goldberg opened up new dimensions in our understanding of how the knowledge underlying language is structured and accessed in a manner that has put construction at its very center. Asuka Teruya shows in her monograph that this distinction is not black (flexible) and white (fixed), but a matter of complex constructions on an implicational cline. The implications for studying language learning and cognitive linguistic processes are profound.

Croft (2001) - Radical Construction Grammar

Radical Construction Grammar (Croft 2001) rejected traditional syntactic categories, and instead utilized an extremely broad class of constructions as the primary units. From this perspective, the author suggested that constructions, rather than abstract syntactic categories as in the traditional view of syntax should be central to a theory grammar.

Croft's perspective provides a more nuanced and taxonomical way of thinking about grammatical constructions across languages. Rather than seeing grammar as a set of invariant rules, focusing on constructions as the basic building blocks of grammatical analysis provides more detailed insight into linguistic diversity and typology. It leads to cross-linguistic comparison, underscoring the ways in which various languages encode similar messages differently via their particular configurations.

Characteristics of Change-of-State Constructions

Syntactic Features

There are specific properties of change-of-state constructions that highlight their nature as a specialised syntactic process.

These properties signal states and transitions between them. In this construction, the subject expresses an entity that undergoes the change (Fillmore, 1968), and the verb indicates the change, often referred to as the process. Change-of-state constructions highlight the dynamic nature of language, as they represent the transition between states. These constructions typically follow a Subject + Verb structure where the subject undergoes a transformation, and the verb describes the process, as in "The ice melted." This type of construction is akin to existential sentences, which also encode spatial or state-related transitions. For example, in Chinese, existential sentences describe "somewhere appears, exists, or disappears something or someone," emphasizing the spatial and transitional nature of entities (Vo, 2022). Similarly,

change-of-state constructions across languages often rely on such syntactic structures to convey the shift from one state to another, whether it be physical, emotional, or situational.

More complex structures can involve a series of objects, complements, or adverbial phrases that characterize the change and the circumstances in which it occurs. A sentence like "The sun melted the ice" (subject – agent, object) introduces an explicit cause-effect relationship with added syntactic complexity (Croft, 2001). Complements inherently describe the resulting state, as seen in constructs like "The water turned into steam," where the complement ("into steam") specifies the new state of the subject.

Finally, the focus of a sentence can shift, as change-of-state constructions are equally suited to both active and passive voices. In passive constructions, however, the emphasis moves from the subject or patient (the entity whose state is changing) to the action itself. For example: "The sun melted the ice" (active) becomes "The ice was melted by the sun" (passive), which aligns with a more typical view of turn-taking in sensory perception, akin to Langacker's perspective in cognitive semantics.

Semantic Elements

Change-of-state constructions are semantically tied to state changes and causality. This is due to the inherently decomposed nature of the verbs in these constructions. Verbs like "melt," "freeze," "break," and "grow" are tied to transitions between states, making it difficult for them to express states without referring to the events leading to or from those states. These verbs essentially express both the starting and ending states, emphasizing the process of transformation.

Change-of-state verbs refer to various types of change. Some verbs represent physical changes, like "melt" or "freeze," others depict biological transformations, such as "grow" and "age," and some relate to changes in status or condition, such as "promote" versus "demote" (Levinson, 1983).

Change-of-state constructions also introduce causality into the semantic framework: a verb in such a construction entails a cause (indicating predictability and control). This causative connection can be unambiguously established (X caused Y to happen), as in "The heat melted the ice." It can be explicit, as in a specific external cause that led to the melting (e.g., "The ice melted"), or implicit, depending on its contextual relationship (Goldberg, 1995).

Pragmatic Applications

From a pragmatic point of view, change-of-state constructions appear in everyday life to describe facts so common that they form part of a linguistic device signaling transitions and changes from one state to another across various fields. Both in normal discourse and at the scientific level, the different narratives each participant employs to describe the influencing event are crucial (Goldberg, 1995). These constructions serve practical purposes, reflecting a given community's cultural and communicative norms. For instance, the analysis of cultural categories in American and Vietnamese shop signs reveals that linguistic expressions are influenced by the typical psychology, cognition, and shared knowledge of each speech community (Pham, 2024). Similarly, change-of-state constructions may differ in their pragmatic functions across cultures, reflecting the ways in which speakers use language to negotiate meaning within their specific cultural and communicative realities.

Change-of-state constructions describe how people perceive events around them on a daily basis: *the bread toasted*; *the leaves turned brown*. Through this means, individuals can share their physical experiences and observations (Langacker, 1987). Change-of-state constructions

in scientific and technical communication provide explanations of processes and phenomena (e.g., *The compound dissolved in water*) or states (e.g., *Cells divided*). Using these constructions facilitates effective communication of experiments or natural phenomena, contributing to better learning and understanding (Croft, 2001).

Thus, when the predicate conveys transitions from one state to another (e.g., *The caterpillar turned into a butterfly*; *Through his efforts, the preservation of the war was achieved*), these changes are often depicted literally in the predicates, described image by image. These constructions help expand narratives and frameworks of explanation (Levinson, 1983).

Overall, change-of-state constructions are pervasive across languages, serving to express changes, causality, and transitions spatially and contextually.

Methodological Approaches

Traditional/Structural Approach

Among the influential theories that have contributed to the understanding of these constructions, several can be characterized as traditional or structural. These theories assume some form of deep structure or representation on one hand, and transformation rules that operate exclusively in terms of syntactic structures on the other.

Chomsky's Transformational-Generative Grammar revolutionized the field of linguistics by proposing that all sentences share an underlying deep structure, which can be transformed into surface forms through a process governed by syntactic rules. This model explains how deep structures of fundamental meanings are transformed into surface structures, as seen in examples like "The ice has melted" or "The water evaporated." It demonstrates both the regularity of syntactic transformations and the capacity of these transformations to generate an infinite number of sentence types from a single basic structure (Chomsky, 1965).

Kayne's *The Antisymmetry of Syntax* posits that syntax is fundamentally asymmetrical, with a universal specifier-head-complement order. It is argued that syntactic structures in all languages follow this basic order, regardless of the word order seen at the surface level. Kayne's model predicts that languages exhibit a universal specifier-head-complement hierarchy in the domain of change-of-state constructions. This hierarchy can account for surface word order, even when variations in word position exist. Numerous constructions are designed based on syntactic principles, including the more direct government-based syntactic structure (Kayne, 1994).

Radford's Minimalist Syntax is an extension of Chomsky's minimalist program, which aimed to eliminate the perceived excesses of generative grammar, simplifying the theory by reducing it to a few core principles. This approach seeks linguistic explanations through the smallest possible number of rules and constraints on their interactions. In his treatment of change-of-state constructions, Radford views this phenomenon as evidence that minimal syntactic operations can yield structures (e.g., "The ice melted") using a small, principled set of rules to account for their derivation. In doing so, he emphasizes the efficiency and economy of syntactic processes, particularly when dealing with surface grammatical complexity (Radford, 2004).

Functional Grammar Approach

The functional grammar approach places greater emphasis on the relationship between linguistic form and function, focusing on how grammatical structures serve social and communicative purposes.

In Dik's Functional Grammar, language systems are seen as mechanisms that interpret human

communication phenomena, with grammatical structures playing dedicated communicative roles. Dik (1997) argues that change-of-state constructions in a clause express changes over time in a state that either fulfills the speaker's desires or meets the conditions for speech acts, interests, and expectations. This view highlights how different contexts shape grammatical preferences, providing suitable grounds (evidence) through grammatical forms that correspond to the means-end relationship between grammar features, from phonological to pragmatic, within a language system driven by communicative function.

Systemic Functional Linguistics (SFL) takes a unique perspective on language as a social semiotic system, where grammatical choices represent ideational, interpersonal, and textual functions. SFL recognizes that context shapes language use. In the study of change-of-state constructions, SFL investigates how these structures represent processes and events (ideational function), construe speaker-hearer relationships (interpersonal function), and create coherence among information units across a text (textual function). This inclusive view highlights the multifunctional nature of change-of-state constructions, treating ergative and similar subjects as experientially equivalent to nominal agents (Halliday & Matthiessen, 2014).

Thematic Analysis

A thematic analysis approach is adopted, identifying and analyzing recurrent themes or patterns in language use, including change-of-state constructions. The focus will be on COS verbs that explicitly involve transitions in state, such as "break," "melt," "open," and "destroy," which represent prototypical change-of-state events across languages**.** Based on his work (Dowty, 1991), Dowty's Proto-Roles categorize arguments into Agent and Patient roles, and this analysis will apply his framework to these specific verb types to explore how their arguments (subjects and objects) are assigned roles in different languages.

Dowty's theory posits that agentive roles lie on a continuum with properties unique to each verb class, rather than assuming a fixed number of roles across all languages. For instance, "break" involves an Agent causing the action and a Patient undergoing the change, while "melt" may feature a less explicit Agent, focusing more on the internal properties of the Patient. His proto-roles will be used to understand how arguments in these COS constructions may exhibit varying properties across different languages, such as volition, causation, and affectedness.

In conjunction with Dowty's framework, Talmy's (2000) Theory of Causation will be utilized to explore how different languages encode causality in COS verbs. Talmy distinguishes between various types of causation, such as direct vs. indirect causative constructions, and shows how these are expressed morphologically (through the verb), via auxiliary verbs, or through syntactic structures. This framework will be applied to the selected verbs to analyze how languages combine cause and effect within their internal grammatical structures, particularly in COS events like "melt," "break," "burn," and "freeze."

Insights from Comparative Linguistics

Mandarin ba (把) Construction: The ba (把) construction in Mandarin Chinese is used to emphasize the result or consequence of an action performed on an object. This structure follows the general pattern: "Subject + 把 (ba) + Object + Verb + Complement." The construction places focus on the object and describes its state after the action. For example, in the sentence 他把书放在桌上 (Tā bǎ shū fàng zài zhuō shàng), which literally translates to "He put the book on the table," the auxiliary word ba highlights that the result of the action is the book being placed on the table. This structure offers a clear way to show how Mandarin emphasizes the transitivity of an event, specifically focusing on its result. Thus, it is particularly useful for analyzing

change-of-state constructions, where the focus is on the final state of an element (Huang, 1997).

Spanish Reflexive Constructions: Spanish also uses reflexive constructions to represent actions involving self-induced changes of state, where the subject and object of the action are the same. The reflexive construction utilizes specific elements, such as the reflexive pronoun "se." In the sentence "Se rompió el vaso" (The glass broke), the pronoun "Se" indicates that the glass underwent a change of state without direct human influence. This example demonstrates how reflexive constructions in Spanish can express causative events, focusing on the result of the action rather than the agent (Bergen & Chang, 2005).

Causative Verbs in Hindi: In Hindi, causation, which refers to a change of state resulting from an action, is predominantly expressed through causative verbs. These verbs often involve changes in the morphology of a root verb. For example, the verb "jalna" (to burn) changes to "jalana" (to cause to burn) in its causative form. In the sentence "उसने मोमबत्ती जलाई" (Usne mombatti jalai), meaning "He lit the candle," the causative form "jalai" indicates that the subject caused the candle to burn. The use of causative verbs in Hindi is significant because it exemplifies how the language lexicalizes changes of state caused by an agent to trigger a particular event (Michaelis & Lambrecht, 1996).

Aspectual Pairs in Russian: perfective/imperfective system, distinguishing whether an action is complete or ongoing. For example, the verb pair писать/написать (pisat'/napisat', write) illustrates this distinction: *написать* is the perfective form, while *писать* is the imperfective form. This aspectual system is crucial for understanding how Russian indicates the timing and completion of state changes, providing insight into its prospective system (Comrie 1976).

Theoretical Implications

Change-of-state constructions provide a revealing class of cross-linguistically generalizable phenomena that elucidate how to differentiate universal from language-specific features. **Agentive Subject Constructions** and **Cognitive Typology in Change-of-State Constructions**: A comprehensive typology of syntactic and morphosyntactic features at the word and phrase level is generally based on experience and specialization. Universal properties, as noted, are characteristic of change-of-state constructions, seen in almost every language, indicating cognitive and communicative universals. There are clear cases of cross-linguistic phenomena, such as marking the movement of an entity from one state to another (Croft, 2001, a basic applicative feature), present across languages from different language families. Examples include English tense conjugations with Vietnamese durative markers and ambiguous future tense, Mandarin stative-use markers, and Spanish indicative and perfect tense verbs, or analogous Sanskrit middle markers distinguishing both voice and mode. A contrast can be seen with Hindi's deictic megapresence and its relative past infinitive system, rarely found in Russian's momentary aspects — all these seemingly have nothing in common, yet they illustrate fundamental patterns in language.

More language-specific features, meanwhile, show the various ways different languages realize these constructions. For example, English uses simple verbs like *melt* or *break* to express change-of-state events, whereas Mandarin Chinese employs the *ba* construction to focus on the end states of an action (Huang, 1997; Bergen & Chang, 2005). Spanish uses reflexive constructions for causal-inchoative alternations, where participants undergo change on their own (Lubowicz, 2001). Similarly, Hindi’s morphological causatives or Russian’s aspectual pairs present other ways to express causal meanings and temporal features (Michaelis & Lambrecht, 1996; Comrie, 1976).

In cross-linguistic terms, generalizations about these constructions emerge, driven by similarities in the semantics of the concepts they grammaticalize in their respective languages. Ultimately, these constructions support general theoretical models that provide comprehensive coverage of the various linguistic strategies used to express state changes, thus expanding our understanding of language structure and use (Talmy, 2000).

Discussion

The findings from this study on Change-of-State (COS) constructions across languages reveal both universal and language-specific tendencies in how state transitions are encoded. In the context of Construction Grammar, this confirms the central role of constructions as form-meaning pairings that function not only syntactically but also semantically and pragmatically (Goldberg, 1995). The cross-linguistic analysis has revealed how various languages, such as English, Mandarin, Spanish, and Hindi, utilize distinct morphosyntactic strategies to express COS events, thereby reinforcing the Construction Grammar perspective that constructions are cognitive patterns rather than arbitrary rules (Langacker, 1987).

Dowty's (1991) Proto-Roles theory has proven useful in analyzing the argument structures in COS verbs like "melt," "break," "open," and "destroy." The Agent and Patient roles in these verbs help illuminate how different languages assign thematic roles and encode causality. For instance, in languages like Mandarin, the *ba* construction allows a clear demarcation between agentive action and resultant state (Huang, 1997), whereas Spanish reflexive constructions like *se rompió* in "Se rompió el vaso" highlight a self-induced state change, emphasizing the affectedness of the Patient without requiring explicit agency (Bergen & Chang, 2005).

Talmy's (2000) Theory of Causation further enriches this analysis by distinguishing between direct and indirect causative constructions, as seen in Hindi's morphological changes to express causality (Michaelis & Lambrecht, 1996). This supports Talmy's claim that languages systematically encode causality in varied ways, with verbs often morphologically marked to distinguish between causation and result (Talmy, 2000). The Russian aspectual system similarly provides a fascinating example of how languages differentiate between ongoing and completed actions in COS events (Comrie, 1976), which aligns with the universal nature of COS constructions as noted in Croft's Radical Construction Grammar (2001).

This study has also underscored the importance of pragmatic factors in COS constructions. As Levinson (1983) argued, speakers use COS structures to negotiate meaning in interaction, with the constructions representing state changes and shaping the discourse around them. For example, English allows flexibility in whether the focus is on the agent or the process, as seen in active-passive alternations like "The ice melted" versus "The ice was melted by the sun." This pragmatic flexibility aligns with the findings from cognitive linguistics that emphasize how speakers conceptualize and communicate experiences through grammar (Langacker, 1987).

Despite these insights, this research faces limitations. The data primarily focused on a small set of well-studied languages (e.g., English, Mandarin, Spanish, and Hindi), limiting the generalizability of findings to less-documented languages. Future studies could broaden the scope by incorporating languages from underrepresented families, potentially revealing new linguistic strategies for encoding COS events (Bochnak & Matthewson, 2018). Additionally, while this study engaged with Construction Grammar and thematic roles, it could benefit from exploring alternative frameworks, such as Minimalist Syntax (Radford, 2004), to provide a more comprehensive understanding of COS constructions. Methodologically, this research

focused on documented linguistic data, but experimental or computational approaches could yield further insights into how COS constructions are processed in real-time language use.

Overall, the findings contribute to our understanding of how change-of-state events are universally relevant across languages while simultaneously shaped by language-specific morphosyntactic and pragmatic factors. The Construction Grammar framework remains highly relevant for analyzing these phenomena, but future research should aim to expand both the language sample and theoretical perspectives to gain an even deeper cross-linguistic understanding of change-of-state constructions.

Conclusion

Summary of Key Findings

This review has examined the different aspects of change-of-state constructions in multiple languages, including their structures, semantics, and pragmatics. At a structural level, constructions of this type typically consist of a Subject + Verb pattern, which represents the transformation and describes how the subject changes. Although this distinction may be realized differently across languages (see, e.g., Fillmore, 1968, and Huang, 1997, for English and Mandarin, respectively), all languages clearly distinguish between an idle state and increasing activity.

In terms of meaning, change-of-state verbs describe transitions from one state to another, often with a cause or consequence. These verbs encode changes—whether physical, biological, or cultural—and thus we can infer a certain degree of cross-linguistic generality (Jackendoff, 1990; Levinson, 1983). Typologically, change-of-state constructions are vital in multimodality and human communication at large. Indeed, they are essential for everyday language use (Goldberg, 1995), scientific explanations, and narrative storytelling.

Limitations and Implications for Future Research

While this review has provided a detailed analysis of change-of-state constructions across several well-studied languages, a limitation lies in the scope of language data. The focus on a limited set of languages (e.g., English, Mandarin, Spanish, and Hindi) may restrict the generalizability of findings to lesser-studied languages, particularly those from underrepresented language families. Future research should incorporate a broader range of languages, including rarer or less-documented ones, to uncover universal and language-specific features. Furthermore, while rooted in Construction Grammar, the theoretical scope could be extended to engage with alternative grammatical frameworks to provide a more comprehensive perspective.

Methodologically, this research relied primarily on cross-linguistic comparisons of documented languages, which may not capture the full range of cognitive and communicative functions of change-of-state constructions in natural language use. Future studies could employ experimental methods or computational models to explore the processing and acquisition of these constructions in real-time language use.

Final Thoughts

This is of theoretical interest, as it may reveal whether there are language-specific change-of-state constructions or whether these encodings are universally found across languages. In various languages, constructions like these are broadly used to represent force dynamics, both in everyday conversation and specialized discourse (Langacker, 1987), as they form the basis

for how languages lexically encode transitions, causality, and changes of state. Investigating these constructions further will help provide a clearer understanding of which properties are language-specific and which are universal across languages. This research not only contributes to theoretical models but can also be applied to language teaching, translation, and computational linguistics. If the ultimate aim is to fully understand human language in all its complexity (Langacker, 1987; Goldberg, 1995), then research becomes more valuable when change-of-state constructions are more fully explored, as they represent an integral piece of the larger puzzle.

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