

# A Construction Grammar Analysis of the Passive and Non-Passive Constructions of Multi-Word Verbs in Selected English Dictionaries

Taiseer Flaiyih Hesani

Department of English, College of Education for Human Sciences, University of Babylon, Babylon, Iraq

Riyadh Tariq Kadhim

Department of English, College of Basic Education for Women, University of Al-Ameed, Karbala, Iraq

**Abstract**—The study examines how construction grammar accounts for multi-word verbs in their interaction and non-interaction in passive construction. Multi-word verbs are acknowledged for their deviation in syntactic behavior. Construction grammar considers linguistic units, including multi-word verbs and the syntactic patterns they participate in, as constructions. Thus, they should be treated as form-meaning pairings. The study aims to explain why these verbs interact with passive construction whereas others do not. To serve this aim, the study adopts FrameNet as a technique based on frame semantics, the sister theory of construction grammar, accounting for the meaning side of constructions. The researchers collected certain multi-word verb data from English dictionaries, focusing on both words that participate and those that do not participate in multi-word verb construction. A qualitative analysis was undertaken using FrameNet, where the data was processed in terms of semantic frames, the associated frame elements, and frame-to-frame relations. Following this was a quantitative analysis of the processed data to find out the frequencies of the frames, frame elements, and the frame relations associated with the multi-word verbs in the passive and non-passive constructions. The researchers concluded that semantic frames of Filling and Distributed Position are highly sensitive to passive construction, whereas others such as Hit Target and Motion are least associated with this construction. As for the non-passive construction, the semantic frames of Holding Off and Assistance are highly sensitive to such construction, whereas frames such as Cause to Continue and Objective Influence are least associated with it.

**Index Terms**—construction grammar, passive construction, non-passive construction, multi-word verbs, FrameNet

## I. INTRODUCTION

Construction Grammar (CG) is a grammatical framework falling under cognitive linguistics. Hoffman and Trousdale (2013) describe CG as providing “a uniform analysis of more idiosyncratic ‘peripheral,’ as well as ‘core,’ linguistic features” (p. 20). Following Granger and Meunier (2008), phraseology is one such peripheral area of language that discusses the study of word combinations. Phraseology, or “phraseologism”, to use Gries’ (2008) terminology, is “defined as the co-occurrence of a form or a lemma of a lexical item and one or more additional linguistic elements of various kinds” (pp. 6-7). One example of such phraseological units is multi-word verbs (MWVs), the focus of this study. In CG, constructions are the building blocks of language. Goldberg (2003) defines a construction as “stored pairings of form and function” varying from morphemes, words, and idioms to patterns (pp. 219-220). This implies that all levels of language can be viewed as constructions, and this leads to one of the derived assumptions of CG. This is the assumption that there is no need to separate the lexicon and syntax since all their units, whether morphemes or words (in the case of the lexicon) or patterns or rules (in the case of syntax), can be placed on what construction grammarians call a continuum.

As for this study, the researchers have attempted to shed light on the interaction of MWVs as constructions on the lexical end of the CG continuum with the passive constructions on the syntactic end of this continuum. The data for this study are MWVs from a group of monolingual dictionaries. It should be noted here that not all MWVs in these dictionaries can participate in passive construction. Thus, the focus will be on MWVs that can and cannot undergo passive construction. As such, it is possible to speak of non-passive construction. Furthermore, the data were analyzed according to FrameNet (<https://framenet.icsi.berkeley.edu>) annotations to justify the participation and non-participation of MWVs in the constructions chosen.

### A. Significance of the Study

This study is significant due to using CG in the analysis of MWVs when interacting with passive and non-passive constructions. This analysis is based on the technique of FrameNet by Ruppenhofer et al. (2016), where the data were analyzed in terms of semantic frames, frame elements, and frame relations. To the best of the researchers’ knowledge,

such an analysis of MWVs in passive and non-passive constructions has not been conducted. To explain, in his “A Constructionist Approach to the Teaching of Phrasal Verbs,” Torres-Martinez (2015) discusses multi-word verbs from a CG perspective. The present study focuses on the idea that multi-word verbs inherit their syntax-semantics from prototypical or basic argument structure constructions, including ditransitive, prepositional dative, verb-locative, verb-object, and verb-object-locative. In addition, in her “Figuration, Constructions, and English Phrasal Verbs: The Instances of Come Up”, Tsaroucha (2020) discusses the evocation of figurative meaning of specific MWVs of the form (verb + up) when used in the resultative construction. The conceptual autonomy-dependence relation, a tool in cognitive linguistics, is used to provoke the figurative meaning of these MWVs in the chosen construction. In this way, this study is conducted to fill the gap in the treatment of MWVs from a CG perspective in the passive and non-passive constructions.

### B. Aims of the Study

To answer the questions raised earlier, the following aims are to be achieved:

1. Identifying how CG explains the interaction of MWVs in the constructions chosen.
2. Using the FrameNet technique to justify how these verbs participate in these constructions.
3. Identifying the semantic frames that are highly correlative with the passive and those that are highly correlative with the non-passive.
4. Sorting out the frame elements and frame-to-frame relations that are highly associated with the passive construction and those that are highly associated with the non-passive one.
5. Developing FrameNet as far as the treatment of MWVs in the chosen constructions is concerned.

## II. LITERATURE REVIEW

### A. Construction Grammar

Construction grammar (CG) is one of the grammatical frameworks subsumed under cognitive linguistics. Cognitive linguistics (fully developed since the 1980s) adopts the view that language is “primarily a mental phenomenon, located in the minds of its native speakers” (Taylor, 2016, p. 445). The main tenets of CG have their origin in the philosophical assumptions of cognitive linguistics. That is why CG can be qualified as a cognitively oriented approach to grammatical description.

In CG, constructions are the building blocks of language and not a by-product phenomenon, as previously assumed. Goldberg (2003) defines construction as form-meaning pairings that include morphemes, words, idioms, and patterns. In this way, language is understood to be a large network of constructions that vary in size and complexity. For example, the morpheme (anti-) is a construction since it has the form (anti-) paired with the meaning of (opposite of) in words of the type (antisocial) and (anti-hero). To the opposite extreme of complexity and size, the passive pattern is also a construction associating the form (Subj aux VP<sub>past participle</sub> [PP by]) with the meaning of expressing the non-topicality of the entity of the actor, as in “The armadillo was hit by a car.” In this case, all levels of language can be considered as constructions. This leads to one of the essential assumptions of CG, namely, there is no need to separate lexicon from syntax since all language units, whether morphemes or words (stored in the lexicon) or patterns or rules (in the syntax), can be placed on what constructionists call a continuum.

Viewing the totality of language in CG as constructions consisting of form-meaning pairings makes the meaning side of these constructions of vital importance. Thus, following Schmid and Ungerer (2011), it is convenient to speak of a type of meaning called “constructional meaning, which does not necessarily depend on the meaning of the lexical items involved” (p. 620). This case is quite clear with argument structure constructions. A well-known case is that of Goldberg’s (1995; cited in Schmid & Ungerer, 2011) caused-motion construction. Such a construction is normally exemplified in sentences, such as “Joanna kicked the ball to Sally,” and consists of the form (Subject + Verb + Object + Adverbial) paired with the meaning (X causing Y to move Z). In special cases of the caused-motion construction, such as “Fred sneezed the tissue off the table,” the verb (sneeze) is not normally taken to express or fit the semantics of that construction. In this case and other similar cases, it is not the semantics of the intransitive lexical verb that may license that verb to be used in the caused-motion construction. Rather, it is the semantics of the construction or the constructional meaning that affects this verb, allowing it to be used as such.

Boas (2021) proposes that the form-meaning pairing in CG is best handled by frame semantics (FS). Following Gawron (2011), FS is another cognitively oriented approach to semantics, and it is the brainchild of Charles J. Fillmore. The term frame is being taken from cognitive sciences and applied to linguistic analysis of meaning within FS. Cognitively, a frame is “any of the many organized packages of knowledge, beliefs, and patterns of practice that shape and allow humans to make sense of their experience” (Fillmore & Baker, 2010, p. 313). For example, humans generally recognize which events and which participants of events are expected to encounter in the scenes or situations of visiting a hospital or having a meal at a restaurant. When such cognitive frames are associated with linguistic forms, whether these are words, phrases, or grammatical patterns, these frames are called semantic frames, and FS is sought (Fillmore & Baker, 2010).

It is worth mentioning that FS is not only dedicated to the analysis of meaning in lexical items since phrases and grammatical patterns are also included. Evans and Green (2006, p. 211) propose that “words and grammatical

constructions are relativised to frames, which means that the “meaning” associated with a particular word (or grammatical construction) cannot be understood independently of the frame with which it is associated”.

### *B. Multi-Word Verbs in Construction Grammar*

An essential point in the treatment of MWVs in English is whether they are of a morphological or syntactic origin. Thim (2012) argues for a morphological treatment for them, assuming that MWVs cannot simply be considered as a syntactic combination of a verb plus particle. An examination of the sentence below will give credit to the morphological status:

After a few days of this routine, I asked one of my colleagues if he was coming down to the terrace, and he replied, ‘Oh, I don’t know. I think I’m just about terraced out’. (Thim, 2012, p. 57)

It is explained that it is unsatisfactory to consider the MWV (“terraced out”) as a combination of a verb (“terrace”) plus a particle (out) since there is no such lexical verb as “terrace”.

Still, an objection can be raised against the inclusion of MWVs within word formation. This is due to the particles being non-adjacent to the verbal element, as in, “He is just slowly dreaming his life away.” Thus, the alternative is to regard them as periphrastic word formation (Thim, 2012). To illustrate, Aarts et al. (2014, p. 302) point out that periphrasis means using “separate words to express a grammatical relationship that is also expressed by inflection in other contexts.” For example, the grammatical relation of comparison in adjectives and adverbs is usually expressed by inflecting “-er” and “-est” on the adjectives and adverbs as in “small-smaller-smallest.” In other cases, the use of the separate words “more” and “most” is obligatory in forming the comparison “more beautiful” and the superlative “most oddly.” Accordingly, to consider MWVs as periphrastic word formation is to say that it is fine to separate the particle from the verb since in such cases the separation is allowed due to the fact that the formation of such MWVs is not done in the normal way where the derived linguistic unit is uninterrupted, as in “respectful” where the word is derived by directly attaching the suffix “-ful” with the word “respect.” Rather, the derived unit in the case of the MWVs permits separation and that is why it is better to include them within periphrastic word formation.

Thim thinks that considering MWVs as periphrastic word formation does not account well for their syntactic properties as constructions. Thus, it is better to regard them as “(quasi-) word-formational constructions with specific syntactic features” (Thim, 2012, p. 69).

### *C. Fusion and Conflict of Constructions*

As stated before, constructions are of various levels of size and complexity, and there is no derivation of a construction from another construction. Boas (2021) assumes that CG “seeks to account for the licensing of utterances by simultaneously recruiting different constructions from a language’s construction and combining them” (p. 64). In this respect, Goldberg (1995) speaks of the nature of the verb meaning and the nature of the constructional meaning when these two are interacting. Goldberg (1995) chooses to discuss the nature of the verb meaning and the constructional meaning in terms of FS. As explained earlier, meaning in CG is handled through FS, which is the sister theory of CG, as Boas (2021) proposes.

Using frames as background information to understand meaning in words can be applied to the meaning of verbs too. In this case, Goldberg (1995, p. 27) points out that “Verbs, as well as nouns, involve frame semantic meanings; that is, their designation must include reference to a background frame rich with world and cultural knowledge.” In line with this, Goldberg (2006) addresses the use of FS for analyzing verb meaning.

Goldberg (1995; cited in Boas, 2021) argues for the meaning of the construction, refusing the assumption that “the syntax and semantics of the clause is projected exclusively from the specifications of the main verb” (p. 224).

To support such an assumption, Goldberg thinks that constructions have meaning associated with them. Following Goldberg (2006), the meaning associated with the construction can be explained in light of argument roles. Quoting Evans (2007), argument roles are “semantic ‘slots’ associated with sentence-level constructions” such as caused motion construction, the ditransitive construction, and the resultative construction (pp. 6, 220).

To illustrate her aforementioned assumption, Goldberg (1995; cited in Boas, 2021) explains that the sentence “He talked himself blue in the face” has the verb “talk” as transitive. Typically, the verb “talk” is an intransitive one requiring only the frame element (talker), as indicated by the semantic frame information in its FrameNet\_lexical entry. Once it is used in the resultative construction, it becomes transitive, taking the object “himself.” It is by virtue of the semantics or the meaning associated with resultative construction that “talk” becomes transitive. That is, the constructional meaning of the resultative construction is represented by three argument roles (agent, patient, and result goals). When the verb “talk” is used in the resultative construction, the three argument roles of this construction are fused or merged into the semantics of “talk,” granting it the additional argument roles of the patient (“himself”) and the result goal (“blue in the face”). Such examples further support Goldberg’s assumption that the verb meaning and the construction meaning are collaborating and integrating.

On the other hand, Goldberg (2003) points out that “constructions can be combined freely to form actual expressions as long as they are not in conflict” (pp. 221-222). That is, in certain cases constructions may be in conflict and thus cannot combine if they are semantically incompatible. As for this study, the researchers try to account for the interaction and non-interaction (conflict) of MWV constructions when integrating with the passive and non-passive constructions in terms of FrameNet.

III. METHODOLOGY

A. Research Questions

The study tries to answer the following questions:

1. How can CG explain the interaction of multi-word verbs (MWVs) with the chosen constructions?
2. How can FrameNet be used to account for the participation of MWVs in the passive and non-passive constructions?
3. Which semantic frames can be highly associated with the passive construction, and which can be highly associated with the non-passive one?
4. Which frame elements and frame-to-frame relations can be frequently used with the passive construction, and which can be frequently used with a non-passive one?
5. Is it possible to develop FrameNet as far as the treatment of MWVs is concerned?

B. Hypotheses

The following hypotheses can be formulated:

1. CG can account for the participation of MWVs in passive and non-passive constructions.
2. The FrameNet technique can be used to explain the participation of MWVs in passive and non-passive constructions.
3. Certain semantic frames can be highly associated with passive construction, and other semantic frames can be quite related to a non-passive one.
4. Some frame elements and frame-to-frame relations can be frequently used with the passive construction, and others can be frequently used with a non-passive one.
5. FrameNet can be developed in its treatment of MWVs in these constructions.

C. Instruments

The technique used for analyzing the observed data is FrameNet, where the examples are explained in terms of the frames evoked by the MWVs. This technique is exemplified by the MWV “associate with” in the table below. After associating the sense of this MWV (as indicated in the dictionaries) with the suitable semantic frame from FrameNet, it became clear that this verb is evoking the semantic frame of Supporting when participating in the passive construction. Then, the valence pattern of that MWV is provided, where the frame elements FEs (Central or Non-Central), the phrase types (PT), the grammatical functions (GF), and frame-to-frame relation are explained. This same technique is used to account for how the other MWVs in the data interact with the passive construction and how others are interacting with the non-passive one. To this qualitative analysis, a quantitative analysis is conducted to help explain the results obtained.

TABLE 1  
PROCESSING OF THE DATA IN THE PASSIVE CONSTRUCTION

Frame-Evoking MWV from Dictionaries	Frame Definition from FrameNet	Valence Pattern Layering:				Frame-to-Frame Relation from FrameNet
		FE (Central or Non-central)				
		PT				
		GF				
I have not been associated with the project over the last year	<b>Supporting:</b> A <b>Supporter</b> assists to strengthen the <b>Supported</b> by lending itself in material aid (or abstract assistance in the case of metaphorical uses) <b>Time</b> . This FE identifies whether support occurs. <b>Means</b> is an action that the <b>Supporter</b> undertakes in service of the <b>Supported</b> 's strengthening.	<b>Supporter</b>	<b>Supported</b>	<b>Time</b>	<b>Means</b>	Inherits from: Assistance
		C	C	NC	NC	
		NP	PP [with]	PP [over]	CNI	
		Ext	Dep	Dep	--	

D. Data Collection Procedures

The data were taken from English dictionaries specialized in MWVs, focusing on examples where some of these MWV constructions are participating in the passive construction and others are participating in the non-passive construction. The data consisted of 226 examples. Following Cowie (2009), these examples are collected by observation when a detailed examination of the environment where language is being studied (dictionaries in this case) was offered. The chosen dictionaries were the Cambridge International Dictionary of Phrasal Verbs (1997), the Longman Phrasal Verbs Dictionary (2000), the Oxford Phrasal Verbs Dictionary (2002), the Cambridge Phrasal Verbs Dictionary (2006), and the Collins Cobuild Dictionary of Phrasal Verbs (2020). These dictionaries were chosen due to their coverage, being monolingual, and their use for encoding (using a word correctly). The focus is on the examples where some of these MWV constructions are participating, and others are not participating in passive construction. In these observed examples, MWVs are the frame-evoking lexical units.

IV. RESULTS AND DISCUSSIONS

A. Results of FrameNet Analysis

CG is proved successful in accounting for the interaction of MWVs in passive construction due to the distinctions detected in valence patterns when following a FrameNet analysis. This is indicated in the table below.

TABLE 2  
A CONSTRUCTION GRAMMAR ANALYSIS OF MULTI-WORD VERBS IN THE PASSIVE CONSTRUCTION

MWV	Sematic Frame	External Frame Element	Frame to Frame Relation	Total 139	
				Freq.	Freq.
account for	Justifying	State_of_affairs	Uses: Communication	2	1.44
account for	Explaining_the_facts	State_of_affairs	Uses: Evidence	1	0.72
associate with	Condition_symptom_relation	Medical_condition	Uses: Medical_conditions	1	0.72
associate with	Relating_concepts	Concept_1	Inherits from: Cognitive_connection	1	0.72
blanket with	Distributed_position	Location	Inherits from: Locative_relation	2	1.44
blow off	Experience_bodily_harm	Body_part	Inherits from: Event	1	0.72
blow off	Motion	Theme	Inherits from: Event	1	0.72
condemn to	Causation	Affected	Inherits from: Eventive_affecting	1	0.72
condemn to	Judgment_communication	Addressee	Is Inherited by: Bragging	2	1.44
condemn to	Sentencing	Convict	Uses: communication	1	0.72
cut back	Cause_change_of_position on a scale	Item	Inherits from: Transitive action	1	0.72
deck out	Distributed_position	Location	Inherits from: Locative_relation	3	2.16
deck out	Wearing	Wearer	Uses: Accoutrements	3	2.16
dot with	Distributed_position	Location	Inherits from: Locative_relation	3	2.16
encase in	Placing	Theme	Inherits from: Transitive action	2	1.44
endow with	Giving	Recipient	Inherits from: Lose_possession	4	2.88
fire up	Stimulate_emotion	Experiencer	Uses: Emotions	2	1.44
frown on	Making_faces	Internal cause	Uses: Facial_expression	4	2.88
frown on	Making_faces	Internal cause	Uses: Facial_expression	4	2.88
Graft into	Attaching	Items	Inherits from: Intentionally_affect	1	0.72
graft into	Cause_to_be_included	Items	Inherits from: Transitive action	1	0.72
grass over	Distributed_position	Location	Inherits from: Locative_relation	1	0.72
grass over	Planting	Ground	Subframe of: Agriculture	1	0.72
hem in	Inhibit_movement	Theme	Inherits from: Intentionally_affect	3	2.16
hem in	Surrounding	Ground	Uses: Interior_profile_relation	4	2.88
hush up	Silencing	Topic	Inherits from: Intentionally_affect	3	2.16
imbue with	Filling	Goal	Inherits from: Container_focused_placing	3	2.16
invalid out	Firing	Employee	Inherits from: Employment_end,	3	2.16
jam up	Filling	Goal	Inherits from: Container_focused_placing	1	0.72
jam up	Preventing_or_letting	Event	Is Inherited by: Prevent_or_allow_possession	1	0.72
jumble up	Cause_to_amalgamate	Part	Inherits from: Intentionally_affect	4	2.88
key to	Arranging	Theme	Inherits from: Intentionally_affect	2	1.44
kit out	Supply	Recipient	Inherits from:	4	2.88

			Giving		
lace with	Hiding_objects	Hidden_object	Inherits from: Intentionally affect	2	1.44
lace with	Cause_to_be_included	Existing_member	Inherits from: Transitive action	2	1.44
litter with	Filling	Goal	Inherits from: Container focused placing	3	2.16
match against	Competition	Participants	Uses: Intentionally act	3	2.16
mown down	Killing	Victim	Inherits from: Transitive action	5	3.59
name after	Name_conferral	Entity	Inherits from: Intentionally act	1	0.72
nose out	Cause_harm	Victim	Inherits from: Cause benefit or detriment	1	0.72
oppose to	Be_in_agreement_on_assessment	Cognizer_2	Inherits from: Similarity	3	2.16
overlay with	Filling	Goal	Inherits from: Container focused placing	1	0.72
pin in	Inhibit_movement	Theme	Is Used by: Arrest	4	2.88
pepper with	Cause_to_be_included	Existing_member	Inherits from: Transitive action	2	1.44
pepper with	Filling	Goal	Inherits from: Container focused placing	3	2.16
pepper with	Hit_target	Target	Inherits from: Intentionally affect	1	0.72
riddle with	Filling	Goal	Inherits from: Container focused placing	3	2.16
rope off	Inhibit_movement	Theme	Inherits from: Intentionally_ affect	2	1.44
rope off	Separating	Parts	Inherits from: Intentionally_ affect	1	0.72
sandwich with	Capacity	Theme	Inherits from: Gradable_ attributes	3	2.16
swallow by	Ceasing_to_be	Entity	Inherits from: Transition to a state	2	1.44
swallow by	Eclipse	Eclipsed	Uses: Perception experience	2	1.44
swallow by	Expend_resource	Resource	Inherits from: Using	2	1.44
thrust upon	Cause_motion	Theme	Inherits from: Transitive action	3	2.16
tie up	Being_obligated	Responsible_party	Perspective on: Obligation scenario	2	1.44
tie up	Expend_resource	Resource	Inherits from: Using	2	1.44
tie up	Relating_concepts	Concept_1	Inherits from: Cognitive connection	2	1.44
visit on	Objective_influence	Influencing_situation	Inherits from: Event	3	2.16
vote for	Deny_or_grant_permission	Action	Uses: Communication	2	1.44
wall off	Separating	Part_1	Is Inherited by: Fragmentation scenario	3	2.16
weigh down	Worry	Experiencer	Inherits from: Cogitation	3	2.16
weigh down	Cause_motion	Theme	Inherits from: Transitive action	3	2.16

As Table 2 indicates, the semantic frames that are highly evoked by MWVs in passive construction are Filling, with 14 occurrences at a ratio of 10.072 %; Distributed\_position, with nine occurrences and a ratio of 6.475%; Killing, with five occurrences at a ratio of 3.597%; Relating\_concepts, with five occurrences, had a ratio of 3.597%; and Separating, with four occurrences, had a ratio of 2.878%. For example, the MWVs in “The floors *were overlaid with* rugs” and “His poetry *is imbued with* deep religious feeling” are used in the passive construction since they are evoking the semantic frames of Filling. Other MWVs in “In the harbor, the ships *were all decked out* with flags and decorations” and “The garden *had been grassed over*” are participating in the passive construction due to their evocation of the Distributed\_position semantic frame. The less sensitive semantic frames are Causation; Cause\_change\_of\_position\_on\_a\_scale; Cause\_harm; Condition\_symptom\_relation; Hit\_target; Motion; Name\_conferral; Planting; Prevent\_or\_letting; Sentencing; and Supporting—all scoring 1 occurrence with a ratio of 0.719%. For example, only one MWV evoked Causation in “They *were condemned to* a life of hardship”.

Regarding central frame elements, the highly associated frame elements functioning as External in the passive construction are Theme, with 23 occurrences at a ratio of 16.547%; Goal, with 14 occurrences at a ratio of 10.078 %; Location, with 9 occurrences at ratio of 6.475 %; Victim, with 6 occurrences at a ratio of 4.317%; and Concept\_1, Experiencer, and Ground had 5 occurrences each with a ratio of 3.597%. For example, the MWVs in “Each player is paid a salary *keyed to* his position and ability” and “The rebel army *was pinned in* on all sides by government troops” are taking Theme as their External frame element in passive construction. The less associated ones include frame elements such as Affected, Body\_Part, Convict, Event, Medical Condition, Parts, and Standard\_item—all had one occurrence each for five occurrences with a ratio of 0.719%. For example, only one MWV in “They *were condemned to* a life of hardship” takes Affected as External.

As for frame-to-frame relations, the most realized relation among frames in passive construction is that of Inherits From\_ relation with 95 occurrences at a ratio of 68.345. To illustrate, this relation joins the frame of Intentionally\_ affect to other frames such as Arranging, Cause\_ to\_ Amalgamate, Firing, Hiding Objects, Inhibit\_ movement, Separating, and Silencing. For example, in the Arranging frame there is “Each player is paid a salary *keyed to* his position and ability,” in the Cause\_ to\_ amalgamate frame there is “His clothes *were all jumbled up* in the suitcase,” in the Firing frame there is “He *was invalidated out* of the army because of his injuries,” and in the Hiding frame there is “They gave him a glass of orange juice *laced with* vodka,” all of which inherit from the Intentionally\_ affect frame. The less frame-to-frame relation is that of Uses with 25 occurrences and a ratio of 17.985, where this relation joins Communication to other semantic frames such as Deny\_ or\_ grant\_ permission, Justifying, and Sentencing. For example, in the Deny\_ or\_ grant\_ permission frame, there is “The new measures *were voted through*, but only by a small margin”; in the Justifying frame, there is “This equipment *is not accounted for* in existing defense budgets”; and in the Sentencing frame, there is “If found guilty, he *would be condemned to* death,” all of which use the Communication frame. The lesser realized relation is that of Perspective\_ on with two occurrences and a ratio of 1.439, joining Being\_ obligated to Obligation\_ scenario. That is, the Being\_ obligated frame perspectivizes on the Obligation\_ scenario frame.

Most of the MWVs explained are not covered in this technique. That is, 42 MWVs out of the 64 verbs studied in the passive with a ratio of 65.625 % are not listed in FrameNet, neither as lexical units in the Lexical Units Index nor as frame-evoking units in the Frame Index. For example, the MWV “encase in” is neither listed in the index of the lexical units nor in the frame index as evoking Placing.

Similarly, CG is also proved helpful in accounting for the interaction of MWVs in the non-passive construction due to the distinctions observed when following a FrameNet analysis. This is indicated in the table below.

TABLE 3  
A CONSTRUCTION GRAMMAR ANALYSIS OF MULTI-WORD VERBS IN THE NON-PASSIVE CONSTRUCTION

MWV	Sematic Frame	External Frame Element	Frame to Frame Relation	Total 87	
				Freq.	%
answer for	Communication_ response	Speaker	Inherits from: Communication	2	2.39
border on	Similarity	Entity_1	Inherits from: Gradable_ attributes	2	2.39
bite back	Response	Agent	Inherits from: Eventive_ affecting	1	1.15
bite back	Self_ control	Agent	Inherits from: Preventing_ or_ letting	1	1.15
brush up	Cause_ to_ make_ progress	Agent	Inherits from: Intentionally_ affect	1	1.15
carry through	Assistance	Helper	Inherits from: Intentionally_ act	3	3.45
come across	Becoming_ aware	Cognizer	Inherits from: Perception	3	3.45
depend on	Objective_ influence	Influencing_ situation	Inherits from: Event	1	1.15
depend on	Reliance	Protagonist	Uses: Contingency	3	3.45
drink up	Ingestion	Ingestor	Inherits from: Ingest_ substance	3	3.45
fit in	Suitability	Evaluee	Inherits from: Gradable_ attributes	2	2.39
fit in	Evaluative_ comparison	Profiled_ item	Inherits from: Position_ on_ a_ scale	2	2.39
force back	Self_ control	Agent	Inherits from: Preventing_ or_ letting	3	3.45
get across	Successfully_ communicate_ message	Communicator	Uses: Communication	3	3.45
gnaw at	Stimulate_ emotion	Stimulus	Uses:	2	2.39

			Emotions		
have on	Scheduling	Agent	Is Inherited by: Reserving	2	2.39
hold on	Holding_off_on	Agent	Uses: Change_event_time	2	2.39
jack in	Activity_stop	Agent	Inherits from: Process_stop	2	2.39
join in	Participation	Participant_1	Uses: Event	2	2.39
keep down	Cause_to_continue	Agent	Inherits from: Transitive_action	1	1.15
keep down	Preventing_or_Letting	Potential_hindrance	Is Inherited by: Prevent_or_allow_possession	3	3.45
keep down	Protecting	Protection	Uses: Run_risk	1	1.15
knock down	Expensiveness	Goods	Uses: Abounding_with	2	2.39
lead to	Causation	Cause	Inherits from: Eventive_affecting	3	3.45
live down	Remembering_Experience	Cognizer	Uses: Cogitation	3	3.45
make down	Cotheme	Theme	Inherits from: Self_motion	3	3.45
move into	Undergo_change	Entity	Inherits from: Transition_to_a_state	2	2.39
plump into	Undergo_change	Entity	Inherits from: Transition_to_a_state	1	1.15
plump into	Choosing	Cognizer	Inherits from: Deciding	2	2.39
put on	Intentional_Deception	Deceiver	Inherits from: Deception_end	3	3.45
reckon on	Awareness	Cognizer	Inherits from: Mental_activity	2	2.39
run down	Judgment_communication Communicator	Communicator	Inherited by: Bragging	2	2.39
run down	Locating	Perceiver	Uses: Seeking	2	2.39
set back	Expensiveness	Intended_event	Uses: Abounding_with	2	2.39
sit out	Activity_stop	Agent	Inherits from: Process_stop	1	1.15
sit out	Holding_off_on	Agent	Uses: Change_event_time	5	5.747
take up	Activity_start	Agent	Inherits from: Process_start	2	2.39
tide over	Assistance	Helper	Inherits from: Intentionally_act	2	2.39
verge on	Evaluative_Comparison	Profiled_item	Inherits from: Position_on_a_scale	1	1.15
walk off	Getting	Recipient	Inherits from: Event	3	3.45
work out	Grasp	Cognizer	Inherits from: Awareness	2	2.39

As Table 3 shows, the semantic frames highly associated with non-passive construction include Holding\_off\_on with 7 occurrences and a ratio of 8.046; Assistance with 5 occurrences and a ratio of 5.747; and Self\_control with 4 occurrences and a ratio of 4.598. For example, the MWVs in “Anyone *holds off* buying if they think prices are going to fall” and “He planned to just *sit out* the war without getting involved” are participating in non-passive construction because of evoking the Holding\_off\_on frame. Other MWVs in “The support of his family *had carried* him *through* those difficult times” and “Determination alone *will carry* you *through* the bad times” are evoking Assistance and thus, interacting with non-passive construction. The lesser associated ones are frames such as Cause\_to\_continue, Cause\_to\_make\_progress, and Objective\_influence, with each having just 1 occurrence and a ratio of 1.149%. This is indicated in “She *kept* her eyes *down* while he was talking,” where the only MWV evoking the Cause\_to\_continue frame is used in the non-passive.

Regarding central frame elements as External, the highly related central frame elements to the non-passive construction are Agent with 21 occurrences with a ratio of 24.138, Cognizer with 12 occurrences with a ratio of

13.793%, and Helper with 5 occurrences and a ratio of 5.747. For example, the MWVs in “Houllier refused to *bite back* at criticism from the press” and “I need to *brush up* my computer skills” have the Agent frame element as their External when participating in the non-passive. The lesser frame elements associated with this construction include Protection which has only 1 occurrence. For example, only one MWV is found in “They *kept* their heads *down*,” which has Protection as its External.

As for frame-to-frame relations in the non-passive, the most frequently used frame-to-frame relations are Inherits From with 54 occurrences and a ratio of 62.069. For example, the frames of Cotheme in “They *made after* him in the car” and Evaluative\_comparison in “Sonny’s behavior did not *fit in* with what I knew of him” respectively inherit from Self-motion and Position\_on\_Scale. Other frames, such as Expensiveness in “The legal cost of the case *set* him *back* around £200”; Participation, as in “Politely, he *joined in* the laughter”; and Reliance, as in “Our lives and those of all other animals *depend on* oxygen,” respectively inherit from the frames of Abounding, Event, and Contingency. The less realized relation is that of Uses with 27 occurrences and a ratio of 31.034%, where the frames of Expensiveness, Participation, and Reliance, respectively, use the frames of Abounding, Event, Contingency, and Emotions.

As for the MWVs covered, 29 out of the 40 verbs in the study, with a ratio of 72.5%, are neither in the FrameNet as lexical units in the Lexical Unit Index nor in the Frame Index. For example, the MWV “border on” is neither listed in the index of the lexical units nor in the frame index as evoking Similarity.

### B. Discussions

The study examines how CG can be used to analyse MWVs in the chosen constructions, making use of FrameNet. The FrameNet technique offers layering of such verbs when evoking semantic frames. Moreover, this layering is done in terms of FrameNet, where semantic frames, frame elements, phrase types, and grammatical functions are shown. Such layering makes a clear distinction of the valence patterns among these MWVs when interacting with the passive and non-passive constructions. Certain semantic frames, such as those of Filling, Distributed\_position, and Killing, are most frequently used with passive construction. Alternatively, the less frequently used frames with this construction include Causation, Cause\_change\_of\_position\_on\_a\_Scale, Cause\_harm, Condition\_symptom\_relation, Hit\_target, Motion, Name\_conferral, Planting, Prevent\_or\_letting, and Sentencing. As for the frames that are highly associated with non-passive construction, these include Holding\_off\_on, Assistance, and Self-control. The lesser ones are Cause\_to\_continue, Cause\_to\_make\_progress, Objective\_influence, Protecting, Rejuvenation, and Response.

Regarding central frame elements as External, the most frequently used ones in the passive are Theme, Goal, and Location. The less frequently used ones are Affected, Body\_part, Convict, Event, Medical\_condition, Parts, and Standard\_item. As for the non-passive construction, the most frequently used frame elements include Agent, Cognizer, and Helper. The lesser-used frame element is Protection.

As for the frame-to-frame relations in the passive and non-passive constructions, the most frequently used frame-to-frame relation is that of Inherit From. That is, in passive construction, child frames such as Arranging, Cause\_to\_amalgamate, Firing, Hiding\_objects, and Inhibit\_movement inherit from the father frame Intentionally\_affect. Other child frames, such as Cause\_change\_of\_position\_on\_a\_scale, Cause\_motion, Cause\_to\_be\_included, and Killing, inherit from the father frame of Transitive\_action. The less realized frame-to-frame relation in the passive is that of Uses. For example, the semantic frames of Deny or Grant Permission, Justifying, and Sentencing use Communication. The lesser realized one is that of Perspective\_on, where the Being\_obligated frame perspectivizes on the Obligation\_scenario. Regarding the non-passive construction, the highly used relation is Inherit From, where the frames of Cotheme, Evaluative Comparison, Getting, and Grasp respectively inherit from Self-motion, Position\_on\_scale, Event, and Awareness. The less realized relation is that of Uses, where the frames of Expensiveness, Participation, Reliance, and Stimulate Emotion respectively use the frames of Abounding, Event, Contingency, and Emotions.

Many MWVs of this study, such as “carry through,” “drink up,” “fire up,” “force back,” “graft into,” “hem in,” “imbue with,” “jam up,” “kit out,” and “lace with,” are not listed in FrameNet. This is because it analyses many lexical items from the Concise Oxford Dictionary, among which are MWVs in differing constructions. Other verbs, such as “associate with,” “answer for,” “deck out,” “drink up,” “jam up,” and “jumble up,” have only the first part of the MWV, the verbal element, listed as lexical units evoking certain frames in the Frame Index with no examples and valence patterns.

## V. CONCLUSION

### A. Findings

Based on the results of the CG analysis of the observed MWVs, the following conclusions were obtained. First, analyzing MWVs in the constructions chosen as form-meaning pairings provides a useful explanation for their syntactic behaviour (participation in the passive and non-passive constructions) and semantic behaviour in terms of FrameNet layering of semantic frames evoked, frame elements, phrase types, and grammatical functions. Following the idea that semantic frames reflect human experience with the world, it can be justified why MWVs evoking certain semantic frames are most frequently used with passive construction and others are not. One of the circumstances of using the passive construction in English is to focus more on or give more weight to the result of activities such as Filling, Distributed\_position, and Killing, rather than the doer (Theme, Goal, and Location) of these activities. Alternatively,

the less frequently used frames with this construction are related to such activities as Causation, Cause\_harm, and Condition\_symptom\_relation, and thus, such frames prefer the doer (Affected, Victim, Medical\_condition) to be expressed in the subject function. As for the frames that are highly associated with non-passive construction. It can be argued that the activities of Holding\_off, Assistance, and Self-control prefer their doer (Agent, Cognizer, and Helper) to be fully expressed as subjects in the non-passive construction. This is because these External frame elements are required to successfully evoke these frames. Moreover, the frame-to-frame relation Inherits From is extensively associated with MWVs participating in the passive and non-passive constructions. That is, through this relation, the semantics (represented by FEs) of the father frame is absorbed by the semantics of the child frames, allowing MWVs in these frames to participate in the chosen constructions. Finally, the majority of MWVs accounted for in the study with their participation in the constructions chosen are not covered in FrameNet. In this way, the study can hopefully develop this technique by including new lexical units.

### B. Implications

The findings of this research have some implications for English grammar, especially in the area of MWVs, where considering these verbs as form-meaning pairings can offer keys for their syntactic behaviour in other constructions on different levels of grammar. Knowing what frames can be highly evoked by some MWVs when participating in a certain construction can highlight specific features of these verbs and that construction in terms of the associated frame elements and frame-to-frame relations holding the frame in question to other frames. Eventually, these specific features can offer a better understanding of the construction in question, whether it belongs to the syntax or morphology of English. Moreover, this research has another impact on lexicography, where grammatical patterns given in dictionaries can be further explained by following a frame-based semantic analysis on lexical units such as MWVs in given constructions. That is, the lexical entry of a lexical unit such as MWV can be further developed by adding the frame evoked by that item when participating in a certain grammatical pattern. In this way, the lexical knowledge will be enhanced and more practical as far as the grammar constructions are concerned.

### C. Recommendations for Future Research

MWVs participating in further grammatical patterns can be explained as constructions resulting from form-meaning pairings and given a frame-based analysis. These include MWVs participating in transitivity, reflexivity, progressiveness, and taking gerundives. This is regarding the syntactic level. As for the morphological one, MWVs can participate in derivation, where some adjectives and nouns can be derived from them, and in conversion, where MWVs can be converted into some adjectives and nouns. In this way, further grammatical patterns given in the lexical entry of these verbs in dictionaries specified for MWVs will receive a CG reading based on FrameNet analysis.

## REFERENCES

- [1] Aarts, B., Chalker, S. & Weiner, E. (2014). *The Oxford Dictionary of English Grammar* (2nd ed.). Retrieved February 18, 2025, from <http://library.lol/main/41F281098BBA0DBA63098367555ED568>
- [2] Boas, H.C. (2021). Construction grammar and frame semantics. In X. Wen & J. R. Taylor (Eds.), *The Routledge Handbook of Cognitive Linguistics* (pp. 43-77). Retrieved August 5, 2023 from <https://www.taylorfrancis.com/chapters/edit/10.4324/9781351034708-5/construction-grammar-frame-semantics-hans-boas>
- [3] Cowie, N. (2009). Observation. In J. Heigham & R. A. Croker (eds), *Qualitative Research in Applied Linguistics a Practical Introduction*. (pp. 165-181). Retrieved February 19, 2025, from <https://www.booksfree.org/wp-content/uploads/2022/03/qualitative-research-in-applied-linguistics-a-practical-introduction.pdf>
- [4] Evans, V. and Green. M. (2006). *Cognitive Linguistics an Introduction*. Retrieved January 1, 2024 from [https://www.academia.edu/12585234/Cognitive\\_Linguistics\\_An\\_Introduction\\_Vyvan\\_Evans\\_Melanie\\_Green\\_2006](https://www.academia.edu/12585234/Cognitive_Linguistics_An_Introduction_Vyvan_Evans_Melanie_Green_2006)
- [5] Evans, V. (2007). *A Glossary of Cognitive Linguistics*. Retrieved August 5, 2023 from <https://dokumen.pub/a-glossary-of-cognitive-linguistics-9780748622795-9780748622801.html>
- [6] Fillmore, C.J. & Baker, C. (2010). A frames approach to semantic analysis. In, B. Heine, H. Narrog (Eds.), *The Oxford Handbook of Linguistic Analysis* (pp. 313-340). Retrieved December 30, 2023 from <https://doi.org/10.1093/oxfordhb/9780199544004.001.0001>
- [7] Gawron, J-M. (2011). Frame Semantics. In C. Maienborn K. Heusinger & P. Portner (Eds.), *Semantics International Handbook of Natural Language Meaning* (Vol.1, pp. 664-687). Retrieved April 23, 2021 from <https://dokumen.pub/semantics-an-international-handbook-of-natural-language-meaning-volume-1-1nbsped-3110184702-9783110184709.html>
- [8] Goldberg, A. E. (1995). *Constructions: A Construction Grammar Approach to Argument Structure*. Chicago: The University of Chicago Press. Retrieved January 4, 2024 from <https://www.scribd.com/document/451160530/Constructions-Goldberg-A-1995-pdf>
- [9] Goldberg, A. E. (2003). Constructions: a new theoretical approach to language. *Trends in Cognitive Linguistics*, 7, 219-224. doi:10.1016/S1364-6613(03)00080-9
- [10] Goldberg, A. E. (2006). The inherent semantics of argument structure: The case of the English ditransitive construction. In D. Geeraets (Ed.) *Cognitive Linguistics: Basic Readings*. (pp. 401-437). Retrieved January 1, 2024 from <https://arkitekturadellenguaje.files.wordpress.com/2013/11/cognitive-linguistics-basics-readings-dirk-geeraets.pdf>
- [11] Granger, S. & Meunier, F. (2008). Introduction the many faces of phraseology. In, S. Granger & F. Meunier (Eds.), *Phraseology An interdisciplinary perspective* (pp. xix-xxviii). Retrieved February 23, 2025 from

- [https://www.academia.edu/47249751/Sylviane\\_Granger\\_and\\_Fanny\\_Meunier\\_eds\\_2008\\_Phraseology\\_An\\_Interdisciplinary\\_Perspective\\_Amsterdam\\_Philadelphia\\_John\\_Benjamins](https://www.academia.edu/47249751/Sylviane_Granger_and_Fanny_Meunier_eds_2008_Phraseology_An_Interdisciplinary_Perspective_Amsterdam_Philadelphia_John_Benjamins)
- [12] Gries, S. Th. (2008). Phraseology and linguistic theory a brief survey. In, S. Granger & F. Meunier (Eds.), *Phraseology An interdisciplinary perspective* (pp. 3-25). Retrieved February 23, 2025 from [https://www.academia.edu/47249751/Sylviane\\_Granger\\_and\\_Fanny\\_Meunier\\_eds\\_2008\\_Phraseology\\_An\\_Interdisciplinary\\_Perspective\\_Amsterdam\\_Philadelphia\\_John\\_Benjamins](https://www.academia.edu/47249751/Sylviane_Granger_and_Fanny_Meunier_eds_2008_Phraseology_An_Interdisciplinary_Perspective_Amsterdam_Philadelphia_John_Benjamins)
- [13] Hoffmann, T. & G. Trousdale. (2013). Construction grammars: introduction. In T. Hoffmann and G. Trousdale (Eds.), *The Oxford Handbook of Construction Grammar* (pp. 1-12). Retrieved August 6, 2022 from <https://doi.org/10.1093/oxfordhb/9780195396683.001.0001>
- [14] Ruppenhofer, J, Ellsworth, M., Petruck, M.R.L., Johnson, C.F., Baker, C.F. and Scheffczyk, J. (2016). *FrameNet II: Extended Theory and Practice*. Retrieved August 8, 2024 from [https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://akb89.github.io/myValencer/framenet\\_book.pdf&ved=2ahUKEwj4s6PD6d2LaxX9A9sEHQ7ZIw8QFnoECBMQAQ&usq=AOvVaw2UrtzGZQK1s9779YWPJQIV](https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://akb89.github.io/myValencer/framenet_book.pdf&ved=2ahUKEwj4s6PD6d2LaxX9A9sEHQ7ZIw8QFnoECBMQAQ&usq=AOvVaw2UrtzGZQK1s9779YWPJQIV)
- [15] Schmid, H.-J. & Ungerer, F. (2011). Cognitive linguistics. In Simpson, J. (Ed.), *The Routledge Handbook of Applied Linguistics* (611-624). Retrieved February 19, 2025 from <https://ibook.pub/qualitative-research-in-applied-linguistics-a-practical-introduction.html>
- [16] Taylor, J.R. (2016). Cognitive linguistics. In K. Allan, *The Routledge Handbook of Linguistics* (pp. 455-469). Routledge.
- [17] Thim, S. (2012). *Phrasal Verbs the English Verb-Particle Construction and Its History*. De Gruyter Mouton. Retrieved February 19, 2015 from <https://dokumen.pub/phrasal-verbs-the-english-verb-particle-construction-and-its-history-9783110257038-9783110257021.html>
- [18] Torres- Martinez, S. (2015). A constructionist approach to the teaching of phrasal verbs. *English Today*, 123(31), 46-58. doi:10.1017/S0266078415000255
- [19] Tsaroucha, E. (2020). Figuration, constructions and English phrasal verbs: the instances of come up. *Explorations in English Language and Linguistics*, 7(2), 94-111. DOI: 10.2478/exell-2020-0008

**Taiseer Flaiyih Hesan** was born in Iraq and currently lives in Shatrah, Iraq. She earned her bachelor's degree in English language from Baghdad University in Iraq in 2003. She also received her master's degree in English language and linguistics from Baghdad University in 2006. Today, Taiseer works as an instructor in the Department of English in the College of Education for Human Sciences at the University of Thi-Qar. She is also currently a Ph.D. candidate at the University of Babylon, Iraq, in English language and linguistics. She teaches B.A. and M.A. students. Her research interests are in grammar, applied linguistics, general linguistics, contrastive analysis, and semantic analysis. Additionally, Prof. Hesan has participated in and presented several workshops and seminars. She has published 10 academic papers in local and international journals.



**Riyadh Tariq Kadhim Al-Ameedi** was born in Babylon/ Iraq (1962); currently lives in Babylon/Hilla city. He got his Bachelor Degree in English Language and Linguistics from University of Baghdad/College of Education Ibn Rushd / Iraq (1984). He got his Master Degree in English Language and Linguistics from University of Baghdad/ College of Education Ibn Rushd / Iraq (1989). He got his Doctoral degree from Al-Mustansiriya University/ College of Arts/ Iraq (1997). He currently works at University of Al-Ameed/College of Basic Education for Women/Department of English/ Iraq. He teaches B.A., M.A. and Ph.D. students. He has supervised 67 M.A. and Ph.D. theses and dissertations in Iraq. He has examined more than 260 M. A. and Ph. D. theses. His research interest is in grammar, applied linguistics, stylistics, general linguistics, pragmatic analysis, and translation.

Prof. Al-Ameedi participated in more than 60 international as well as local conferences; and presented several workshops and seminars. He published over 66 academic papers in local and international journals and 8 books.