# A semantic analysis of cut and break verbs in Sorani Kurdish 

## By

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Submitted to the graduate degree program in the department of linguistics and the Graduate Faculty of the University of Kansas in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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# A semantic analysis of 'cut' and 'break' verbs in Sorani <br> Kurdish 

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Date approved: Nov/07/2012


#### Abstract

Guerssel et al. (1985) proposed Lexical Conceptual Structures (LCSs) which incorporate a universal set of semantic components to predict the syntactic behavior of cut and break verbs. They state that a CAUSE component occurs in the LCS of break verbs and enables these verbs to appear in the inchoative construction. They state that a PRODUCE component occurs in the LCS of cut verbs and enables these verbs to appear in the conative construction. This study explores the semantic components and the syntactic alternations of a group of cut and break verbs in Sorani Kurdish. My dissertation provides a new database for Sorani Kurdish derived from my intuition as a native speaker of Sorani, on line Sorani newspapers, and six other native Sorani speakers.

Kurdish does not have a conative construction so the study focused on whether Sorani cut and break verbs can appear in the inchoative construction. I observed the syntactic behavior of Sorani cut and break verbs in concrete and metaphorical contexts, and found that some verbs have different syntactic behaviors when the object or the context changes.

I compared the semantic extensions of cut and break verbs in Sorani and English in concrete and metaphorical contexts. The results show that there is significant overlap between Sorani and English in the concrete and metaphorical objects that are used and not used with each verb. I investigated the LCS components of cut and break verbs semantically by providing four different semantic tests, three for durativity and one for intentionality. These tests provide semantic evidence for the CAUSE and PRODUCE components in the LCS of the verbs. The results show that the semantic features of the verb change depending on the features of the objects and whether they are in metaphorical or concrete contexts. Some Sorani verbs demonstrate different semantic components from English verbs in their meaning as they are used in different contexts with different objects.

I compared the syntactic and semantic features of Sorani verb to determine the degree to which their syntactic properties correlate with their semantic features. The results show a strong correlation between the syntactic and semantic features of some verbs in concrete and metaphorical contexts. Some verbs have different syntactic and semantic features in concrete and metaphorical contexts.

My study shows that verbs in different languages do not have the same syntactic behavior even when they are semantically similar. Semantic equivalents differ in the types of objects that undergo the actions in both concrete and metaphorical contexts. Semantic tests of durativity and intentionality are not perfectly correlated with the syntactic behavior of all verbs.


## Acknowledgments

First and foremost, I offer my sincerest gratitude to my supervisor, Dr. Clifton L. Pye, who has supported me throughout my Dissertation with his patience and knowledge while also allowing me the room to work in my own way. I attribute the level of my dissertation to his encouragement and effort. Without him this dissertation, too, would not have been completed or written. One simply could not wish for a better or friendlier supervisor.

My thanks and appreciations also go to the members of my disserration committee, Dr. Rosen, Sara Thomas, Dr. Dwyer, Arienne M., Dr. Markham, Paul, and Dr. Utako Minai who have generously given their time and expertise to better my work. I thank them for their contribution and their good-natured support.

I am grateful to the faculty and staff in the Linguistics department who have provided much support and encouragement during the writing process.

Words cannot express my gratitude to my husband Fahmi Ahmed supported, encouraged, and helped me throughout the whole dissertation. I feel I am very lucky to have him beside me in all the stages of my writing. My thanks go to my parents, brothers and sisters who supported me and they were always there to listen to me when I needed them. I also thank my kids Muhammad, Saya, and Sarah for being good kids and behaving well to help me to concentrate on my writing.

I would like to show my deep gratitude to my mom, dad, sisters and brothers who supported me and pray for me to succeed in my work.

In my daily work I have been blessed with a friendly and cheerful group of fellow students who helped and encouraged me a lot. I must also acknowledge the many friends, colleagues, students, teachers, archivists, and other librarians who assisted, advised, and supported my research and writing efforts over the years.

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ABS
AdjP
AdvP
Cause
DAT
DECL
DEF
emph
ERG
IMP
Imperf
Indef
Neg
NOM
NP
Past
Perf
Pl
Poss
PP
pre
Prep
Sub

First person singular Second person singular
Third person singular
absolutive
Adjective phrase
Adverb phrase
Causative marker
dative case
declarative
definite
emphasis
eragative case
imperative aspect
imperfect
indefinite article
Negative marker
nominative case
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perfect
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## Chapter one: An overview

### 1.1 The Research Questions

Guerssel et al. (1985) proposed a connection between the lexical representation of verbs and their syntactic behavior. Their study analyzed 'cut' and 'break' verbs in English, Berber, Warlpiri and Winnebago. The authors found that the 'break' verbs in these languages could appear in causative, inchoative constructions, whereas the 'cut' verbs could only appear in intransitive sentences in middle, passive or conative constructions. Guerssel et al. linked the verbs 'syntactic behavior with their semantic representation. They proposed a lexical conceptual structure (LCS) for the 'break' verbs, which contains the semantic component CAUSE, while their LCS for the 'cut' verbs contains the semantic component PRODUCE.

My project explores the syntactic and semantic behavior of 'cut' and' break' verbs in Sorani Kurdish with the goal of testing the link between the verbs' syntactic and semantic properties, and comparing the results to the properties of 'cut' and 'break' verbs in English. 'Cut' and 'break' verbs in Sorani are not equivalent to 'cut' and 'break' verbs in English on either the syntactic or semantic levels. Such differences make testing links between the syntactic and semantic behavior of verbs across languages extremely problematic. It is possible to claim that a 'cut' verb in Sorani Kurdish that has syntactic properties that differ from the verb 'cut' in English may also differ semantically from the 'cut' verb in English. In order to establish a universal link between the semantic and syntactic properties of verbs it is necessary to control the semantic range of verbs that are tied to particular semantic representations. Otherwise 'slash' or 'chop' verbs in one language may be equated to 'cut' verbs in English.

One difficulty in making cross-linguistic comparisons is that speakers of different languages use different verbs in similar contexts. For example, an English speaker would use the
verb 'break' to state that 'some burglars broke into a house and robbed it.' The verb 'break' can express either a physical 'breaking' when the burglars 'break' a door or a window to enter the house, or it can refer to a metaphorical 'breaking' if the burglars enter the house without actually 'breaking' anything. In the case of metaphorical breaking, the burglars 'break' the rules that prevent them from entering another's property. A Sorani speaker would use the verb bre 'cut' to express the same event. A Sorani speaker would say that the burglars 'cut' the house by either physically 'cutting' the chain that locks the door or metaphorically cutting the edge that separates the public property from the personal property. In my dissertation, I compare the range of objects used with 'cut' and 'break' verbs in Sorani Kurdish and English in order to ascertain the degree of overlap between the use of verbs in these two languages.

The preceding example examined the use of the verbs in concrete and metaphorical contexts. Guerssel et al. did not analyze the syntactic features of 'cut' and 'break' verbs in metaphorical contexts. The English verb 'break' can be used in inchoative constructions with concrete objects such as sticks or stones, but not with metaphorical objects such as promises or fasts, e.g. "*their fasting broke." The metaphorical uses of verbs provide further evidence for verb semantics and help to establish the degree of semantic equivalence between verbs in different languages. The verb shka 'break' in Kurdish does not refer only to physical breaking, ${ }^{1}$ e.g. the 'breaking' of a glass or door, but also to a metaphorical ${ }^{2}$ action of 'breaking.' The same is true regarding the verb bre 'cut' because one might 'cut' a piece of meat or 'cut' a conversation in Sorani. Metaphorical extensions create the problem of accounting for how the

[^0]determinants of a physical action extend to metaphorical actions. There must be some semantic components that are shared by physical and metaphorical uses of verbs since speakers use the same verb for both actions.

I compared my native speaker intuitions about the syntactic and semantic properties of Sorani verbs with examples of verb use gathered from a collection of online Kurdish newspapers and magazines. The sources illustrate the verbs' use in inchoative, causative, middle and passive constructions. These sources confirmed my intuitions about the range of uses for the verbs, and provided many metaphorical uses that I did not recall by myself. The example in (1) shows a metaphorical use of the shka 'break' from one of these sources.
(1) Dasalati ba-sar da- shke- 0 authority on-head imperf- break-ABS3 "It has authority over ..."
(Kurdistany New/http://www.knwe.org/Direje.aspx?Jimare=2900\&Cor=2\&Besh=Witar)

Sorani verbs do not have the same syntactic properties as English verbs. While Sorani verbs have distinct inchoative, causative, middle and passive forms, Sorani does not have a conative construction such as 'I cut at the melon.' In a similar situation, a Sorani speaker would say 'I tried to cut the melon.' While the English verb 'break' cannot be used in the conative construction, it can appear in a subordinate clause with 'try,' e.g. 'I tried to break the stick.' While it is possible to use the inchoative and conative constructions to test the syntactic properties of verbs in English, it is only possible to use the inchoative construction in Sorani Kurdish.

Sorani Kurdish has three distinct morphological verb classes. Simple Sorani verbs, such as bre 'cut' and shka 'break' are monomorphemic. Complex verbs, such as bchre 'cut by force' and halbre 'cut down' have an affix attached to a simple verb. Many of the affixes refer to a direction, but the use of the resulting verb cannot be predicted from a simple semantic combination of the verb and its affix. Sorani has also Compound verbs, such as wurdkirdin 'make small' are formed from a compound of a light verb, such as kird 'do' and a noun or adjective. In my dissertation, I explore the degree to which the syntactic and semantic properties of the simple verbs predict the properties of the complex and compound verbs.

Guerssel et al. proposed distinct semantic representations for 'cut' and 'break' verbs. Their LCS for the verb 'break' contains the semantic component CAUSE, while their LCS for the verb 'cut' contains the semantic component PRODUCE. Guerssel et al. did not propose independent semantic tests for these semantic features; they relied solely on the syntactic properties of the verbs to justify their semantic representations. I developed independent semantic tests to justify the semantic representations for the Sorani verbs. I use tests of durativity and intentionality to support my semantic analysis. I used the results from the semantic tests to confirm the predictions that I obtained from analyzing the syntactic behavior of the verbs.

In sum, the dissertation provides a multi-dimensional analysis of proposals like Guerssel et al. that attempt to relate the syntactic behavior of verbs to their semantic representations. Specifically, the dissertation will address the following research questions:

1. What is the correspondence between the concrete objects used with 'cut' and 'break' verbs in Sorani and English?
2. What is the correspondence between the metaphorical objects used with 'cut' and 'break' verbs in Sorani and English?
3. What are the syntactic properties of Sorani verbs in concrete and metaphorical contexts?
4. What are the durative features of Sorani verbs in concrete and metaphorical contexts?
5. What are the intentional features of Sorani verbs in concrete and metaphorical contexts?
6. Do the properties of simple verbs predict the properties of complex and compound verbs in Sorani?
7. Does the correspondence between the syntactic and semantic properties of the Sorani verbs support the Guerssel et al. proposal?

### 1.2 The Guerssel et al. Model

Guerssel et al. (1985) create lexical entries to represent the meanings of the verbs 'cut' and 'break.' They assumed that the syntactic behavior of verbs could be explained by reference to their meaning based on the structure of the semantic representation. Guerssel et al. examined those aspects of meaning which contribute to verb participation in four syntactic alternations. The causative-inchoative alternation is a lexical alternation that characterizes pairs of verbs in which the intransitive member of the pair, the inchoative verb, denotes a change of state, and the transitive member of the pair, the causative, denotes a bringing about of this change of state Pinon (2001). The conative is an alternation in which the object in the transitive form is demoted to a prepositional phrase headed by at in the intransitive form. The conative alternation converts a change in state action to an attempted action, for example 'Sally swatted the fly' has the conative 'Sally swatted at the fly.' The middle alternation is an alternation in which the verb needs an adverb to convey a generic meaning, e.g., 'Flies swat easily.' The authors contrast the middle alternation with the passive alternation which does not require an adverb.

Guerssel et al. examined these syntactic alternations in four languages: Berber, English, Warlpiri, and Winnebago. They claim that in all of these languages differences in the syntactic alternations which verbs undergo can be connected to the semantic relation that an "agent" has with the predicate in the lexical representation of verbs. Guerssel et al. examined the behavior of 'break' verbs as a representative of change-of-state verbs and 'cut' verbs as a representative of motion-contact-effect verbs. They tested the verb 'break' in the causative/inchoative and middle alternations respectively, ${ }^{3}$ as shown in (2). The verb 'break' does not undergo the conative alternation as shown in (3). The verb 'cut' undergoes the middle and conative alternations, but not the inchoative alternation.
(2) a. Janet broke the cup
b. The cup broke.
c. Fine china breaks at the slightest touch, but Corelle doesn't even break with a hammer
(3) *Janet broke at the bread
(4) a. The meat cut easily
b. Margret cut at the bread
c. *the bread cut

The middle alternation can be found with both the verbs 'cut' and 'break.' There are some languages that allow these alternations without adding special morphology such as Berber, but other languages add verb affixes to express the different alternations that the verbs undergo such as Warlpiri and Winnebago.

Guerssel et al. (1985) propose that the syntactic behavior of verbs, within a language can be explained by reference to their semantic representation. The writers argue that "the distinctive

[^1]syntactic properties characterizing each class arise from its lexical properties" (Guerssel et al., 1985:49). They claim that differences in transitivity alternations in these languages are attributed to the way the semantic representation of "agent" appears in the lexical representation of the verbs. They state that the agent of 'break' verbs CAUSES the action while the agent of 'cut' verbs PRODUCES the action. Guerssel et al. did not provide a definition for either the predicate CAUSE or PRODUCE.

Guerssel et al. developed lexical entries for the verbs by providing detailed representations of the semantic and syntactic structures of the verbs. They used lexical conceptual structure (LCS) ${ }^{4}$ to represent the semantic information about the argument roles associated with the meaning of the verbs. They used lexical structure (LS) to represent the syntactic structure of the verbs, and provided rules for linking the LCS and the LS, and refer to the result as the Predicate Argument Structure (PAS).

Guerssel et al. used the syntactic alternations to argue for differences in the LCS of 'cut' and 'break' verbs. They did not introduce independent semantic evidence to support their LCS analysis of verbs. They used the predicate CAUSE in the LCS of the verb 'break' and the predicate PRODUCE in the LCS of the verb 'cut,' but they did not mention any reason for this difference. I discuss the implication of this distinction in chapter 2. Later studies follow the same approach and do not provide independent semantic tests to support claims about LCS. The lack of independent semantic tests is especially important when applying the Guerssel model to verbs in other languages since there is no assurance that a 'break' verb in another language has the same conceptual structure as the 'break' verb of English.

The comparison becomes more complex when other languages do not have the same syntactic constructions that Guerssel et al. examined in their article. For example, Guerssel et al.

[^2]used the conative alternation as a second syntactic test to distinguish between the 'cut' and 'break' classes of verbs. Languages such as Berber lack a conative alternation which restricts the evidence available in Berber for the cut/break distinction and could even imply that the English verbs 'cut' and 'break' lack semantically equivalent predicates in Berber.

Guerssel et al. also failed to test verbs with a range of different objects. They restricted their analysis of each verb to its use with a single, prototypical object. The objects that speakers consider compatible with each verb provide primary semantic evidence about verb meaning. Metaphorical extensions of verbs provide further evidence about verb meaning. In this thesis, I will apply the Guerssel model to verbs in Sorani Kurdish and discuss both the syntactic and semantic differences with corresponding verbs in English. The results reveal many limitations to the LCS proposed by Guerssel et al. and their proposal needs to be modified to account for Sorani Kurdish verbs.

### 1.3 Previous Studies on LCS and LS

## A. Syntactic approaches

The Lexical Conceptual Structure (LCS) is a level of representation that depends on decomposing verbs into smaller semantic elements Fillmore (1970). The LCS uses a compositional structure to represent the meaning of the verb by showing the relations between the semantic components that form the meaning of the verb. Its components include representations for manner, motion, tool, direction, result, agent and theme.

The LCS always accompanies another level of representation which is the lexical structure (LS). The LS provides a syntactic level of representation, and shows the different
syntactic alternations in which the verb can participate. It provides a syntactic structure for the predicate argument relations of the verb.

The LCS and the LS are mapped together with a set of linking conventions (cf. Carter 1976, Ostler 1979). The linking conventions are set of rules that link the elements of meaning that are represented in semantic representation to verb arguments in the syntactic representation. Guerssel et al. proposed that merging the Lexical Conceptual Structure and the Lexical Structure results in the creation of the Predicate Argument Structure (PAS) which expresses the meaning of the sentence. Therefore, mentioning the LCS and the LS is always accompanied by mentioning the PAS since both of them complete each other.

Fillmore (1970) and Miller and Johnson-Laird (1976) were the first researchers to investigate how to decompose verbs into smaller elements. Those elements represent a set of semantic primitives ${ }^{5}$ that cannot be analyzed further such as GO, BE, STAY, etc. The LCS requires a set of primitives to represent the meaning of verbs. According to Jackendoff (1983) the primitives represent the conceptual structure of a lexical entry in the brain of the speaker, those elements that combine together to form the meaning of the lexical item. In his work on the LCS, Jackendoff examined relations between the expression in the mind of the speaker and real objects in the world. For example, in the sentence 'Jack made John leave early,' there is an agent who initiates the action who is 'Jack.' The action in the sentence is recognized as Jack "causes" John to "go" away. And 'John' is the patient who has been affected by the action. Jackendoff claimed that the meaning of the verbs participates, to a great extent, in determining the syntactic behavior of the verbs. Other authors have used other terms to refer to the LCS. These include Lexical Relational Structures (Hale \& Keyser, 1992; 1993), event structures (Rappaport \&

[^3]Levin, 1998a; Levin \& Rappaport, 2005), semantic structures (Pinker, 1989), L-syntax (Mateu 2001a; Travis 2000), 1-structure (Zubizarreta \& Oh, 2004), and first phase syntax (Ramchand 2008). Representations called semantic forms (Wunderlich 1997a, 1997b) and semantic representations (Van Valin 1993; Van Valin \& LaPolla 1997) are also close in spirit to LCSs.

Current syntactic theory views the verb lexicon as a container that includes a rich set of syntactic and semantic information (Bresnan 1978; Chomsky 1993; Disciullo \& Williams 1986; Williams 1994). These studies continue to employ an LCS-like representation of verb meaning. These approaches employ an LCS without providing independent semantic tests for the components used to represent the meaning of verbs. They use syntactic tests as evidence for differences in the LCS and then point to the differences in the LCS to explain the differences in syntactic behavior.

These studies also neglect the fact that using verbs in different contexts can lead to changes in their syntax, which implies a difference in the semantic components of the LCS. For example, the verb 'break' can be used to break a cup and break a promise, but an English speaker does not accept the sentence *'her promise broke.' Studies of verb meaning which propose an LCS representation should test the verb in many different contexts with different objects in order to prove whether the LCS captures the full range of the verb's meaning.

Recently, the LCS model witnessed an expansion by taking into consideration not only the meaning components of a certain lexical item, but also how those components of the lexical items are changed when used in different contexts. For example, Levin \& Rappaport (1988, 2005) have proposed rules that link two lexical meanings to create a new lexical meaning. They expanded the LCS of the lexical item to include not only the simple meaning of the lexical item itself, but also the different meanings that the lexical item can express in different contexts.

Levin \& Rappaport $(1988,2005)$ showed that a new LCS of a certain verb will be created when the relations among arguments of the verb are structured differently. Such argument-structurebuilding rules in English include assimilation of manner of motion and directed motion. They propose that a verb meaning may be represented as a predicate decomposition consisting of two components: an event schema and the root. The event schema that stands for the structural component of meaning which represents an event type and the root represents the verb categorization as a state, result, manner, etc. The root is integrated into the event schema by "canonical realization rules" (Levin\& Rappaport 1998:109). For example, the event schema of a verb like 'run' would be:
(5) Manner [x ACT<MANNER>]

And the event schema of a verb like 'result' would look like:
(6) [ [ x ACT ] CAUSE [ y BECOME <RESULT-STATE> ] ]

Roots such as 'run' and 'result' are integrated into these schemas as ARGUMENTS in (5) or MODIFIERS (6) by canonical realization rules.

All of the operations of merging two LCSs to get a new LCS that have been mentioned by the above linguists identify syntactic classes of verbs that undergo the same transitivity alternations. The verbs map their arguments onto the same grammatical functions, and convert their arguments syntactically in the same way. The goal is to tie specific semantic features of LCSs to the syntax of these verb classes, e.g., a change-of-state and an effect on a patient. In this
respect, the syntactic patterns of verb classes define semantic components of verb meaning. This lexical semantics is language-specific because the syntactic features of verb classes and the semantic features that are found in the LCS are not the same in different languages. The syntactic structure that a verb appears in is projected from its predicate-argument structure, which indicates the number of syntactic arguments a verb has, and some information about how the arguments are projected onto syntax as internal or external arguments (Marantz 1984, Williams 1981). Projecting the arguments from the semantic representation into syntax provides evidence for the role that semantics plays in determining the syntactic behavior of the verbs.

Many verbs show a range of what have been called argument-alternations, in which the same verb appears with more than one set of morpho-syntactic realizations for its arguments, as in the causative and dative alternations, in (7) and (8), respectively.
(7) a. Pat dried the clothes
b. The clothes dried
(8) a. Pat sold the rare book to Terry
b. Pat sold Terry the rare book

Some argument alternations seem to imply two alternate realizations of the same set of arguments (e.g., the dative alternation), while others seem to imply real changes in the meaning of the verb (e.g., the causative alternation) (Rappaport \& Levin, 1998b). When the agent precedes the object (7a) the sentence is said to be in the causative alternation. When the object moves to the beginning of the sentence (7b), the sentence is said to be in the inchoative alternation. Each sentence expresses a different meaning. In (7a) there is an agent and that agent achieves an action on a theme. The action is drying and the theme is the clothes. The verb takes
two arguments an external argument, the agent, and an internal one, the clothes to express the meaning of the whole utterance. While the action is achieved in (7b), the agent can be a natural force as the sun or the wind. The verb takes only one argument, an internal one, the clothes, and to meet the syntactic requirements of the sentence, this internal argument moves to occupy the position of the syntactic subject. In sentence (8a) the direct object precedes the indirect object, while in sentence (8b) the indirect object precedes the direct one, but still the meaning is the same. Some researchers (Dowty 1979, Pinker 1989) claim the meaning shifts from a focus on the state of the book in (8a) to a focus on Terry in (8b). This difference in focus does not lead to a basic change in the meaning of the two sentences since in both of them denote an action of exchanging a theme achieved by an agent.

Linguists who developed theories of LCS propose that in addition to a verb's argument structure, it is possible to set apart a small set of recurring meaning components which determine the range of argument alternations a particular verb can undergo. These meaning components are inserted in the predicate decompositions such as LCSs. Thus, LCSs are used both to represent systematic alternations in a verb's meaning and to define the set of verbs which undergo alternate mappings to syntax.

Studies such as Patric Saint-Dizier (1995) analyze the LCS of the verbs according to the classes of the verb and the arguments they select. The idea is to divide verbs into different classes, and subdivide those verbs in accordance with the predicates they select. The LCS is a tool that helps to make the meaning of the verbs more explicit by decomposing each class of verbs into small sets of predicates and then subdivide those classes of verbs into smaller units. Patric Saint-Dizier (1995) states that the LCS has three main categories: a. the conceptual categories such as path, purpose, thing; b. the conceptual function such as Go, Cause for states,
and Be for location; and finally, c. the semantic fields that express the spatial, temporal or possession features. Patric Saint-Dizier shows that the semantic classes of verbs can be defined from syntactic behaviors and within each class there is a common form of argument structure. The arguments can be characterized by means of thematic relations. The thematic relation expresses the broad meaning that the verb arguments play with respect to the action described in the sentence. Thematic relations classify the role of each argument and its relation to a syntactic position in the sentence. The example in (9) shows how Patric Saint-Dizier (1995) exploits the LCS categorization to label verb classes. He stated that verbs which refer to monetary exchanges such as 'sell' and 'buy' can be characterized in accordance to the way the word money shows up in the LCS representation.
(9) Representation of the verb 'buy'
[GO poss ([ ]j, [ FROM [ ]k TO [ ]i ] ), EXCH[ GO poss ([ MONEY], [FROM[ ]I TO [ ]k ])]]]].

The term MONEY may not be mentioned overtly in sentences that include the verbs 'buy' or 'sell.' The money is usually implicit. It is said to be incorporated into the meaning of these verbs. The term EXCH indicates that there is an object which represents the theme, and this object is exchanged for money (Patric Saint-Dizier 1995: 27). The position and the relation between the word money and the term EXCH shown in (9) decides the difference in meaning between the verbs 'buy' and 'sell.' In the LCS of the verb 'buy,' the 'thing' follows the 'path' towards 'me' and the 'money' will GO in exchange to another possessor. Patric Saint-Dizier (1995) used different representations to model the different classes of verbs. The Saint-Dizier
study explicitly uses some elements in the LCS, which were previously used implicitly as in the case with the term 'money' in the above representation.

Some studies, such as Fillmore (1970), do not mention the term LCS, but classify verbs according to the components of their meaning, which is exactly what the LCS does in later studies. For example, Fillmore (1970) states that the semantic behavior of 'break' and 'hit' verbs provides a key to the syntactic behavior of these verbs, the number of arguments they select, and the alternations they participate in. He shows the difference in the behavior of the verbs 'break' and 'hit' with their direct object and the prepositional objects in the following examples:
(10) a. John hit the fence with the stick
b. John hit the stick against the fence
(11) a. John broke the fence with the stick
b. John broke the stick against the fence

He observed that 'break' entails a permanent change of state in its direct object argument, but this change does not apply to a 'hit' verb. The difference in the behavior of those verbs is that the direct object of the verb 'break' is the theme that undergoes a change of state, while the direct object of the verb 'hit' does not undergo a change of state. The object of the verb 'hit' can alternate with the indirect object as in (10) since neither the direct or indirect objects undergo a change of state. This explains why the verb 'break' can undergo the inchoative alternation in English, while the verb 'hit' cannot. The verb 'hit' needs both of its argument to express the meaning of the sentence. The action expressed by the verb 'hit' needs an agent that achieves an action on the theme, the agent should be mentioned in the structure of the sentence. But in the case of the inchoative alternation, the verb 'hit' should only appear with a theme that has undergone a change of state. This requirement prevents the verb 'hit' from undergoing the
inchoative alternation. This observation raises the question of whether the behavior of the verbs 'break' and 'hit' is syntactically and semantically the same in all languages. Guerssel et al. is one of the few studies to compare verb behavior in different languages.

All the studies that dealt with the LCS and the LS use the syntactic behavior of the verbs as evidence for the semantic components of the LCS. These studies do not provide independent semantic tests to establish the components of the LCS. It is especially important to test verbs in different contexts since many verbs have both concrete and metaphorical uses. Even though linguistic studies agree that the semantics of verbs is what decides their syntactic behavior; these studies do not establish methods and ways that help to show the different meanings that the verb may have in different contexts and in different languages. These studies typically refer to verbs from a single language used in one or two contexts.

The LCS has been used not only in syntactic and semantic theories, but in the field of computational linguistics for data entry. For example, Nirenburg (1992) uses the LCS to create a lexical entry for translation machines. He states that "our theory of lexical semantics includes a component of lexical knowledge that describes the syntactic encoding of arguments. This lexical knowledge consists of Lexical Conceptual Structures and Linking Rules." Nirenburg (1992) adds that the Lexical Conceptual Structure of words is extracted from the relationship between the predicates and their arguments. For example, to know that the English sentence 'Max interviewed Hester for a job' means that Max was considering hiring Hester, and not that Hester was in the position to hire Max, it is necessary to know that the interviewer role is expressed as the subject of the sentence (Nirenburg 1992, p.10). Nirenburg emphasizes that the LCS components are expressed by different elements in different languages and therefore the 'same' verbs in different languages may lack equivalent LCS representations.

## Constructionist approaches to argument structure

Verb meaning and argument structure are topics that gain a lot of attention in the field of linguistics from different points of view. Construction grammar assumes that "a linguistic pattern for which some aspect of either form or function is not strictly predictable from its component parts. In addition, even fully predictable patterns are now called constructions, provided that they are frequent enough to become entrenched as units."(Hilpert, 1996)

Several varieties of Construction Grammar exist. The original formulation, due to Charles Fillmore and Paul Kay, is couched within the unification formalism, which uses phrasestructure rules to build syntactic and semantic structures (Fillmore, Kay and O’Connor 1988; Kay and Fillmore 1999; Fillmore et al., forthcoming). This version of Construction Grammar has grown very close to HPSG in many respects, especially since much work in the former tradition is explicitly head-centered (e.g., Kay and Fillmore 1999) and since the latter has embraced the notion of a construction in recent work (e.g., Sag 1997). Lakoff (1987) and Goldberg (1995) develop a somewhat different approach in which motivation, default logic and psycholinguistic explanation play central roles. I present Goldberg's approach here in more detail as it is the most recent version of the construction grammar.

The approach to Construction adapted by Goldberg in her book "A Construction Grammar Approach to Argument Structure" (1995) takes speakers' knowledge of language to consist of a network of learned pairings of form and function, or constructions. Constructions are found whenever there is evidence that speakers cannot predict some aspect of their form, function, or use from other knowledge of language (i.e., from other constructions that already exist).

In construction grammar, the verbs as in (12) have certain specific lexical semantic information that allows them to integrate or ('fuse') with the semantics of an argument structure construction, namely the Caused-motion Construction. This fusion in turn licenses the postverbal constituents such as the poor guy and out of the room in (12a). In other words, although the verbs in (12) contribute their basic meanings, it is the Caused-motion Construction that is itself associated with meaning and therefore contributes the additional arguments providing the final interpretation of caused-motion.
(12) a. They laughed the poor guy out of the room.
b. Frank sneezed the tissue off the table.
c. Mary urged Bill into the house.
(Goldberg 1995: 152)

Figure 1 illustrates how the constructional semantics (constructional roles) of the Causedmotion construction and the verbal semantics (participant roles) of an intransitive matrix verb are fused in construction grammar in order to form the caused-motion interpretation.

| Sem | $\begin{aligned} & \text { CAUSE-MOVE } \\ & \text { R } \end{aligned}$ | < cause | path | theme $>$ |
| :---: | :---: | :---: | :---: | :---: |
| R : insta | e, PRED means | $<$ | $\downarrow$ | $\downarrow$ |
| Syn | V | SUBJ | OBL | OBJ |

Figure 1. Caused-Motion Construction (Goldberg 1995: 163)

The representation of the Caused-motion Construction in Figure 1 consists of three different layers. The top line of the box contains the construction's own meaning (Sem) which shows the semantic arguments of the construction (the constructional roles) and represents their semantic relations with respect to each other. That is, the caused-motion construction is associated with the semantics 'X CAUSES Y TO MOVE Z.' Solid lines between the semantic roles and roles in the predicate's role array that the semantic role that must be fused with an independently existing verbal participant role. Dotted lines indicate that the construction is able to provide additional participant roles. The middle line of the construction contains open slots into which the verb's participant roles fuse and the bottom lists the overt syntactic realizations of the semantic arguments of the combined verb-construction semantics. Roles represented in bold are "profiled" arguments, i.e., entities in a verb's semantics that are obligatorily accessed and function as focal points within the scene, achieving a special degree of prominence (Langacker 1987, cf. Goldberg 1995: 44).

Goldberg (1995) deals with the arguments and the verbs in the sentences as elements that can be added to the construction structure by "integrating" them within the structure. For example, verbs as in:
(13) a.sneeze: < sneezer >
b.Mary sneezed the napkin off the table.
(13a) shows the structure of lexical entries in construction grammar, capturing the fact that sneeze is associated with a single participant argument role, the sneezer. The participant role is represented in bold print to reflect the observation that the sneezer role is lexically profiled. In construction grammar, as in other constructional approaches, verbs are associated with specific semantic frames (Fillmore 1982). Frame semantic information holds the richness of the various meanings associated with a lexical item, such as references to world and cultural knowledge,
experiences, and beliefs (see Petruck 1996, Ziem 2008, and Fillmore and Baker 2010 for details). This approach contrasts with the theories that place heavy emphasis on deriving the semantics of utterances from objective truth. In other words, sneeze specifies the means by which the CAUSE-MOVE relation is achieved whereas the construction provides the rest of the semantics which then in (14b) yields the interpretation of Mary caused the napkin to move off the table by sneezing.

The general mechanism of fusing verbs with constructions is the same for other types of argument structure constructions such as the Way-Construction (e.g. They laughed their way into the meeting), the Ditransitive Construction (e.g. Joe baked Miriam a cake), and the Resultative Construction (e.g. Kim painted the brush to pieces). In order to avoid unacceptable fusions of verbs with constructions, construction grammar imposes both construction-specific and more general constraints. For example, to limit the application of the Caused-motion Construction, Goldberg proposes a number of semantic constraints, e.g. that the causer argument can only be an agent or natural force, not an instrument (Goldberg 1995: 165). Crucial to the application of constraints is the notion that expressions are licensed by different constructions (and their constraints) as long as they can be construed as not being in conflict (see Michaelis 2004 on how coercion influences construal).

The other new addition that Goldberg (1995) has in her work is that she argues that the resultative construction can have a metaphorical interpretation of the result phrase as a metaphorical type of goal. Goldberg explained the relation between the literal and the metaphorical construction as "instances of a single more abstract construction" p81. Based on key insights from Lakoff's (1987) analysis of there-constructions, construction grammar also posits a particular type of inheritance link, namely metaphorical extension inheritance links that represent particular metaphorical extensions between constructions. For example, Goldberg (1995: 81-89) argues that the Resultative Construction (e.g. Joe kicked Bob black and blue) is a metaphorical extension of the Caused-motion Construction (e.g. Joe kicked the bottle into the yard), where the metaphor "Change of State as Change of Location" accounts for the relation
between the semantics of the two constructions. While the Resultative Construction inherits the syntactic specifications of the metaphorical extension from the Caused-motion construction, it is still a distinct construction with its own set of constraints (see Goldberg 1995: 87-99, 164-174, 193-197).

Goldberg discussed the middle alternation as an alternation that can be found with the resultative construction and it requires an indefinite, unexpressed agent argument. She claims that the middle construction requires that the patient subject argument have a particular inherent quality which makes it primarily responsible for the property in the predicate phrase (Oosten 1977, 1984). Goldberg argues that the unexpressed agent argument is interpreted as volitional, intending the result as well as intending to perform the action denoted by the verb, and her analysis of the middle alternation is similar to that of Guerssel et al (1985).
(14) This car drives with the greatest of ease.
(15) \# This car drives with the greatest difficulty.

Goldberg (1995) refers to the 'cut' class of verbs as change-of-state verbs and she cites the following examples p. 171:
(16) The butcher sliced the salami onto the wax paper.
(17) Joey grated the cheese onto a serving plate.
(18) Sam shredded the papers into the garbage pail.

Goldberg describes the events in the above examples as actions performed by the agent argument on the theme argument and the actions imply some motion as in slicing the salami, the salami normally falls away from the slicer, however, Goldberg states that the event can be achieved without implying a 'motion' if one imagined a mechanical bread-slicer that sliced the bread while the bread is contained in a supporting container, preventing the bread from falling away.

Goldberg's approach to argument structure shares many points with Guerssel et al. (1985) as the existence of an agent to achieve the action of the class of 'cut' verbs, but still her approach has many new points that were not discussed by Guerssel et al. (1985) such as the metaphorical uses of resultative verbs. However, her analysis lacks many details and tests that explain the verbs behavior syntactically and semantically. Goldberg in her approach explained the metaphorical uses of resultatives as an "extension" and this term is an abstract term and needs realistic explanation either syntactically or semantically or both.

Gillian Ramchand's approach (2008) to verb and argument structures takes a more syntactic perspective. She analyzes the verbs by decomposing them into three syntactic heads, init(iation), proc(ess) and res(ult), each of which projects a syntactic phrase which incorporates semantic information into the syntactic structure. A verb structure may contain all three heads (as, for example, break in (2)) or it may have some subset of them, with its arguments projected as specifiers of the three syntactic heads.


Figure. 2 (75, ex. (29))

Ramchand defines each of these three heads as follows: init denotes an initial state that causally implicates another eventuality, and its subject is the initiator of that eventuality; proc is a dynamic event, and its subject is an undergoer of the process; and res is a final state that is causally implicated by the process event, and its subject is a resultee, something that attains a final state. An argument can occupy more than one specifier position, and hence bear more than one role, e.g. the object that undergoes the action of the verb break in 2 is both the undergoer of the process and the resultee. Verbs specify in their lexical entries which heads they consist of, and whether two specifiers will be occupied by the same argument.

Ramchand's theory lies within the family of theories that deny the existence of a generative lexicon and locate all combinatorial operations in the syntax. However, it differs from 'radically constructionist' views (Marantz 1997, Borer 2005) since it proposes that category information is stored with lexical items in the lexicon. Moreover, Ramchand does without thematic roles as primitives, instead deriving thematic interpretation from functional projections in syntactic structures (akin to Hale \& Keyser 1993).

Ramchand agrees with much of the literature on resultatives. She distinguishes those that occur with selected objects from those that occur with unselected objects, as exemplified below:
(19) Results with selected objects
(121, ex. (30))
a. John hammered the metal flat.
b. Mary broke the safe open.
c. Bill painted the door red.
(20) Results with unselected objects
(121-122, ex. (31a-c))
a. John ran his shoes ragged.
b. Mary sang the baby asleep.
c. Bill coughed himself hoarse

According to Wechsler's (2005) generalization, resultatives with selected objects are always formed from adjectives that are gradable on a closed-scale; resultatives with unselected objects, on the other hand, are not subject to the same requirement. Ramchand derives Wechsler's generalization by analyzing adjectives that appear in the resultative construction with a selected object as paths that map out the process and hence occur as complements of proc (3). Adjectives that appear in the resultative construction with an unselected object are the complements of Res; Res. creates the entailment of the result, so the scalar structure of the adjective is irrelevant, provided the adjective refers to a static property. Ramchand proposes that, where no extra predicational position is introduced, resultatives will always have to be the complement of proc and hence they will always need to be closed-scale. However, Ramchand provides no further explanation for this stipulation.

Ramchand suggests that there are selected objects that take on the additional role of resultee when a resultative is added. An example is the sentence in (22), for which Ramchand provides the phrase structure in figure 3.
(21) Karena hammered the metal flat.
(126, ex. (36a))


Figure. 3 Ramchand (2008) phrase structure

Taken into consideration the analysis of resultative constructions with unselected objects, what is expected is that the adjective in a structure such as in figure 3 would not need to be closed-scale. In short, the proposed analysis has various limitations as Breuning (2010) states that Ramchand classifies the secondary predicate in hammer flat first as a complement of res (127, ex. (1)) and later as a path resultative (129, ex. (3)).

Ramchand's analysis is considered a new approach as she incorporates semantic information directly into the syntactic structure. However, she did not give a clear definition for
the terms she uses as 'initiator, process, and result.' For example, Ramchand uses the term 'initiator' to refer to an argument that 'initiates' the action. Since she does not define what events constitute an 'action', it is not clear if the notion of an initiator extends to metaphorical events such as breaking hearts or cutting deals. Another difficulty with this term is that some events do not have a beginning. We say that the earth orbits the sun in reference to an ongoing state rather than to an action with a beginning. She fails in the same slips as Guerssel et al (1985) because she did not provide any independent tests to explain the terms 'initiator, process, and result' she uses in her analysis.

One shortcoming in Ramchand's approach is that she did not provide a way to represent the difference in the semantics of different verbs. For example, her analysis would have the same structure for the verbs 'break' and 'cut' in figure 2 the action of the verb 'break' according to Gharib (2011) can be achieved not as a process, but as an immediate action, and this can be considered as one of the difference between the verbs 'break' and 'cut.' The other gap in Ramchand's approach is that she did not take the metaphorical uses of the verbs into consideration to show the difference in the use of the verb 'break' when it is used to show a real change of state in an object like a glass and the change of state in the psychological state when someone "breaks' the heart of somebody else.

## B. Morphological approaches

Bohnemeyer (2007) used data from the Majid et al. (2007) to reanalyze Guerssel et al.'s (1985) generalizations regarding the argument structure of cutting and breaking verbs (C\&B) based on the principles of Morpholexical Transparency and Complete Linking. Bohnemeyer proposed a working hypothesis according to which the C\&B domain is universally exhaustively partitioned into argument structure classes of $C \& B$ verbs and tested it against a corpus of data from 17 languages in Majid et al. (2007).

| Language | Affiliation | Collectors |
| :--- | :--- | :--- |
| Biak | Austronesian | van den Heuvel |
| Oaxaca Chontal | isolate | O’Connor |
| Ewe | Kwa | Ameka and Essegbey |
| German | Germanic | Bohnemeyer |
| Hindi | Indo-Iranian | Narasimhan |
| Kinyarwanda | Bantu | Bohnemeyer |
| Jalonke | Mande | Lüpke |
| KuukThaayorre | Pama-Nyungan | Gaby |
| Mandarin | Sino-Tibetan | Chen |
| Otomi | Oto-Manguean | Palancar |
| Spanish | Romance | Bowerman and Palancar |
| Sranan | Atlantic Creole | Essegbey |
| Tamil | Dravidian | Narasimhan |
| Tidore | West Papuan | van Staden |
| Tzeltal | l Mayan | Brown |
| YélîDnye | East Papuan | Levinson |
| Yukatek | Mayan | Bohnemeyer |

Table 1.The language sample

The general question addressed by Bohnemeyer is whether universals of Argument structure (Astructure) include specific A-structure classes divided along subtle semantic differences in an otherwise homogenous conceptual domain. This would suggest strong cross-linguistic agreement in both semantic categorization and form-to-meaning mapping. Bohnemeyer validated the extent of this agreement.

Bohnemeyer summarizes Guerssel et al.'s analysis of the A-structure of C\&B verbs and argues that it can be derived from the principles of Morpholexical Transparency and Complete Linking. Although all of the languages that have been dealt with in this study have $C \& B$ verbs in multiple A-structure classes, not all of them have a binary distinction between 'cut' and 'break' verbs. A number of languages in the sample have 'break'-type verbs that describe severance events as states. In Yélî Dnye, all severance verbs appear to be of this kind - there are 'break' verbs, but no 'cut' verbs, in this language (Levinson 2007).

Except for German, no languages in the sample are reported to have conative alternations. The analysis presented in the following sections therefore focuses on the prediction that 'break' verbs, but not 'cut' verbs, occur in transparently related causative and inchoative lexemes. Again with the exception of German, the two patterns that are relevant to this prediction - causative-inchoative polysemy patterns and anticausative derivations - are distributed complementarily across the languages of the sample that have 'break' verbs: causative-inchoative polysemy patterns are found in Ewe, Jalonke, Sranan, and Tidore, while anticausative forms occur in Chontal, Kinyarwanda, Spanish, Tzeltal, and Yukatek; German, as noted, has both. One language - Biak - has a causative-inchoative alternation, but no C\&B verbs participate in it, since all causative verbs used in reference to "breaking" scenes are "bipolar" compounds. Otomi and Yélî Dnye are special in that they have 'break' verbs with pairs of causative and inchoative stems which are phonologically similar, but morphologically unrelated in synchronic terms. Hindi and Tamil distinguish transitive and intransitive forms of C\&B verbs on the basis of suppletion in tense and voice morphology. The author treats the intransitive partners of these alternations as suppletive anticausative or voice forms; a number of languages have intransitive state change roots that causativize in order to produce 'break' verb stems. In KuukThaayorre (Gaby 2007), all 'break’ verbs appear to be of this type.

Four typologically diverse languages in the sample - Biak, German, Mandarin, and Yukatek - make prominent use of complex predicates (Ackerman and Webelhuth 1998) in the C\&B domain. These complex verbs are semantically specific regarding both the change effected on the Theme and the cause of that change - i.e., they are semantically "bipolar", and thus conform to neither the 'cut' type nor the 'break' type, but constitute a third class. In line with the principles of Morpholexical Transparency and Complete Linking, bipolar verbs are inert regarding A-structure alternations since both the causal and the resulting sub-event representations are specific, neither can be removed from the meaning of a transparently related stem. This inertness can be illustrated with the English "carve" verbs, which are simplex bipolar
verbs. "Carve" verbs undergo neither the conative (22b) nor the causative-inchoative alternation (22c):
a. Carole carved the stone.
b. *Carole carved at the stone.
c. *The stone carved. (Levin 1993: 158)

Among complex bipolar predicates, the only transparently related lexemes that lack one of the sub-event specifications are their component roots or stems. German uses pre-verbs (pre-verbal particles) to add a state change component to activity verbs or further specify the result state of state change verbs.

Bohnemeyer (2007) mentioned the German verb zer-schmettern 'smash to pieces' as an example. The base schmettern 'smash' expresses motion of a Theme caused by hitting it in a particular manner in German:
(23) a. Floyd schmetterte den Ball ins gegnerische Feld.
b. Floyd smashed the ball into the opponents' field
c. 'Floyd smashed the ball into the opponents' field.'

The verb Zer-schmettern 'smash to pieces' preserves the specific activity component of the base and adds to that the specific state change component ("apart", "to pieces") introduced by the particle. As a result, zer-schmettern undergoes neither the causative/inchoative alternation (24b) nor the conative alternation (24c). For comparison, (24) illustrates the conative alternation with kratzen 'scratch.'
(24) a. Floyd zer-schmetterte das Glas.

Floyd apart-smashed the glass
'Floyd smashed the glass to pieces.'
b. *Das Glas zer-schmetterte. the glass apart-smashed
‘*The glass smashed to pieces.'
c. $\quad$ Floyd zer-schmetterte an das Glas.

Floyd apart-smashed on the glass
'*Floyd smashed to pieces at the glass.'
d. Floyd kratzte Sally.

Floyd scratched Sally
'Floyd scratched Sally'

The morphological approach highlighted the importance of how even a small piece of morphological form may affect the meaning of the verb and accordingly the syntactic alternations of the verb. However, it needs more application semantically and syntactically and on more languages; besides it needs more clear rules that can help the researchers to link the change happening in the morphological form of the verb to its semantics.

## C. Semantic approaches

Some of the current approaches such as Hale \& Laughren (1983), Jackendoff (1983, 1990), and Dowty (1979) represent the semantic information in the form of Lexical Conceptual Structures that view verb meanings in the form of structured relations between semantic primitives ${ }^{4}$ and syntactic projection, e.g., GO, BE, STAY, etc. For example, the act of drinking is conceptualized in terms of a causal event resulting in the conveyance of a liquid to someone's mouth (Pye, 1998), e.g.

## (25) LCS drink: CAUSE (ACT (X, Y), BECOME (EMPTY(Y) BY DRINK (X, Z)))

This LCS contains two prominent argument roles: ${ }^{6}$ the initiator of the causal event and the stuff being consumed. These arguments are projected into the syntax as the external and internal arguments of the verb respectively. The (X) in above representation represents the agent whose action causes the container (Y) to become empty by the action of $(\mathrm{X})$ drinking the contents $(Z)$. This LCS shows that the agent's action affects both the state of the container as well as its contents. This LCS does not account for the difference in meaning between 'Ann drank a cup of coffee' and 'Ann drank some coffee' because the LCS in (26) assumes that an act of drinking results in an empty container. The LCS predicts that drinking entails that the container will be empty as a result of the drinking event, but this is not true. As the sentence 'Ann drank some coffee' shows, drinking can occur without the result of completely emptying a container. Moreover, Dowty (1979:96) notes that deriving the verb 'drink' from an LCS like that in (25) is somewhat dubious since the action referred to by the primitive DRINK must be compatible with the generic action primitive CAUSE which is not spelled out by the LCS.

In a more recent version of Guerssel et al (1985), Pustejovsky (1995) presents a theory about how to deal with semantic representation, which he divides into four levels: 1) Argument Structure: combinatorial question, 2) Event Structure: Aktionsarten and event types, 3) Qualia Structure: the defining attributes of an object, and 4) Inheritance Structure: the relation between lexical items. Pustejovsky took into consideration external factors such as the objects and the kind of context which may be real or metaphorical. Pustejovsky differentiates between common sense knowledge and the lexical structure which is exactly what Guerssel et al proposal lacks. He introduces the term 'coercion' which Pustejovsky defines as: A semantic operation that converts

[^4]an argument to the type which is expected by a function, where it would otherwise result in a type error. The notion that a predicate can specify a particular target type for its argument is a very useful one, and intuitively explains the different syntactic argument forms for the verbs below. In sentences (26) and (27), noun phrases and verb phrases appear in the same argument position, somehow satisfying the type required by the verbs enjoy and begin.
(26) a. Mary enjoyed the movie.
b. Mary enjoyed watching the movie.
(27) a. Mary began a book.
b. Mary began reading a book.
c. Mary began to read a book.

If we analyze the different syntactic occurrences of the above verbs as separate lexical entries, we are unable to capture the underlying relatedness between these entries; namely, that no matter what the syntactic form of their arguments, the verbs seem to be interpreting all the phrases as events of some sort. It is exactly this type of complement selection which type coercion allows in the compositional process. Coercion is a principled mechanism for accounting for the variety of interpretations that words exhibit in different contexts. In particular, coercion occurs when the meaning that a word exhibits in context is not inherent to the word itself (i.e. coded lexically) but rather the result of compositional processes induced by the linguistic co-text (i.e. by the semantics of the co-occurring words. Coercion can be extended to the metaphorical uses of verbs as breaking hearts or cutting deals, but there will constraints on the kind of metaphorical objects that the term coercion could be used with.

In another study dealing with the same issue, Pye (1996) found that K'iche' Maya divides the breaking and cutting domains into much more specific actions than either English or

Spanish. K'iche' does not have a general word for breaking that can be substituted for the specialized breaking verbs in the way that English 'break' can be used to describe more specific senses of picking, popping, smashing, or shattering. Twenty-seven definitions for English 'break' are listed versus 42 meanings in K'iche'. Thus, K'iche' has gaps in its lexical and conceptual structure with no equivalent lexical or phrasal expressions for English 'break' and 'cut.' The verb for 'break' in K'iche' is applied on one to three dimensional objects like paper or blankets while English lexicalize this difference by using the verbs break and tear.

Such facts impose severe difficulties for the notion of a universal conceptual structure underlying language. Pye concluded that K 'iche' breaking verbs are difficult to define because their meaning is not captured by the same set of semantic features that underlies English breaking verbs. The verbs for 'break' and 'cut' in K'iche' provide evidence that verbs in different languages, even though they are used in similar contexts, cannot have the same LCSs as they are used in different contexts with different objects.

Majid et al (2007) replicated Pye's study in 28 languages. The languages shown in table 2:

| Language family | Language | Researcher |
| :---: | :---: | :---: |
| Altaic | Turkish | A. Özyürek |
| Austronesian | Biak | W. van de Heuvel |
|  | Kilivila | G. Senft |
| Cariban | Tiriyó | S. Meira |
| Dravidian | Tamil | B. Narasimhan |
| Indo-European | Dutch | M. van Staden |
|  | English | M. Bowerman, A. Majid |
|  | German | M. van Staden |
|  | Hindi | B. Narasimhan |
|  | Punjabi | A. Majid |
|  | Spanish | E. Palancar, M. Bowerman |
|  | Swedish | M. Gullberg |
| Mayan | Tzeltal | P. Brown |
|  | Yukatek | J. Bohnemeyer |
| Niger-Congo | Ewe | F. Ameka, J. Essegbey |
|  | Jalonke | F. Lüpke |
|  | Likpe | F. Ameka |
| Otomanguean | Otomi | E. Palancar |
| Pama-Nyungan | KuukThaayorre | A. Gaby |
| Sino-Tibetan | Mandarin | J. Chen |
|  | Tai | Lao N. Enfield |
| West Papuan Phylum | Tidore | M. van Staden |
| Witotoan | Miraña | F. Seifart |
| Creole | Sranan | J. Essegbey |
| Isolate | Chontal | L. O'Connor |
|  | Japanese | S. Kita |
| Isolate (Papuan) | Touo | M. Dunn, A. Terrill |
|  | Yélî Dyne | S. Levinson |

## Table 2. The languages investigated by Majid et al.

Consultants were shown video clips and then described the event they had seen. Further linguistic probing, e.g., for alternative descriptions, was carried out at the discretion of the researcher. The descriptions were tape- or video-recorded and later transcribed and coded. Majid et al. (2007) describe the stimulus materials and methods of data collection used by all researchers in the Cut and Break project, as well as to introduce the sample of languages
investigated. The final C\&B elicitation tool consists of 61 video clips depicting separations of various kinds; a short description is provided in the Appendix. 1 Most clips show separations with material destruction (i.e., seemingly core events of $C \& B$ ). The majority of these include a causal agent, but a few depicted a seemingly spontaneous separation (e.g., a twig snapping). The physical properties of the affected objects were varied (e.g., stick, rope, cloth, plate, pot, hair, food items), as were the instruments (e.g., hand, knife, scissors, karate-chop, machete, hammer) and the manner of the action (e.g., once or repeatedly, calmly or with furious intensity). In addition to the core $\mathrm{C} \& \mathrm{~B}$ events, the set of video clips also included separations such as opening a teapot, the hand, or a book; taking the top of a pen; pulling apart paper cups; and peeling a banana. The researchers elicited descriptions of the following contexts:

1. Tear cloth into two pieces by hand
2. Cut rope stretched between two tables with single downward blow of chisel
3. Hack branch off tree with machete
4. Chop cloth stretched between two tables with repeated intense knife blows
5. Break stick over knee several times with intensity
6. Chop multiple carrots crossways with big knife, intensity
7. Push chair back from table
8. Piece of cloth tears spontaneously into two pieces
9. Slice carrot lengthwise with knife into two pieces
10. Slice carrot across into multiple pieces with knife
11. Pull two paper cups apart by hand
12. Cut strip of cloth stretched between two people's hands in two
13. Cut rope stretched between two tables with blow of axe
14. Make single incision in melon with knife
15. Saw stick propped between two tables in half
16. Forking branch of twig snaps spontaneously off
17. Carrot snaps spontaneously
18. Cut finger accidentally while cutting orange
19. Snap twig with two hands
20. Cut single branch off twig with sawing motion of knife
21. Smash carrot into several fragments with hammer
22. Take top off pen
23. Chop cloth stretched between two tables into two pieces with two blows of hammer
24. Cut rope in two with scissors
25. Snap twig with two hands, but it doesn't come apart
26. Cut carrot crossways into two pieces with a couple of sawing motions with knife
27. Cut hair with scissors
28. Cut fish into three pieces with sawing motion of knife
29. Peel an orange almost completely by hand
30. Peel a banana completely by hand
31. Smash a stick into several fragments with single blow of hammer
32. Cut carrot in half crossways with single karate chop of hand
33. Open a book
34. Chop cloth stretched between two tables with single karate chop of hand
35. Break yarn into many pieces with fury
36. Tear cloth about half-way through with two hands
37. Cut carrot in half lengthwise with single blow of axe
38. Break single piece of yarn by hand
39. Smash flower pot with single blow of hammer
40. Smash plate with single blow of hammer
41. Open a hinged box
42. Break vertically-held stick with single karate chop of hand
43. Cut carrot crossways into two pieces with single blow of chisel
44. Open canister by twisting top slightly and lifting it of
45. Poke hole in cloth stretched between two tables with a twig
46. Rope parts spontaneously, sound of a single chop
47. Open hand
48. Chop branch repeatedly with axe, both lengthwise and crosswise, until a piece comes of
49. Cut rope in two with knife
50. Chop rope stretched between two tables in two with repeated blows of hammer
51. Split melon in two with single knife blow, followed by pushing halves apart by hand
52. Open mouth
53. Break stick in two with single downward blow of chisel
54. Cut carrot in half crosswise with single blow of axe
55. Open teapot/take lid of teapot
56. Cut cloth stretched between two tables in two with scissors
57. Snap carrot with two hands
58. Open eyes
59. Open scissors

## 60. Open door

61. Break rope stretched between two tables with single karate chop of hand

Majid et al. (2007) explore the structure of the linguistic categorization of C\&B events from a broad cross-linguistic perspective by analyzing data from the entire sample with multivariate statistical techniques. The first and most important dimension which they take into consideration and it distinguishes events where the precise locus of separation in the object is predictable from those where the locus of separation is not predictable. This corresponds roughly to the distinction between 'cut' and 'break' in English. The second dimension pulls apart events in which flexible 2-dimensional objects are separated by hand (i.e. tear). Among events where the locus of separation is unpredictable, the third dimension further distinguishes separation of a 1-dimensional rigid object by pressure on both ends (i.e., snap) from separation caused by a sharp blow to a rigid object (i.e., smash). Majid et al. did not use restricted verbs that denote events of $C \& B$, since languages might have forms that apply not only to events that English speakers would call e.g., cutting, breaking, or smashing, but also to events that they would call e.g., taking apart or opening.

Interestingly the events expressed by $\mathbf{C} \& \mathrm{~B}$ verbs differ among languages as the dimension are treated in different ways. Majid et al. (2007) deal with the three dimensions according to diagram they draw to represent the events (see Majid et al., 2007:143). For example, chopping off a branch with axe and breaking a stick with karate chop. In English such events were often assigned to a category of their own (chop), but they were also often classed with events located toward the left end of the dimension (e.g., described with cut). The common
denominator of this categorization is the use of a blade (-like) instrument to effect the separation, regardless of whether it is applied with precise placement or a ballistic swing. However, German deals with this event differently: chopping events were routinely classed with events positioned toward the right end of the dimension (described with slogan). The common denominator defining this category is the use of a sharp blow, whether by a bladed implement or a blunt one (Majid et al., 2007).

The second dimension is tearing cloth in two by hand and tearing cloth halfway through. Both involve a hand action on a two-dimensional flexible object. Many languages in the sample have a verb like English 'tear,' which was used only for these two clips. But Yélî Dyne has a category that was unique: the verb used for the two tearing events was also used for several carrot-cutting events.

Dimension 3 makes a distinction between smashing a rigid object like a plate, pot, or carrot with a sharp blow and snapping a long object like a stick or a carrot into two pieces between the hands or over the knee. Some languages respect this distinction perfectly (e.g., Ewe in Ameka and Essegbey 2007), while others disregard it entirely (e.g., Hindi and Tamil use a general 'break' verb for events of both kinds; Narasimhan 2007). These languages use the same verb for these two operations.

Majid et al.'s investigation of 'cut' and 'break' verbs in 28 different languages shows that none of the languages use 'cut' and 'break' verbs in exactly the same way. For instance, there were many differences in the raw number of lexical categories into which speakers of different languages sorted the 'cut' and 'break' verbs. For example, Yélî Dyne speakers only use three verbs to describe the entire set, while Tzeltal speakers use more than fifty. Majid et al. did not
provide syntactic evidence that could be used to test the hypothesis of Guerssel et al (1985). They only provide more detailed semantic evidence of differences between 'cut' and 'break' verbs that support Guerssel hypothesis, especially by providing more uses of verbs in different contexts and languages.

Ameka \& Essegbey (2007) used the Majid et al stimuli to elicit data in Ewe, which is a cluster of dialects spoken in southeastern areas of Ghana and Togo. They state that C\&B verbs in Ewe fall into four classes based on their syntactic behavior. They refer to the classes as highly agentive, agentive, non-agentive, and highly non-agentive. The semantic property of "agentivity" plays a role in the syntactic behavior of the verbs in Ewe.

| Highly agentive | Agentive | Non- agentive | Highly non-agentive |
| :--- | :--- | :--- | :--- |
| dzá 'slash' | tso 'cut' | lã' 'snap | (vú)vú 'tear' |
| si 'cut' | se' 'cut' (Anlo) | dze 'split' | fé 'split' |

Table 3. The verbs 'cut' and 'break' in Ewe

Ameka \& Essegbey (2007) show that while the highly agentive verbs cannot participate in the causative/inchoative alternation, the highly non-agentive verbs can. However, both classes of agentive verbs participate in the alternation with some restrictions. The highly agentive verb class lexicalizes instrument and manner or purpose. They are $d z a ́ ~ ' s l a s h ', ~ s i ~ ' c u t ' ~ a n d ~ k p a ~ ' c a r v e . ' ~$

The use of the verb $d z a$ 'slash 'differs in Ajic and Anfoeas: in Ajic, $d z a ́$ is only used when there is a slashing event without severance. On the contrary, $d z a ́$ in Anfoe can also describe a slashing event that leads to separation. Thus, Anfoe consultants used $d z a ́$ to describe cutting of a branch with a machete, but Ajic consultants rejected it .The instruments used to carry out a
$d z a ́$-event are axes or machetes which, because of their heavy nature, have to be swung in the process of cutting.

Ameka \& Essegbey (2007) state that the verb, si 'cut', describes a 'cut' that is made on the human body with sharp objects like razor blades and knives. Si was therefore used to describe someone cutting her finger with a knife. The 'cut' event results in the separation of the body part. The third verb mentioned by the authors was kpa 'carve' which describes the process of carving objects. It therefore requires a sharp instrument as where a pair of scissors is used to cut the long hair of a Caucasian lady. All the mentioned verbs describe events that are carried out by a sharp instrument and they are highly agentive. They also incorporate manner and/or purpose. As such, they are highly agentive and do not participate in the causative/inchoative alternation. Thus, it is unacceptable to say *atı'a' dzá 'the tree slashed', *Kofi fe' ası' si 'Kofi's hand cut' and *a Lutı'a' kpa 'the orange peeled.'

The other agentive verbs, which are $t s o$ and $s e^{\sim \prime}$, describe separations that are primarily carried out with instruments. Tso was used to describe an event in which a rope is cut in two with a pair of scissors and a knife respectively. Tso is also used to describe the separation of an object that looks as if the separation was done with a sharp instrument. Using a karate-chop to sever a carrot and a piece of cloth were also described with tso. The reason is that the hands are shaped in the form of a knife, and the cuts produced look like they were made with sharp objects.

The intransitive construction of tso was used when the consultants were asked what happened to the rope. Tso was also used to describe a rope snapping spontaneously suggesting that flexible objects that can be severed in a neat way such that it looks as if the cutting was done with a sharp instrument are described with $t s o$. In such cases the focus is on the clean cut, not the instrument. The second verb in this class, $s e^{\sim^{\prime}}$, occurs only in the southern dialects. $S e^{\sim^{\prime}}$ is a general 'cut' verb that describes all cutting events which involve a sharp object. The verb $S e^{\sim}$ '
occurs in the intransitive construction in restricted contexts: which involved the separation of ropes either spontaneously or by an agent. Speakers used se ${ }^{\sim \sim}$ to describe clean cuts that could occur by themselves even though they saw it carried out by an agent. Yet where the 'cut' always requires an agent, the intransitive was rejected which involve cutting a branch and some carrots elicited $\mathrm{se}^{\sim}$ in the transitive but not the intransitive. The fact that the verbs $t s o$ and $s e^{\sim}$ can occur in the intransitive -even in restricted context- is contrary to the predictions of Guerssel et al. (1985).

The non-agentive verbs are $l \tilde{a}$ ' 'snap' and $d z e$ 'split.' lã' is the general 'cut' verb in the inland dialects. It does not incorporate any instrument and, for the coastal people, it is only used where there is severance. Severance as defined by the writers 'refers to separation without specification of instrument or manner, p: $246^{\prime} l \tilde{a}^{\prime}$ participates in the causative/inchoative alternation for the most part. For instance, it was used both in the transitive and intransitive constructions to describe separating a cloth with a knife. The second non-agentive verb is $d z e$ 'split.' Dze describes linear separation such as a tear in clothing. It was used to describe the tearing of a piece of cloth in clip 36, and the lengthwise splitting of a carrot with an axe.

The verbs that occur in the highly non-agentive class either incorporate the type of object that undergoes a change or the nature of the change. They are vúvú 'tear', fé 'split', Lé 'break' and $g b a$ 'break.' Vúvú, which is vú in the inland dialects, describes tears that occur in flexible objects like paper and cloth. It was used to describe tearing a piece of cloth using the hand, and a hammer. Vúvú was also used in the intransitive to describe a piece of cloth which divides in two without the action of a causal agent. This is evidence that the verb does not lexicalize instruments.

The verb, $f e^{\prime}$ 'split' is the linear separation of an object. Fe' was used to describe the spontaneous separation in two of a cloth. It is also used to describe the splitting of old trees by them in the forest. This is evidence that neither the nature of the object nor the instrument that is used is relevant for fé. The verb was also used to describe the cutting of a melon in two. Being round, the melon is not an exemplary object with a lengthwise dimension.

The final two verbs, gba and Lé, illustrate an important distinction that Ewe and other African languages make in the description of breaking events, and which is not made in languages like English. Gba describes the breaking of objects like glasses and pots. The focus of the verb is on the cracks that are introduced into the object. Whether the broken pieces come apart or not has no effect on the verb's use. This kind of action describes a defect that happened to the object even though the object is still in one piece. This kind of breaking was not described by the LCS mentioned in Guerssel et al (1985).

Lé describes what they refer to as a 'fulcrum break' because it involves the snapping of an object along the fulcrum. The 'break' is usually, though not necessarily, caused by some kind of pressure. A classic case is the breaking of a stick across the knee.

The writers conclude by saying it is difficult to determine the behavior of the verbs based on their lexical specification alone. In other words, $t s o$ 'cut', and $s e^{\sim}$ 'cut' have two different but related meanings, one involving agentive cutting and another involving non-agentive cutting. The highly agentive verbs describe events involving agents only and, therefore, do not occur in the intransitive while, in restricted context, agentive verbs express separations that occur spontaneously and, therefore, participate in the alternation.

Brown (2007) used the Majid et al stimuli to elicit 'cut' and 'break' verbs in Tzeltal, which is a Mayan language spoken by around 220,000 people in Chiapas, Mexico. The data for
the study were collected from three sources: the first is responses to the 'cut' and 'break' stimulus set of video clips of three consultants, and the second is taken from lexical entries from the authors Tzeltal field dictionary, and the third is elicitation with several consultants about the argument structure properties of the $\mathrm{C} \& \mathrm{~B}$ verb roots. The author states that Cutting and breaking actions are differentiated and are not hierarchically arranged-Tzeltal speakers insist that one is not a subtype of another. A few are near-synonyms (e.g., the two tearing verbs ch'i' and jatz), but the majority apply to finely discriminated sets of event types. Tzeltal has a large number of verbs as shown in the table provided by the author in the appendix on page (327):

Verb roots Gloss
Bis cut surface deep enough to make a visible scratch,
Bo 'cut with sharp blow across the long axis' (tree, weeds, body, fruit, thick things)
ch'i' 'break, tear, split incrementally' (cloth, paper, leaf, any flexible plane, but not skin on body)
ch'ul 'shave off small bits, plane surface' (wood)
ch'uy 'cut part from whole' (bananas from stalk, limb of tree from the tree)
Jat 'make major cut or split', e.g. in belly (for operation), or in earth (in an earthquake)
jat' 'break plant at base, or pull up by roots, or split' (lip, skin)
jatz 'tear suddenly' (cloth, paper, leaf)
jaw 'cut/break so that it falls open in two halves; open' (mouth, scissors)
jek 'break off at base' (e.g. banana from bunch, tree branch)
jep split in vertical halves' (fruit or vegetable)
jes 'slice off thin slice from' (meat, apple)
jis 'cut into planks/slice into strips back and forth along long axis' (meat, banana leaves, cloth)
jos 'cut off little bits' (to make a point or to remove skin)
jotz 'cut/break weeds' (with hand or hoe)
jox 'peel, skin, shave, cut' (hair, sheep's wool, grass, cornsilk)
jut pierce' (with sharp implement)
k'aj‘ break, mature corn from plants' (only corn)
k'al 'break into pieces lengthwise with the grain' (big things: firewood, shingles, tiles)
k'as 'sever body part' (e.g. head, finger, foot); 'pick fruit from branch'
k'ut 'break/separate with twisting motion' (shell corn; break in half a bunch of greens)
k'um 'partially break and bend over tops of corn plants, leaving on plant to dry'
laktz'un break through a barrier' (e.g. fence)
mak' 'cut/slice hard object crosswise into chunks' (e.g. firewood)
p'ij 'break long thin thing in two' (e.g. stick, anything that takes strength to break)

| poch' | 'cut or pull' (peel off fruit); 'skin' (animal) |
| :---: | :---: |
| putz' | 'partially break long thing, result is not fully broken' |
| set' | 'cut across long or thin object' with sharp tool (paper, rope, flowers, cloth, cable, but not bread); 'cut around outside of object' (e.g. ringing a tree) |
| sew | 'cut round or bulky soft thing across long axis' (bread, onion, fruit, but nota cloth |
| sil | 'cut into slivers, slice along long axis' (firewood, carrot, green beans) |
| Toch | 'peel off rip/break/detach surface' |
| top' | 'cut/break brittle things' (firewood, wooden house, tiles, pot, gourd bowl, dish, mirror, guitar) |
| tuch' | 'cut, break in two across fibers, suddenly' (rope, cable, string, hair, sewn seam) |
| tuy | 'cut flexible thing with sharp instrument' (paper, meat, cloth, twig) |
| t'il | 'break into pieces' (bricks, crockery, tiles, mirror); 'chip small bit(s) off' (pot'slip) |
| t'ol | 'cut/break into big chunks' (meat, firewood, stones) |
| t'ox | 'split wood down the middle along long axis with axe' |
| t'us | 'break/squash between fingers' (fruit/eggs/bugs) |
| tz'et | 'slice once into with machete or other sharp instrument' (e.g. tabletop, wood) |
| tz'et | 'cut down at base' (tree, big strong weeds) |
| tz'ap | pierce, stab one end of long thing into surface' |
| tz'up | 'pierce, stab point of sharp thing into surface' |
| wis | 'scrape, cut by sawing motion' (e.g. cord, wire); 'open/shut a zipper' |
| woch' | 'break into inside of ' (box, carton, pot, computer) |
| wuch | break, smash, destroy' (tortilla, egg, pail, house, car) |
| wuy | 'break brittle thing into pieces' (cement, pottery, glass) |
| xet | 'tear fragments of thin pliable things larger than xet' (e.g. blanket); 'cut/break a pot into large pieces' |
| xet' | 'break flexible thing' (paper, tortilla, bread, leaves) |
| xot' | 'cut/break large thing across long axis into two, with machete or axe' (wood, fish) |

The C\&B verbs in Tzeltal lexicalize some semantic features as the properties of the object whether it is hard as a stick, flexible as a rope, round as a pot, or a multi-stranded object such as hair. The verbs also lexicalize spatial properties of the action such as part /whole relations. The author states that completion of the action in addition to the type of the instrument used in achieving the action are also important characteristics of the verb that decide the kind of the verb that is used. Brown concluded that in the great majority of cases it is not easy if not impossible to predict the verb argument structures as Tzeltal has a wide array of verbs for cutting and breaking. The semantics of the great majority of these C\&B verbs does not appear to predict
their argument structure, as Pye (1996) found for C\&B verbs in K'iche' Maya. Almost all the roots can be readily construed either transitively or intransitively, regardless of whether they entail an instrument or not, an agent or not. In Tzeltal there is no clear syntactic divisions into verbs of cutting (which focus on what the agent does and with what instrument/manner) vs. breaking (which focus on the result to the undergoer); morphological processes allow a verb to be construed from either perspective.

Ameka \& Essegbey (2007), Brown (2007), and Majid et al (2007) explore the semantics of 'cut' and 'break' verbs in many languages. The studies added to the Guerssel et al. research by exploring the use of verbs in different contexts. However, these studies still have some limitations. First, they did not analyze the semantic representation and the LCS of the verbs as Guerssel et al. did in their work. Second, they did not discuss the implication when one language has one verb to express the event of cutting or breaking, and other languages have more than four or five, or even more to express the same events. Their research lacks a discussion about the translation equivalence of verbs among the languages and how this would affect the use of the verbs. The other point which has not been mentioned in the Majid et al. studies is that none of them mention any context in which the verbs have been used to refer to a metaphorical action rather than to a real action.

### 1.4 Variations among languages in the verbs 'cut' and 'break'

Languages vary in the way they categorize 'cut' and 'break' verbs. They also differ in how they divide those two verbs as some languages have two divisions, such as English, and other language have four, such as Ewe.

I will start the discussion by presenting the 'cut' and 'break' verbs in K'iche' which does not have a general word for breaking that can be substituted for the specialized breaking verbs in the way that English 'break' can be used to describe more specific senses of picking, popping,
smashing, or shattering (Pye, 1996). For example, K'iche' uses different versions of 'break' verbs according to the manner in which the action is achieved. For example, the verb chikoj is used to describe the action of breaking something by throwing the object. The verb is chakatij is used to refer to an action that changes the state of the object that undergo the action of breaking into small pieces, the, and the verb jok is used if the object changes its state to be a very small pieces such as grinding the coffee. The verb $j i s i j$ is used when the action refers to making a crack in the object, not totally breaking it. The verb jochopij is used when an action of breaking soft object as banana and paxi is used refer to break hard objects such as plates. The same differentiation applies to 'cut' verbs in K'iche' as the verb changes according to the manner of the cutting action are achieved. When the action is achieved in an unspecified manner the verb qopij is used, while when the action is achieved very carefully, the verb qat is used. The verb qol is used when the direction of the action is shown as tearing leaves across the base of the leaf. The verb toqopij is used to refer to severing long and flexible objects such as a rope or a wire, while the verb tubij is used if the object is flat and soft such as paper or clothes.

K'iche' has gaps in its lexical and conceptual structure with no equivalent lexical or phrasal expressions for the general English verbs 'break' and 'cut.' The verb 'break' in Kiche is applied on one to three dimensional objects. The verbs for 'break' and 'cut' in Kiche provide evidence that verbs in different languages, even though they are used in similar contexts, cannot have the same LCSs as they are used in different contexts with different objects.

Yélî Dnye is an isolated so-called Papuan language has another story regarding their cutting and breaking verbs (Levinson, 2007). The Yélî Dnye verbs covering the $\mathrm{C} \& \mathrm{~B}$ domain do not divide it in the expected way; the semantic parameter that distinguishes 'cut' and 'break' verbs in the language is the notion of 'grain', more exactly fibers. Materials which are built of
aligned fibers (wood, leafs, vines, cloth, etc.) have the property that they are severable in very different ways, that is 'with the grain' (along the fibers), or 'against the grain' (across the fibers). These materials in turn differ from those without 'grain', i.e., not built from fibers, which can easily break incoherently in any direction (fibrous materials can also break incoherently under extreme compression or torsion). These distinctions in folk 'materials science"' seem to underlie the distinction between the three transitive verbs: on the one hand, wood can undergo chaa 'splitting along the grain', or châpwo 'severing across the grain', or pwââ 'cracking both along and across the grain'; on the other hand, cloth will tend to chaa 'tear or split', and pottery to $p w a \hat{a}$ 'break into irregular pieces.' All three distinctions are concerned primarily with the state change caused in the theme (the affected object), not with the type of activity that produces it.

The C\&B predicates in Chontal which is an unclassified language of southern Mexico are grouped into one of three classes: a cut-like class called 'delivery of force", a break-like class called 'change of state', and a class formed exclusively of compound stems predicates that depict the result state as ' 'apart'" (L. O'Connor, 2004). All predicates in the delivery of force class (i) do not occur in intransitive alternation (i.e., the theme cannot be the subject), and (ii) focus semantically on the manner of action on the part of the agent and/or instrument. All predicates in the change of state class (i) can be used in intransitive alternation (i.e., the theme can be the subject) and (ii) focus semantically on the manner of change in the theme. Predicates in the separate apart class are compound stem predicates in which the initial element has varied semantics and the second element $-n \tilde{i}$ encodes the result state as 'apart' (much like the result verb kail in Mandarin, described in Chen 2007). Like the change of state class verbs, all of these participate in intransitive constructions. In general, the verbs 'cut' and 'break' in Chontal fall semantically into three categories: The first category refers to those verbs that focus on the
manner of action as tek'e 'break,' nayke 'cut, 'and nanjtse 'chop.' Those verbs concentrate on the manner of the action as whether the action is achieved with an instrument or not. The second category of cutting and breaking verbs focuses on the manner of change, as payee 'break,' and jas 'tear.' When a cloth is torn or shredded, but not necessarily torn apart, the verb tsajl 'shred' is used. The third category of verbs in Chontal focuses on the result state as tyofni 'break, snap apart.' The verbs in this category refer to the clean separation of the object. Thus, as clear from the data of different languages each language categorizes the verbs 'cut' and 'break' differently.

The semantics of events of cutting, breaking, and tearing in two South Asian languages, Hindi (Indo-European, North India) and Tamil (Dravidian, South India) show totally a different categorization than the previous mentioned languages (Narasimhan, 2007). Although the two languages are genetically unrelated, they share linguistic traits partly owing to language contact over the centuries (Masica 2001).

Both Hindi and Tamil speakers apply the 'break' verb to refer to action that causes material separation of physical objects. However, the boundaries of the category vary in the two languages based on properties of the instrument and the object acted upon (the theme). The 'break' verb in both languages is applied to rigid objects (e.g., pot, plate, and branch) and blunt instruments (hand, hammer). The Hindi verb toD| glossed here as 'break' is habitually used in situations described by the English verbs 'snap, break (something) up, demolish, fracture, split' and typically involves rigid objects to which pressure is applied to create a breach in their integrity. The break action might occur at the point at which the instrument makes contact with the object (e.g., the point at which a stroke of a hammer falls) or when contact is applied elsewhere on the object (e.g., the two ends of a stick or piece of yarn which snaps in the middle as a result of pressure applied from the ends). While the Hindi verb kaaT 'cut' is typically used
for events described in English with verbs such as 'cut, carve, slash, slice, hack, bite, sting,' and implies use of a (bladed or pointed) instrument. Verbs that refer to actions involving (single or double) sharp-bladed instruments such as a knife, scissors or axe are described using the verb $k a a T$, irrespective of whether the theme object is extended along one dimension (wool, rope) or two dimensions (cloth), and whether it is flexible (hair, rope) or rigid (branch, carrot). But unlike Hindi, the Tamil verb veTTU cannot be used to mean 'bite' or 'sting' even though these imply sharp or pointed instruments (e.g., teeth); a different verb kaDii is used for such actions. But veTTU, like $t o D \mid$, can also be used for theme objects varying in dimensionality and flexibility.

For events that involve incomplete cutting (making a cut in a finger or melon), the verb kiirU 'scrape, scratch' is used, which can be used to focus on the use of a pointed or sharp-edged instrument to make a separation in an entity with pre-existing divisions (e.g., coconut pulp from the shell), or to create a separation in an entity which is whole (e.g., a melon, a fingertip). Hindi speakers also use expressions other than kaaT for the cutting domain, but these are semantically more general than the verb kaaT, including TukD|e kar 'cause to be in pieces' and hisse kar 'cause to be in parts' which specify the resulting state of the theme objects and not the manner, type of theme object, or the instrument involved in the action. Speakers of Tamil also use semantically general complex predicates of this type (tuNDaa aakU 'cause to be in pieces'), but they do so less frequently. The verbs 'cut' and 'break' in Hindi and Tamil can be categorized semantically according to the data provided by Narasimhan, (2007) into two kind of breaking verbs one to show fracture and breaking part of the object and another that results in breaking the object into pieces, meantime the verb 'cut' is also divided into two kinds, one that is achieved by a sharp instrument but without causing a full separation of the object, while the other verb refer to an action of cutting that results in cutting the object into pieces.

Jalonke is a variety of Yalunka, a Central Mande language spoken in a handful of villages in the north of Guinea (Lu"pke, 2007). The verbs 'cut' and 'break' are categorized according to whether the actor has control over the action of cutting or breaking or not, or according the kind of instrument and manner used in the action, or whether the object is a whole entity or has been detached from another entity. For example, depending on the type of impact, two groups of verbs compete with each other. The verbs i-gira 'break again' and i-dogoti 'cut/break into two pieces' are used for the separation of oblong thin objects in places not under the control of the doer of the action. I-din 'pound again' and its simplex form din 'pound' predominantly describe the diffuse and locally imprecise impact of a hammer on different objects. Other verbs entail control over the location of impact; this group includes sege 'cut' and tumba 'pierce.'

A systematic distinction within the domain of $\mathbf{C} \& \mathrm{~B}$ in Jalonke is whether the theme is construed as having been previously detached from an entity. If the objects have already been detached from the whole of which they are part, a regular $i$-xaba 'chop' or lexicalized iterative $i$ dogoti 'cut in two pieces' must be used for objects such as rope or cloth.

Many Jalonke 'cut' verbs are differentiated through the manner or instrument lexically specified. These verbs contrast with 'break' verbs, which don't select for a specific instrument. Cut verbs necessarily involve specific instruments: sege 'cut (in one stroke), fell' implies a knife, an axe, or a machete, bii 'cut (in swinging, shaving movements)' implies a sickle if applied to a grain-field, and a razor if applied to hair. Xaba 'cut, saw' involves a saw or a knife with saw teeth and further designates that the disintegration involves several strokes.

Kuuk Thaayorre is a first language of around 200 people. Though undoubtedly endangered, Kuuk Thaayorre is still used in everyday interactions, and is being acquired by a
small number of children. Formerly hunter-gatherers, the vast majority of Thaayorre are now resident in Pormpuraaw -western Cape York, Australia- (Gaby, 2007).

Thaayorre C\&B verbs can be categorized semantically in terms of: the instrument used to 'cut' or 'break' the theme; characteristics of the theme that is 'cut/ broken'; the manner in which the theme is cut/broken; the degree of control the agent has over the locus of separation of the theme; the intention of the agent to break the theme; the result state of the theme post-cut or break.

The verb thiik 'break' entails nothing of the instrument, theme, or manner of separation. Thiik implies that the agent lacks control over the precise locus of separation (hereafter 'control'), but this is not entailed. The focus of thiik is instead on the theme's result state: in two or more pieces. While the verb rumparr 'break' is semantically broad, encompassing a wide range of breaking events. It differs in its focus on the functionality of the theme. To predicate rumparr-r 'broken' of a theme entails that this thing formerly had some function, but that as a result of the breaking event it is no longer (as) able to perform it. Thaayorre has the verb rath 'chop' which is like yak 'cut', rath 'chop' encodes information about the instrument, namely that it is blade-like. The key difference between the two verbs is the manner of the action they describe. While yak 'cut' describes a more controlled, incremental exertion of pressure against a theme's surface, rath describes abrupt, forceful (usually iterated) contact between the blade and theme. As shown Thaayorre has a special way of categorizing the verbs 'cut' and 'break.' The verb Yak 'cut.' The meaning of the verb yak 'cut' is very similar to that of its English counterpart. It encodes information about control, instrument, manner of separation and the result state of the theme. The instrument has an extended, sharp surface (typically a blade) which is brought into controlled, prolonged contact with the theme, exerting a downwards (towards
theme) pressure, typically involving lengthwise movement (along the single dimension in which the instrument is saliently extended)

How similar, or different, are semantic categories in closely related languages is a question Majiid et al ,2007 investigated in their work "How similar are semantic categories in closely related languages" and they found out amazing answer. There are a number of differences in the semantic categories of $\mathrm{C} \& \mathrm{~B}$ verbs in the Germanic languages. English, German, Dutch and Swedish vary in the number of categories they recognize, in the extension of these categories, and in the relationship of the terms to one another (Majiid et al, 2007).

There are two large categories in English. The largest category is made up of breaking events, while the other is made up of cutting events. These were described by speakers as 'break' and 'cut.' Within these categories there are sub-categories. For the breaking cluster the subclusters consist of verbs as snap, smash or tear. The cutting category includes all the separations involving knives or scissors. There is also a sub-category of chopping events. These are events in which a sharp instrument such as an axe is used to create a separation by means of a heavy blow.

The structure of German is different from that of English. Instead of two large categories there are three a large breaking category, a cutting category, and a separate tearing category while Dutch has four distinct categories the first includes events of breaking, the second events of tearing, third events of cutting-with-a-single-blade, and the fourth events of cutting-withscissors.

Swedish has the highest number (five) of discrete categories for dividing C\&B events: a large breaking category (hugga), snapping (bryta), cutting-with-a-single-blade (ska"ra), cutting-with-scissors (klippa), and tearing (slita).

What has been mentioned shows that the semantic categories of closely related languages can be very different from one another. Yet, at least in the domain of $\mathrm{C} \& \mathrm{~B}$ events, this variation is played out within a common structure. I summarized the ways by which different languages categorized the division of 'cut' and 'break' verbs in Table (4). The authors categorized the verbs according to the way the objects undergo the action e.g. if there is a total separation after achieving the action or there is a connection between the parts of the object. They also categorized the verbs according to the dimensioned shapes of the objects e.g. if the object is long and soft as rope or it is hard as a rock. The division of 'cut' and 'break' verbs in Sranan which is an English-lexified creole which developed on the plantations of Suriname in the second half of the seventeenth century has another categorization. The actions of breaking and cutting are expressed by the two verbs broko 'break', koti 'cut' respectively. The verb broko does not specify a particular breaking action, instrument or manner (cf. Pye 1996), although it does give information about the nature of the object that undergoes a change whether it is hard and brittle, e.g., a stick, a plate, or a pot (Essegbey, 2006).

Koti was used to describe a range of events in which sharp-edged or pointed instruments were used to produce a clean cut. What is interesting about the verb koti is that it is used to describe an action of hitting a rope with a hammer and results in making the rope two pieces.

| The languages | The categories of division |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Manner |  | 'Result and lind of change |  | Kind of objects |  |  | Dimension |  |  | Control of result |  | Intention |  | instrument |  | In relation to grain |  |  |
|  | Break | Cut | Break | Cut | hard | Soft | Long | 1 | 2 | 3 | break | Cut | $\begin{array}{\|l} \hline \begin{array}{l} \text { Bre } \\ \text { ak } \end{array} \\ \hline \end{array}$ | cut | Break | cut | with grain | Agninst grain | $\begin{aligned} & \text { withou } \\ & t \text { grain } \end{aligned}$ |
| Kiche | Chizoj | $\begin{array}{\|l} \hline \text { Qopij } \\ Q a t \end{array}$ | Chakati Chakatij Jok Jisij |  | paxi | $\begin{aligned} & \text { Jochopi } \\ & \text { Tubij } \end{aligned}$ | Toqopis | $\begin{aligned} & \hline \text { Tubij } \\ & q o l \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |
| Yéli Daye |  |  | pwda |  |  |  |  | chaa |  |  |  |  |  |  |  |  | Chaap wala | $\begin{aligned} & \text { chapwo } \\ & \text { pwada } \end{aligned}$ |  |
| Chontal | tek'e | nayke | $\begin{aligned} & \text { paye } \\ & \text { pophi } \end{aligned}$ | Jas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hindi |  |  | hisse kar | TukD e kar | toD |  |  |  |  |  |  |  |  |  | toD | kaaT |  |  |  |
| Tamil |  |  | $t u$ VDaa $a, k U$ | kiirU |  |  |  |  |  |  |  |  |  |  |  | veTTU |  |  |  |
| Jalonke |  | $\begin{array}{\|l} \text { Dogoti } \\ \text { bii } \end{array}$ |  |  |  |  |  |  |  |  | $\begin{array}{\|c\|c\|} \hline i \text {-gira } \\ 1-\text { din } \end{array}$ | Idogoti sege |  |  |  | Taba |  |  |  |
| Kuuk Thaayorre |  | Yak | Rumparr |  |  |  |  |  |  |  | thilk |  |  |  |  | rath |  |  |  |
| English | Break | Cut |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| German | Brechen |  |  | Reissen |  |  |  |  |  |  |  |  |  |  |  | schneiden |  |  |  |
| Dutch |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Snijden knippen |  |  |  |
| Swedish | Hugga |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ska'ra klippa |  |  |  |
| Sorami | Break |  |  |  |  |  |  |  |  |  |  | Cut |  | bchre |  |  |  |  |  |

[^5]As shown in Table 4 the categorization of 'cut' and 'break' verbs across linguistically varies according to different elements and labels that are inherited in the meaning of the verb as the manner of the action, the result of the action, the role and the intention of the agent in the action, the kind of instrument, kind of the change in the state of the object, the degree of control on the result of the action, the kind of the object, the direction of achieving the action, and the dimension of the object.

### 1.5 Difficulties I faced in categorizing the verbs cross-linguistically

It was not easy to analyze verbs in many languages as each language has its own specificity and characteristics. I resorted to different articles and sources that cited the verbs in those languages and explained how the verbs are used and the contexts of use of those verbs. First of all many articles I read did not give enough explanation of the contexts of use which makes it difficult to imagine what exactly the kind of action the verb describes. For example, The Yélî Dnye verbs covering the $\mathrm{C} \& \mathrm{~B}$ domain do not divide it in the expected way, 'cut' and 'break' verbs in the language are divided according and around the notion of 'grain', more exactly fibers. Materials which are built of aligned fibers (wood, leafs, vines, cloth, etc.) have the property that they are severable in very different ways, that is 'with the grain' (along the fibers), or 'against the grain' (across the fibers). These materials in turn differ from those without 'grain', i.e., not built from fibers, which can easily break incoherently in any direction (fibrous materials can also break incoherently under extreme compression or torsion). The authors mentioned all these facts without giving an explanation of the contexts in which those verbs are
used. And this makes it difficult for the non-native speakers of those languages to understand the exact meaning of the verbs.

All the sources that I used depended on showing different video-clips to the native speakers of that language to describe the event in the video clip, but there is no mentioning to any metaphorical uses of the verbs in those languages which makes their description incomplete as the metaphorical use of the verbs is a very important factor in giving a full picture of the verbs and how the verbs would behave in those contexts.

## Chapter Two: Sorani basic grammar and morphology

### 2.1 Introduction

This chapter presents a basic description of the grammar and morphology of Sorani Kurdish that includes a description of the syntactic alternations of the simple, compound and complex verbs in Sorani Kurdish. I divide the chapter into four sections. The first section introduces the Sorani dialect and its language family. The second section of the chapter discusses the word order and the agreement markers that appear as clitics on nouns and verbs in Sorani. The third section describes the simple, compound and complex classes of verbs in Sorani. The fourth section presents the syntactic alternations of Sorani verbs. The chapter ends with a brief summary.

### 2.2 The Kurdish Language and Sorani Dialect

Kurdish belongs to the Iranian languages, which make up the Indo-Iranian branch of the Indo-European languages (Abdullah 1967; McCarus 1959; Fattah 1997). The languages most closely related to Kurdish are Balochi, Gileki, and Talysh. Those languages belong to the northwestern branch of the Iranian languages. Kurdish is spoken in Iran, Iraq, Turkey, Syria, Lebanon, Armenia, and Azerbaijan. Kurdish has many different dialects and sub-dialects. Two general divisions are Sorani, also known as central Kurdish, and Badinani, also known as northern Kurdish.

The most important difference between Sorani and Badinani resides in the fact that Sorani is an accusative language while Badinani is ergative. Thus, in Sorani the verb invariably agrees with the subject, while in Badinani, the syntactic pattern of transitive sentences in the past tenses is typically ergative in that the NP with which the verb agrees
is not the agent but the goal (Bynon 1979:16). The Sorani agreement system maintains an ergative pattern to the extent that agreement markers follow intransitive verbs in both the imperfective and perfective aspects, whereas they only follow transitive verbs in the imperfective aspect. The agreement markers precede transitive verbs in the perfective aspect. My research was done on Sorani, which is spoken in Sulaimnyha in the north of Iraq, and Sinnha in the western part of Iran.

### 2.3 Agreement in Sorani

Sorani has agreement features for aspect, definiteness, number and person. Nouns are marked for definiteness and number. These markers occur in this order after adjectival modifiers as shown in (1-3). Determiner phrases have the order noun-adjective-determiner-plural.
(1) Kur- an ladarawan boy- pl outside "Boys are outside"
(2) Kur- ak- an ladarawan boy- the- pl outside
"The boys are outside"
(3) Kura gawra-ak-an ladarawan boy big- the-pl outside "The big boys are outside"

A possessive marker occurs between a possessed noun and its possessor. The possessive marker has the form -i after consonants as in (4) and -y after vowels as in (5). The possessive marker follows any adjectives that modify the possessed noun (5).
(4) Daik- i kur- ak- an mother- poss boy- def- pl "The boys' mother"
(5) Daik- a peraka- y kur- ak- an mother- ${ }^{1}$ izafa old- poss boy- def- pl "The boys' old mother"
(6) ?Daik- a zor peraka- y kur- ak- an mother- izafa very old- poss boy- def- pl "The boys' very old mother"
(7) Daik- a bchuuk- a peraka- y kur- ak- an mother- izafa small- izafa old- poss boy- def- pl "The boys' small old mother"

Sorani has a set of independent pronouns that are not marked for case. Only the third person form is marked for number. The independent pronouns are shown in Table 1.

| Person | Singular | Plural |
| :--- | :--- | :--- |
| 1 | min | ema |
| 2 | to | ewa |
| 3 | aw | aw-an |

Table 1. Sorani independent pronouns

[^6]The verb in Sorani has morphemes that mark aspect, mood, person, number, causative, passive, and other features. Sorani verbs can be used within a sentence, or they can constitute an entire utterance by themselves (8) since Kurdish is a pro-drop language (Fatah 1997).

| ${ }^{2}$ da- | shke | -n | -m |
| :--- | :--- | :---: | :--- |
| imperf- | break |  |  |
| "I am breaking it" |  |  |  |

Kurdish is a verb final language. The word order is SOV (9).
(9) To panjara- ka- t shka- n(d)- 0
you window- the- ERG2 break.perf- cause- ABS3
"You broke the window"

Interrogative and imperative cases are expressed either by using the main verb with a rising-falling intonation, or by using an independent pronoun with the main verb for emphasis. For example, the pronoun to 'you' is added for emphasis in (10). -Interrogative
(10) darga- ka- t krdawa- 0 ?
door- the-ERG 2 open.perf-ABS3?
"Did you open the door?"
(11) To panjar aka- t- shka- n-(d)- 0?
you window the- ERG2- break.perf- cause-ABS3?
"Did you break the window?"

[^7]Imperative verbs add the subjunctive prefix /b-/ to the verb stem (12).
(12) a. Darga- ka b-ka-rawa door- the subj-open-emph
"Open the door"
b. b-ro-rawa malawa subj-go-emph home "Go home"

Verbs are marked for tense, person and number. Table 2 illustrates the perfective forms for transitive and intransitive verbs. The perfective form is used to refer to both completed and perfect events.

| Transitive | Intransitive |
| :---: | :---: |
| min to- m bene- 0 I you-ERG1 see.perf-ABS3 "I saw you" | min xawt- im I sleep.perf-ABS1 "I slept" |
| min aw-m bene- 0 I s/he-ERG1 see.perf-ABS3 "I saw him/her" | $\begin{aligned} & \hline \text { min xawt- } \quad \text { im } \\ & \text { I sleep.perf-ABS1 } \\ & \text { "I slept" } \end{aligned}$ |
| to aw- t bene- <br> You s/he-ERG2 0  <br> see.perf-ABS3   <br> "You saw him/her"   | to xawt-e (t) you sleep.perf-ABS2 "You slept" |
| aw aw- i bene- 0 s/he s/he-ERG3 see.perf-ABS3 "S/he saw him/her" | aw xawt- $\quad 0$ s/he sleep.perf-ABS3 "S/he slept" |
| ema aw- m- an bene- 0 we s/he-ERG1-pl see.perf-ABS3 "We saw him/her" | emaxawt- <br> we <br> e- <br> "We sleep.perf-ABS1-pl"We slept |
| $\begin{array}{lccc} \hline \text { ewa } & \text { aw- } & \text { t- } & \text { an bene- } \\ \text { you_pl s/he- } & \text { ERG2-pl see.perf-ABS3 } \end{array}$ <br> "You all see him/her" | $\begin{array}{llrr} \hline \text { ewa } & \text { xaw- } & \text { ti- } & n \\ \text { you_pl } & \text { sleep.perf-ABS2.pl } \end{array}$ "You all slept" |
| awan aw- y- an bene- 0 they s/he-NOM3-pl see.perf-ABS3 "They saw him/her" | $\begin{array}{lll}\text { awan } & \text { xawt- } \quad 0-\quad \mathrm{n} \\ \text { they } & \text { sleep.perf-ABS3-pl }\end{array}$ "They slept" |

Table 2. The agreement marker on the transitive and intransitive verbs in Sorani
The agreement markers occur after perfective transitive verbs when there is no overt DP, which precedes the verb. The transitive verbs add an additional agreement
marker for the direct object in these cases. The agreement is marked in the order verb-subject-object except when the subject is third person singular and the object is the first or second person singular:
(13) bene- m-ee (t)
see.perf-ERG1-ABS2
"I saw you"
(14) bene- m- 0 see.perf-ERG1-ABS3
"I saw him"
(15) bene- m- 0- in
see.perf-ERG1-ABS2.pl
"I saw you all"
(16) bene- m- 0- in
see.perf-ERG1-ABS3-pl
"I saw them"
(17) bene- t- m-0
see.perf-ERG2-ABS1
"You saw me"
(18) bene- m- e see.perf-ERG1-ERG3
"S/he saw me"
(19) bene- t- i
see.perf-ERG2-ERG3
"S/he saw you"
(20) bene- y- an- im
see.perf-ERG3- pl- ABS1
"They saw me"
The imperfective is marked by the prefix $d a$ - that attaches to both transitive and intransitive verbs. Object agreement is marked after the imperfective prefix, and subject
agreement follows the verb. Subject agreement always follows intransitive verbs. Table 3
provides examples of the imperfective forms of transitive and intransitive verbs.

| Transitive | Intransitive |
| :---: | :---: |
| $\min$ da- $y$ - beni- $m$ I imperf-ERG3- see- NOM1 "I see him/her" | $\begin{aligned} & \hline \text { min da- } \quad \text { xawi- m } \\ & \text { I imperf-sleep-NOM1 } \\ & \text { "I sleep" } \end{aligned}$ |
| to da- y- beni- 0 you imperf-ERG3-see- NOM2 "You see him/her" | to da- xawi- ee(t) you imperf- sleep- NOM2 "you sleep" |
| aw da- $y$ - beni- e s/he imperf-ERG3-see-NOM3 "S/he sees her/him" | aw da- xawi-e(t) s/he imperf-sleep-NOM3 "s/he sleeps" |
| ema da- y - beni-e- n we imperf-ERG3-see- NOM1-pl "We see him/her" | ema da- xawi-e- n we imperf-sleep-NOM1-pl "We sleep" |
| $\begin{array}{llccc} \hline \text { ewa } & \text { da- } & \text { y- } & \text { beni-0- } & \text { n } \\ \text { you(pl) } & \text { imperf-ERG3-see- } & \text { NOM2-pl } \end{array}$ "You all see him/her" | $\begin{aligned} & \hline \text { ewa da- } \quad \text { xawi-0- } \quad \mathrm{n} \\ & \text { you(pl) imperf-sleep-NOM2-pl } \\ & \text { "You all sleep" } \\ & \hline \end{aligned}$ |
| awan da- $y$ - beni-0- $n$ they imperf-ERG3-see-NOM3-pl "They see him/her" | awan da- xawi- 0- n they imperf-sleep-NOM3-pl "They sleep" |

Table 3. The imperfective marker with the transitive and intransitive verbs in Sorani

The imperfective transitive verbs can occur without overt DP subjects and objects in which case the verb forms do not change.
(21) Da- $y$ - beni- m

Imperf- ERG3- see- NOM1
"I see him/her"
(22) Da- t- beni- m

Imper- ERG2- see- NOM1
"I see you"
(23) Da- m- bene- 0

Imper-ERG1- see-NOM2
"You see me"

The imperfective is used to refer to present, ongoing, future and conditional events (24).
The adverb ista "now" is added to emphasize ongoing events (24), while a temporal adverb, e.g. "tomorrow" may be added in reference to future events (25).
(24) min da- $y$ - ben- im ista

I imperf-ERG3-see-NOM1 now "I am seeing him/her now"
(25) min da- y- ben-im bayanee I imperf-ERG3-see-NOM tomorrow "I will see him/her tomorrow"
$\min$ ista da- $y$ - ben-im
I now imper-NOM1-see-1
"I am now seeing him/her"
min bayanee da- $y$ - ben- im
I tomorrow imperf-ERG3-see-NOM1
"I will see him/her tomorrow"
(26) agar to-m na-bene-0, bro- rawa malawa

If 2-ERG1 not-see-NOM2, go- emph home
"If I do not see you, go home"

I provide a summary of Sorani verb forms in different moods and aspects in Table 3.
Table 4 includes both affirmative and negative forms.

| Tense and mood | Verb Form |  |
| :---: | :---: | :---: |
|  | Transitive | Intransitive |
| Perfective | kur-aka dar- aka-y bene- 0 boy-the tree- the-ERG3 see.perf-ABS3 "The boy saw the tree" | kur- aka $\begin{aligned} & \text { xawt- } \\ & \text { boy- the } \\ & \text { sleep.perf-ABS3 }\end{aligned}$ "The boy slept" |
| Imperfective | kur-aka dar-aka da- bene- (t) boy-the tree-the imperf-see-imperf-NOM3 "The boy is seeing the tree" | Kur-aka da- xaw- et boy-the imperf-sleep.imperf-NOM3 "The boy is sleeping" |
| Imperative | dar-aka b- ben-a tree-the subj- see-imperf "look at the tree" | b- xaw-a subj-sleep-imperf "Sleep" or "Go to sleep" |
| Interrogative | dar-aka-t bene- 0 ? tree-the ERG2 see.perf-ABS3 "Did you see the tree" | $\begin{aligned} & \text { Xawt- eet? } \\ & \text { sleep.perf-ABS2 } \\ & \text { "Did you sleep?" } \end{aligned}$ |
| Desiderative | a-m-aweet aw dar-aka b-bene- (t) asp-ERG1-want him tree-the subj-see-NOM3 "I want him to see the tree" | a-m- aweet aw b- xawe-et asp-ERG1-want him subj-sleep- <br> NOM3 <br> "I want him to sleep" |
| Subjunctive | abet dar-aka b-bene- (t) (he) should tree_the subj-see-NOM3 "He should see the tree" | abet b-xawe-et  <br> (he)should subj- sleep-NOM3 "He should sleep" |
| Negation |  |  |
| Perfective | aw dar-aka-y na bene- 0 he tree-the-ERG3 not see_perf-ABS3 "He did not see the tree" | aw na-xaw- <br> he not-sleep.perf-NOM3 <br> "He did not sleep" |
| Imperfective | aw dar- aka na- bene- 0 he tree-the no-see-imperf-ABS3 "He does not see the tree" | aw na-xaweet He no-sleep.imperf-NOM3 "He does not sleep" |
| Subjunctive | aw na-bet dar-aka b-benehe not-should tree-the subj-see.imperf-NOM3 "He should not see the tree" | aw na-bet b-xawe-t he not-should subj-sleep.imperfNOM3 "he should not sleep" |
| Imperative | dar-aka ma-ben-a tree-the not-see-imperf. "Do not look at the tree" | Ma-xaw-a Not-sleep-imperf. "Do not sleep" |

Table 4. Transitive and intransitive agreement marking in Kurdish (present, past, imperative, subjunctive)

The previous examples show that Sorani uses different forms of pronominal clitics. I distinguish three classes of pronominal clitics based on their form and distribution. I have arbitrarily labeled these three classes ergative, absolutive and nominative. Their forms are shown in Table 5.

|  | Person | Ergative | Absolutive | Nominative |
| :--- | :--- | :--- | :--- | :--- |
| Singular | 1 | -m | -im | -m |
|  | 2 | -t | $-\mathrm{ee}(\mathrm{t})$ | $-\mathrm{ee}(\mathrm{t}) \sim-0$ |
|  | 3 | $-\mathrm{i} \sim-\mathrm{y}$ | -0 | $-\mathrm{e}(\mathrm{t})$ |
| Plural | 1 | $-\mathrm{m}-\mathrm{an}$ | -e | -en |
|  | 2 | -t -an | $-0-\mathrm{in}$ | $-0-\mathrm{n}$ |
|  | 3 | -iy-an | $-0-\mathrm{in}$ | $-0-\mathrm{n}$ |

Table 5. Ergative, absolutive and nominative clitic pronouns in Sorani
The ergative set of pronominal clitics is distinguished from the other two sets by its distribution. It is a second position enclitic, and attaches to any phrase in the second position in the clause. The second position phrases include overt direct objects, the imperfective aspectual prefix, and the negation marker $n a$. It does not attach to subjects. Examples of ergative enclitics in these contexts are shown in (27).
a. Direct object
aw aw- i bene- 0
s/he s/he-ERG3 see.perf-ABS3
"S/he saw him/her"
b. Imperfective prefix

Da- t- beni- m
imperf- ERG2- see- NOM1
"I see you"
c. Negation marker
na-m- kiri- 0
neg-ERG1-buy.perf-ABS3
"I did not buy it"

The ergative enclitic only follows the negation marker when nothing precedes it.
If there is a direct object, the ergative enclitic will follow the direct object and precede the negation marker (28).
aw dar-aka- y na bene- 0
he tree-the-ERG3 not see.perf-ABS3
"He did not see the tree"
Examples (27b and c) show that the ergative enclitic pronouns do not crossreference a single thematic role. Table 6 shows the cross-referencing functions of the three classes. According to this analysis, Sorani retains an ergative agreement system in the perfective aspect, and has a nominative agreement system in the imperfective aspect.

The cross-reference markers on intransitive verbs do not change position because intransitive verbs do not take ergative markers.

|  | Perfective |  | Imperfective |  | Inverse |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Subject | Object | Subject | Object | Subject | Object |
| Transitive | ERG | ABS | NOM | ERG | ERG | ABS |
| Intransitive | ABS |  | NOM |  |  |  |

Table 6. Cross-referencing functions of the ergative, absolutive and nominative clitics

Examples (13-20) above show that when the ergative markers follow the verb, they precede the absolutive markers that cross-reference the direct object with two exceptions. Examples (29 a, b, and c), repeated below, are cases where the absolutive marker that follows the verb cross-references the direct object rather than the subject. Because this cross-referencing is unexpected, I distinguish it from the perfective and imperfective systems, and label it an inverse system. It occurs when the subject is lower on the person hierarchy than the object. The subject is third person in (29) whereas the object is first person. Normally, the ergative cross-references the subject of perfective transitive verbs.
a. bene- m- e
see.perf-ABS1-ERG3
"S/he saw me"
b. bene- t - i
see.perf-ABS2-ERG3
"S/he saw you"
c. xward- im- i
eat.perf-ABS1-ERG3
"He pestered me"

The question that needs be answered is why the agreement marker moves from the end of the transitive verb in the imperfective aspect to appear as a clitic after a DP that precedes the transitive verb in the perfective aspect. In the next section I explore the clitic nature of this agreement marker, as this would be the key to explaining the agreement phenomenon in Sorani.

### 2.4 Clitics or affixes

A close examination of the nature of the agreement marker in Sorani shows that it is not obvious whether it is a suffix or a clitic. Clitic as defined by many sources as " the class of units which members exhibit syntactic characteristics of a lexical unit, but show evidence of being morphologically bound to another lexical unit, the host, by being unstressed or subject to word-level phonological rules (Crystal 1980, 64, Anderson 1985, 158; Klavans 1985, xi-xiv; Zwicky 1977,5), while the suffix is defined as "bound morphemes attached to free words" Zwick (1983). In what follows I will discuss the properties of the affixes and clitics in general, and then apply them to the data in Sorani to decide whether the agreement marker on nouns and verbs is an affix or a clitic.

There are a number of forms in Sorani, which have all the properties of clitics. These include:
(a) Subject agreement: The verb agrees with subject. The agreement marker on the verb always agrees with the subject in person and number.
(30)

$$
\begin{aligned}
& \text { min rowisht-im } \\
& \text { I bo } \\
& \text { I go.perf-ABS1 } \\
& \text { Io } \\
& \text { 'I went to school' }
\end{aligned}
$$

(b) The plural marker and its allomorphs,-an, -yan, and -yak. For example, the plural marker morpheme can appear as full form as in (31).
xward- iy-an- 0 eat.perf-ERG3-pl-ABS3
"They ate it"

Or it can appear as a clitic as in (32).

Kur-ak-an nan da- xo- 0- n
boy- the-pl bread imperf- eat.imperf-NOM3-pl
"The boys are eating bread??"
(4) The definite marker, and its allomorphs: $-a k a,-a,-a k,-k$, etc. For example the definite marker appears in its full form as in (33) and (34).
(33) Kur-aka zerak- a boy-the clever-is
"The boy is clever"
Kur- aka zerak buu
boy- the clever was
"The boy was clever"
Or it can appear as a clitic as in (35).
(35) Kur-a zerak- aka bra- ma boy-Izafa clever- the brother-my
"The clever boy is my brother"

Clitics can be distinguished from affixes as they have the following properties:
(1) Clitics can be attached to various lexical categories. The hosts of the clitics are not limited to a single word category. The pronominal clitics in Sorani, unlike an affix, can attach to words of virtually any category, be it, a noun, a quantifier, a negative marker, a verb, etc. They always appear before the verb as they follow most elements that precede the verb (36). The pronominal clitic cannot follow the imperfective marker da (36c).
a. nama-ka- m nusi- 0
letter-the-ERGl write.perf-ABS3
"I wrote the letter"
b. na-m- kiri- 0
neg-ERG1-buy.perf-ABS3
"I did not buy it "
c. da- xwen- im
imperf-study.imperf-ABS1
"I am studying"
d. zor-m gut- 0
alot-ERG1 say.perf-ABS3
"I said a lot"

The affixes, by contrast, are quite specific in the selection of their host as seen in Table 7.

The indefinite marker follows the other parts of a DP, e.g. kur-gawra-r-ek 'a big boy'. It cannot follow verbs (*roishtn-ek 'a walk') or adjectives (*jwan-ek 'a beautiful'). The negative marker na precedes verbs, e.g. na-xom 'I don't eat', but not DPs ( *na-kchek ‘
not girl') or adjectives. The comparative and superlative affixes only combine with adjectives and to a lesser degree with adverbs, e.g. jwan-tir 'more beautiful.' The definite marker can be used after DPs, verbs and adjectives.

| The affix | The category | Nouns | Verbs | Adjectives |
| :--- | :--- | :--- | :--- | :--- |
| -ek | indefinite <br> marker | kur-ek <br> boy- a | *hatin-ek <br> come- a | *jwan- ek <br> beautiful-a |
| -ka | definite marker | kur-aka | hatin-aka <br> arrival-the | jawan-ak <br> beautiful-the |
| -an | plural | kur-an | *hatin-an | *jawan-an |
| na- | negative <br> marker | *na-kur <br> no-boy | na- hati- n <br> "they did not come" | *na-jwan <br> no- beautiful |
| -tir | comparative- <br> adjectives | *kur-tir <br> boy-er | *hat-tir <br> come-er | jwan-tir <br> beautiful-more |

Table 7. Specific selection of affixes
(2) Clitics, in contrast with affixes, can have variant full forms as well as clitic forms. In Sorani the pronominal clitics have both independent and clitic forms, e.g. min $\sim \mathrm{m}$ 'I', $t o \sim-t$ it 'you', aw~-i ' he, she, it', awan~-yan 'they', ema~-man 'we', ewa~-ta:n 'you all). The indefinite marker -ek 'a' is a reduced variant of the number yak 'one' (Fattah 1997). The contribution of clitics to a sentence meaning is identical to the contribution of their full forms, although they do not necessarily occur in the same syntactic position as their corresponding full forms. (Zwicky 1985), since they do not share the distribution of their full forms, as the following examples indicate:
a. min aw-an-im bene- 0

I s/he-pl-ERG1 see.perf-ABS3
"I saw them"
b. bene-m- $0-$ in see-ERG1-ABS3-pl
"I saw them"
c. aw min-i xward
he I- ERG3 pester.perf
"He pestered me"
d. xward- im- i
eat.perf-ABS1-ERG3
"He pestered me"
(3) Clitics always appear on the edge or the boundaries of the words; they cannot be infixed within words.
(38) a. do+es $+n$ 't $=$ doesn't
b. *don'tes

| a. | kur- ek-im <br> boy- a ERG3 <br> "I saw a boy" | bene-0 <br> see.perf-ABS1 |
| :--- | :--- | :--- |
| b. | *kur- im- <br> boy- ERG3- | ek |$\quad$| bene-0 |
| :--- |
| "I saw a boy" |$\quad$ see.perf-ABS1

The clitics are external not only to stems as in (38) in English and (39) in Sorani, but they can be external to the whole phrase as in (40) and (41) in English and Sorani respectively:
(40) a. The man in the room's hat
b. * The man's in the room hat
(41) a. kura-ak-an- im bene- 0 boy -the-pI- ERG1 see.perf- ABS3 "I saw the boys"
b. *kur- im - ak-an bene- 0 boy-ERG1- the-pl see.perf-ABS3 "I saw the boys"

While the affixes can be easily infixed with words as (42) shows or precede the words and in this case they are called prefixes as in (43).
(42) kur- ek-i aza- m bene- 0 boy- a-iza brave- ERG1 see.perf-ABS3 "I saw a brave boy"
kur- aka kurse- ka- i hal- bre- 0 boy- the chair- the- ERG3 up- cut.perf-ABS3 "The boy lifted the chair"
(4) Semantic idiosyncrasy is more a characteristic of affixed words than of clitic groups, i.e. the semantic contribution made by a clitic to a sentence is equivalent to that of a corresponding full word. For instance, clitic groups containing - $m$ will always be identical in meaning with constructions containing the full form min. By contrast, inflection sometimes displays a shift in meaning. For example the affix -an, the plural marker, often conveys a temporal meaning as in salan 'in the past', jaran 'formerly, and sawan 'by night.'
(44) min roisht- im bo qutabxana

I go.perf- ABS1 to school
"I went to school"
(45)
roisht- im bo qutabxana
go.perf- ABS1 to school
"I went to school"

In (44) the pronoun min ' $I$ ' is dropped from the sentence, but the sentence is still grammatical in (45) as the clitic $-m$ has the same semantic contribution in the sentence, but this cannot be true regarding the semantic contribution of the affixes as shown in (46) and (47):

```
kur- ak- an nan- da- xon
    boy- the- pl bread imperf- eat-NOM3
    "The boys are eating"
(47) sal- an xyan asan- buu
    year-pl life easy - was
    "Life was simple in the past"
```

In (46) the affix -an changes the noun kur 'boy' from single into plural kurakan 'boys, but in (47) the affix -an has a different semantic contribution in the sentence, it changes the word sal 'year' into salan 'in the past' which means 'years' (Fattah 1997).

As it is shown clearly that all the properties of the clitics can be applied on the agreement marker in Sorani and this means that the verb agrees with the subject by means of cliticization.

The big question that needs to be answered in future research is where the clitic is generated, how it joins the verb or the object when the sentence includes past transitive verb?

### 2.5 Verb Types in Sorani

Verbs in Sorani are divided into simple, compound and complex verb classes. In my division of the Sorani Kurdish verbs, I mainly depended on Ahmed (2004) as a foundation for my division as this division sounds acceptable and convenient to me as a native speaker of Sorani. The simple verbs contain a single morpheme such as buu 'became,' chuu 'went,' shka 'break,' and bra 'cut.' The examples in (48) and (49) illustrate two simple verbs.

Вии 'become'
Kur-aka gawra buu- 0
boy-the older become.perf-ABS3
"The boy became older"
Kird 'do'
nan- aka-m kird- 0
bread- the-ERG1 do.perf-ABS3
"I baked the bread"

The simple verb buu 'become' in (48) is preceded by the adjective gawra 'older' to express the intended meaning, while in (49) the verb kird 'do' is preceded by a noun nan 'bread' to express the intended meaning.

Compound verbs inSorani Kurdish consist of a non-verbal-element, which can be a noun, adjective, adverb, or preposition, and a verbal element that can be simple or complex. The meaning of the whole verbal construction is expressed by the combination of both verbal and non-verbal element. Sometimes the meaning of the verb compound cannot be predicted from the meanings of the original constituents as in (50).

Complex verbs consist of a prefix such as $d a$ - or hal- that is attached to a simple verb. The prefix adds a new element to the meaning of the verb such as directionality. The best definition I found was by Ahmed (2004), as he defined it as "Complex verbs consit of a bound morphem in the forms of prefixes or suffixes as non-verbal elemet In combination with a verbal element.Therefore the meaning of the verbal form is expressed by means of both verbal and non-verbal elements i.e hal dan 'to throw' (up-gave)
(Ahmed 2004 , p viv)
-Complex verb in Kurdish
(50) Min qoli-i kur-aka-m bre- 0

I hand-of- boy-the-ERG1 cut.perf-ABS3
"I tricked the boy"

Complex verbs in Kurdish contain a bound morpheme in the form of a prefix or suffix in combination with a verbal element and that bound morpheme has no meaning
alone, in other words the prefix hal- has no meaning without the verb bre 'cut' as shown in (51).
(51) kurse ka-m hal- bre- 0 chair- the- ERG1 up- cut.perf-ABS3
"I lifted up the chair"

In (51) the verb bre 'cut' is used and it is preceded by a suffix that has a directional meaning. When hal- is added to verbs it indicates that the action is achieved from bottom to top. It adds a new meaning component to the meaning of the verb bre 'cut' which is directionality. The sentence can be translated literarily as 'I cut the relation between the chair and the ground by lifting up the chair from bottom to top.' The most widely used affixes are hal- 'up' and da- 'down.'

Compound verbs combine a non- verbal element such as an adverb or a noun and a verbal element to form a compound verb with a meaning that does not derive directly from the meaning of the non-verbal and verbal elements. Ahmed (2004) defined the complex verb as "The compound verbs in Kurdish consist of a non-verbal elemnt which should be NP,AdjP,AdvP, and PP and a verbal element which should be simple or complex. The meaning of the whole verbal construction is expressed by combination of both the verbal and the non-verbal element. As a general pronciple in non-simple construction the meaning of the non-verbal element is dominant. i.e jwan kirdin ' to decorate' (beautiful -do) (Ahmed 2004,p viv)

The main difference between the compound verbs and the complex verbs is that the complex verb is formed by two elements - a suffix or a prefix- that has no meaning alone plus a verb that has a meaning as (52), while the compound verb consists of two elements both of them has a meaning and each of them can stand alone as (53).

To distinguish between the simple, compound and complex verbs I resort to negation test. In simple verbs the negation marker precedes the verb and negates the verb phrase as in:
(52) min rwishti-m bo qutabxana

I go.perf-ERG1 to school
"I went to school"
min na rwishti-m bo qutabxana

However, the issue is different with the complex and compound verbs because the negative particle is inserted between the two parts of the verbs as in:
-Complex verb:
(54) Min kuese-ka- m hal-bre- 0

I chair-the ERG1 up-cut.perf-ABS3
"I lifted the chair"
(55) Min kuese-ka- m hal- na- bre- 0

I chair-the ERG1 up- not cut.perf-ABS3
"I did not lift the chair"
-Compound verb:
(56) Kur- aka bard- aka- i wurd-kird boy- the stone- the- ERG3 small-do.Perf "The boy broke the stone into pieces"
(57) Kur- aka bard- aka-i wurd- na- kird boy- the stone- the- ERG3 small- not- do.Perf "The boy did not break the stone into pieces"

The complex verb halbre 'lift' in (55) has been negated by inserting the negative particle between the prefix hal- and the verb bre, and the compound verb wurdkird 'make small' as in (57) has been negated by inserting the negative particle between the adjective wurd 'small' and the simple verb kird 'do.'

### 2.6 The Prefixes hal- and da- in Kurdish:

In some cases the prefixes hal- and da-completely change the meaning of the original verb. In sentence (58a) the verb bre 'cut' expresses an action of cutting by an agent on a theme. The verb bre 'cut' indicates that the action is achieved by a sharpedged tool, and there must be contact between the theme and the tool. There is no difference between Kurdish and English in this context. In sentence (58b) the prefix $d a$ is attached to the verb bre 'cut' and adds a new meaning component. The English equivalent of the verb dabre is 'cut off,' and in most of the cases it expresses a psychological and spatial 'cut' rather than a concrete 'cut' performed with a tool on a thing. The prefix $d a$-adds a psychological dimension to the meaning of the verb. The prefix $d a$ - usually gives the nuance that a small amount is being 'cut' from a larger amount, or there is a part that is taken from the whole. Sentence (58c) includes the verb bre 'cut,' but this time with hal- added to it. The prefix hal- indicates that the action is done from bottom to top. In sentence (58) the prefix hal- is added to the verb bre 'cut' and this prefix specifies the direction of the action to be done from bottom to top. Sentence (58c) means literally that the "boy cuts the relation between the chair and the floor" by lifting the chair.
(58) a. kur- aka gosht- aka- i bre- 0 boy- the meat- the- ERG3 cut-perf-ABS3 "The boy cut the meat"
b. Kur- aka xoi la diak- i da- bre- 0 boy- the himself prep mother- ERG3 down- cut.perf-ASB3 "The boy cut himself off from his mother"
c. Kur- aka kurse- ka- i- hal- bre- 0 boy- the chair- the-ERG3 up- cut.perf-ABS3
"The boy lifts the chair"

The verb bchre, which means literary 'cut by force' is used in (59a). There is no exact English equivalent for this verb. English utilizes the verb 'cut' accompanied by other verbs to express a similar meaning. In (59a) the verb bchre is translated into the verb 'cut' plus the adverb by force, but (59b) needs some explanation because the prefix $d a$ - is added to the verb. The context expresses an action of cutting that is achieved by force without a tool, and the action is done from top to bottom. Sentence (59c) expresses a new meaning because the prefix hal- is added to the verb bchre. When anyone opens a can, he lifts the lid up to achieve the action. For example, the verb halbchre 'open' means that someone removed the lid from a can or jar, and this could be done by using a tool or with bare hands. At the same time the direction of the action is from bottom to top.
a. Azad wir- aka-i bchre-0

Azad wire- the- ERG3 cut.perf (by force-without a tool)-ABS3 "Azad cut the wire by force."
b. Azad qumash- aka- i da- bchre- 0

Azad cloth- the- ERG3 down-cut.perf -ABS3
"Azad cut the cloth by force from top to bottom"
c. Azad quto- ka- i hal- bchre- 0

Azad can- the- ERG 3 up- cut.perf-ABS3
"Azad opened the can by force from bottom to top"

Sentence (60) includes the verb shka 'break,' and it denotes an action done by an agent on a theme. The action changes the state of the theme from one piece into two or more pieces. The verb 'break' does not show whether the action is achieved by a tool, hands, or even by some internal factors. Adding the prefix $d a$ - to the verb shka 'break' gives it more specification and limits its meaning. The verb dashka in (60b) denotes that the action of breaking is done with bare hands and it is done from top to bottom.
(60)a. Dana dar- aka- i shka- n- 0 Dana branch- the- ERG3 break.perf-cause-ABS3
"Dana broke the branch"
b. Dana dar- aka-i da- shka- n- 0

Dana branch- the-ERG 3 down- break.perf-cause (down-top to bottom)-ABS3
"Dana broke the branch from top to bottom"
c. Dana dar- aka- i hal- shka- n- 0

Dana branch- the-ERG3 up- break. perf-cause (from bottom to top)-ABS3
"Dana broke the branch from bottom to top"

The prefix hal- cannot be added to the verb shka 'break' for semantic reasons. The prefix hal- means that the direction of the action is done from the bottom to top. Since the action of breaking in the case of the prefix hal- is done with bare hands and needs control over the theme (which means to achieve it from top to bottom) the context contradicts the meaning expressed by the prefix hal-. Thus hal- cannot be used with the verb shka 'break' in Kurdish.

### 2.7 Sorani verb alternations

Verbs in Sorani undergo the causative/inchoative alternation. The inchoative form for the verb dra 'tear' is shown in (61) while the causative form of the same verb is shown in (62).
(61) Kagaz-aka dra- 0

Paper-the tear.perf-ABS3
"The paper tore"
(62) Kur-aka kaghaz-aka- i dra- n- 0 boy-the paper- the- ERG3 tear.perf-cause-ABS3
"The boy tore the paper"

Verbs in Sorani can be divided into three classes according to the causative marker attached to them. The first class needs the causative marker -n. (e.g., the verb $d r a$ 'tear'), the second class does not have a causative marker in the causative alternation (e.g., the verb bre 'cut'), and the causative marker is optional in the third class, in that it can be added or not without changing the meaning of the verb (e.g., the verb bchre 'cut by force').

Verbs in Sorani do not undergo the conative alternation because Sorani does not have this alternation. If the native speaker of Sorani wants to express a conative meaning $\mathrm{s} / \mathrm{he}$ resorts either to the use of the negative form of the verb to refer to the fact that the action has not been achieved as in (63), or s/he adds the word hawlida 'try to' to the verb to indicate that the action is not achieved as in (64).
(63) Kur- aka gosht- aka- i na- bre- 0 boy- the meat- the- ERG 3 not cut.perf-ABS3 "The boy did not cut the meat."
(64) Kur- aka hawl-i- da gosht- aka b- bre- 0 boy- the try-perf-ERG3-make meat- the to cut.perf-ABS3 "The boy tried to cut the meat"

Sorani has a middle alternation that verbs undergo. The verb in the middle alternation is always accompanied by an adverb that describes the way the action is achieved (65).
(65) Kagaz ba asani da- dre- 0 paper prep easily impef- tear-ABS3
"Paper tears easily"

Sorani has a passive form that is distinct from the middle. In the structure of passive sentences, the passive morpheme - $r a$ is attached to the end of the verb (66).
(66) Panjar- aka shke- n- ra

Window- the break.perf-cause-passive
"The window was broken"

The distinct passive morphology provides a further test for the hypothesis of Guerssel et al. since the passive and middle constructions in Sorani have distinct morphological and lexical realizations. The middle construction requires an adverb in addition to its derivational morphology.

### 2.8 Summary of the chapter

Sorani is a dialect of Kurdish which a language that belongs to the Indo-European languages. It is an SOV language. Sorani has a complex verb system as it has three different kinds of verbs simple, compound and complex verbs. The verbs undergo different syntactic alternations as the causative, inchoative, middle, and passive alternations. The verb in Sorani agrees with subject in person and number. The agreement marker appears at the end of the transitive and intransitive verbs in the present tense, while it appears on the object when the verb is transitive past tense verb.

## Chapter Three: Semantic extensions of 'cut' and 'break' verbs in Sorani

### 3.1 Introduction

This chapter provides a review of extensional semantics in concrete and metaphorical contexts and introduces the set of simple verbs in Sorani that I will deal with in my work. I will divide this chapter into four main sections. In the next section I describe the methodological steps I followed in collecting the data in this chapter and the following two chapters. In the following sections, I discuss the real and metaphorical contexts in which the verbs occur. I included a discussion of the syntactic alternations of the verbs. The chapter ends with a conclusion and summary.

### 3.2 Methodology and methods

The data that have used in this work came from three sources. The first was my own intuition as a native speaker of Sorani, and the second was from on line Sorani newspapers. The newspapers that I checked date back to 2000 because the online sources were available only from 2000 and on. The third source was my Sorani consultants. I consulted 6 speakers of Sorani, 5 males and one female between 29-32 years old. Two of my consultants have lived in the United States in a Midwest university town for almost a year, and the other four for four months. I asked my consultants to use the verbs that I need in different sentences to see if the verbs occur in different syntactic forms. I also asked them to use the verbs with objects in metaphorical and concrete contexts. I provide the original source sites, the name of the newspaper, and the date in the appendix of the dissertation.

### 3.3 Sorani verbs

The dissertation explores the syntax alternations and semantic features of breaking and cutting verbs in Sorani. I investigated a broad range of breaking and cutting verbs in order to understand better the specific relation between verb semantics and their syntactic properties. My investigation included the verbs shka 'break.' The following sections describe the semantic and syntactic properties of group of cutting and breaking verbs in Sorani.

### 3.4 The verb shka 'break' in Sorani

The verb shka can be translated into English as 'break,' and it expresses some form of fracture and separation into pieces (Abdullah et al. 2004). The verb shka does not specify the kind or the means of the 'breaking' action. The verb does not specify the nature of the object that undergoes the action of 'breaking.'

### 3.4.1 The syntax of the verb shka 'break'

The verb shka 'break' undergoes the causative alternation, and the verb expresses an action that is achieved by an agent (1).
(1) Kur- aka dar- aka- i shk- a- n- 0(d) boy- the tree the- ERG3 break.perf- cause- ABS3 "The boy broke the tree"

The verb shka belongs to the set of verbs that attach the causative suffix $-n$ to indicate the causative derivation. The action expressed by the causative form of verb shka
'break' can be achieved by a body part (2) or by using a tool such as a hammer, or a stone
(3). The tool that is used should be heavy.
(2) gwez- aka- m shka- $\mathrm{n}(\mathrm{d})-0$ ba dan. nut- the- ERG1 break.perf- cause-ABS3 with teeth "I broke the nut with my teeth"
(3) Mnal- aka pardakh- aka- i shka- n(d)- 0 ba chacosh child- the glass- the- ERG3 break.perf-cause-ABS3 with hammer "The child broke the glass with a hammer"

The verb shka undergoes the inchoative alternation (4). The verb in the inchoative alternation is used intransitively. In the inchoative alternation the semantic theme plays the subject role.
(4) Dar- aka shka- 0
tree- the break.perf-ABS3
"The tree broke"

The sentence in (4) shows that the inchoative form of the verb shka 'break' in Sorani gives the sense that 'the tree broke', but the cause of its "being broken" is either an internal factor or an external one ${ }^{1}$.

The verb shka 'break' is used in the middle alternation in Sorani to refer to a generic action without an explicit agent. The verb changes from shka to shke in the middle voice form (5). An adverb is obligatory in the middle voice form in Sorani.

[^8]| Shusha- ee | Rumadi | ba | asani da- | shke- 0 |
| :--- | :--- | :---: | :---: | :---: |
| glasses- of | Rumadi | prep | easy imperf- | break-ABS3 |

"Rumadi’s glasses break easily"
Sorani Kurdish also has a passive form of the verb shka. The passive adds the passive morphology $-r a$ to the causative form of the verb. The verb in the passive form indicates an action by an unknown agent. Syntactically a passive morpheme - ra is attached to the verb, and the passive morphology absorbs the verb's ability to assign a case to the noun phrase that follows it. The theme moves to get case, and since there is no explicit subject, the theme moves to occupy its position and is assigned a nominative case. All the requirements are met in the syntax.
(6) Shusha- ee Rumadi shke- n- ra glasses of Rumadi break.perf-cause-passive "Rumadi's glasses were broken"

### 3.4.2 The Semantics of the verb shka 'break' in Sorani

Guerssel et al. (1985) claim that verbs that have the same meaning components can be used in the same semantic and syntactic contexts. In what follows I will show that even though the verbs break and shka are considered translational equivalents, they have different semantic components and this results in their use in different syntactic alternations in English and Sorani Kurdish.

To explore the semantic similarity and differences between the Sorani verb shka and the English verb 'break,' I applied the verb to a number of different objects in the two languages, e.g. 'He broke my heart.' The results are shown in Table 1.

|  | Kurdish | English |
| :--- | :--- | :--- |
| Physical <br> 'breaking' | glass, window, stone, wood, nuts, <br> branch of tree, chair, wall, plates, <br> boxes, doors, bread, cars, watches, <br> eggs <br> body parts (finger, leg, hand, head, <br> back, nose) | glass, window, stone, branch of tree, <br> chair, plates, boxes, doors, bread, <br> ground, cars, watches, eggs, egg <br> yolk, <br> water of a pregnant woman <br> body parts (finger, leg, hand, skull, <br> back, nose, hair) <br> dawn |
| Metaphorical <br> 'breaking' | record, rules, trust, promise, fasting, <br> ablution, desire, market, price, fear, <br> loneliness <br> body parts ${ }^{2}$ (heart, tongue, arm, back, <br> nose), confidence | 3record, rules, trust, promise, fast, <br> cold, resolve |
| body parts' (heart) |  |  |, |  |
| :--- |

## Table 1. Things that shka 'break'

Table 2 shows things that do not "break" in Kurdish and English. The table includes both physical and metaphorical objects that do not "break". Tables 1 and 2 show the Kurdish verb shka and the English verb 'break' apply to a similar set of physical objects. There are more differences in the semantic extensions of the verbs for metaphorical objects.

| Objects | Kurdish | English |
| :--- | :--- | :--- |
| Things that do not <br> physically 'break' | paper, liquids, gases, cloth, <br> warmth, weeds, hair, ground, | paper, liquids, gases, cloth, <br> warmth |

[^9]|  | egg yolk | body parts (eye, head) |
| :--- | :--- | :--- |
| Things that do not <br> metaphorically 'break' | love, relationship, cold, fever, <br> memories, beauty, breath | love, relationship, memories, <br> beauty, breath |

Table 2. Things that do not 'break'
I also consulted some online sources in which the verb shka is used in metaphorical and real contexts. Table 3 shows the results of a survey of online newspaper uses of shka. I analyzed X issues of the newspaper (URL :) published between the dates of 2000 and 2010. Table 3 shows the form of shka used in the articles, the objects that were used, and whether the objects could be regarded as real or metaphorical. Many of the objects used in the articles are the same as those shown in Table 1. The newspaper objects supplied several new objects such as "beauty", "urn" and a "crease in pants".

| Object | Real | Metaphorical | Alternation |
| :--- | :--- | :--- | :--- |
| ability |  | yes | inchoative |
| ablution |  | yes | inchoative |
| air boycott |  | yes | causative |
| army |  | yes | inchoative |
| back | yes |  | inchoative |
| back |  | yes | inchoative |
| back of the club |  | yes | inchoative |
| ball | yes |  | inchoative |
| beauty |  | yes | causative, inchoative |
| blockade |  | yes | inchoative |
| boat | yes |  | inchoative |
| body parts | yes |  | inchoative |
| boycott |  | yes | inchoative |
| camera | yes |  | inchoative, passive |
| camera lens | yes |  | passive |
| castle |  | yes | inchoative |
| circumstances |  | yes | causative |
| desire |  | yes | inchoative |
| door | yes |  | causative, inchoative |
| enemy |  | yes | inchoative |
| face | yes |  | inchoative, passive |
| finger | yes |  | causative, inchoative |
| games |  | yes | causative |
| glass | yes |  | inchoative |
| government |  | yes | inchoative |
| hand | yes |  | inchoative, passive |


| handle | yes |  | causative |
| :--- | :--- | :--- | :--- |
| head | yes |  | causative, inchoative, passive |
| heart |  | yes | causative, inchoative |
| heart |  | yes | causative |
| knee |  | yes | inchoative |
| leg | yes |  | inchoative |
| legs and hands | yes |  | passive |
| mirror |  | yes | inchoative |
| nose | yes |  | inchoative |
| opinion |  | yes | causative |
| pants crease | yes |  | inchoative |
| part | yes |  | inchoative |
| party |  | yes | inchoative |
| person |  | yes | inchoative |
| personality | yes | causative |  |
| pipe | yes |  | inchoative |
| pipe |  | yes | inchoative |
| place | yes |  | passive |
| price |  | yes | inchoative |
| prize |  | yes | inchoative |
| recognition | yes |  | causative, inchoative, passive |
| record | yes |  | passive |
| recorder | yes |  | inchoative |
| rib | yes |  | inchoative |
| right leg |  | yes | inchoative |
| shovels blade | passive |  |  |
| situation | yes |  | inchoative |
| socket | yes |  | passive |
| street | yes | yes | yes |
| sugar |  |  | yes |
| team |  |  | inchoative |
| toe | inchoative |  |  |
| tooth | yesive |  |  |
| trash can | yrn |  | causative, inchoative, passive |
| window |  |  |  |
| wing |  |  |  |
|  |  |  |  |
|  |  |  |  |

Table 3.Things that shka: Taken from online newspaper
I found 138 examples from the online sources that I checked. The examples all agree with my own intuition as a native speaker of Sorani. In these examples the inchoative uses of the verb shka are used with concrete objects such as a boat, camera,
glass and head, and metaphorical objects such as beauty, desire, and recognition. These examples show that the semantic extension of the verb shka in Sorani Kurdish is slightly different from that of the verb 'break' in English. The example in (7) illustrates one of these differences.

daq- i pantol- aka $\quad$| shka- |
| :---: |$\quad 0$

crease- of pants-
"The pants crease broke"

The expression in (7) is used when the crease in someone's pants is not straight. This example shows that the verb can be applied to a break in a one-dimensional object. The verb shka does not give any information regarding the nature of the fracture whether it is a total fracture or partial one. Most of the objects that undergo the physical action of breaking in English and the action of shka in Sorani Kurdish are hard. Some soft objects undergo the physical action of breaking in English such as the yolk of the egg and a mother's water before delivery. An egg is one soft object that undergoes the act of shka in Sorani, but not the egg yolk. Even though Sorani and English have soft objects that undergo the action of shkandin and breaking, the nature of the objects is different. It is the egg in Sorani and both the egg and the egg yolk in English.

Semantically the transitive form of the verb shka 'break' selects two arguments, an external one that is the agent who carries the action and is considered to be the direct cause of the action and the theme, which is affected by the action. The verb break can also select an instrument argument as in (8). The instrument is considered to be an
indirect cause of the action. The agent of the sentence can be animate (8) or inanimate (9).
(8) Kur- aka panjar- aka- i shka- n(d)- 0 ba bard boy- the window- the- ERG3 break.perf- cause-ABS3 prep stone "The boy broke the window with a stone"
(9) bard- aka panjar- aka- i shka- n(d)- 0 stone- the window- the- ERG3 break.perf-cause-ABS3 "The stone broke the window"

Fillmore (1970) observed that the English verb 'break' allows a theme argument to alternate with a location (10).
(10) a. John broke the fence with the stick.
b. John broke the stick against the fence.

This alternation is not possible in Sorani. In (10a) the breaking affects the direct object and this is exactly how the verb shka 'break' in Sorani behaves as in (11).
(11) Kur- aka dewar- aka- i shka- n(d)- 0 ba dar- aka boy the fence- the-ERG3 break.perf- cause-ABS3 with stick- the "The boy broke the fence with the stick"

Sorani Kurdish does not have an alternation between the direct object and the prepositional object as English. To express the meaning of the verb break in (10b) the verb shka 'break' in Sorani Kurdish needs another verb, which is the verb kesha 'hit' (12).
(12) Kur-aka dar- aka- i ba dewar- aka kesha w shka- n- i boy-the stick-the- ERG3 with fence- the hit.perf and break.perf-cause- ERG3 "The boy hit the stick against the fence broke it"

When the verb shka 'break' is used in a metaphorical context, the theme that is affected by the action is considered to be an experiencer that undergoes a certain psychological and emotional condition as in (13) and (14).
(13) kch- aka dl- i kur- aka- i shka- n(d)- 0 girl- the heart- of boy- the- ERG3 break.perf-cause-ABS3 "The girl broke the boy's heart"
(14) mrdn- i bawk- i psht- i shka- $n(d)-\quad 0$ death of father- his back- ERG3 break.perf-cause-ABS3 "His father's death broke his heart"

In (13) the girl causes the theme, the experience, to undergo a bad psychological condition. The change in the state of the theme in (14) is not a physical change but it causes the experiencer to be sad. In (14) the agent is not a real agent, but it is a cause that enables the action of the verb break to come into effect and affect the theme.

Table 4 shows the causative, inchoative, passive, and middle forms of the verb shka 'break.' The inchoative form of the verb provides syntactic evidence that the LCS of the verb has the semantic component CAUSE in both concrete and metaphorical contexts.

| The verb | Causative | Inchoative | Middle | Passive | LCS |
| :--- | :--- | :--- | :--- | :--- | :--- |
| shka 'break' |  |  |  |  |  |
| Concrete | shka- n(d)-i <br> break.perf-cause- <br> ERG3 | shka <br> break.perf | da- shk- e <br> imperf-break- <br> middle | shke- n- ra <br> breake-cause- <br> passive-perf | CAUSE |
| Metaphorical | shka- n(d)-i <br> break.perf-cause- <br> ERG3 | shka <br> break.perf | da- shk- e <br> imperf-break- <br> middle | shke- n- ra <br> breake-cause- <br> passive-perf | CAUSE |

Table 4. Causative, inchoative, passive, and middle forms of the verb shka 'break'

### 3.5 The verb bre 'cut' in Sorani

The verb bre 'cut' in Sorani Kurdish refers to an action that causes something to be divided into parts. The verb is also used to mean 'to injure' when it is used to refer to body parts. Sorani native speakers use the verb le bowa to refer to the action of cutting any parts of the body such as a finger or a hand. This verb means literarily 'to separate.' The verb bre 'cut' is different from the verb bashkirdin 'divide' because bashkirdin refers to an action that is usually achieved after the action expressed by the verb bre 'cut' on objects that can be cut and divided like cakes or sweets. In other words the object undergoes the action of breen 'cutting', and then it is divided among the participants. The verb bashkirdin 'divide’ includes a "sense of sharing" after cutting the object. The verb bashkirdin also applies to the division of multiple objects that cannot be cut such as coins or candies. In what follows I will deal with the verb syntactically and then I will discuss the behavior of the verb semantically.

### 3.5.1 The syntax of the verb bre 'cut' in Sorani

In Sorani, The verb bre 'cut' can be used both transitively and intransitively. In this section I will discuss its use as a transitive verb, and in the next section I will discuss its use as an intransitive verb. Morphologically, the verb bre 'cut' has the transitive infinitive form bree and the intransitive form $b r a$. In the causative alternation both of them have the transitive form bre and the intransitive form bra. Unlike the verb shka 'break', bre does not require the causative marker in transitive uses. The passive form of
the verb is $b r$ - $r a$, which has the passive morpheme - $r a$ attached to it. The middle form of the verb is dabre. Table 5 shows all the forms of the verb bre.

| Causative | bree <br> cut.perf-ABS3 <br> 'cut' |
| :--- | :--- |
| Inchoative (real action) | not used |
| Passive | br-ra <br> cut-passive <br> 'was cut' |
| Middle | da-bre <br> imperf--cut <br> 'cut' |

## Table 5. Syntactic forms of the verb bre 'cut' in different alternations

### 3.5.1.1 The transitive verb bre 'cut'

When the verb bre 'cut' is used to refer to the cutting of services such as electricity, water, or internet it can be used transitively or intransitively, but when the verb is used to refer to an action of cutting concrete objects, it is only used transitively. There is a morphological difference between the intransitive and the transitive use of the verb. ${ }^{5}$ The verb bre 'cut' takes a subject and an object as its arguments (15).
(15) Kur- aka dar- aka- i bre - 0 ba minshar boy- the tree- the- ERG3 cut.perf-ABS3 with saw "The boy cut the tree with a saw"

### 3.5.1.2 The intransitive verb bre 'cut', the inchoative alternation

[^10]The verb bre 'cut' is used transitively and intransitively when it is used to refer to the physical or metaphorical cutting of services such as electricity or water (16).
(16) karaba bra- 0
electricity cut.perf-ABS3
"The electricity cut"

This sentence applies to situations where there is no electricity because it stopped running from the source to the location. In this case the verb does not refer to a physical event of cutting, which is a process that needs an agent. In (16) the verb refers to stopping a utility from entering a location. The verb in this case can undergo the inchoative alternation. The verb is also can be used transitively (17).

Kur- aka karaba- aka- i bre-0
boy- the electricity- the- ERG3 cut.perf-ABS3
"The boy cut the electricity"

Sentence (17) means that the boy used a tool to cut the wire that transfers the electricity from the source to the house. The verb here is used to refer to a physical cutting event; therefore an agent is needed here, and the verb cannot undergo the inchoative alternation.

The verb bre 'cut' also undergoes the middle alternation. Although the action is achieved by a generic agent the agent is not mentioned explicitly in the sentence. The verb in the middle alternation is always accompanied by an adverb that describes the way the action of the verb is achieved (18).
(18) Gosht-i mar ba asani da- bre-(t)
meat- of lamb prep easely imperf- cut-NOM3
"Lamb's meat cuts easily"
(19)
buja- y prozh-akay- an brra budget- of project-the-ERG3-pl cut-perf-passive
"The budget of their project was cut"

I summarized the syntactic alternations of the verb bre 'cut' in Table 6. The absence of an inchoative form with concrete objects provides syntactic evidence that the LCS of the verb contains the semantic component PRODUCE. The ability to use the verb in the inchoative with metaphorical objects shows that the verb has the CAUSE component in the LCS representation for metaphorical uses.

| The verb | Causative | Inchoative | Middle | Passive | LCS |
| :--- | :--- | :--- | :--- | :--- | :---: |
| bre 'cut' |  |  |  |  |  |
| Concrete | bre-e <br> cut.perf- <br> ERG3-1 <br> 'cut' | not used | da-bre <br> imperf-cut <br> 'cut' | br-ra <br> cut-passive <br> 'was cut' | PRODUCE |
| Metaphorical | bre-e <br> cut.perf- <br> ERG3-1 <br> 'cut' | bra <br> cut.perf <br> 'cut' | da-bre <br> imperf--cut <br> 'cut' | br-ra <br> cut-passive <br> 'was cut' | CAUSE |

Table 6. The syntactic alternations of the verb bre 'cut'

### 3.6 The semantics of the verb bre 'cut' in Sorani Kurdish

The action expressed by the verb bre 'cut' is usually achieved by a tool. The tool can be a pair of scissors, a knife or clippers. The tool that is used to achieve the action of the verb bre 'cut' should be a sharp-edged tool. Table 7 shows that the action is achieved with a tool on meat, hair, while a paper and bread can be cut without a tool.

| The objects | Kurdish bre | English cut |
| :--- | :--- | :--- |
| Physical 'cutting' <br> with a tool | meat, wood, hair for women <br> finger, hand, leg, face, water, phone, <br> internet, rope, road | bread, meat, <br> wood, <br> paper, cloth, hair for men and <br> women <br> finger, hand, leg, face, rope, <br> road |
| by hand (no tool) | paper, cloth, bread |  |
| Metaphorical <br> 'cutting' | electricity, water, phone, internet, <br> liver, arm, nose, tongue, sound, back, <br> road, salary, houses, relationship, <br> conversation, ability, borders | seconds, the service of <br> electricity, water, phone, <br> internet, tooth |

Table 7. Things that undergo the action of breen and cutting
Table 8 includes the objects that undergo the action of the verb bre; the items are taken from on line newspapers:

| Object | Real | Metaphorical | Alternation |
| :--- | :--- | :--- | :--- |
| Accusation |  | yes | inchoative |
| Aids | yes | yes | causative, inchoative, passive |
| bad behavior |  | yes | inchoative |
| Belly | yes | yes | causative, inchoative, passive |
| belly button |  | yes | causative |
| Body |  | yes | causative |
| Boundary | yes | yes | causative |
| Bread |  | yes | causative, passive |
| Budget |  | yes | inchoative |
| Call |  | yes | inchoative |
| capitol punishment |  | yes | causative |
| Cave |  | yes | causative |
| Channel |  | yes | inchoative |
| Color | yes |  | inchoative |
| Concept |  | yes | causative |
| Deed | yes | yes | inchoative |
| Distance |  |  | causative, inchoative, passive |
| Dowry |  |  |  |
| Electricity |  |  |  |


| Energy |  | yes | causative, inchoative |
| :---: | :---: | :---: | :---: |
| Equality |  | yes | causative |
| Feeling |  | yes | causative |
| Game |  | yes | causative |
| Happiness |  | yes | causative |
| Head | yes | yes | causative, passive |
| Holand |  | yes | causative |
| Honor |  | yes | inchoative |
| human being |  | yes | causative |
| islamic title |  | yes | inchoative |
| Issue |  | yes | inchoative |
| Life |  | yes | inchoative |
| man organ | yes |  | causative |
| Meeting |  | yes | inchoative |
| Meeting |  | yes | inchoative |
| Milk | yes |  | inchoative |
| Mind |  | yes | causative |
| Mind |  | yes | inchoative |
| Money |  | yes | inchoative |
| Mood |  | yes | inchoative |
| Neck | yes |  | causative |
| Neck | yes |  | causative |
| Nickname |  | yes | inchoative |
| Opinions |  | yes | causative |
| Part |  | yes | causative |
| Party |  | yes | causative |
| Record |  | yes | causative |
| reform call |  | yes | inchoative |
| Relation |  | yes | causative, inchoative, passive |
| River |  | yes | causative |
| Road | yes |  | causative |
| Road |  | yes | causative |
| Robbery |  | yes | inchoative |
| Salary | yes |  | inchoative |
| Scholarship |  | yes | inchoative |
| second rank |  | yes | inchoative |
| Share |  | yes | inchoative |
| Shops | yes |  | inchoative |
| Speech |  | yes | inchoative |
| Street | yes |  | causative |
| Stuff |  | yes | inchoative |
| Sweat | yes |  | passive |
| Things |  | yes | causative |
| Time |  | yes | causative |
| Title |  | yes | inchoative |


| Triangle |  | yes | causative |
| :--- | :--- | :--- | :--- |
| Voice |  | yes | inchoative |
| War |  | yes | inchoative |
| Water | yes |  | inchoative |
| what surrounds him |  | yes | inchoative |

Table 8 .Things that "bre": Taken from online newspaper

| Objects | Kurdish |
| :--- | :--- |
| Things that do not physically bre | wall, plates, medicine |
| Things that do not metaphorically bre | heart |

## Table 9. Things that do not bre 'cut'

I found 122 instances of the verb bre 'cut' with different objects in the online sources that I checked. They all agree with my own intuition as a native speaker of Sorani. There were several inchoative uses of the verb with physical objects such as milk, salary and shops.
mash-i mamost-aka bra- 0
salary of teacher- the cut.perf-ABS3
"The salary of the teacher cut"
(21) dz- ak- an dukan-ka-y- an bree- m
theives -the-pl shop- the-ERG3-pl cut.perf-ERG1
"The thieves robbed my shop"

The use of the verb to refer to a physical instance of cutting indicates a controlled clean process of cutting by a sharp-edged tool that contacts the object. Guerssel et al. (1985) state that 'the tool goes along a path.' For me the action expressed by the verb bre 'cut' can be called a "process" since the action takes time to be completed. The action can be stopped at a certain point without being completed (22).
newa- y dar- aka- m bre- 0
half- of tree- the- ERG1 cut.perf-ABS3
"I cut half of the tree"

Since the physical act of cutting is a process that can be achieved with or without a tool, the result of the action that is the clean separation is more important in the process of cutting than the tool. For example, if someone folds a sheet of paper and s/he tears the paper following the straight line that results from folding the paper, Kurdish would express the action by the verb bre 'cut.'

Figure 1 illustrates this action with the verb bre (the pictures express the process successively starting from picture A to D ). This use suggests that the verb bre 'cut' is sensitive to a clean separation rather than simply the use of a tool. The verb $d r i$ 'tear' is used when someone separates a piece of paper by hand without folding it resulting in a rough separation.


A



B


## Figure 1. The action of the verb bre 'cut' in Sorani

The verb bre 'cut' can be used as an intransitive verb to refer to the cutting of some public services and a metaphorical action of cutting such as electricity, water, or salaries (21).
(23) Karaba bra- 0
electricity cut.perf-ABS3
"The electricity cut"

When the verb bre 'cut' is used to refer to the action of cutting services, the agent could be implicit, or explicit. Sentence (23) means that there is no electricity and the reason, which leads it to be bra 'cut' is not known. The act of cutting could be caused by an agent or by natural forces such as the wind.

The verb bre 'cut' in Sorani Kurdish is used to express an act done by an agent active participant- on an object- a passive participant- with the use of a sharp-edged tool that goes along a path on the passive participant (Guerssel et al., 1985). ${ }^{6}$ It seems that the meaning of the verb bre in Sorani Kurdish differs from the meaning of verb 'cut' in English because unlike the English verb, bare hands, which are not a sharp edged tool, can achieve the action expressed by the verb bre.

There is no causative marker attached to the verb bre 'cut' when used transitively because the agent produces the action by following an extended process and there is no

[^11]possibility that the action is done by accident. Meat or the wood cannot be cut by accident without having an intention.

The verb bre 'cut' undergoes the inchoative alternation when the action expresses a metaphorical bre 'cut.' Table 10 shows the objects that can undergo the metaphorical act of cutting.

| Context | Kurdish sentence | Meaning |
| :--- | :--- | :--- |
| electricity cut | karaba bra | there is no electricity |
| water cut | aw bra | there is no water |
| phone cut | talaphone bra | there is no phone service |
| his hand cut | dasti bra |  |
| salary cut | maash bra |  |
| the sound cut | dangi bra | there is no salary |
| to silence or shut up a person or a TV |  |  |

Table 10. Contexts of use for the intransitive verb bra
Sorani Kurdish resorts to using this construction when the agent is not known, but when the result is intentional, or when natural forces achieve it.

To test what I propose about the absence of the agent in the inchoative construction, I added a purpose clause to the original sentence. A purpose clause can only be used in contexts where there is an agent and that agent performs the action to achieve a purpose. The inchoative forms of the Sorani sentence become ungrammatical with a purpose clause. In sentence (24) an adverb is added to the original sentence (25) and that adverb is also used in contexts where there is an agent that achieves the action. The Sorani sentence became ungrammatical again. This shows that the agent is not present in the above construction.

| *Karaba bra- 0 | bo- pashakawt kirdni | wwza |  |
| :--- | :--- | ---: | :--- |
| Electricity cut.perf-ABS3 | to- save | do | power |
| "The electricity cut to save power" |  |  |  |

*Karaba bra- 0 ba palla electricity cut.perf-ABS3 with quickly "The electricity cut quickly"

The verb bre 'cut' cannot undergo the conative alternation in either its physical or metaphorical sense since Sorani Kurdish does not have a conative construction. Sorani Kurdish uses another verb to express the incomplete nature of the English conative alternation. For example, if someone tries to cut a piece of cloth with scissors, and he moves the scissors on the cloth, but the scissors fail to divide the cloth into two pieces, the piece of cloth will be ruined because of the effect of the scissors but it will not be cut.
(26) kch- aka hawleda- 0 qumash- aka b- bre(t) girl- the try.perf- ABS3 cloth- the to- cut- NOM3 "The girl tried to cut the cloth"

As shown in the above sections, the verbs shka 'break' and bre 'cut' in Sorani are similar to the verbs 'break' and 'cut' in English, however, there are many different contexts and alternations that the verbs undergo in Sorani but not in English. The Sorani verb bre focuses on a clean separation rather than the use of a tool that Guerssel et al. identified for the English verb 'cut.'

Next I will start to discuss a group of simple verbs in Sorani, which are either fall under the class of 'cut' or 'break' verbs. I choose those verbs as I considered them the most common verbs and the most used in daily usage in Sorani. I choose the verbs that are simple, compound and complex to cover the division that I adopt in my work.

### 3.7 The verb bchre 'cut by force' in Sorani

The verb bchre in Sorani indicates an action of cutting, but the action is always achieved by force. The action is achieved without a tool. I could not find an exact equivalent for the verb in English, as it is used in some contexts to mean cut and in others to mean break. What follow is a detailed explanation of its syntactic alternations and semantic contexts.

### 3.7.1 The syntax of the verb bchre 'cut by force'

### 3.7.1.1 The causative alternation

The verb bchre undergoes the causative alternation. The verb denotes an action that is achieved by a doer and the effect of the action is reflected on an object (27).

Causative form of bchre Kur- aka pat- aka- i bchree- 0 boy- the rope- the- ERG3 cut.perf(by force)-ABS3 "The boy cut the rope (by force)"

The verb bchre is one of the verbs in which the causative marker is attached to the verb when the agent achieves the action intentionally as in (28):
(28) Kur- aka pat- aka-i bchra- n(d)- 0 boy- the rope- the- ERG3 cut.perf-cause (by force)-ABS3 "The boy cut (by force) the rope"

When the verb bchre is used without the causative marker it behaves like the verb bre 'cut,' while it resembles the verb shka 'break' when the causative marker is attached
to it. The verb in the causative alternation takes two arguments, a subject and an object. The agent is represented syntactically by the subject and is the doer of the action. The object is the theme that undergoes the effect of the action.

### 3.7.1.2 The inchoative alternation

The verb bchre in Sorani Kurdish undergoes the inchoative alternation and it denotes an action that is achieved by either some natural forces such as the sun, the wind, or gravity, or by a person involved in the action. The verb bchre in the inchoative alternation is mostly used to express the former because Kurdish uses the passive alternation to denote that there is a person involved in the action.
(29) Pat- aka bchra- 0 rope- the cut.perf (by force)-ABS3
"The rope cut (by force)"

Syntactically, the verb bchre behaves like the verb 'break' in respect to its arguments, which can be defined as the noun phrases that express the major argument roles. The single argument of the verb bchre is the passive participant in the action denoted by the verb. The verb is considered in this context to be an unaccusative verb. The argument is realized as a noun phrase (NP) behaving as a semantic object to the verb.

### 3.7.1.3 The middle alternation

The verb bchre undergoes the middle alternation and it shares the same morphological form with the inchoative alternation. The verb bchre in the middle alternation denotes an action that is done by someone to something. The doer of the
action is not clear, but the existence of the adverb makes it impossible for the action to be done without an active participant. As mentioned in chapter two the adverb is obligatory in the middle alternation. The middle alternation is expressed in Sorani Kurdish in the present tense.
(30) Pat- i bareek ba asanee da- bchre(t) rope- of thin prep easily imperf-cut-NOM3 "The rope cuts (by force) easily"

### 3.7.1.4 The Passive

The verb bchre is used in the passive to express an action that is achieved by an active participant that is not mentioned explicitly. The passive adds the suffix $-r a$ to the verb. When the verb bchre is used in the passive, it indicates that the action was done on purpose.

Pat- aka \begin{tabular}{l}
bchre-

$c$

n- <br>
rope- the <br>
cut.perf
\end{tabular}

cause-passive

I summarize the syntactic forms of bchre in Table 11. The inchoative forms provide syntactic evidence for the semantic component CAUSE in the LCS for its concrete and metaphorical uses.

| The verb | Causative | Inchoative | Middle | Passive | LCS |
| :--- | :--- | :--- | :--- | :--- | :--- |
| bchre 'cut by force' |  |  |  |  |  |


| Metaphorical | bchree- <br> bchrandi | bchra | dadabchre- <br> dabchrendre(t) | bchrenra | CAUSE |
| :--- | :--- | :--- | :--- | :--- | :--- |

## Table 11. Syntactic alternations of the verb bchre

### 3.8 The semantics of the verb bchre

To explore the semantic extension of the verb bchre, I examined the objects used with the verb in different contexts. In the following examples, the verb bchre is translated into English by the verbs 'break', 'snap', 'cut', 'hit-cut', break up', 'crack' and 'forcecut.' The examples include concrete (32) and metaphorical (33) actions.

## (32) Concrete events

a. Pat- i baeni duu sayar- aka bchra- 0 rope of between two cars- the break.perf-ABS3
"The rope between the two cars broke"
b. Pat- aka- i dast- me bchre (ba dast)- 0 rope- the- ERG3 hands my cut.perf by hands- ABS3 "He snapped the rope around my wrists"
"He broke the rope around my wrists"
c. laћeem- aka bchra- 0 weld- the break.perf-ABS3
"The weld broke"
d. Dewar-aka baxrapee bchre- 0 wa ba asanii chak na-betawa wall- the badly break.perf-ABS and with easily repair no again "The wall cracked so badly that it cannot be repaired easy"
e. Shovel- aka wier- i carab- aka- i bchra- n(d)- 0 shovel- the wire of electricity- the- ERG3 cut.perf -cause -ABS3 "The shovel hit the electricity wires and cut them"
(33) Metaphorical Events:
a. Dle- m-bchra ka mrdn- i- m bist- 0

Heat -ERG1- break.perf when death- his- ERG1 heard.perf-ASBS1 "My heart broke when I heard about his death"
b. Ski- i- i bchre m la pekanen

Abdomen my-ERG2 break.imperf- ERG1 by laugh
"He makes me break up in laughter"
"My sides are splitting with laughter"
"He cracked me up"
c. Qsa- aka- y- an pe bchre- m
speech- the- ERG3-pl with cut.perf- ERG1
"They forced me to cut my speech short"

Sentence (32a) shows that the verb 'break' is used in English to describe the rope when its state changed from one piece into two pieces. The context of the sentence suggests that the action of breaking is achieved without using a tool, but what led to the change of state of the rope is the force created by the action when the first car pulled the second one. In the sentence (32b), the same element is mentioned, which is the rope, but the context is different. I consulted English native speakers and they did not agree upon one verb. Some of them used 'snap,' others prefer 'broke.' In the second context, the rope became two pieces as a result of using force, but not with the use of a tool. ${ }^{7}$

The verb bchre is used in sentence (33a) to express a psychological change of state that happened to the heart. Sentence (33c) shows a real change of state in the weld. The difference between the actions achieved in the two sentences is that the heart underwent a psychological change that cannot be realized with eyes, while the change in the state of the weld is clear.

[^12]Sentence (33b) was a controversial sentence because when I asked English native speakers to translate the Sorani sentence after I explained the meaning to them, I got different translations. The first group prefers to use the verb 'break' to express the meaning, and the other group chose 'split.' I consulted the Oxford English dictionary to check the verb used in the dictionary. I found out that the dictionary includes a sentence that has the same meaning, and the verb, which was used, was 'break,' so I chose 'break' to translate bchre in the above context.

In sentence (32d), the verb 'crack' used in English and it is considered equivalent to the verb bchre. The last two English sentences resort to two verbs to express the meaning of the verb bchre. Sentence (32e) used the verb 'hit' plus the verb 'cut' and sentence (32e) used the verb force plus the verb 'cut.' Table 12 presents the objects that undergo the action bchre while Table 13 presents objects that do not undergo the action bchre.

| Physical bchreen | Metaphorical bchreen |
| :--- | :--- |
| strand, rope, wires, weld, meat | heart, abdomen, speech, breath |

Table 12. Things that undergo bchre 'cut by force'

| Object | Real | Metaphorical | Alternation |
| :--- | :--- | :--- | :--- |
| abdomen |  | yes | causative |
| Button | yes |  | inchoative |
| Call |  | yes | inchoative |
| chain of patience |  | yes | inchoative |
| Chains |  | yes | causative |
| Concert |  | yes | causative |
| conversation |  | yes | inchoative |
| family relation |  | yes | causative |
| Flight |  | yes | causative |
| good relation |  | yes | causative |
| goodbye |  | yes | causative |
| Hair |  | yes | inchoative |
| imagination |  | yes | inchoative |
| injustice |  | yes | inchoative |
| Internet |  | yes | causative |
| Line |  | yes | inchoative |
| Love |  | yes | causative |
| patience |  | yes | causative |
| Person | yes |  | causative, inchaotive |
| Relation | yes |  | inchoative, inchoative |
| Road |  | inchoative |  |
| Rope | yes |  | inchoative |
| rope of patience |  | yes | inchoative |
| Shoes |  | yes | causative |
| Song | yes |  | causative |
| Speech | yes |  | inchoative |
| Strand | yes |  | inchoative |
| Strand |  | yes | causative |
| strap on a dress |  | yes | causative |
| System |  | yes | causative |
| thoughts |  | inchoative |  |
| Tradition |  | yes | causative |
| Traffic | yes | inchoative |  |
| Wealth | yes |  | causative |
| wireless call |  |  |  |
| woman period |  |  |  |
| Tabl 13. |  |  |  |

## Table 13.Things that bchre: Taken from online newspaper

I found 122 instances of the verb bchre 'cut by force' in the online sources that I checked without counting the repeated items. They all agree with my own intuition as a native speaker of Sorani.
naxosh- i bawke-m safar- aka-y bchree- m Illness- of father-my flight- the-his cut by force.perf-ERG1 "My father illness obliged me to return back"
naal- i mnal-aka bchra- 0 Flip-flop- of child-the cut by force.perf-ABS3 "The flip flop of the child broke"

Most of the sentences in English used the verb 'break' to translate the verb bchre in Sorani Kurdish. Interestingly, the verb bchre is derived from the verb bre 'cut' in Sorani Kurdish. Morphologically, the verb bchre is formed by adding the ch [t $\left.\int\right]$ sound after the [b] sound, which causes its semantic difference.

Bre $($ in Sorani Kurdish $)=$ 'cut' (in English $)$
B-ch-re (in Sorani Kurdish) = 'cut/break/split/crack' (in English)
The verb bchre in Kurdish means to cut something with or without using a tool, but the change of state occurs by using force. When a speaker specifies the context, the listener easily knows which means is used to achieve the action. If the speaker says that he/she cuts the meat (by force), the listener knows that the agent uses his/her teeth, but not a knife or cleaver. In all cases there is a force or pressure that helps to achieve the action. The other difference between the verb bre 'cut' and bchre 'cut by force' is that the action, which is expressed by the verb bchre, includes intentionality, while the action that
is expressed by the verb bre can be done intentionally or unintentionally. For example, one might bre 'cut' his/her finger unintentionally while making salad, but cannot bchre 'cut' a rope with bare hands unintentionally. Unlike bre, a bchre action does not require a tool. The thing that undergoes the action of the verb bchre is usually divided into two unequal parts.

Therefore, the verb is not a 'divide' verb, but resembles a 'cut' verb in having a result that consists of two parts. The division is not necessarily clean; the parts can have a ragged edge, which makes the result resemble the result of the verb break in English. The semantics of bchre seems to be part way between bre and shka. The result of a bchre action is like the break of shka, but the intentional nature of a bchre action and the use of a tool resemble the features of a bre action.

The difference between the verb shka 'break' and bchre 'cut by force' is very clear especially in the metaphorical uses of the verbs. In (36) the verb shka 'break' expresses a psychological state in which the theme undergoes a metaphorical division. The action expressed by the verb shka can take place over an extended period of time.
(36) kch- aka dl- e kur- aka-i shka- n(d)- 0 girl- the heart of boy- the-ERG3 break.perf-cause-ABS3
"The girl broke the boy's heart"

In (37) the verb bchre refers to a sudden action and it may cause death if the sound is very high or occurs suddenly.
(37) Dang- i hawratreshq- aka dl- e bchra- n(d)- im sound of thunder- the heart of cut.perf- cause-ERG1 "The sound of the thunder makes my heart jump out of my chest" "The sound of the thunder almost gave me a heart attack"

### 3.9 The verb jneen 'mincing'

The verb jneen 'mincing' is verb that is used mostly with foodstuff that is to be prepared for cooking such as meat and vegetables. The verb indicates an action done by an agent on a theme. It is translated into English as the verb 'mince.' A sharp-edged tool that gets into contact with the theme achieves the action. The verb has a new usage that comes into the Sorani discourse after inventing some machines that can cut old clothes into very small pieces for different purposes. I have asked some native speakers about the equivalent for this use, and they said that the best equivalent for it would be the verb 'shred' and the machine is called "textile shredder machine." But in both uses of the verb, with food or with clothes, a tool is used to do the action.

Min Gosht- aka - m
jnee- 0
I meat- the- ERG1 mince.perf-ABS3 "I minced the meat"
(39) Khayar aka- m jnee- 0 Cucumber the- ERG1 mince.perf-ABS3 "I minced the cucumber"

The verb has no metaphorical uses in Sorani Kurdish. In (38) and in (39) the agent achieves an action of jneen 'mincing' on the theme by a sharp-edged tool that contacted it. The agent controls the number and the shape of the pieces resulted from achieving the action on the object.

### 3.10 The syntax of the verb jneen 'mincing'

### 3.10.1 The causative alternation

The verb jneen undergoes the causative alternation. The verb denotes an action that is achieved by a doer and the effect of the action is reflected on an object. The verb is a transitive verb that needs both of its argument, the subject and the object. There is no causative marker attached on the verb.
(40) Min Gosht- aka - m jnee- 0

I meat- the- ERG1 mince.perf-ABS3
"I minced the meat"

A sharp-edge tool that comes into contact with the object achieves the action of the verb. Since the action of the verb achieved by a direct cause, mostly an animate agent, the causative marker is not needed.

### 3.10.2 The inchoative alternation

The verb jneen cannot undergo the inchoative alternation because the action is achieved by a direct causation and the agent is required to achieve the action. Without mentioning the agent, the sentence would be ungrammatical (41).
*Gosht-aka jna- 0 meat the mince.perf-ABS3
"The meat minced"

### 3.10.3 The middle alternation

The verb undergoes the middle alternation by adding an adverb that generalizes the action (42).

| Gosht-i mar | ba | asani da- | genre- $\quad$ t |
| :--- | :---: | :--- | :--- |
| meat- of lamb | prep | easily imperf | mince- |
| "MOM2 |  |  |  |

### 3.10.4 The passive

The verb jneen is used in the passive to express an action that is achieved by an active participant that is not mentioned explicitly, but there is a morphological reference attached to the verb that indicates its existence. When the verb jneen is used in the passive, it bears the sense of intentionality.

Gosht- aka jn-meat- the mince.perf"The meat was minced"
ra- 0
passive-ABS3

I summarize the syntactic forms of jneen in Table 14. The absence of the inchoative form suggests that the verb has the semantic component PRODUCE in its LCS.

| The verb | Causative | Inchoative | Middle | Passive | LCS |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Jnee | jnee |  | dajnree | jnra | PRODUCE |
| Concrete |  |  |  |  |  |

Table 14. The syntactic alternations of the verb jneen

### 3.11 The semantics of the verb Jneen 'mincing'

Semantically, the verb jneen 'mincing' indicates an action that needs an agent involved in the achieving it. The agent affects the theme by a sharp-edged tool, and
produces a change in the state of the object. The action mostly achieved on foodstuff, specifically on meat and vegetables to prepare them for cooking. When the object undergoes the action, it cannot be changed into smaller pieces, but if one wants to continue mincing it more, the object will undergo another state, it will be a "paste." Table 15 lists the objects that undergo the action of jneen while Table 16 lists the objects that do not undergo the action of jneen.

| Physical jneen 'mincing' | Metaphorical jneen 'mincing' |
| :--- | :--- |
| tomato, potato, meat, vegetables |  |

Table 15. Things that undergo jneen 'mincing'

| Things that do not undergo physical <br> jneen 'mincing' | Things that do not undergo <br> metaphorical jneen 'mincing' |
| :--- | :--- |
| paper-liquids-gases-weeds-hair-ground. | love-cold-warm-fever-memories-beauty |

Table 16. Things that do not undergo jneen "mincing"

### 3.12 The verb hareen 'grinding'

The verb hareen 'grinding' is a verb that indicates an action achieved on hard objects. The action of the verb hareen 'grinding' is achieved by the use of a tool. The tool usually is a heavy tool that creates pressure, and the pressure causes the change of the state in the object that undergoes the action. The state of the object is changed from one piece into crust. The action of the verb hareen 'grinding' is, in some respect, similar to the action of the verb shkandin 'breaking' since the objects that undergo them are mostly hard objects and the result is uncontrolled. ${ }^{8}$
(44) Azad ganm- aka - i hari- 0

Azad wheat- the - ERG3 grind.perf-ABS3
"Azad ground the wheat"

[^13]$\begin{array}{lll}\text { (45) Azad } & \text { barda- aka - i } & \text { hari- } \\ \text { Azad } & 0 \\ \text { stone- the- ERG3 } & \text { grind.perf-ABS }\end{array}$ "Azad ground the stone"

In (44) and (45) the agent changes the state of the object from one piece into a crust by using a tool. The agent has no ability to determine the number of the pieces resulted from applying the action on the object.

### 3.12.1 The syntax of the verb hareen 'grinding'

### 3.12.2 The causative alternation

The verb hareen undergoes the causative alternation. The verb denotes an action that is achieved by a doer and the effect of the action is reflected on an object. The verb is a transitive verb that needs both of its argument, the subject and the object. There is no causative marker attached on the verb. Since the action of the verb achieved by a direct cause, mostly an animate agent, the causative marker will not be needed. The subject is assigned a nominative case, and the object is assigned an accusative case. All the predication requirements are met. The sentence syntactically is correct.
(46) Azad ganm- aka - i hari- 0

Azad wheat- the- ERG3 grind.perf-ABS3
"Azad ground the wheat"

### 3.12.3 The inchoative alternation

The verb hareen does not undergo the inchoative alternation in real contexts because the action is achieved by a direct causation and the agent should be there in the
structure of the sentence to achieve the action. Without mentioning the agent, the sentence would be ungrammatical as in:

```
*ganm- aka hara- 0
wheat- the grind.perf-ABS3
"The wheat grinds"
```

However, as some newspaper sources mentioned some contexts in which the verb can be used in the inchoative alternation but with only metaphorical uses. When the verb haree 'grinding' is used in the inchoative alternation it is used in metaphorical contexts as in (48).
(48) Be daramati xalki haree without income people grind.perf-ERG3
"Bad economy destroyed people life"

In (48) the verb haree indicates an action but not a real action of grinding, but rather it is more like 'breaking the people spirit' because the bad economy.

### 3.12.4 The middle alternation

The verb undergoes the middle alternation because the agent of the sentence exists there in the structure of the sentence. The adverb is a prerequisite element in the structure of the sentence:
(49) Ganm- aka ba asani da- hare- et wheat- the prep easily imperf grind- NOM2
"The wheat grinds easily"

### 3.12.5 The passive

The verb hareen is used in the passive to express an action that is achieved by an active participant that is not mentioned explicitly, but there is a morphological reference attached to the verb that indicates its existence. When the verb haree is used in the passive, it bears the sense of intentionality.
(50) Ganm -aka har- ra- 0
wheat- the grind.perf passive-ABS3
"The wheat was ground"

In the above sentence the object ganmaka 'wheat' undergoes the action of haree 'grinding' by a passive agent that is not mentioned explicitly in the sentence. I summarize the syntactic forms of hareen in Table 17. The absence of the inchoative form in concrete contexts shows that the verb has a PRODUCE component in its LCS. In metaphorical contexts the verb may have a CAUSE component.

| The verb | Causative | Inchoative | Middle | Passive | LCS |
| :--- | :--- | :--- | :--- | :--- | :--- |
| haree 'grind' |  |  |  |  |  |
| Concere | haree |  | daharee | harra | PRODUCE |
| Metaphorical | haree |  | daharee | harra | PRODUCE |

Table 17. The syntactic alternations of the verb hareen

### 3.13 The semantics of the verb hareen 'grinding'

An agent who is considered the main cause of the action achieves the action of the verb hareen 'grinding.' A heavy tool that comes into contact with object achieves the action. The objects are usually hard. The change of state in the object from one pieces into crust is not reached by a single movement of the too, but it needs a couple of
movements to affects the object. Table 18 presents the objects that undergo the action of hareen and Table 19 presents the objects that do not undergo the action of hareen.

| Physical hareen 'grind' | Metaphorical hareen 'grind' |
| :--- | :--- |
| wheat, bread | human, people, woman |

Table 18. Things that undergo hareen 'grind'

| Object | Real | Metaphorical | Alternation |
| :--- | :--- | :--- | :--- |
| channel |  | yes | incoative |
| human |  | yes | incoative |
| money |  | yes | incoative |
| people |  | yes | causative |
| poets |  | yes | incoative |
| we |  | yes | incoative |
| wheat | yes |  | passive |
| women |  | yes | incoative |

Table 19. Things that undergo hareen 'grind' taken from online newspapers

| Things that do not undergo physical <br> hareen 'grind' | Things that do not undergo <br> metaphorical hareen 'grind' |
| :--- | :--- |
| paper-liquids-gases-cloth-weeds-hair- <br> ground. | love-cold-warm-fever-memories-beauty |

Table 20. Things that do not undergo hareen 'grind'
Sentence (51) is an example of the verb haree when it is used in the metaphorical contexts:
(51) komalga afrat da- hare (t)

Society women imperf. grind-NOM3
"The society treats women unfairly"

I found 18 instances of the verb hareen 'grinding' in the online sources that I checked without counting repeated items. I was surprised to find inchoative uses of the verb in metaphorical contexts. The verb hareen 'grinding' is similar to the verb shkand 'break'
regarding the tool that should heavy and the result being uncontrolled, and also similar to bre 'cut' in the respect that the action needs a tool to be achieved.

### 3.14 The verb rneen 'pick'

The verb rneen 'pick' in Sorani indicates an action that can be achieved either by bare hands or by a tool. The action applies to fruits such as apples and to vegetables such as okra. It does not apply to carrots, potatoes as it is used only with fruits and vegetables that are grown over the ground but not under the ground. The verb indicates an action that has to be achieved in real contexts; I could not find any metaphorical contexts in which the verb can be used.

### 3.14.1 The syntax of the verb rneen 'pick'

### 3.14.2 The causative alternation

The verb rneen undergoes the causative alternation. The verb denotes an action that is achieved by a doer and the effect of the action is reflected on an object (52).

$$
\begin{align*}
& \text { min sew- aka-m }  \tag{52}\\
& \text { I nee- } \\
& \text { I apple- the-ERG1 } \\
& \text { "I picked up the apple" }
\end{align*}
$$

The verb in the causative alternation takes two arguments, a subject and an object. The agent is represented syntactically by the subject and is the doer of the action. The object is the theme that undergoes the effect of the action.

### 3.14.3 The inchoative alternation

The verb rnee cannot be used in the inchoative form; if it is used the sentence would be ungrammatical (53).

> *sew rna- $\quad 0$
> apple pickup.perf-ABS3
> "apples pick"

It seems that the way the action of the verb is achieved needs always an agent to achieve the action; therefore the verb cannot undergo the inchoative alternation.

### 3.14.4 The middle alternation

The verb rnee cannot undergo the middle alternation. As the verb rneen denotes an action that is done by someone to something. The doer of the action has to be present and specific to do the action and the action cannot be a generic action.

| *bameka baasani | da-rne |
| :--- | :--- |
| okra easily | imperf-pick-NOM3 |
| "Okra picks easily" |  |

### 3.14.5 The Passive

The verb rnee is used in the passive to express an action that is achieved by an active participant that is not mentioned explicitly. The passive adds the suffix $-r a$ to the verb. The passive form of the verb is rarely used.

| bax- | i | baynjan- aka | rn- | ra- |
| :--- | :---: | :---: | :---: | :---: |
| garden- of | 0 |  |  |  |
| eggplant- the | picked up- | passive-ABS3 |  |  |

"The eggplant garden was picked up"

I summarize the syntactic forms of rnee in Table 21. The absence of the inchoative form shows that the verb has the semantic component PRODUCE in its LCS.

| The verb | Causative | Inchoative | Middle | Passive | LCS |
| :--- | :--- | :--- | :--- | :--- | :--- |
| rnee 'pick' |  |  |  |  |  |
| Concrete | rnee |  |  | rnra | PRODUCE |

## Table21. Syntactic alternations of the verb rnee

### 3.15 The semantics of the verb rnee 'pick'

To explore the semantic extension of the verb rnee, I examined the objects used with the verb in different contexts. But neither my consultants nor I could think of any metaphorical contexts in which the verb could be used.

| Physical rnee 'picking' | Metaphorical rnee 'pick' |
| :--- | :--- |
| tomatos, okra, fruits on stems or trees as apples, hair, face |  |

Table 22. Things that undergo rnee 'pick' taken from my consultants

| Things that do not undergo physical rneen <br> 'pick' | Things that do not undergo <br> metaphorical rneen 'pick' |
| :--- | :--- |
| melon-carrots-green onions, book, lice-bzhar | love-cold-warm-fever-memories-beauty |

Table 23. Things that do not undergo hareen 'grind'
The action of the verb rnee is achieved by hands as all the objects that undergo the action of the verb needs to be picked carefully bye hands such as tomatoes or okra. A machine cannot do the action. Intentionality is also part of the elements in the meaning of the verb because achieving the action is performed for a purpose needs an effort and cannot be done accidently. The doer - the agent- of the action has to walk to the place in
which picks the vegetables are there and starts performing the action of picking up in order to eat it. Therefore the doer of the action has to have the intention to do the action otherwise we will have an ungrammatical sentence as (56):

*Azad ba-behoshe $\quad$ bame-kay | rnee- |
| :--- |$\quad 0$

Azad un-intentionally okra-the pick.perf-ABS3
"Azan unintentionally picked up the okra"

The action of the verb rnee 'pick' change the state of the object from a living stuff on the tree into unloving stuff as it stop growing after the object-the vegetable- undergoes the action of rnee.

### 3.16 A summary of the syntactic/semantic comparison of the simple 'cut, break and pick' verbs

## A/ The simple verbs syntactically

All the simple verbs of 'break' 'cut' and 'pick' undergoes the causative alternation. There is a causative marker attached to the verb in the causative alternation, but the causative marker is attached only to the verbs as shka 'break' and bchre 'cut by force' when the agent intentionally achieves the action. As those the action of those two verbs can be achieves unintentionally. The verbs shka 'break,' bchre 'cut by force' and bre when it is metaphorically can undergo the inchoative alternation as all the ather verbs indicate a specific action that has to be achieves by an agent. All the verbs can undergo the middle alternation, except for the verb rnee 'pick' one explanation for this might be the morphology of the verb as it starts with /r/sound and in the middle alternation the verb has to have another /r/ sound in the middle of the word which makes it difficult for
the speaker to pronounce. All the verbs undergo the passive in which the verb ends with ra as a passive indicator. I summarized the syntactic alternations of the simple verbs in Sorani in Table 24.

| The verb | Causative | Inchoative | Middle | Passive | LCS |
| :---: | :---: | :---: | :---: | :---: | :---: |
| shka 'break' |  |  |  |  |  |
| Concrete | shkan(d)i | shka | dashke | Shkenra | CAUSE |
| Metaphorical | shkan(d)i | shka | dashke | Shkenra | CAUSE |
| bre 'cut' |  |  |  |  |  |
| Concrete | bree | not used | dabre | br-ra | PRODUCE |
| Metaphorical | bree | bra | dabre | Bra | CAUSE |
| bchre 'cut by force' |  |  |  |  |  |
| Concrete | bchree- bchrandi | bchra | dadabchredabchrendre(t) | Bchrenra | CAUSE |
| Metaphorical | bchree- bchrandi | bchra | dadabchredabchrendre(t) | Bchrenra | CAUSE |
| Jnee 'mince' |  |  |  |  |  |
| Concrete | Jnee |  | dajnree | Jnra | PRODUCE |
| haree 'grind' |  |  |  |  |  |
| Concere | haree |  | daharee | Harra | CAUSE |
| Metaphorical | haree |  | daharee | Harra | CAUSE |
| rnee 'pick' |  |  |  |  |  |
| Concrete | rnee |  |  | Rnra | PRODUCE |

Table 24. The syntactic alternation of the simple verbs of breaking, cutting picking

## B/ The simple verbs semantically

Semantically the simple verbs are divided into two groups according to the degree of control and intentionality. What I mean by degree of control is the ability of the agent to control the kind of change and the number of pieces that results from achieving the action on the object, e.g to cut a piece of meat into two or three pieces. Intentionality means whether the agent can achieve the action accidently without intending it.

The actions expressed by the verbs shka 'break,' haree 'grind,' and rnee 'pick' are actions on which the agent has no control over the result of the action, for example, one cannot control the number of the pieces when $s /$ he breaks a glass or grinds wheat. While the actions expressed by the verbs bre 'cut,' bchre 'cut by force,' and jnee 'mincing' are actions that the agent has the ability to control the result of the action as when one can cut something into two or three pieces or bchre a rope into two pieces.

Regarding intentionality, the actions of expressed by the verbs shka 'break,' and bchre 'cut by force' can be achieved by an agent intentionally or accidently, while the actions expressed by the verbs ' haree 'grind,' and rnee 'pick' bre 'cut,' and jnee 'mincing' cannot be achieved without intentionality except in some special cases. For example, when a person may cut his/her finger while making salad unintentionally.

In the next chapter I will examine the syntactic behavior and review the semantic extension of a group of compound and the complex verbs in Sorani.

## Chapter Four: Semantic extension of some complex and compound verbs in Sorani

### 4.1 Introduction

In this chapter I will introduce the complex and compound verbs in Sorani successively. Complex verbs consist of a prefix such as $d a$ - or hal- that is attached to a simple verb. The prefix adds a new element to the meaning of the verb such as directionality. The best definition I found was by Ahmed (2004), as he defined it as "Complex verbs consit of a bound morphem in the forms of prefixes or suffixes as nonverbal elemet In combination with a verbal element.Therefore the meaning of the verbal form is expressed by means of both verbal and non-verbal elements i.e hal dan 'to throw' (up-gave) (Ahmed 2004, p viv)

Compound verbs combine a non-verbal element such as an adverb or a noun and a verbal element to form a compound verb with a meaning that does not derive directly from the meaning of the non-verbal and verbal elements. Ahmed (2004) defined the complex verb as "The compound verbs in Kurdish consist of a non-verbal elemnt which should be NP,AdjP,AdvP, and PP and a verbal element which should be simple or complex. The meaning of the whole verbal construction is expressed by combination of both the verbal and the non-verbal element. As a general pronciple in non-simple construction the meaning of the non-verbal element is dominant. i.e jwan kirdin' to decorate' (beautiful -do) (Ahmed 2004, p viv) (This has been explained in details in chapter 2)

### 4.2 Complex verbs in Sorani Kurdish

### 4.3 The complex verb dabra'cut off'

Languages differ in their means of modifying the original meaning of verbs. English uses different means as prepositions and verb particles to modify verb meaning, while Sorani Kurdish utilizes prefixes to modify the meaning of verbs. One of the Sorani Kurdish prefixes is $d a$-. When this prefix is added to a change of state verb, it adds two new components to the verb meaning. First, it gives the sense of separating a part from a whole entity or a small quantity from a larger one, especially when the verb refers to a psychological or spatial cut, not a concrete one. It also adds a directional component, especially when it is used with verbs that express a concrete change. The action is achieved from top to bottom.

In English, the verb 'cut' can be accompanied by the verb particle off. In Sorani Kurdish, the verb bre is preceded by the prefix $d a$-. The verb dabra 'cut off' in sentence (1) expresses a psychological state that describes the experiencer condition. The agent, who is the experiencer in this case, goes through a kind of a psychological cut from life around himself. The prefix $d a$ - bears the sense that the singular individual feels cut off from living in that the country. The agent in the sentence represents only a small part of life, so he (the small part) is cut off from the larger community. In sentence (2) the agent is removing himself spatially from human contact. There is no tool or a passive participant on which the action is achieved. Rather, the action is achieved by the agent reflexively, and this is very clear in the context because of the use of the reflexive pronoun xoi.
(1) hast- da- aka- t da- bra-0 la 3yanda la- m shara feel_ imperf. do-ERG3 down- cut.perf-ABS3 from living from- this- country "She feels very cut off living in this country"
(2) xoi da- bre- e la xalik la malawa himself down- cut.perf- NOM3 from people at home "He cut himself off from people at home"

Sentence (3) also expresses a psychological and spatial cut off. The agent, who is supposed to be part of the process of learning, cuts himself off from studying. It is impossible to say that the study cut him off because it is the whole not the part. Sentence (4) expresses the spatial and the psychological 'cut off' and bears the same meaning as in sentences (1), (2).
(3) Da- bra- 0 la xwendin down- cut.perf.-ABS3 from study
"He dropped his study"
"He cuts off his study"
(4) Barx- aka da- bra- 0 la mar-aka lamb- the down- cut.perf-ABS3 from ewe the "The lamb cut off the ewe"

### 4.3.1 The syntax of the verb of dabre

### 4.3.1.1 The causative alternation

The verb dabra in the causative alternation refers to an action done by the agent, and the effect of the action affects the agent itself. There are two arguments in the structure of the sentence, which are the agent and a theme. The agent separates himself/herself from the community and the effect is psychological rather than concrete. The agent is the doer of the action and the theme, which is affected by the action at the
same time. The reflexive theme is not mentioned explicitly, but is understood from the context.
(5) Hast- da- aka- t da- bra- 0 la 3yanda la- m shara feel_ imperf.do- ERG3 down- cut-ABS3 from living from- this- country "She feels very cut off living in this country"

### 4.3.1.2 The inchoative alternation

The verb dabra undergoes the inchoative alternation (6).
(6) Azad da- bra- 0 la 3yan Azad down- cut.perf-ABS3 from living *"Azad cut off living"

The verb dabra in Sorani Kurdish behaves differently from the verb cut off in English in this context even though they are considered translational equivalents of one another. The action expressed in (6) by the verb dabra, can imply that some external factor such as a lack of money cut off the subject from society. The verb 'cut off' in English behaves like the verb 'cut,' because it requires the existence of both the agent and the theme in the structure of the sentence. If the agent and the theme refer to the same entity in any English sentence, a reflexive pronoun is needed. Knowing this clarifies why sentence (6) is acceptable in Sorani Kurdish, but not in English.

### 4.3.1.3 The middle alternation

The verb dabra undergoes the middle alternation. The middle alternation usually needs an adverb that expresses the manner in which the action is achieved. Since the verb
dabra bears the nuance of being cut off psychologically from something or someone, the adverb that is used to express the manner of the action must refer to this psychological state.
mnal ba zahmat la sheer da- da- bre(t) children with difficulty from milk imper- down- cut-NOM3 "Children stop breast feeding with difficulty"

### 4.3.1.4 The passive

The verb dabrra 'cut off' undergoes the passive alternation in Sorani Kurdish. It denotes an action achieved on a theme by an implicit agent.
(8) Azad da- br- ra- 0 la 3yanda la- m shara Azad down- cut-passive-perf-ABS3 from living from this country "He was cut off from living in this country"

The passive morpheme -ra is added to the verb to refer to the implicit agent, which is not in the structure of the sentence. I summarize the syntactic forms of dabra in Table 1. The inchoative forms show that the verb has the semantic component CAUSE in its LCS.

| The verb | Causative | Inchoative | Middle | Passive | LCS |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Dabre 'cut off' |  |  |  |  |  |
| Concrete | daebree | dabra | dadabre | dabrra | CAUSE |
| Metaphorical | daebree | dabra | dadabre | dabrra | CAUSE |

Table 1. The syntactic alternation of the verb dabre

### 4.4 The semantics of the verb dabre 'cut off'

The verb dabre 'cut off' denotes a metaphorical action of 'cutting off' somebody from someone or something. The action can be achieved by an agent who has the ability to cut somebody off something or someone, or it can be achieved by the agent reflexively. The agent can cut himself/herself off from something or somebody. The action refers to a psychological state that the agent chooses (or is sometimes obliged) to undergo. Table 2 and 3 lists objects that undergo the action of dabra while Table 4 lists objects that do not undergo the action of dabra.

| Physical <br> dabra 'cut <br> off' | Metaphorical dabra 'cut off' <br> river, spouse, <br> police, person <br> a child from a mother, aids, city, culture, daughters, disease, himself, <br> home, kurds, lamb, land, names, news, parts, party, people, places, <br> sound, stuff, themselves, tribes, al jazera channel, areas, art action, body, <br> cinema, civil world, club, concepts, death, deeds, desires, drama, europe <br> games, eyes, family, drama, famous headlines, feeling, forbidding the <br> satellite, game, hawler, he, international system, internet, iraq, issue, <br> kurdish people, kurdistan, lamb, language, literature, makhmur (name of <br> a place), movement, my beloved, night, opposition, palestine, parents, <br> place, player, playground, playing, policy, property, punishment, <br> qsmlo(name of a person), radio, reality, religion, religious group, resort, <br> river, savings, science, scientists, sleman, smile, society, spectator <br> ,spouse, structure, student, studying, team, ,teams, themselves ,turkey, <br> two groups ,university, values ,wall, work,world, person ,police |
| :--- | :--- |

Table 2. Things that undergo dabra 'cut off'

| Object | Real | Metaphor <br> ical | Alternation |
| :--- | :--- | :--- | :--- |
| aids |  | yes | causative |
| city |  | yes | causative, inchoative |
| culture |  | yes | causative |
| daughters |  | yes | causative |
| disease |  | yes | causative |
| himself |  | yes | causative |
| himself |  | yes | causative |
| home |  | yes | causative, inchoative |
| kurds |  | yes | causative |
| lamb |  | yes | causative |
| land |  | yes | causative |
| names |  | yes | causative |
| news |  |  |  |


| parts | yes | causative |
| :---: | :---: | :---: |
| party | yes | causative |
| people | yes | causative , inchoative |
| places | yes | causative, inchoative |
| sound | yes | causative |
| stuff | yes | causative |
| themselves | yes | causative |
| tribes | yes | causative |
| al jazera channel | yes | inchoative |
| areas | yes | inchoative |
| art action | yes | inchoative |
| body | yes | inchoative |
| cinema | yes | inchoative |
| civil world | yes | inchoative |
| club | yes | inchoative |
| concepts | yes | inchoative |
| death | yes | inchoative |
| deeds | yes | inchoative |
| desires | yes | inchoative |
| drama | yes | inchoative |
| Europe games | yes | inchoative |
| eyes | yes | inchoative |
| family | yes | inchoative |
| drama | yes | inchoative |
| famous headlines | yes | inchoative |
| feeling | yes | inchoative |
| forbidding the satellite | yes | inchoative |
| game | yes | inchoative |
| Hawler | yes | inchoative |
| he | yes | inchoative |
| international system | yes | inchoative |
| internet | yes | inchoative |
| Iraq | yes | inchoative |
| issue | yes | inchoative |
| kurdish people | yes | inchoative |
| kurdistan | yes | inchoative |
| lamb | yes | inchoative |
| language | yes | inchoative |
| literature | yes | inchoative |
| Makhmur (name of a place) | yes | inchoative |
| movement | yes | inchoative |
| my beloved | yes | inchoative |
| night | yes | inchoative |
| opposition | yes | inchoative |
| palestine | yes | inchoative |
| parents | yes | inchoative |
| place | yes | inchoative |
| player | yes | inchoative |
| playground | yes | inchoative |


| playing |  | yes | inchoative |
| :--- | :--- | :--- | :--- |
| policy |  | yes | inchoative |
| property |  | yes | inchoative |
| punishment |  | yes | inchoative |
| qsmlo(name of a person) |  | yes | inchoative |
| radio |  | yes | inchoative |
| reality |  | yes | inchoative |
| religion |  | yes | inchoative |
| religious group |  | yes | inchoative |
| resort |  | yes | inchoative |
| river |  | yes | inchoative |
| savings |  | yes | inchoative |
| science |  | yes | inchoative |
| scientists |  | yes | inchoative |
| sleman |  | yes | inchoative |
| smile | yes | inchoative |  |
| society |  | yes | inchoative |
| spectator |  | yes | inchoative |
| spouse |  | yes | inchoative |
| structure |  | yes | inchoative |
| student |  | yes | inchoative |
| studying |  | yes | inchoative |
| team |  | yes | yes |
| teams | yes | inchoative |  |
| themselves | yes | inchoative |  |
| turkey | yes | inchoative |  |
| two groups | yes | inchoative |  |
| university |  | inchoative |  |
| values |  | inchoative |  |
| wall |  | causative, inchoative |  |
| work |  | inchoative |  |
| world |  |  | causative |
| person |  |  | inchoative |
| police |  |  | yes |
| rable 3. |  |  | yes |

Table 3. Things that undergo dabra 'cut off' taken from online newspapers

| Physical dabra 'cut off' | Metaphorical dabra 'cut off' |
| :--- | :--- |
| paper, liquids, gases, weeds, hair, ground | love, cold, warm, fever, memories, beauty |

Table 4. Things that do not undergo dabra 'cut off'
The instances of the verb dabra 'cut off' that I checked from the online sources were about 9 without counting the repeated items. They are expected according to my own intuition as a native speaker of Sorani.
(9) zhn- aka-y- an la merd- aka-y da- bre- 0 wife-the-ERG3-pl from husband- the- ERG3 down-cut.perf-ABS3 "They cut off the wife from her husband"
(10) Actor-aka bo mawayak la senama da- bra- 0 actor-the for a while from cinema down- cut.perf-ABS "The actor cut off from movie for a while"

### 4.5The complex verb halbre 'lift-raise’

Adding the prefix hal- to the verb bre 'cut' adds new components to the original meaning of the verb. The verb halbre expresses an action that requires an agent and a theme on which the action is reflected. The action expressed by the verb halbre includes intentionality and direction. The action usually is achieved from bottom to top.

Sentence (11) is a clear example that explains the meaning expressed by the verb halbre. The agent in sentence (11) exerts $s /$ his efforts to raise a chair, which means literally "to cut the relation between the chair and the floor in an upward direction." The action is achieved by raising the chair from the floor, "the bottom" to somewhere higher "the top." The action includes intentionality because it cannot be done accidently without effort.
$\begin{array}{ccccc}\text { (11) Min kurse- } & \text { aka- } & \mathrm{m} & \text { hal- bre- } & 0 \\ \text { I chair- } & \text { the- } & \text { ERG1 } & \text { up- cut.perf-ABS3 }\end{array}$ "I lifted the chair up"

Sentence (12) shows another context in which the same verb expresses nearly the same meaning. The agent lifts the wire up "to cut its relation with the earth," and the action is achieved from bottom to top with intentionality. Sentence (13) seems odd to the

English speaker, but for the Kurdish speaker it is not different from sentences (12) and (13). It expresses an action done by a person who "cuts the relation between the upper lid and the lower lid" of her/his eyes. The person achieves the action from bottom to top. The person does so intentionally and by exerting some effort. The verb halbre 'lift' is different from bre 'cut' in the sense that it expresses directionality and showing that there has been effort exerted to achieve the action.
(12) Wiar- aka hal- bra- 0 ba mndal dasti na- gati wire- the up- cut.perf-ABS3 for children hands not- reach "Raise the wire to prevent the children from reaching it"
(13) Naxosh- aka chaw- e hal-bre- 0 patient- the eyes- his up- cut.perf-ABS3 "The patient opened up his eyes"

### 4.5.1 The syntax of the verb halbre

### 4.5.1.1 The causative alternation

Syntactically the verb halbre in the causative alternation requires two arguments, an agent and a theme (14). The agent occupies the subject position and it is assigned a nominative case. The theme would be in the object position and it is assigned a subjunctive case.
(14) Min kurse-aka- mal-bre- 0 I chair- the ERG1 up- cut.perf-ABS3 "I lifted the chair up"

### 4.5.1.2 The inchoative alternation

The verb halbre does not undergo the inchoative alternation because the verb needs both of its arguments to express the intended meaning (15). The verb halbre denotes an action that needs intention and effort to be achieved. Both the intention and effort are done by an agent. Omitting the agent leads to the unfulfillment of the action.
*kurse - ka hal- bra- 0 chair- the up- cut.perf-ABS "The chair lifted"

### 4.5.1.3 The middle alternation

The verb halbre undergoes the middle alternation (16). The middle alternation requires an adverb that expresses the manner of the action such as easily, clearly or with difficultly and so on.
(16) Kurse bchuk ba assani da- hal- bre- t chair small with easily imper- up -cut-NOM3 "The small chair lifts up easily"

If the chair is a small one the action would be achieved easily, and if the chair is big, the action is achieved with difficultly.

### 4.5.1.4 The passive

The verb halbre 'lift up' can be used in the passive alternation (17). The agent is still present covertly in the structure even if not mentioned explicitly.
(17) Kurse- aka hal- br- 0 ra chair- the up-cut.perf-ABS3 passive "The chair was lifted up"

The theme moves to occupy the subject position, but it does not play the role of the agent because the subject role has been absorbed by the passive morphology. The verb in this alternation denotes an action done by an implicit agent. One of the restrictions of the passive alternation of the verb halbra 'lift up' in Sorani Kurdish is the pronunciation restriction. A Sorani speaker faces difficulty in pronouncing the passive form of the verb and that leads the speaker to use the inchoative form of the verb to express the same meaning. The syntactic forms of halbre are listed in Table 5. The absence of the inchoative forms shows that the verb has the semantic component PRODUCE in its LCS.

| The verb | Causative | Inchoative | Middle | Passive | LCS |
| :--- | :--- | :--- | :--- | :--- | :--- |
| haldabre 'lift' |  |  |  |  |  |
| Concrete | halebree |  | hal-dabret | hal- brra | PRODUCE |
| Metaphorical | halebree |  | hal-dabret | hal- brra | PRODUCE |

## Table 5. The syntactic alternations of the verb halbre

### 4.6 The semantics of the verb halbre 'lift up'

The verb denotes an action that is achieved by an agent on a theme. Table 6 and 7
lists objects that undergo the action of halbra while Table 8 lists objects that do not.

| Physical halbra 'lift up' | Metaphorical halbra 'lift up' |
| :--- | :--- |
| chair, one's eyes, finger, foot, hand, head, <br> newspaper, chin. | call, scientist, tribe, nose (to show dignity), <br> bone, eye, group, sight, sound. |

Table 6. Things that undergo halbra 'lift up'

| Object | Real | Metaphorical | Alternation |
| :--- | :--- | :--- | :--- |
| bone |  | yes | Causative |
| call |  | yes | Causative |
| eye |  | yes | Causative |
| finger | yes |  | Causative |
| foot | yes |  | Causative |
| group |  | yes | Causative |
| hand | yes |  | Causative |
| head | yes |  | Causative |
| newspaper | yes |  | Causative |
| scientists |  | yes | Causative |
| sight |  | yes | Causative |
| sound |  | yes | causative, passive |
| tribe |  | yes | Causative |
| chin | yes |  | Causative |

Table 7. Things undergo the action of halbre from newspaper sources

| Physical halbra 'lift up' | Metaphorical halbra 'lift up' |
| :--- | :--- |
| anything that cannot be lifted, hair | love, cold, warm, fever, memories, beauty |

## Table 8 . Things that do not undergo halbra 'lift'

The instances of the verb halbre 'lift' that I checked from the online sources were about (29) without counting the repeated items. They are expected according to my own intuition as a native speaker of Sorani. The verb halbre in its meaning components includes directionality, intentionality, and effort.

### 4.7 The complex verb dashka 'break by force downwardly'

The verb dashka is composed of the verb shka 'break' proceeded by the prefix $d a$ .The verb dashka is similar to the verb shka 'break' in its use to refer to physical "breaking" events. The verb refers to an action that is achieved from top to bottom, but the exact meaning of the verb is determined by the arguments of the verb.

The verb in sentence (18) denotes an action that is achieved by an agent on a theme. The agent broke the branch, but the branch is still connected to the tree. When I asked English native speakers how to express this event, I got two different answers. The first group said that they needed two verbs to express the exact meaning of the context. They said that the verb 'break' in English refers to a complete action and since the branch is still connected to the tree another verb is needed to express this sense. The second group prefers the verb 'split' to express this event. In sentence (19) the verb dashka refers to a metaphorical action of breaking. The agent cuts the price under pressure from the buyer in contrast with reducing prices which is done willingly.
(18) Hoger lq- i dar- aka- i da- shka- n- 0 Hoger branch of tree- the- ERG 3 down-break.perf-cause-ABS3
"Hoger broke the branch of the tree but did not separate it totally"
"Hoger split the branch from the tree"
(19) Xawan- i sayara-aka nrx- aka- i bo kryar- aka da-shka- n- 0 owner of car- the price- the- ERG3 for buyer- the down-break-caus-ABS3 "The owner of the car cut the price for the buyer"

### 4.7.1 The syntax of the verb dashka

### 4.7.1.1 The causative alternation

Syntactically the verb dashka undergoes the causative alternation (20). The action expressed by the verb has an agent, who initiates the action and a theme that undergoes the action.
(20) Hoger lq- i dar- aka- i da- shka- n- 0 Hoger branch of tree- the ERG3 down- break.perf- cause-ABS3 "Hoger broke the branch of the tree but did not completely separate it"
"Hoger split the branch from the tree"

### 4.7.1.2 The inchoative alternation

The verb dashka undergoes the inchoative alternation (21). The semantic theme is in the syntactic subject position.
(21) Lq- i dar- aka da- shka- 0 branch of tree- the down- break.perf -ABS "The branch of the tree split incompletely"

### 4.7.1.3 The middle alternation

The verb dashka undergoes the middle alternation (22). A generic agent is not mentioned explicitly in the structure, but it is understood.
lq- i bareek ba asani da- da- shke- 0 small of branch with easily imperf- down- break-ABS3
"A small branch splits easily"

### 4.7.1.4 The Passive

The verb dashka 'break downwardly' can be used in the passive alternation (23). The theme moves to occupy the subject position. The agent role is absorbed by the passive morphology.
(23) lq- i dar-aka da- shke- n- ra- 0 Branch-of tree-the down- break.perf-cause-passive-ABS3
" The tree branch was splitted"

Table 9 summarizes the syntactic forms of dashka 'break downwardly.' The inchoative forms show that the verb has the semantic component CAUSE in its LCS.

| The verb | Causative | Inchoative | Middle | Passive | LCS |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Dashka 'break downwardly' |  |  |  |  |  |
| Concrete | daishkan | dashka | dadashke $(\mathrm{t})$ | dadashkenre(t) | CAUSE |
| Metaphorical | daishkan | dashka | dadashke(t) | dadashkenre(t) | CAUSE |

Table 9. The syntactic alternations of the verb dashka

### 4.8 The semantics of the verb dashka 'break downwardly'

The verb denotes an action that can be a real or metaphorical action. It is achieved by an agent acting on a theme. The theme is usually an inanimate object. The meaning of the verb includes many components as directionality and intentionality. The action when it refers to a real action is achieved without a tool. Table 10 and 11 lists objects that undergo the action of dashka while Table 12 lists objects that do not.

| Physical dashka 'break downwardly' | Metaphorical dashka 'break downwardly' |
| :--- | :--- |
| branch of tree | club, direction, kingdom, price, rule, money, <br> salary |

Table 10. Things that undergo dashka 'break downwardly'

| Object | Real | Metaphorical | Alternation |
| :--- | :--- | :--- | :--- |
| club |  | yes | causative |
| direction |  | yes | causative |
| price |  | yes | causative |
| kingdom |  | yes | inchoative |
| money |  | yes | inchoative |
| salary |  | yes | inchoative |
| rule |  | yes | passive |

## Table 11. Things that undergo dashka taken from online newspapers

| Physical dashka 'break downwardly' | Metaphorical dashka 'break downwardly' |
| :--- | :--- |
| paper, liquids, gases, hair, ground | love, cold, warm, fever, memories, beauty |

Table 12. Things that do not undergo dashka 'break downwardly'

The instances of the verb dashka 'break downwardly' that I checked from the online sources were about (24) without counting the repeated items. They are expected according to my own intuition as a native speaker of Sorani.

```
mucha-y farmanbar-an da- shka- 0
Salary-of employee- pl down- break.perf-ABS
"The salary of the employees breaks down"
```


### 4.9 The complex verb dabchre 'cut downwardly' (by force)

The verb dabchre denotes an action that includes force. The action is achieved by an agent on a theme. The prefix $d a$ - that precedes the verb bchre 'cut,' implies the theme is usually a small part of something. In order to achieve the action, the agent should use some kind of physical force or authority. Although the complex verb dabchre has the root bchre 'cut', the complex verb refers to taking something 'cut' from a larger object.

Sentence (25) shows that the agent seized a piece of land, by using a kind of authority. The agent "cuts" the piece of land from a larger section, and it is now under his own control. Sentence (26) expresses the same meaning, but the theme is different, and the means by which the action achieved is different too. The theme is a piece of cloth and the agent uses his force to cut and took part of the cloth from a whole piece of cloth.

Zaw- e- aka- i bo xoi da- bchre- 0 Piece -of land the- ERG3 for himself down- take (by force).perf-ABS3 "He took by force (a piece of land) for himself"
(26) Parcha- qumqsh- aka- m da- bchre-

### 4.9.1 The syntax of the verb dabchre 'cut downwardly'

### 4.9.1.1 The causative alternation

The verb dabchre undergoes the causative alternation (27). The verb dabchre in the causative alternation takes two arguments, a subject and an object. The verb denotes an action that is achieved by an agent and the effect of the action is reflected on a theme.

Parcha- qumqsh- aka- m da- bchre0 Piece- cloth- the- ERG1 down-cut and take.perf (by force)-ABS3 "I cut and took by force the piece of cloth"

### 4.9.1.2 The inchoative alternation

The verb dabchre does not undergo the inchoative alternation because the action expressed by the verb needs an agent, to achieve the action (28).

> *Parcha- $\begin{aligned} & \text { qumqsh- } \\ & \text { aka- } \\ & \text { Piece } \\ & \text { cloth- }\end{aligned}$ the bchra- down- cut and take.perf (by force)-ABS3 *"The piece of cloth cut and took"

### 4.9.1. 3 The middle alternation

The verb dabchre undergoes the middle alternation, but semantically the adjective that is used to describe the theme should match the adverb that is used to describe the action (29).
(29) Parcha- qumqsh- i tanik da- da- bchre (t) baassani Piece cloth- ERG 3 thin imperf- down - cut(by force)-NOM3 easily "The delicate piece of cloth cuts downwardly easily"

The theme, which is a piece of cloth in the above sentence is described as delicate, therefore the action can be done easily. If the piece of cloth is described as thick, the action needs more effort and achieving the action would be difficult.

### 4.9.1.4 The passive

The verb dabchre undergoes the passive alternation, and it denotes an action achieved by an agent on a theme. The agent uses force to achieve the action, the force can be a physical strength or an authority.
(30) Parcha- qumqsh- aka da- bchre- n- ra piece cloth- the down- cut and take.perf (by force)-cause-passive "The piece of cloth was cut and taken by force"

Sorani speakers prefer to use the sentence in the causative alternation rather than in the passive voice in daily use. The verb dabchre originally includes the sense of using force to achieve the action. This force is used to obtain things legally or sometimes illegally. A Kurdish speaker prefers to mention the agent because the force used decides if the action done legally or illegally. Therefore; the passive alternation is not common in daily Kurdish.

I summarize the syntactic forms of dabchre in Table 13. The absence of inchoative forms shows that the verb has the semantic component PRODUCE in its LCS.

| The verb | Causative | Inchoative | Middle | Passive | LCS |
| :--- | :--- | :--- | :--- | :--- | :--- |
| dabchre 'cut by force' |  |  |  |  |  |
| Concrete | daebchree |  | dadacbhre | dabchrenra | PRODUCE |
| Metaphorical | daebchree |  | dadacbhre | dabchrenra | PRODUCE |

## Table 13. The syntactic alternation of the verb dabchre

### 4.10 The semantics of the verb dabchre 'cut downwardly'

The verb dabchre is formed by adding the suffix $d a$ - to the verb bchre. The suffix $d a$ - (as mentioned earlier) adds the sense that the action is achieved from top to bottom. The verb bchre denotes an action of cutting that is achieved by force. Therefore, the verb dabchre includes in its components meaning directionality and force. The verb denotes an action that is achieved by an agent, who has some kind of authority or power on an inanimate object. The action is achieved intentionally because the agent must use force or power to achieve the action (31).
(31) Parcha- qumqsh- aka- m da- bchre- 0 piece cloth- the- ERG1 down- cut and take. Perf (by force)-ABS3 "I cut and took by force the piece of cloth"

The above sentence shows that the agent uses force to achieve the action on a piece of cloth. The agent cuts the piece of cloth into two pieces, but without using a tool. The agent uses her/his hands to achieve the action from top to bottom. Since the division is done by hands, the division is not clean.

Table 14 lists objects that undergo the action of dabchre and Table 15 lists objects that do not undergo the action of dabchre. Unfortunately I could not find any instances of the verb in the newspapers sources.

| Physical dabchre 'cut by force from top <br> to bottom' | Metaphorical dabchre 'cut by force from <br> top to bottom' |
| :--- | :--- |
| cloth | piece of land |

Table 14. Things that undergo dabchre 'cut by force from top to bottom'

| Physical dabchre 'cut by force from top <br> to bottom''mincing' | Metaphorical dabchre 'cut by force from <br> top to bottom'' |
| :--- | :--- |
| paper-liquids-gases-weeds-hair-ground. | love-cold-warm-fever-memories-beauty |

Table 15. Things that do not undergo dabchre 'cut by force from top to bottom'

### 4.11 The complex verb halbchre 'open by force'

The verb halbchre is formed by adding the prefix hal to the verb bchre 'cut by force.' The prefix hal- adds the sense that the action of the verb is achieved from bottom to top. The verb denotes an action done by an agent on a theme. The agent achieves the action either with bare hands or with a tool. The action cannot be achieved without using force. Achieving the action needs exerting great force, this is why the action is always intentionally achieved. The action is usually achieved from bottom to top.

Roza quto-aka- i hal- bchre- 0 Roza can- the- ERG3 up- force open.perf-ABS3
"Roza opened the can"
(33) Nama- aka -m hal- bchre- 0

Letter- the -ERG1 up- force open.perf-ABS3
"The letter opened"

Sentence (32) denotes the action of opening a can, but the action is achieved by force and with a tool. A Sorani speaker knows that the action in (32) is done from bottom to top. Sentence (33) has nearly the same meaning and denotation. Opening a letter in its usual sense does not imply exerting any kind of force, but if the person who receives the letter expects important news that might be happy or sad, s/he would be eager to open it quickly. S/he will utilize some kind of force to speed up the action of opening. Directionality is an obvious component in the meaning of the verb in sentence (33).

### 4.11.1 The syntax of the verb halbchre

### 4.11.1.1The causative alternation

The verb halbchre undergoes the causative alternation. The verb denotes an action that is achieved by an agent on a theme (34).

| Roza quto- aka- | i | hal-bchre- | 0 |
| :--- | :--- | :--- | :--- |
| Roza can- the- | ERG3 |  |  |
| up- force open.perf-ABS3 |  |  |  | .

The verb has two arguments in the structure of the sentence. The agent, who occupies the subject position, is assigned a nominative case, and the theme, which occupies the object position, is assigned an accusative case.

### 4.11.1.2 The inchoative alternation

The verb undergoes the inchoative alternation as in (35):
(35) Nama- aka hal- bchra- 0 Letter- the up- force open.perf-ABS3
"The letter opened"
But the verb cannot undergo the inchoative alternation in the context in (36):
*Quto-aka hal-bchra- 0
can- the up- force open.perf-ABS3
"The can opened (by force)"

The reason for that is the object that is affected by the action in (35) is a letter which is originally made of paper and it is very delicate, which means any factor weather
internal one as the glue which make the letter stick together and this glue expires which leads the letter to opens, or external one if the letter exposed to some drops of water which also leads to open the letter and in such a context one can use the verb inchoatively. However in (36) the object that undergoes the action is a can which is usually made of a hard object and it needs efforts and intention to open it that is why the verb is not used in the inchoative alternation in that context.

### 4.11.1.3 The middle alternation

The verb dabchre undergoes the middle alternation, but semantically the adjective that is used to describe the theme should match the adverb that is used to describe the action (37).
(37) Quto- i sardi bchuuk basani hal- da- bchre-re (t) can- of soda small easily up- imperf-open- NOM3 "A small can of soda opens easily"

The verb undergoes the middle alternation, but semantically the thing that undergoes the action determines the force that is needed to achieve the action (37). If the action is achieved without exerting much effort, it is described as "easily" done. On the contrary, if the action needs great effort; it is described as done "with difficulty."
(38) Quto- i doshaw tamata- aka ba zahmat hal- da- bchre (t) can of paste tomato- the difficultly up- imperf. open-NOM3 "The can of tomato paste opens easily"

### 4.11.1.4 The passive

The verb halbchre undergoes the passive alternation and it denotes an action that is achieved by a passive agent (39).

Quto- aka hal-bchre n- ra. can- the up.open.(by force) perf cause-passive
"The can was opened (by force)"

Syntactically a passive morpheme - $r a$ is attached to the verb, and the theme moves to the subject position to get nominative case. Semantically the sentence in the passive alternation is not usually used, but rather the causative alternation is used.

Kurdish speakers prefer mentioning the agent due to the force used to achieve the action. The passive alternation of the verbs bchre, dabchre, and halbchre is not common in daily use in Kurdish. I summarize the syntactic forms of halbchre in Table 16. The results for the inchoative form suggest that the verb has the semantic component CAUSE for fragile objects and PRODUCE for hard objects.

| The verb | Causative | Inchoative | Middle | Passive | LCS |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Halebchre 'open by force' |  |  |  |  |  |
| Concrete-fragile | halebchree | halbchra | haldacbhre | halbchrenra | CAUSE |
| Concrete-hard | halebchree |  | haldacbhre | halbchrenra | PRODUCE |
| Metaphorical |  |  |  |  |  |

Table 16. The syntactic alternations of the verb halbchre

### 4.12 The semantics of the verb halbchre 'open by force'

The verb halbchre expresses an action achieved by an agent on an inanimate object. The verb is always used in expressing a real action, not a metaphorical one. Usually the action of the verb is used to refer to open the lids of cans or soda bottles.

There are many components of meaning that participate in composing the overall meaning of the verb halbchre. The first component is directionality since the verb contains the prefix hal which indicates that the action is achieved from bottom to top. The second component is force because the verb bchre carries this sense in its meaning. The third component is intentionality as the action cannot be achieved without exerting some effort; it cannot be done without intention. A tool can be used to achieve the action or it can be achieved using bare hands. For example, some jars can be opened without a tool as in (40). If the object is a can that needs a can-opener, then the action must be achieved by a tool (41).

| Shushae-i | mrba- aka- | hal- bchre- | 0 |
| :--- | :--- | :--- | :--- | :--- |
| Jar of | jam- the- | ERG1 | up- open.perf-by force-ABS3 | "I opened the jar of the jam"

(41) Quto-i doshw- aka- m hal-bchre-0 ba qto-halbchr- aka can of paste- the- ERG1 up-open.perf-ABS3 with can-opener- the "I opened the can of paste with the can opener"

When the action is achieved by hand, the hand is not necessarily mentioned in the sentence as in (40). Table 17 lists objects that undergo the action of halbchre and Table 18 lists objects do not undergo the action of halbchre. Unfortunately I could not find instances for the verb in my newspaper source.

| Physical halbchre 'cut by force from <br> bottom to top' | Metaphorical halbchre 'cut by force <br> from bottom to top' |
| :--- | :--- |
| can, letters, boxes |  |

Table 17. Things that undergo halbchre 'cut by force from bottom to top'

| Things that do not undergo physical <br> halbchre 'cut by force from bottom to <br> top' | Things that do not undergo <br> metaphorical halbchre 'cut by force <br> from bottom to top' |
| :--- | :--- |
| paper, liquids, gases, weeds, hair, ground | love, cold, warm, fever, memories, beauty |

Table 18. Things that do not undergo halbchre 'cut by force from bottom to top'

### 4.13 The verb kirdinawa 'open'

The verb kirdnawa 'open' in Kurdish belongs to the class of complex verbs that is formed by combining a simple verb with a suffix. The origin of the verb is kird, which literally means do or make, and the suffix -awa is added to it, which changes the meaning of the complex to open $(42,43$, and 44$)$.
(42) Ali darg- aka- i krd-awa- 0

Ali door the- ERG3 do-open.perf.ABS3
"Ali opened the door"
(43) Qopcha- ka- m krd-awa- 0
botton the- ERG1 do-open.perf-ABS3
"I opened the button (Unbutton the shirt)"
(44) Lala nama- ka- i krd-awa- 0

Lala letter the- ERG3 do-open.perf-ABS3
"Lala opened the letter"

The affix- awa in Sorani means that the action is repeated twice or three times as in $(45,46)$.
(45) Xward- m- 0

Eat.perf-ERG1-ABS3
"I ate it"
(46) Xward- m- -0- awa Eat.perf- -ERG1-ABS3 again "I ate it again"

But, the suffix -awa behaves differently with the verb kird because it changes its meaning to kirdinawa 'open.'

The verb kirdinawa 'open' in sentence (47) denotes an action achieved by an agent on a theme. The meaning of the action does not imply the use of a tool in the action unless it is mentioned explicitly.

Ali darg- aka- i krd-awa ba chakush Ali door the- ERG3 do-open.perf with hammer "Ali opened the door by a hammer"

The action that is expressed by the verb kirdinawa 'open' implies a contact between the agent and a theme.

### 4.13.1 The syntax of the verb kirdinawa 'open'

### 4.13.1.1 The causative alternation

The verb kirdinawa undergoes the causative alternation because the verb has two arguments the agent, which occupies the subject position and a theme, which occupies the object position (48).

Ali darg- aka- i krd-awa-0
Ali door the- ERG3 do-open.perf-ABS3
"Ali opened the door"

### 4.13.1.2 The inchoative alternation

The inchoative form of the verb kirdinawa denotes an action that is apparently achieved without an explicit agent (49). The theme, which is the passive participant in the action, plays the role of the subject syntactically but not semantically. In the inchoative alternation the action seems to be achieved not only by an animate factor, but also by an inanimate one such as the wind.

Darga- ka kray-awa- 0 door- the do-open.perf-ABS3
"The door opened"

### 4.13.1.3 The middle alternation

The verb kirdinawa 'open' undergoes the middle alternation (50). The arguments of the verb behave in the same way as in the inchoative alternation. The theme, which is the passive participant in the action, plays the role of the subject syntactically but not semantically. The adverb gives a sense of the manner in which the action is achieved.
(50) Darg- aka baasani kray-awa- 0 door the easily do-open.perf-ABS3
"The door opened easily"

### 4.13.1. 4 The passive

Syntactically the verb kirdinawa 'open' undergoes the passive alternation as in (51). The verb indicates an action that is achieved by an unknown agent. The agent is represented in the sentence by a passive morphology.

Darg- aka kr- enra- yawa door- the do-passive.perf "The door was opened"

But the passive form of the verb is not used in daily conversations. One of the restrictions of the passive alternation of the verb kirdinawa 'open' use in Sorani is the pronunciation restriction. The Sorani speaker faces difficulty in pronouncing the passive form of the verb and that leads the Kurdish speaker to use the inchoative form of the verb to express the same meaning. I summarize the syntactic forms of kirdinawa in Table 19.

The inchoative forms show that the verb has the semantic component CAUSE in its LCS.

| The verb | Causative | Inchoative | Middle | Passive | LCS |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Kirdinawa 'open' |  |  |  |  |  |
| Concrete | kird-ewa | kra-i-awa | dark-e-tawa | da-kra-yawa | CAUSE |
| Metaphorical | kird-ewa | kra-i-awa | dark-e-tawa | da-kra-yawa | CAUSE |

Table 19. The syntactic alternation of the verb kirdinawa

### 4.14 The semantics of the verb kirdinawa 'open'

The verb kirdinawa 'open' denotes an action done by an agent on a theme. No tool is involved in the action unless mentioned overtly. The action is used with objects as doors, windows, or jars. Table 20 lists objects that undergo the action of kirdinawa and Table 21 lists objects that do not. Unfortunately I could not find any instances of the verb in the newspapers sources.

| Physical kirdinawa 'open' | Metaphorical kirdinawa 'open' |
| :--- | :--- |
| door, window, can, hands, eyes, folder, box, gate | heart |

Table 20. Things that undergo kirdinawa 'open'

| Physical kirdinawa 'open' | Metaphorical kirdinawa 'open' |
| :--- | :--- |
| paper, liquids, gases, weeds, hair, ground, <br> lid of a pen, laptop | love, cold, warm, fever, memories, beauty |

Table 21. Things that do not undergo kirdinawa 'open'

### 4.15 The verb Halkesha 'picking vegetables that are growing under the ground'

The verb halkasha is a complex verb that consists of the prefix hal-and the verb keshan which can be translated literally as 'to weigh.' The suffix hal- has the sense that the verb is achieved from bottom to top.

### 4.15.1 The syntax of the verb halkesha 'pick'

### 4.15.1.1 The causative alternation

The verb halkesha 'pick' undergoes the causative alternation as in (52):

```
Azad guizar-aka- i hal- kasha- 0
Azad carrot-the-ERG3 up- weigh.perf-ABS3
"Azad picked the carrot"
```

In (52) the verb halkesha undergoes the causative alternation and took two arguments, the agent and the patient.

### 4.15.1.2 The inchoative alternation

The verb halkesha does not undergo the inchoative alternation as it needs both of its arguments in the sentences.
*gwezar-aka hal-kesha- 0 carrot- the up-weigh.perf-ABS3
"The carrot picked"

### 4.15.1.3The middle alternation

The verbs halkesha undergoes the middle alternation (54). The middle alternation usually needs an adverb that expresses the manner of the action. The generic agent is not mentioned explicitly in the structure, but it is understood from the meaning of the sentence.
(54) Tuur baasani hal- da- keshre- (t) raddish easily up-imperf - pick- NOM3
"Radish easily picks"

### 4.15.1.4 The Passive

The verb halkasha 'pick' are used in the passive to express an action that is achieved by an active participant that is not mentioned explicitly (55). When the verb halkasha 'pick' is used in the passive, they bear the sense of intentionality. The doer of the action did the action on purpose, but it does not show up for a reason or another in the structure of the sentence.
pyazi tar la- bax- aka hal- keshra- 0 onion green from garden- the up- pick.perf- passive-ABS3 "Green onion was picked from the garden"

I summarize the syntactic alternations of the verb halkesha in Table 22. The absence of the inchoative form shows that the verb has the semantic component PRODUCE in its LCS.

| The verb | Causative | Inchoative | Middle | Passive | LCS |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Halkesha 'pick' |  |  |  |  |  |
| Concrete | halikesha |  | hal-da- <br> keshre | halkeshra | PRODUCE |
| metaphorical |  |  |  |  |  |

Table 22. The syntactic alternations of the verb halkesha

### 4.16 The semantics of the verb halkesha 'pick'

The verb denotes an action that is achieved by an agent on an object. This action has its own specificity in that it has to be achieved on objects that are buried under something and part of the object is visible so that the agent can grab the part that is visible and pull it. For example one can look at the radish or a carrot, both of them are buried under the ground but some green part of them is visible on the ground, the farmer grabs the green part and pulls it up till s/he gets the whole carrot or radish. Below is a table that shows some objects that undergo the action of halkeshan 'pick.' Unfortunately I could not find any instances of the verb in the newspapers sources.

| Physical halkesha 'pick' | Metaphorical halkesha 'pick' |
| :--- | :--- |
| carrot, green onion, radish, a bucket from a <br> well, teeth, nail, hair |  |

Table 23. Things that do not undergo halkesha 'pick'
The action of the verb can be achieved by bare hand or by a tool. Intentionality is also present in the meaning of the verb as the action needs efforts to achieve the action.

```
*Kur- aka nayzani bzmar-aka-y hal- kasha- 0
boy- the unintentionally nail - the-ERG3 up- weigh-perf-ABS3
"The boy pulls the nail"
```

The action of the verb halkashan 'pick' when applying to different objects, changes the state of the living things as the plants and changes the place of the object as the case with pulling a bucket from a well.

### 4.17 The complex verb darhena 'taking out'

The verb darhena is a complex verb that consists of the prefix dar 'out' and henan 'take.' The verb denotes an action that is achieved by an agent on a theme. The verb can be used in agricultural contexts as taking out-digging- vegetables that are grown under the ground as potato and it is also used in other contexts as taking out the trash from the trash can.

### 4.17.1 The syntax of the verb darhena 'taking out'

### 4.17.1.1 The causative alternation

The verb darhena undergoes the causative alternation. The verb denotes an action that is achieved by an agent. The verb is a transitive verb that needs both of its argument, the subject and the object. There is no causative marker attached on the verb. The action of the verb is achieved by a direct cause, mostly an animate agent; the causative marker is attached to the verb.
(57) jutyar- aka batata- ka- y dar- he- na la bin arz farmer- the potato- the- ERG3 out- take-cause.perf from under ground "The farmer dug the potato"

The verb in (57) has two arguments, an agent who achieves the action and an object that undergoes the action.

### 4.17.1.2 The inchoative alternation

The verb darhena 'take out' undergoes the inchoative alternation and the causative marker is deleted to indicate this change in the alternation:
sayar-aka la qur- aka dar-
car- the from mud- the out-
come.perf-ABS3
"The car comes out of the mud"

The verb in the inchoative alternation indicates an action that is achieved by an agent, but the agent is not clear as the object plays the role of the agent syntactically.

### 4.17.1.3 The middle alternation

The verb can undergo the middle alternation in the forms dardahenret. The existence of the adverb gives the action in this case a generic sense, in that the action is achieved without pointing to a specific agent.

| sayar-aka la qur- aka dar- da | henre-t | baasani |
| :--- | :---: | :---: | :---: | ---: |
| car- the from mud- the out-imperf | come.NOM3 | easily |
| "The car came out of the mud easily" |  |  |

"The car came out of the mud easily"

### 4.17.1.4 The passive alternation

The verb darhena 'take out' undergoes the passive and the action is achieved by an unknown agent. But the passive of verb is rarely used in spoken Sorani.
(60) Nawt dar- da- hen-ra la am shwena oil out- imperf-take-passive from this place "Oil was extracted from this place"

I summarize the syntactic alternations of the verb in Table 24. The inchoative forms show that the verb has the CAUSE component in its LCS.

| The verb | Causative | Inchoative | Middle | Passive | LCS |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Darhena 'take out' |  |  |  |  |  |
| Concrete | darhena | darhat | da-dahenre | darhenra | CAUSE |
| metaphorical | darhena | darhat | da-dahenre | darhenra | CAUSE |

Table 24 . The syntactic alternation of the verb darhena

### 4.18 The semantics of the verb darhena 'taking out"

The verb darhene is a complex verb that consists of a non-verbal element which is the adverb dar 'out' and a verbal element which is the verb henen which can means 'taking' or 'bringing.' The verb indicates an action of taking something out of something else. The verb can be used in concrete as well as in metaphorical contexts, below in table 25 some examples of the objects that undergo the action of the verb and table 26 shows the objects that cannot undergo the action of the verb: Unfortunately I could not find any instances of the verb in the newspapers sources.

| Physical darhena | Metaphorical darhena |
| :--- | :--- |
| tongue from the mouth <br> nail from a piece of wood <br> money from wallet <br> fruit from a bag <br> tooth from the gum <br> hand from the car window, pocket <br> hair from the skull <br> oil from ground <br> car from mud | soul arm, grandfathers from the tomb, liver |

Table 25. Things that undergo the verb darhena

| Physical darhena | Metaphorical darhena |
| :--- | :--- |
| tree-base of the house | age- love |

Table 26 . Things that do not undergo darhena
The action of the verb indicates directionality as the theme has to be moved in an opposite direction of the other stuff that contains it, for example when taking a potato from the ground, the potato has to be taken in an opposite direction from the ground to be picked up. In general, the verb darhena is used in unlimited contexts in Sorani.

### 4.19 Compound verbs in Sorani

### 4.20 The compound verb peakeshan 'hit'

The verb is composed of two elements, the preposition pea 'on' and the verb kasha 'weigh,' both of those elements form the meaning of the verb hit in Sorani.

### 4.20.1 The syntax of the verb peakeshan 'hit'

### 4.20.1.1 The causative alternation

The verbs peakeshan 'hit' undergoes the causative alternation (61). The verb is transitive in that it requires both a subject and object. There is no causative marker attached to the verb since the action is achieved by a direct cause.
(61) Adil pea-ya- kesha- m- 0 Adil on-ERG3-hit.perf-ERG1-ABS1
"Adil hit me"

### 4.20.1.2 The inchoative alternation

The verb peakeshan 'hit' cannot undergo the inchoative alternation because the action is achieved by a direct causation and the agent is an obligatory argument. Without mentioning the agent, the sentence would be ungrammatical as in (62).

```
*min pea-ya- kasha- 0
    I on-ERG3-hit.perf-ABS3
"I hit"
```


### 4.20.1.3 The middle alternation

The verbs pakeshan 'hit' cannot undergo the middle alternation (63). The middle alternation usually needs an adverb that expresses the manner of the action which is generic action, and the verb expresses a very specific kind of action regarding the agent and the object being hit, therefore it does not undergo the middle alternation.
(63) *loka baasani pya- ya da-keshe- 0 cotton easily on-ERG3 imperf-hit-ABS3 "Cotton is easily hit"

### 4.20.1.4 The Passive

The verb pakeshan 'hit' is used in the passive to express an action that is achieved by an active participant that is not mentioned explicitly (64). When the verb speakeshan 'hit' is used in the passive, it bears the sense of intentionality. The doer of the action did the action on purpose, but it does not show up for a reason or another in the structure of the sentence.
(64) qutabe- ka peya ya kesh- ra Student-the hit-ERG3-on wight-passive "The student was hit"

Table 27 summarizes the syntactic forms of peakeshan. The absence of inchoative forms shows that the verb has the semantic component PRODUCE in its LCS.

| The verb | Causative | Inchoative | Middle | Passive | LCS |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| Peakeshan 'hit' |  |  |  |  |  |  |
| Concrete | peayakesha |  |  | peyakeshra | PRODUCE |  |
| metaphorical |  |  |  |  |  |  |

Table 27. The syntactic alternation of the verbs peakeshan

### 4.21 The semantics of the verb peakeshan 'hit'

The verbs peakeshan denotes a contact-effect action. The action is achieved by an agent with or without a tool. In (65) the agent achieved the action without any tool; the agent may use his hand or feet to achieve the action of 'hitting,' but in (66) the agent used a tool to achieve the action. The state of the object that undergoes the action does not change, but it is affected, if it is animate object, psychologically. The contact between the agent and the object is the main factor in the achievement of the action.

```
Min pea-ma- kesh ba awa
I on-ERG1- hit.perf on him/her
"I hit him/her"
```

(66) Aw pea-ya- kesha- $m$ ba dar- aka he on- ERG3- hit.per-ERG1 with stick- the "He hit me with the stick"

Table 28 lists objects that undergo the action of peakeshan while Table 29 lists objects that do not. Unfortunately I could not find any instances of the verb in the newspapers sources.

| Physical peakeshan 'hit' | Metaphorical peakeshan 'hit' |
| :--- | :--- |
| car, wall, person |  |

Table 28. Things that undergo peakeshan 'hit'

| Physical peakeshan 'hit' | Metaphorical peakeshan 'hit' |
| :--- | :--- |
| anything that can be not be hit such as air | love, cold, warmth, fever, memories, <br> beauty |

Table 29. Things that do not undergo peakeshan 'hit'
The above contexts show the result of the action of hitting varies in accordance to the force exerted by the agent, the kind of tool, and the kind if object which undergoes the action.

### 4.22 The verb wurdkirdin 'make small'

The verb wurdkirdin 'make something small' is a compound verb. It consists of the adjective wurd which means small and the root kird which means 'do.' I did not translate the verb wurdkirdin into 'mince' because jneen has that meaning in Sorani Kurdish. ${ }^{1}$ The verb wurdkirdin indicates an action that is achieved by an agent on a theme. The action indicated by the verb wurdkirdin is somewhere between the actions indicated by the verb bre 'cut' and jneen 'mince.' The verb bre refers to actions that result in relatively large slices. The verb wurdkirdin 'making small' refers to actions that result in relatively moderate slices while the verb jneen 'mince' refers to actions that result in relatively tiny pieces. The object first undergoes breen 'cutting' then wurdkirdin 'dicing', and lastly jneen 'mincing.'

[^14]In (67) the agent cut the meat into small pieces with a tool. The tool is not mentioned in the sentence, but it is understood to be involved in the action since the action cannot be achieved without a tool. In (67) the tool is a knife because the theme is meat. In (68) the tool must be an axe or a saw since the theme is wood. In (69) the tool is again a knife, but in (70) there is a shift in the verb that is used in the sentence. In Sorani Kurdish the verb wurdkirdin is used, while in English the verb 'break' is used but it is accompanied by the phrase 'into pieces' to be equivalent to the Sorani sentence.
(67) Min gosht- aka- m wurd- kird- 0 I meat- the- ERG1 small-do.perf.ABS3 "I diced the meat into small pieces"
(68) Ali dar- aka- i wurd-kird- 0 bo sutandin Ali wood- the- ERG3 small-do.perf-ABS3 for burning "Ali cut the wood into small pieces to burn"
(69) Khayar- aka- m wurd-kird- 0 cucumber the- ERG1 small-do.perf-ABS3 "I diced the cucumber"
(70) Kur- aka bard- aka- i wurd-kird- 0 boy- the stone- the- ERG3 small-do.perf-ABS3 "The boy broke the stone into pieces"

The verb wurdkirdin has no metaphorical uses; all of the things that undergo the action of the verb are real objects. Most of the objects are hard except for meat which is, to some extent, softer that the other objects that undergo the action. The verb does not extend to cases where a person falls to pieces. The English verb cut into pieces as in (67), (69), but the verb break into pieces is the translational equivalent of the verb wurdkirdin in (68) and (70) in English.

### 4.22.1 The syntax of the verb wurdkirdin

### 4.22.1.1 The causative alternation

| (71) | Ali dar- | aka-i | wurd- kird- 0 | bo | sutandin |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Ali wood the- ERG3 |  |  |  |  |  |
| small-do.perf-ABS3 | for | burning |  |  |  | "Ali cut the wood into small pieces to burn"

The verb wurdkirdin undergoes the causative alternation. The verb denotes an action that is achieved by an agent. The verb is a transitive verb that needs both of its argument, the subject and the object. There is no causative marker attached on the verb. Since the action of the verb is achieved by a direct cause, mostly an animate agent, the causative marker will not be needed.

### 4.22.1.2 The inchoative alternation

The verb wurdkirdin undergoes the inchoative alternation by suppletion. The verb kird changes to buun (72) and (73).
(72) Gosht - aka wurd-buu- 0
meat- the small-become.perf-ABS3
"The meat diced"
(73) Dar- aka wurd-buu- 0
wood- the small-become.perf-ABS3
"The wood broke into pieces"

### 4.22.1.3 The middle alternation

The verb undergo the middle alternation in the forms wuurdbuu as in (74) and in the form wuurdkird as in (75). This case is not discussed in Guerssel since all of the verbs
they analyzed have one middle form. Sorani Kurdish shows that only the intransitive form and the transitive form can appear in the middle voice.
(74) Gosht-i mar baasani wurd- da- be (t) meat- of lamb easily small-imperf-become-NOM3 "Lamb meat dices easily"
(75) Gosht- i mar baasani wurd- da- kre- t meat- of lamb easily small- imperf- do-NOM3 "The meat dices easily"

The verb kird by itself has a middle form (76):
(76) Nan baasani da- kre- t bread easily imperf- do-NOM3
"The bread makes easily"

### 4.22.1.4 The Passive

The verb wurdkirdin 'making small' is used in the passive to express an action that is achieved by an active participant that is not mentioned explicitly, but there is a morphological reference attached to the verb that indicates its existence.

Tamata - aka wurd- k-ra0 Tomato- the small do-passive-perf-ABS3
"The tomato was diced"

When the verb wurdkirdin is used in the passive, it bears the sense of intentionality. The doer of the action did the action on purpose, but it does not show up for a reason or another in the structure of the sentence.

I summarize the syntactic forms of wurdkirdin in the Table 30. The inchoative form of the verb shows that the verb has the semantic component CAUSE for concrete uses.

| The verb | Causative | Inchoative | Middle | Passive | LCS |
| :--- | :--- | :--- | :--- | :--- | :--- |
| wurdkird 'make small' |  |  |  |  |  |
| Concrete | wurdkird | wurdbuu | wurd da kret | wurdkra | CAUSE |
| metaphorical |  |  |  |  |  |

Table 30. The syntactic alternation of the verb wurdkirdin

### 4.23 The semantics of the verb wurdkirdin

The verb wurdkirdin refers to changing the state of an object from one piece to many small pieces. The action is achieved with or without a tool. The tool can mentioned in the sentence or not, and there are many tools that can be used to achieve the action such as knives, axes, hammers, etc. The tool does not necessarily need to be a sharp tool, but it should be heavier than the object that undergoes the action. The state of the object that undergoes the action of wurdkirdin depends on the tool used in the action. If the tool is a sharp edge tool, the pieces of object that undergoes the action will have, roughly, equal shapes which is the same result when the verb bre 'cut' is applied. This is not the case of the pieces that undergo the action by a tool like a hammer that has no sharp edge. The result is similar to what one gets when grinding an object. An agent is always needed to achieve the action of the verb wurdkirdin.

Table 31 and 32 presents the objects that undergo the action wurdkirdin while Table 33 presents the objects that do not undergo the action wurdkirdin.

| Physical wurdkirdin 'making small' | Metaphorical wurdkirdin 'making small' |
| :--- | :--- |
| glass, window, stone, wood, branch of tree, <br> chair, wall, plates, bread, tomato, <br> potato,parsley | heart |

Table 31. Things that undergo wurdkirdin 'making small'

| Object | Real | Metaphorical | Alternation |
| :--- | :--- | :--- | :--- |
| potato | yes |  | causative |
| heart |  | yes | inchoative |
| parsley | yes |  | passive |

Table 32. Things that undergo wurdkirdin 'making small' taken from online newspapers

| Physical wurdkirdin 'making small' | Metaphorical wurdkirdin 'making small' |
| :--- | :--- |
| hair, ground | love, cold, warm, fever, memories, beauty |

Table 33. Things that do not undergo wurdkirdin 'making small'
The instances of the verb wurdkirdin 'making small' that I checked from the online sources were about (3) without counting the repeated items. They are expected according to my own intuition as a native speaker of Sorani. The verb wurdkirdin 'making small' can be considered a verb that shares some semantic features with the verb shka 'break.' The result of the action can result in ragged, unequal pieces. The verb wurdkirdin also shares some semantic features with bre 'cut.' The verb refers to actions that involve tools to achieve the result.

### 4.24 A summary of the syntactic/semantic comparison of the compound and complex verbs

I summarize the syntactic behavior of the Sorani verbs in Table 34. Many of the verbs can be used in both concrete and metaphorical contexts, while several verbs only have concrete uses. All of the complex and the compound verbs undergo the causative, middle and passive alternations. However, not all of them undergo the inchoative alternation. The absence of an inchoative form does not correlate with the inability to use a verb in metaphorical contexts.

| The verb | Causative | Inchoative | Middle | Passive | LCS |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Complex verb | Dabre 'cut off' |  |  |  |  |
| Concrete | daebree | dabra | dadabre | dadabrre | CAUSE |
| Metaphorical | daebree | dabra | dadabre | dadabrre | CAUSE |
| Complex verb | halbre 'lift' |  |  |  |  |
| Concrete | halebree |  | haldabre(t) | haldabrra | PRODUCE |
| Metaphorical | halebree |  | haldabre(t) | haldabrra | PRODUCE |
| Complex verb | Dashka 'break downwardly' |  |  |  |  |
| Concrete | daishkan | dashka | dashket | dashkenret | CAUSE |
| Metaphorical | daishkan | dashka | dashket | dashkenret | CAUSE |
| Complex verb | Dabchre 'cut downwardly' |  |  |  |  |
| Concrete | daebchree |  | dadacbhre | dabchrenra | PRODUCE |
| Metaphorical |  |  |  |  |  |
| Complex verb | Kirdinawa 'open' |  |  |  |  |
| Concrete | kirdewa | kraiawa | darketawa | krayawa | CAUSE |
| Metaphorical | kirdewa | kraiawa | darketawa | krayawa | CAUSE |
| Complex verb | Halkesha 'pick' |  |  |  |  |
| Concrete | halikesha |  | haldakeshre | halkeshra | PRODUCE |
| Metaphorical |  |  |  |  |  |
| Complex verb | Darhena 'take out' |  |  |  |  |
| Concrete | darhena | darhat | dahenre | darhenra | CAUSE |
| Metaphorical | darhena | darhat | dahenre | darhenra | CAUSE |
| Complex verb | halbchre 'open by force upwardly' |  |  |  |  |
| Concrete fragile | halebchree | halbchra | haldacbhre | halbchrenra | CAUSE |
| Concrete hard | halebchree |  | haldacbhre | halbchrenra | PRODUCE |
| Compound verb | Peakeshan 'hit' |  |  |  |  |
| Concrete | peayakesha |  |  | peyakeshra | PRODUCE |
| Metaphorical |  |  |  |  |  |
| Compound verb | wurdkird 'make small', |  |  |  |  |
| Concrete | wurdkird | wurdbuu | wurd da kret | wurdkra | CAUSE |
| Metaphorical |  |  |  |  |  |

Table 34. The syntactic alternations of the complex and compound verbs in Sorani
In this chapter, I discussed the simple, compound and complex verbs in two ways syntactically and semantically. I focused mainly on the syntactic alternations of the verbs and depend on the syntactic alternations provided by Guerssel et al. (1985) as evidence for the CAUSE and PRODUCE components in the LCS of the verbs. In the next chapter, I will propose semantic tests as independent evidence for the semantic components of the verbs in concrete and metaphorical contexts.

## Chapter 5: Developing semantic tests

### 5.1 Introduction

Guerssel et al. (1985) propose that the syntactic behavior of verbs within a language can be explained by reference to their semantic representation. The writers argue "the distinctive syntactic properties characterizing each class arise from its lexical properties." (Guerssel et al.1985: 49). They claim that differences in transitivity alternations in these languages are attributed to the way the agent initiates the action. They state that the agent of 'break' verbs CAUSEs the action while the agent of 'cut' verbs PRODUCEs the action. Guerssel et al. did not provide a semantic analysis for either the CAUSE or PRODUCE components. They propose a distinction between the LCS of verbs like 'cut,' which contain a PRODUCE component (1) and the LCS of verbs like 'break,' which have a CAUSE component (2).
(1) Cut LCS: $x$ produce CUT on $y$, by sharp edge coming into contact with $y$
(2) Break LCS: x cause (y come to be BROKEN)

The LCS in (1) specifies that the active participant $x$ carried out the act of cutting with a tool that has an edge that is brought into contact with the passive participant $y$. Guerssel et al. propose that the LCS of the causative alternation of the verb 'break' is derived by a productive rule in which the LCS of the monadic verb 'break' is embedded as a complement of the dyadic causative predicator CAUSE. This form derives a dyadic LCS that has the form shown above in (2).

Guerssel et al. observe that in English 'cut' verbs have a transitive LCS that requires both an agent and patient argument to achieve the action. The participants are represented by x (the agent) and y (the theme). Guerssel et al. (1985:51) cleverly use the predicate PRODUCE in the LCS of the verb 'cut' to show that the action is achieved through the use of a tool used by the agent because the agent cannot directly achieve the act of cutting without a tool. Guerssel et al. assume that the LCS of the verb 'cut' includes two clauses, one of them denotes the action of contact between the active participant and the passive participant, and the other clause denotes the effect of the action.

The verb 'cut' does not undergo the inchoative alternation. Guerssel et al. assume that the LCS of the verb 'cut' includes two clauses, one of them denotes the action of contact between the active participant and the passive participant, and the other clause denotes the effect of the action. However, in the inchoative alternation only the effect clause is available in the LCS of the verb, which makes the sentence syntactically and semantically unacceptable in English. Guerssel et al. claim that verbs cannot drop the PRODUCE component since the active participant x in the PRODUCE clause is necessary to establish the contact component of the LCS.

Guerssel et al. claim that the LCS of the verb 'break' is monadic and has a single theme argument. This analysis explains why the verb can undergo the inchoative alternation. An agent participant is not necessary to achieve the change of state denoted in the inchoative alternation. For example, if a cup broke or a crack suddenly appeared without any reason it might be an internal issue in the structure of the cup that lead to this state, or it might be because the cup was badly made. The inability to use agentive
adverbs such as intentionally or purpose clauses shows that agents are not overtly or implicitly expressed in the inchoative alternation (3).
(3) *The glass broke intentionally/to let in the breeze.

The sentence in (3) is unacceptable as the adverb intentionally needs an agent because it expresses the manner in which the action is achieved, and only an agent has the intention to produce the action (Lakoff 1987).

Verbs in the inchoative alternation can drop the CAUSE component, which results in actions that lack an external agent (4).
(4) Inchoative break LCS: y come to be BROKEN

### 5.2 Semantic Tests for LCS components

I will use semantic tests for duration and intentionality to provide evidence for PRODUCE or CAUSE elements in the LCSs of the verbs. I hypothesize that duration marks one difference between verbs with PRODUCE and CAUSE components. An agent can only bring a tool into contact with an object for a significant interval of time in order to PRODUCE a change of state in an object. Therefore, tests of durativity should provide independent semantic evidence of a PRODUCE component in verb meaning. I apply Dowty's (1979) test of durativity by using the adverbial phrase for an hour as those tests provide evidence for a durative component in verb meaning. The sentence in (5) shows that the verb 'cut' is compatible with a durative adverbial phrase as the agent spent a
minute in cutting the fabric. I propose that durative adverbial phrases provide semantic evidence of a PRODUCE component in the LCS of verbs.
(5) He cut the fabric for a minute.

Applying the same durativity test to the action indicated by the verb 'break' (44) shows that using the durative adverbial phrase for a minute with verb 'break' results in an anomalous sentence because the action lacks a durative component. The action of breaking is instantaneous. The durativity test shows that the meaning of the verb 'break' does not contain the PRODUCE component. The instantaneous nature of breaking is compatible with a CAUSE component in the LCS of the verb 'break.'
(6) ?He broke the glass for a minute.

The sentence in (6) has a repair interpretation, in which the action is repeated over the specified time interval. Under this interpretation the sentence is acceptable. This repair interpretation suggests that the action has a PRODUCE component rather than the CAUSE component. If my hypothesis is correct, the verb should fail to undergo the inchoative alternation. This failure is shown in (7).
(7) ?The glass broke for a minute.

The durative adverbial test suggests that events with the PRODUCE component should have a natural interpretation in the imperfective aspect. Events with the CAUSE component would only be compatible in the imperfective aspect with a repair type of interpretation in which the action is being repeated. The examples in (8) and (9) confirm these predictions.
(8) She is cutting the fabric.
(9) ? He is breaking the glass.

I noticed that when I applied the durative tests to the verbs 'cut' and 'break' that the more time that the agent spends achieving the action of the verb, the more his/her intention increases to use the object's pieces after it undergoes the action. For example, when a person spends a minute to chop an onion, that person intends to use the pieces of the onion, for example, in a salad. Breaking the glass of a window to enter a house normally takes less time, but the agent would not use the pieces of the window glass to make anything. These examples suggest that the time spent to achieve the action should correlate with the possibility of using the pieces of the objects. When an agent spends time and effort on achieving an action, $\mathrm{s} / \mathrm{he}$ intends to PRODUCE a result. In other words the element PRODUCE appears in the LCS of verbs that have a semantic component of intentionality. On the contrary, when an agent spends less time in achieving an action and this action can be achieved unintentionally, the agent CAUSES the result. Therefore the element CAUSE appears in the LCS of verbs that lack the semantic component of intentionality.

The end use of the pieces that result from an action can be used to test for the PRODUCE component in verb meaning. For example, the sentence in (10) shows that the verb 'cut' can be used with a purpose clause denoting the end use of the pieces.
(10) He cut the fabric to make a shirt.

In contrast, verbs with the CAUSE component denote actions that produce pieces without an end use. The sentence in (11) has a purpose clause, but this purpose does not use the pieces of the window.
(11) He broke the window to enter the house.

It is possible to use the pieces of a breaking action to make something as in (12). In this context, however, the breaking is not instantaneous and suggests the breaking action now has a PRODUCE component instead of the CAUSE component. This change correctly predicts the predicate no longer undergoes the inchoative alternation (13).
(12) She broke the glass to make a mosaic.
(13) ?The glass broke to make a mosaic.

While intentionality is often associated with agentivity per se it does not distinguish between verbs with PRODUCE and CAUSE components. I explored several agentivity and intentionality tests listed in Dowty (1979). For example, he used the adverb
'deliberately' to test if the agent intends to achieve the action. This test does not differentiate between the verbs 'cut' and 'break' as one can say both "He cut the tree deliberately" and "He broke the glass deliberately." Persuade clauses provide another test of agentivity/intentionality. The examples in (14) and (15) show that both 'cut' and 'break' verbs are compatible with persuade clauses. This result shows that the PRODUCE/CAUSE distinction is insensitive to the presence of an agent.
(14) Mary persuaded him to cut the fabric.
(15) Tim persuaded me to break the window.

The tests for durativity, imperfective aspect and purpose provide independent semantic tests to support the LCS representations derived from the syntactic behavior of verbs. The tests for durativity, imperfective aspect and purpose focus on a difference in intentionality in the meaning of verbs with PRODUCE and CAUSE semantic elements. The semantic tests do not depend on the particular syntactic constructions present in a language. The semantic tests can be applied in languages that lack an inchoative alternation.

More importantly, the semantic tests show that verbs may undergo a semantic alternation that changes their syntactic behavior. I showed that the English verb 'break' fails to undergo the inchoative alternation when it refers to an intentional action performed over an interval of time. This result shows that Guerssel et al.'s account is overly simplified. They failed to test 'cut' and 'break' verbs in an extensive range of
contexts, and thus missed the observation that some verbs can undergo semantic as well as syntactic alternations.

### 5.3Testing the Sorani verbs

In this section I will introduce the semantic tests that I will use to test for the PRODUCE and CAUSE components in Sorani verbs. I will apply these tests to the verbs bre 'cut' and shka 'break' as examples of the 'cut' and 'break' classes of verbs in Sorani. I will test for durativity by two means.

I will apply the same test that I applied in English which is the 'for a minute' test. I used the Sorani phrase bo xolakek to translate 'for a minute'. This phrase refers to the interval in which an activity is performed. For example, in (16) the adverbial phrase refers to an interval of walking.
(16) pyasa- m- kird bo kolak- ek walk.perf- ERG1- do for minute- a "I walked for a minute"

I will also use the imperfective aspect to test whether the verbs in simple contexts are acceptable with imperfective aspect. The imperfective denotes an event without an endpoint. The sentence in (17) has the interpretation that the walking has not stopped.
peyasa- da- ka- m walk- imperf- do- NOM1 "I walk/am walking"

I will test the Sorani verbs for intentionality by examining whether the agent intends to use the pieces of the object after applying the action. I will also use another test, which is the awa test. -Awa is a verbal affix that gives the sense that the action is completed and come to its end. For example, it can be added to the verb bree 'cut' and it becomes breeawa 'have cut.' What is interesting about this affix is that it is not only expresses the sense of completion, but also shows that the action of the verb took some time to be achieved. It indicates that the action is achieved and it is a process that could have been stopped if the agent wanted to.

For example, in (18) the agent injured his hand unintentionally by a knife. As the action denotes injuring a hand only takes very short time and when it happens, it cannot be stopped. Mentioning the instrument, the 'knife', is optional because its existence is understood from the context.

| dast- im | bree- $\quad 0$ | (ba | chaqo) |
| :--- | :---: | :---: | :---: |
| hand - ERG1 | cut.perf-ABS3 | (with | knife) |
| "I injured my hand with a knife" |  |  |  |

In (19) using the verb bre 'cut' with the affix -awa adds a new element of meaning to the verb, and this results in changing the contexts in which the verb is used. In (19) the verb breeawa 'cutting repeatedly' denotes an action that refers to process achieved by an agent and this process can be stopped in any moment before completing the action. In (19) the action of 'cutting' is repeated again and again till the whole process is achieved and the goal is reached which is cutting the tree. I will use the suffix -awa to explore how it interacts with the different classes of verbs in regard to the durative and
non-durative actions besides the classes of verbs when they are used in concrete and metaphorical contexts.

```
dar- aka-m bree- awa- 0 (ba minshar)
tree the-ERG1 cut- repet- ABS3 (with saw )
"I have cut the tree repeatedly with a saw"
```

I will apply the durativity and end use tests to Sorani verbs in concrete and metaphorical contexts. I will consider the repair interpretations of the sentences as well as the more natural interpretations.

### 5.4 Durativity Tests of Sorani verbs

In (20) the action denoted by the verb bre 'cut' expresses an action that leads to a change in the state of the fabric. The action lasts for a minute, which means it occupies an interval in a specified time, but the action shows no indication whether the whole action comes to an end or not. In other words, the action started at a certain time, lasts for a minute, but it does not necessarily come to an end.

min bo | xolak- | ek | qumashi- | m | bre- | 0 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| I for minute- a fabric- | ERG1 | cut.perf- | ABS3 |  |  |
| "I cut fabric for a minute" |  |  |  |  |  |

Sentence (21) is interesting because the object that undergoes the action is not a real object, but it is an abstract one, it is 'cutting a house' means literary "breaking into some else house". I tried to use the same kind of test, which is for a minute test to test the
time needed to achieve the action, but I failed, as the sentence would be ungrammatical in Sorani. Robbing a house is a kind of action that can be achieved instantly. The action does not need duration to be achieved. The moment in which the thief starts with breaking into the house is considered the moment in which the action takes place. The change in the object that undergoes the action of the verb bre 'cut' from a real object to an abstract one, change the verb to behave as the verb shka 'break' as being a punctual verb not a durative one.

* dz- ak- an bo xolak- ek mala- ka-ya- $n$ bre- 0 thief- the- pl for minute- a house- the-ERG3-pl cut.perf-ABS3
"The thieves broke into the house for a minute"

Next I will test the verb shka 'break' by using the' for a minute' test. As shown in (22) the action denoted by the verb shka 'break' refers to an action achieved on a hard object, which is glass. The action leads to a change in the state of the object and it is achieved immediately. The action is a punctual kind of action its starting point is its end result at the same time. The action denoted by the verb shka 'break' cannot be continued along the line of time as the verb 'run' or 'eat' because it belongs to the class of actions that is achieved immediately. When it is applied on an object, it causes the change in the object immediately.

[^15]The verb shka 'break' in Sorani can be also used in limited contexts to indicate a durative kind of action as in (23). The verb in (23) indicates a kind of action that occupies duration in time. In (23) the verb shka 'break' behaves as the verb bre 'cut' as being a durative verb not punctual. I will imagine that the context expressed in (23) refers to object 'wall' as being a big high wall, and there are some workers who try to demolish or break the wall by using hammers and small tool. The action will need some time to be achieved and finished that is why the verb behaves as bre 'cut' verb.
(23) bo katzhmer-ek dewar- a blok-aka-m shka- n(d)- 0 For hour- an- wall- of briks- the-ERG1- break.perf- cause- ABS3 "I break the brick wall for an hour"

Sentence (24) denotes an action of breaking that is achieved on an abstract object which is heart and shows that the action of shkandin 'breaking' cannot be a durative action as the action does not refer to a real change of state in the object that undergoes the action of breaking, but it shows a change in the psychological state of the object.

Sentence (24) indicates that the action of the verb shka 'break' can be achieved on an abstract object:
(24) bo xolak- ek dl- e- m shka- n(d)- 0 for minute- a heart- his- ERG1 break.perf- cause-ABS3 "I broke his heart for a minute"

Using the same verbs with different objects result in changing the duration needed to achieve the action. In some cases as in (23) changing the object leads to change the
aspectual class of the verb from punctual to durative. This change will definitely affect the lexical conceptual structure (LCS) of the verbs which means that the elements in the LCS are not decided only by the verbs themselves as Guerssel et al. (1985) claim, but the whole verb phrase as shown in the above mentioned examples.

The second test I will use for duration is the imperfective test. I will use the 'cut' and 'break' verbs in Sorani in the imperfective aspect to examine which of those classes of verbs can be achieved with duration and which one can be achieved instantly. As (25) shows that the verb bre 'cut' can be used in the imperfective and it expresses an action that needs duration to be achieved. The action can be stopped at any time before completing the action, however, when the verb is used in a metaphorical context with the imperfective in which the action has to be achieved instantly it results in an anomalous sentence (26). The sentence in (26) has a repair meaning which means literary "watch me, I will cut the electricity." The sentence indicates an action that will be achieved in near future.
$\begin{array}{lllllll}\text { min } & \text { lq- } & \text { i } & \text { dar- } & \text { aka } & \text { da- bri- } & m \\ \text { I } & \text { branch- } & \text { of } & \text { tree- the } & \text { imperf. cut- } & \text { ERG1 }\end{array}$ "I cut the branch of the tree"
(26) ?min karaba- aka da- bri- m

I electricity- the- imperf. cut- ERG1
"I cut the electricity"

The same would be true if we examine the verb shka 'break' in the imperfective aspect. The following examples show the verb shka in the imperfective aspect with concrete (27) and metaphorical contexts (28).

| ?min | pardakh- | aka | da- | shke- | n- |
| :--- | :--- | :--- | :--- | :--- | :---: |$\quad$ im

?min dl- e da- shke- n- im
I heart-his imperf. break- cause- ERG1
"I break/am breaking his heart"

Again, it seems that the verbs, which express actions that are achieved instantly, cannot be used with the imperfective because the imperfective indicates duration in achieving the action. The verb shka has a repair interpretation in which the imperfective is used to express an event in the near future (27 and 28). In other words, the verb shka 'break' in the imperfective contexts means literary 'watch me, I can break the house' which indicates an action that will be achieved in the very near future.

### 5.5 Tests for intentionality

In (29) and (30) the actions indicated by the verb bre 'cut' express durative events that need time to be achieved. The agents undertake the action of cutting for the purpose of using the cut pieces. In (29) the agent cut the fabric to make a dress out of it, Sentence (29), (30), show that there is a relation between the kind of the event in one hand, and the agent intentionality on the other hand. When the agent intends to use the pieces of the object for a certain purpose the verb indicates a durative action, but when the agent achieves the action without intending using the pieces of the object, the action has a punctual interpretation.

| min | qum- aka-m bre- | bo beka- $m$ | ba | kras |
| :--- | :--- | :--- | :--- | :--- |
| I cloth -the- ERG1 cut.perf | to make-ERG1 | with | dress |  |
| "I cut the cloth to make a dress out of it |  |  |  |  |

"I cut the cloth to make a dress out of it
min karab- aka-m bre boi talavezon- aka chakak bka- m I electricity- the-ERG1 cut.perf for tv- the good make-ERG1 "I cut the power off to repair the TV"

The action in (30) is a punctual action (as I showed in the previous section) that is achieved instantly by the agent. S/he cut the electricity power, but s/he did not use the object- the electricity- in anything, but rather s/he cut it to do something else which is repairing the TV. The agent does not intend to use the object for a purpose as this would result in ungrammatical sentence.
(31) *kur-aka karab- aka-i bre boi karab- aka bakarbe- ne- t boy-the electricity-the- ERG3 cut.perf for electricity-the use- cause-ERG2 "The boy cut the electricity to use the electricity"

Using the verb shka 'break' with different objects such as 'windows' and 'walls' shows that the action of breaking is applied to achieve a goal that does not involve using the pieces of the broken object directly (32-34).
?min shusha- i panjar- aka-m shka- n(d) boi bch-ma naw I glass- of window- the- ERG1 break.perf- cause for go-ERG1 in

Mala- ka
Home-the
"I broke the glass of the window to enter the house"
(33) min dewar-aka-m shka- $n(d)$ boi zhur- aka gawra bka- m I wall- the-ERG1 break.perf- cause for room-the big- make-ERG1 "I demolished the wall of the room to make the room bigger"
(34) min dl- e- m shka- nd boi raste- aka tebga- t I heart- his- ERG1 break.perf- cause for truth- the understand-ERG2 "I broke his heart to make him understand the truth"

However, when the verb shka 'break' is used in concrete contexts and the action needs duration to be achieved, the end pieces of the object can be used for a purpose:

```
dewar-a blok- aka-m shka- n(d) boi blok- aka-n bakar beni-m
wall- of- brick- the- ERG1 break.perf- cause for brick- the-pl. use- ERG1
bo zhoraka- m
for room- my
"I broke the brick wall to use the brick for my room"
```


## 5.6-Awa test

The affix -awa when it is used with 'cut' and 'break' verbs to express two different senses. It either express the perfect aspect, in the sense that the action has been achieved for some current purpose or it can express repeating the action after an object has been fixed. For example, if $-a w a$ is added to the verb shka 'break' the verb would be shkayawa which means that the action of breaking has been applied to the same object after it has been broken and fixed previously.

The affix - awa can be used to express the perfect aspect with both 'cut' and 'break' verbs. This means that -awa interacts with durative and non-durative verbs alike. However, when -awa is used to mean repetition it seems that it does interact differently with different classes of verbs. The affix - awa can be used with shka 'break' but not with bre 'cut' to mean redoing the action again after fixing the object.
(36) shka- n - m- awa break.perf- cause- ERG1- repeat "I broke it again"
*bzeshk-aka qach-i naxosh-aka- y bree-awa Doctor- the leg- of- patient- the-ERG3 cut.repeat "The doctor amputated the leg of the patient again"

While both verbs, shka 'break' and bre 'cut' can be used with -awa to express the perfect as in (38) and (39) respectively.
(38) shka- n- m- awa
break.perf- cause- ERG1- repet
"I have broken it"
bre- m- awa
cut.perf- ERG1- repet
"I have cut it"

This can be explained in terms of the kind of action, which the verb expresses. The non-durative verbs as shka 'break' verbs which the action is achieved instantly and the action cannot be stopped before completion, therefore -awa can be used with them to express the repetition of the action after it has been achieved for the first time. While awa cannot be used with the bre 'cut' verbs as those verbs are agentive verbs that express a durative action that can be stopped before completion, therefore there is no need to complete the whole process and repeat it again.

When the affix -awa is used with 'break' and 'cut' verbs in the metaphorical contexts, it seems that things change a lot. The affix -awa can be used with both classes of verbs, those that indicate a non-durative action as 'break' verbs and the verbs that
indicate a durative kind of action as 'cut' verbs. It seems that it is easier to fix the metaphorical objects than the concrete objects. The -awa affix can be used in the metaphorical contexts as the component of the LCSs of the 'cut' verbs change from PRODUCE into CAUSE. In the sentences (40) and (41) the verbs shka and bre are used to indicate an action that is repeated again after fixing the object, and the verbs are used in (42) and (43) in the perfect sense in that the action finished and comes to its end.
(40) dl- e- m shka- n- awa
heart- of- ERG1 break.perf.- cause- repet "I broke his heart again"
(41) karaba- ka- m bre- awa electricity- the- ERG1 cut.perf- repet
"I cut the electricity again"

| shka- | $\mathrm{n}-$ | $\mathrm{m}-$ | awa |
| :--- | :---: | :---: | :---: |
| break.perf- | cause- | ERG1- | repet |
| "I have broken it" |  |  |  |

"I have broken it"
(43) bre- m- awa
cut.perf- ERG1- repet
"I have cut it"

### 5.7 Summary of the chapter

In this chapter I provide four different tests on 'cut' and 'break' classes of verbs to explore the relation between the syntactic behaviors of the verbs with their semantic representation. I used the 'for a minute' and incompletive tests to see whether the verbs under discussion express a durative or a non-durative action. My results show that the
action of the verbs change depending on the kind of objects whether they are hard objects or soft, and the use of the verb whether it is used in metaphorical or concrete contexts.

My third durativity test was the -awa test in which I used the affix -awa with the different classes of verbs. The -awa affix can be used to mean repetition of the action with the verbs that indicate a non-durative action as 'break' verbs, but it cannot be used to express repetition with verbs that express durative actions, as the durative actions can be stopped before completing the action; therefore there is no need to finish it and then repeat it again.

My last test was the intentionality test, which shows that there is a relation between the kind of the event in one hand, and the agent intentionality on the other hand. I proposed that when the agent intends to use the pieces of the object for a certain purpose the verb indicates a durative action, but when the agent achieves the action without intending using the pieces of the object, the action is a punctual action. My results go exactly with what I proposed in the case of using the verbs in concrete contexts, but the test couldn't be applied of the verbs in the metaphorical contexts as it would result in ungrammatical sentences. The objects that are affected by the action in the metaphorical contexts cannot be used directly by the gent for a certain purpose as for the impossibility of using a 'heart' after breaking it. I summarize the results of all my tests in table 1.

| The verbs | Durativity |  |  | Intentionality | LCS |
| :--- | :--- | :--- | :--- | :--- | :---: |
|  | For a <br> minute | Imperfective | -awa | Pieces |  |
|  |  |  |  |  |  |
| Shka 'break' |  |  |  |  |  |
| Concrete | non- <br> durative | non-durative | non- <br> durative | unintentional | CAUSE |


| Metaphorical | non- <br> durative | non-durative | non- <br> durative | unintentional | CAUSE |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Bre 'cut' |  |  |  |  |  |
| Concrete | durative | durative | durative | intentional | PRODUCE |
| Metaphorical | durative | non-durative | non- <br> durative | unintentional | CAUSE |

Table 1. The result of the verbs shka and bre with the tests for durativity, intentionality, pieces and -awa test with concrete and metaphorical objects

In the next chapter I will apply the durativity and intentionality tests on the simple, compound and complex verbs that I mentioned in chapters three and four.

## Chapter six: The application of the semantic tests on the Sorani verbs

### 6.1Introduction

In this chapter I will apply the tests for durativity and intentionality to the simple, compound and complex verbs to find out whether the verbs have the PRODUCE or CAUSE components in their semantic representations. I used the 'for a minute' test, the imperfective test, and the -awa test as tests of durativity. I used the pieces test as a test of intentionality. I used (??) to mark the sentences that failed the tests and (?) to mark the sentences that may be acceptable to some Sorani native speaker and unacceptable to others. I used the verbs in concrete and metaphorical contexts to see how the verbs might behave with different types of objects. This chapter is divided into four sections. The first section deals with simple verbs, the second deals with the complex verbs and the third deals with the compound verbs. The last section contains a summary and discussion of the results.

### 6.2 Simple verbs

### 6.2.1 Bchre 'cut by force'

When I applied the tests of durativity and intentionality to the verb bchre, I used the verb with the concrete object 'rope' and the metaphorical object 'speech.' The verb bchre did not pass the 'for a minute' test for durativity with the concrete object 'rope' (1). Achieving the action of cutting a rope by force cannot last for a minute because it has to be achieved instantly. When I used the verb bchre with the metaphorical object 'my speech' the test worked as a 'speech' can be easily interrupted for a minute and then it
can resume (2). These results show that the verb bchre has a durative feature with metaphorical objects that it lacks with concrete objects.
(1) ??min bo xolak- ek bat- aka-m bchre- 0

I for minute- a rope-the-ERG1 cut by force.perf-ABS3
"I snapped the rope for a minute"
(2) qsa- kaye-m bchre bo xolak- ek talk- his- ERG1 cut by force.perf for minute-a "I interrupted his talk for a minute"

Applying the other durativity tests to the verb bchre, shows that the verb has the CAUSE component in the concrete and metaphorical contexts. The verb has a repair meaning in the imperfective test in concrete and metaphorical contexts. The imperfective verb form expresses the future sense of "I will cut by force the rope," or "Look, I will cut by force the rope," which means that it does not express the action in the simple present tense (3). In the metaphorical context it has the future sense of "I will interrupt his speech," and, thus, behaves as break verb (4). These results suggest that the verb bchre lacks a durative feature in concrete and metaphorical contexts.
(3) min pat- aka da- bchri- m

I rope-the imperf-cut by force-NOM1
"I will cut by force the rope"
(4) min qsa- kay da- bchri- m

I talk-his imperf- cut by force-NOM1
"I will interrupt his speech"

The -awa test shows whether the action can be repeated without repairing the object, and therefore has durativity like cut. The verb bchre gives the sense of repeating
the action after fixing the concrete object in (5). This result shows that the verb lacks durativity in concrete contexts. The verb bchre expresses the sense of repeating the action without repairing the object in the metaphorical context (6). This results shows that the verb bchre has durativity in metaphorical contexts.
(5) pat- aka-m bchre- awa (repeated after fixing the object) rop- the- ERG1 cut by force-again "I have snapped the rope again"
(6) qsa-kaye-m bchre- awa (repeated without fixing the object) talk-his- ERG1 cut by force-again
"I interrupted his talk again"

The pieces test shows whether the action is performed with the intention to use a product that results from the action. Intentionality provides support for the PRODUCE component in the verb's semantic representation. The 'pieces' test works with bchre, in the concrete context, in that the pieces of the rope could be used by the agent (7). The pieces test does not work with bchre in the metaphorical context as a speech cannot be divided into pieces in order to use the pieces for something else (8). These results show that the verb bchre has an intentional component in concrete contexts, but not in metaphorical contexts.
(7) min pat- aka-m bchre boi snoqa-kay pe bbasti-m- 0 I rope- the-ERG1 cut by force.perf for box- the with tight-ERG1-ABS3 "I snapped the rope to tie the box"
(8) ?? qsa- kaye-m bchre boi min qsa-bka- m talk- his- ERG1 cut by force.perf for I- speak-do- ERG1 "I interrupted his talk to speak"

I summarize the results of the semantic tests for the verb bchre in Table 1. The results for the durativity tests were mixed. The 'for a minute' test and the -awa test showed that bchre was non-durative in concrete contexts, but durative in metaphorical contexts. The imperfective test showed that bchre was non-durative in both the concrete and metaphorical contexts. I expected the pieces test for intentionality to produce the same results as the tests for durativity in that an intentional act would be expected to take some time to unfold. The results for the pieces test support this expectation in that bchre has an intentional component in concrete contexts, but has an unintentional component in metaphorical contexts. The imperfective test only produced an odd result for the metaphorical object. I conclude that the verb bchre has the semantic component CAUSE in concrete contexts, but it has the semantic component PRODUCE in metaphorical contexts.

| The verb | Durativity |  |  | Intentionality |
| :--- | :--- | :--- | :--- | :--- |
| $b c h r e$ 'cut by force' | for a minute | imperfective | $-a w a$ | Pieces |
| Concrete | non-durative | non-durative | non-durative | unintentional |
| Metaphorical | durative | non-durative | durative | intentional |

## Table 1. Semantic tests for the verb bchre

### 6.2.2 jnee "mincing"

When I applied the tests of durativity and intentionality to the verb jnee, I used the verb in the concrete context with the object 'tomato.' The verb does not have a metaphorical use.

The 'for a minute' test shows the action of the verb requires some time to be achieved and cannot be done instantly (9).

```
min bo xolak- ek tamata-ka - m jnee- 0
```

    I for moment-a tomato-the- ERG1 mince.perf-ABS3
    "I minced the tomato for a minute"
    The imperfective test shows that the verb jnee has a simple present reading associated with a durative event (10).
(10) min tamata- ka da- jni- m

I tomato-the imperf- mince-NOM1
"I mince the tomato"

The -awa test also shows that the verb jnee has a durative feature because the action can be repeated without fixing object (11).
(11) min tamata- ka- m jnee- awa (repeated without fixing the object)

I tomato- the-ERG1 mince- again
"I have minced the tomato again"

The 'pieces' test shows that jnee has an intentional component because the pieces of the object 'tomato' can be used for a purpose (12).
(12) min tamata- ka- m jnee bo zalata

I tomato- the-ERG1 mince.perf for salad
"I minced the tomato for the salad"

I summarize the results for the verb jnee in Table 2. These results show that the verb jneen has the semantic component PRODUCE like a cut verb in concrete contexts. The pieces test of intentionality correlates with the tests for durativity.

| The verb | Durativity | Intentionality |  |  |
| :--- | :--- | :--- | :--- | :--- |
| jneen 'mince' | for a minute | Imperfective | $-a w a$ | Pieces |
| Concrete | durative | durative | durative | intentional |

Table 2. Semantic tests for the verb jneen

### 6.2.3 hareen "grind"

I used the verb hareen with the concrete object 'wheat' and with the metaphorical object 'human spirit or soul.' The 'for a minute' test shows that haree has a durative component in concrete contexts and cannot be done instantly (13). If we consider the sentence acceptable in some literary contexts, the verb would have a non-durative feature as the action that can be achieved be instantly (14).
(13) min bo xolak-ek ganm- ka- $m$ haree- 0 I for minute-a wheat- the-ERG1 grind.perf- ABS3 "I ground the wheat for a minute"
(14) ?abury lawaz-y wlat bo xolak- ek adamezadi haree- 0 Economy weak-of country for minute-a human grind.perf- ABS3 "The bad economy of the country ground human soul for a minute"

The imperfective test also shows that the action expressed by haree is durative as it expresses the sense of achieving the action in the simple present (15). When used with a metaphorical object, the verb also expresses a durative action as it can express the action happening in the simple present time (16).

```
min ganim- ka da- hare- m
```

I wheat- the imperf- grind-NOM1
"I grind the wheat"
(16) abury lawaz-y wlat adamezad da- haree economy weak -of country-human imperf- grind "The bad economy of the country grinds the human soul"

The -awa test shows that hareen has a durative feature in concrete contexts because the action can be repeated without fixing the object (17). The behavior of the verb is controversial in the metaphorical contexts as the sentence is accepted by some native speakers and not by others. When hareen is used with metaphorical objects, all the native speakers I consulted rejected the result (18). Their reaction suggests that the action could only be repeated in metaphorical contexts after repairing the object, but that the object could not be repaired.
min ganmi- m haree- 0 awa (repeated without fixing the object) I wheat- ERG1 grind.perf- ABS3- again
"I ground the wheat for making bread"
(18) ?abury lawaz- y wlat adamezadi hareeeconomy weak -of country human grind.perf-
$0-\quad$ awa (repeated with fixing the object)
ABS3- again
"The economy of the country ground the human soul again"

The 'pieces' test shows that the verb haree has an intentional component in concrete contexts because the agent can use the pieces of the object for a purpose (19). The verb haree 'grind' does not exhibit intentionality with a metaphorical object as the
metaphorical object cannot have pieces and accordingly cannot be used for a certain purpose (20). min ganmi- m haree- 0 bo nan- kirdin I wheat- ERG1 grind.perf- ABS3 for bread- making "I ground the wheat for making bread"
(20) ??abury lawaz- y wlat adamezadi haree - 0 bo.... economy weak- of country human grind.perf- ABS3-for....
"The bad economy of the country ground human soul for ..."

Table 3 provides a summary of the results of the semantic tests for the verb haree. As in the case of the verb bchre, the imperfective test for the verb haree produces an odd result in the metaphorical context. The results for the concrete context are uniform, and show that the verb haree has the semantic component PRODUCE like a cut verb. The results for the metaphorical object suggest that the verb haree has the semantic component CAUSE like a break verb.

| The verb | Durativity |  |  | Intentionality |
| :--- | :--- | :--- | :--- | :--- |
| haree 'grind' | for a minute | imperfective | $-a w a$ | Pieces |
| Concrete | durative | durative | durative | intentional |
| Metaphorical | non-durative | durative | non-durative | unintentional |

Table 3. Semantic tests for the verb haree

### 6.2.4 rneen "pick"

For the durativity and intentionality tests, I used the verb rnee in the concrete context with the object 'apple.' The verb has no metaphorical use. The 'for a minute' test shows that the verb rnee has a durative feature with concrete objects (21).
min bo xolak- ek sew-
I aka-
I for minute- a
apple-
"I picked the apple for a minute"

The imperfective test also showed that rnee has a simple present reading associated with a durative event (22).

```
min sew aka da- rni- m
I apple- the imperf- pick-NOM1
"I pick the apple"
```

The -awa test shows that rnee has a durative feature as the action of the verb is repeated without fixing the object.
(23) min sewi- m rene- awa (repeated without fixing the object)

I apple-ERG1 pick- have
"I have picked the apple"

The 'pieces' test shows that the verb rnee has an intentional component in concrete contexts because the agent can use the pieces of the object for a purpose (24).
(24) min sew aka da- rni- $m$ bo froshitin I apple-the imperf- pick-NOM1 for selling "I pick the apple for selling it"

Table 4 provides a summary of the results of the semantic tests for the verb rnee. The results for the concrete context are uniform, and show that the verb rnee has the semantic component PRODUCE like a cut verb

| The verb | Durativity |  |  | Intentionality |
| :--- | :--- | :--- | :--- | :--- |
| rnee' ${ }^{\text {pick' }}$ | for a minute | imperfective | $-a w a$ | Pieces |
| Concrete | durative | durative | durative | intentional |

Table 4. Semantic test for the verb rnee

### 6.3 Complex verbs

### 6.3.1 Dabre 'cut off’

The verb dabre 'cut off' has the sense of separating something from something else. I used the verb with the concrete object 'a husband from a wife' and with the metaphorical object 'me from life' for the tests of durativity and intentionality. The context in which a husband is separated from a wife is when the agent has the authority to separate a husband from his wife (to be a judge) while the context in which a person is separated from life is when the agent, for example, faints and looses his/ her consciousness for a minute and then wakes again. Applying the test of durativity in the concrete context shows that the verb dabre has a durative component (25), while in the metaphorical context the action lacks duration as it happens in a blink (26).
(25) min bo xolak- ek zhn- aka- m la merd- akay da- br- im I for minute-a wife- the- ERG1 from husband- the impref- cut-ERG1 "I separated the wife from her husband for a minute"
?min bo xolak- ek la zhyan da- bra- m I for minute- a from life pref- cut.perf-ERG1 "I separated from life for a minute"

The imperfective test shows that the verb in the concrete context lacks a durative component as it requires a repair meaning in the sense of "I will cut off the husband from
his wife," while in the metaphorical context it has a durative component because it can be used in the simple present tense.
(27) min zhn- aka la merd- akay da- da- br- im I wife- the from husband- the impref- down- cut .perf- ERG1 "I will separate the wife from her husband"
(28) min la zhyan da- da- bri- m

I from life imperf- down- cut.perf- ERG1 "I separate from life"

In the -awa test shows that the verb lacks a durative component in the concrete (29) and metaphorical contexts (30) as the action can only be repeated after repairing the object. min zhn- aka la merd- akay da- abr- m- awa wife- the from husband- her down- cut.perf- ERG1- repeat "I separated the wife from her husband again"
(30) min la zhyan da- bra- m- awa (repeated after fixing the object) I from life down- cut.perf-ERG1-repeat "I separate from life again"

Applying the 'pieces' test to the verb dabre shows that the action does not exhibit intentionality in the concrete and metaphorical contexts as the object that undergoes the action cannot be divided into pieces and accordingly has no pieces to be used for a certain purpose .
(31) ??min zhn-aka la merd- akay da- da- bri- m boi

I wife-the from husband-her impref- down- cut .perf-ERG1 for
xafat- $y$ - an bamee
sadness-ERG3-pl give-imperf
"I separate the wife from her husband to sadden them"
??min la zhyan da- da- bre- $m$ boy bxwenim I from life imperf- down- cut.perf-ERG1 for studying "I separated from life for studying"

I summarize the results of the semantic tests for the verb dabre in Table 5. The results for the durativity tests were mixed for both the concrete and metaphorical contexts. Two of the three results indicate the action is non-durative. The results for the pieces test support this interpretation in that dabre has an unintentional component in the concrete and metaphorical contexts. I conclude that the verb dabre has the semantic feature CAUSE of a break verb in concrete and metaphorical contexts.

| The verb | Durativity |  |  | Intentionality |
| :--- | :--- | :--- | :--- | :--- |
| Dabre 'cut off' | for a minute | Imperfective | -awa | Pieces |
| Concrete | durative | non-durative | non-durative | unintentional |
| Metaphorical | non-durative | durative | non-durative | unintentional |

## Table 5. Semantic test for the verb dabre

### 6.3.2 Halbchre 'open by force'

The verb halbchre 'open by force' behaves differently when it is applied on concrete hard object and frogile object, therefore when I applied the tests of durativity and intentionality to the verb halbchre, I used the verb with the concrete object 'can' as an example of hard object and 'letter' as an example of fragile object. The verb has no metaphorical use. The 'for a minute' test on hard object the results show that the action
is non-durative action as the action of opening a can by force, not by a can opener, is an instant action that does not need duration to be achieved (33).

$$
\begin{align*}
& \text { ??Roza bo xolak-ek quto-aka- i }  \tag{33}\\
& \text { Roza for minute-a can- the- } \\
& \text { eRG3 } 3 \text { up- bchre- } \\
& \text { "Roza opened the can for a minute" }
\end{align*}
$$

Applying the same test on 'letter' the results show that the action is still a non-durative action as but it expresses the sense that 'I opened the letter for a minute read it and then I close it back again' in (34):
(34) Min bo xolak- ek nama- aka-m hal- bchre- 0 I- for- moment-a letter- the ERG1 up- force open.perf-ABS1 I opened the letter for a minute"

The imperfective test shows that the verb can be used with the simple present tense interpretation with the hard and fragile objects as in (35) and (36). This result suggests that the action has a durative feature.
(35) Roza quto- aka- hal- da- bchre Roza can- the- up- imperf- force open-NOM3 "Roza opens the can"
(36) Min nama- aka hal- da- bchri-m- awa I- letter- the up- imperf- force open-ERG1-again 'I opened the letter again'

The -awa test shows that the action expressed by the verb exhibits durativity as the action can be repeated without fixing the object; the can cannot be fixed after it is opened.
(37) ??Roza quto- aka- i hal -bchre- awa- 0 (repeated without fixing) Roza can- the- ERG3 up- force open.perf-have-ABS3.
"Roza opened the can again"

But, applying the same test on a fragile object as 'letter' has a different result because the letter could be closed after it is opened which means that the verb in that context exhibits a non-durativity feature:
(38) Min nama- aka hal- da- bchri- m- awa I- letter- the up- imperf- force open- ERG1- again 'I opened the letter again'

The 'pieces' test shows that the action expressed by the verb does not have an intentional feature because the pieces of the 'can' cannot be used for a purpose.
??Roza quto- aka-hal- da- bchre boi doshaw-aka dar- bhene Roza can- the- up- imperf-open-NOM3 for paste- the out- take-imperf "Roza opens the can to take out the paste"

While applying the same test on the object 'letter', the results show that the verb has intentional feature as the agent usually will read the letter after he/she opens the letter:

Min nama- aka-m hal- bchre boy bexwenimawa I- letter- the ERG1 up- force open.perf to read (it) I opened the letter to read it "

I summarize the results of the semantic tests for the verb halbchre in Table 6. The results for the durativity tests were mixed. The 'for a minute' and the 'imperfect' test suggested that the action was non-durative with both hard and fragile objects, while in the -awa tests the results with hard object suggested that the action was durative and nondurative with fragile object. The pieces test showed that the action was unintentional with the hard object, but intentional with fragile object. The non-durative, unintentional features support attributing a CAUSE component to the semantic representation of the verb halbchre.

| The verb | Durativity |  |  | Intentionality |
| :--- | :--- | :--- | :--- | :--- |
| Halbchre 'open by force' | for a minute | Imperfective | - awa | Pieces |
| Concrete - hard | non-durative | durative | durative | unintentional |
| Concrete - fragile | non-durative | durative | non-durative | intentional |

Table 6. Semantic test for the verb halbchre

### 6.3.3 Dabchre 'cut and take'

When I applied the tests of durativity and intentionality to the verb dabchre, I used the verb with the concrete object 'a piece of cloth. The verb has no metaphorical uses. The verb in the 'for a minute' test exhibits a durative feature as the action requires an interval of time to be achieved.
(41) Parcha- qumqsh- aka-m bo xolak-ek da- bchre0 piece cloth- the- ERG1 for minute-a down- cut and take. perf -ABS3 "I cut and took by force the piece of cloth for a minute"

The imperfective test shows that the verb has durative feature as the action has a simple present interpretation.

Parcha- qumqsh- aka- da- da- bchri-m Piece cloth- the- imperf- down - cut and take (by force)-NOM1 "I cut and take by force the piece of cloth"

The -awa test shows that the verb expresses an action that can be repeated without fixing the object, which makes it a durative action.
(43) Parcha- qumqsh-aka-m da- bchre- awa- 0 (repeated without fixing) piece cloth- the-ERG1 down- cut.perf- have-ABS3
"I have cut and took by force the piece of cloth again"

The pieces test shows that the verb has an intentional feature as the pieces of the object can be used for a purpose.
(44) Parcha- qumqsh- aka- m da- bchre- 0 boi beka- m ba Piece- cloth- the- ERG1 down- cut and take.perf -ABS3 for make- ERG1- with
sfra
tablecloth
"I cut and took by force the piece of cloth for making it a table cloth"

I summarize the results for the verb dabchre in Table 7. These results show that the verb dabchre has the semantic component PRODUCE. The pieces test of intentionality correlates with the tests for durativity.

| The verb | Durativity |  |  | Intentionality |
| :--- | :--- | :--- | :--- | :--- |
| dabchre'cut by force' | for a minute | Imperfective | - awa | Pieces |
| Concrete | durative | durative | durative | intentional |

Table 7. Semantic table for the verb dabchre

### 6.3.4 Halbre 'lift'

I used the verb with the concrete object 'chair' and with the metaphorical object 'volume of the TV' in the durativity and intentionality tests. The 'for a minute' test shows that the verb halbre lacks durativity in concrete and metaphorical contexts as the action is achieved instantly. The action of lifting a chair in (45) takes only a blink to happen; the same is true when the volume of the TV is increased as in (46).

Min bo xolak-ek kurse- aka- m hal-bre- 0
I for minute-a chair- the ERG1 up-cut.perf-ABS3
"I lifted the chair up for a minute"

| Min bo xolak-ek | dang- i | talavezon-aka-m | hal-bre- |
| :---: | :---: | :---: | :---: |
| I for minute-a | sound-of | TV- the ERG1 | up-cut.perf-ABS3 | "I raised the sound of the TV for a minute"

The imperfective test shows that the action expressed by the verb does not exhibit durativity as it has a repair meaning of 'look, I will lift the chair' in concrete and metaphorical contexts.

Min kurse- aka hal- da- bri- m
I chair- the up- imperf- cut- NOM1
"I will lift the chair up"
(48) Min dang- i talavezon- aka hal- da- bri- m I sound-of TV- the up-imperf- cut-NOM1 "I will turn up the sound of the TV"

The -awa test shows that the verb has a durative feature in that the action can be repeated without fixing the object.
(49) Min kurse- aka- $m$ hal- bri- awa (repeated without fixing)

I chair- the ERG1 up- cut.perf- again
"I lifted the chair up again"
(50) Min dang- i talavezon-aka -m hal- bri- awa (repeated without fixing) I sound-of TV- the ERG1 up-cut.perf-again
"I turned up the sound of the TV again"

The verb halbre 'lift' does not exhibit intentionality as the objects do not produce pieces that can be used for a purpose.
(51) ??Min kurse- aka hal- da- bri-m boi ....

I chair- the up-imperf- cut-NOM1 for.... "I lift the chair up to ..."
(52) ??Min dang- i talavezon-aka hal- da- bri-m boi goimlebe- t I sound-of TV- the up-imperf-cut-NOM1 for hearing- it "I raise the sound of the TV"

I summarize the results for the verb halbre in Table 8. The results from the $-a w a$ test did not agree with the results of the other tests. The pieces test of intentionality agrees with the tests of 'for a minute' and the 'imperfective' tests of durativity provide semantic evidence for the CAUSE component.

| The verb | Durativity |  |  | Intentionality |
| :--- | :--- | :--- | :--- | :--- |
| halbre 'lift' | for a minute | Imperfective | - awa | pieces |
| Concrete | non-durative | non-durative | durative | unintentional |
| Metaphorical | non-durative | non-durative | durative | unintentional |

Table 8. Semantic test for the verb halbre

### 6.3.5 Dashka 'break downwardly’

When I applied the tests of durativity and intentionality to the verb dashka 'break downwardly', I used the verb with the concrete object 'branch of tree,' and with the metaphorical object 'salary.' The 'for a minute' durativity test shows that the action expressed by the verb lacks durativity in both the concrete and metaphorical contexts. The action of breaking a branch of tree or cutting down (breaking) the salary of the employees in a company for a minute sounds silly, the action is achieved instantly and does not need duration to be achieved.
(53) ??Hoger bo xolak-ek lq- i dar- aka- i da- shka- n- 0 Hoger for minute-a branch of tree- the ERG3 down break.per-cause-ABS3 "Hoger broke the branch of the tree"
"Hoger split the branch of the tree for a minute"
(54) ??company- eka- bo xolak-ek mucha-y farmanbar-an da-company- the for minute-a salary-of employee- pl down
shka- n- 0
-break.perf- cause-ABS3
"The company broke down the salary of the employees for a minute"

In the imperfective test, the verb exhibits durativity in concrete and metaphorical contexts as the verb has the simple present tense interpretation.
(55) Hoger lq- i dar- aka da- da- shka- n- e Hoger branch of tree- the down- imperf- break- cause-NOM3 "Hoger breaks the branch of the tree"
"Hoger splits the branch of the tree"
(56) company-eka- mucha-y farmanbar-an da- da shka- n- e company-the salary-of employee-pl down- imperf- break- cause-NOM3 "The company breaks down the salary of the employees"

The -awa test shows that the verb has a durative feature in concrete contexts as it expresses repetition without fixing the object. The verb lacks the durative feature in metaphorical contexts as it expresses repetition after fixing the object.

Hoger lq- i dar- aka- i da-
Hoger branch of tree- the ERG3 down
shka- $\quad \mathrm{n}$ - awa- 0 (repeated without fixing)

- break.per-cause- have- ABS3
"Hoger has broken the branch of the tree but did not completely separate it" "Hoger has split the branch of the tree again"
(58) company- eka- mucha-y farmanbar- an da- shka- $n$ - awa- 0 company-the salary- of employee- pl down- break.perf- cause- have-ABS3
"The company has broken down the salary of the employees again"

The 'pieces' test shows that the verb dashka has 'intentionality' in both concrete and metaphorical contexts as the pieces of the object can be used for a purpose.
(59) Hoger lq- i dar- aka da- da- shka- n- e boi besutene Hoger branch of tree- the down- imperf- break- cause-NOM3 for burning "Hoger breaks the branch of the tree to use it as firewood"
"Hoger splits the branch of the tree to use it as firewood"
(60) company-eka- mucha-y farmanbar- an da- da shka- n- e company- the salary- of employee- pl down- imperf- break- cause-NOM3
boi bugakay rekxat
for budget balancing
"The company breaks down the salary of the employees to pay its bills"

I summarize the results of the semantic tests for the verb dashka in Table 9. The results for the durativity tests were mixed. The 'for a minute' test shows that the verb is non-durative, while the imperfective test shows the verb is durative. In -awa test the result shows that the verb is durative in concrete contexts and non-durative in metaphorical contexts. The verb exhibits intentionality in the pieces test, which supports the durative results from the imperfective and -awa tests. The results suggest that the verb dashka has a PRODUCE component in its semantic representation.

| The verb | Durativity |  |  | Intentionality |
| :--- | :--- | :--- | :--- | :--- |
| dashka'break downwardly' | for a minute | Imperfective | - awa | pieces |
| Concrete | non-durative | durative | durative | intentional |
| Metaphorical | non-durative | durative | non-durative | intentional |

## Table 9. Semantic test for the verb dashka 'break downwardly'

### 6.3.6 kirdinwa 'open’

When I applied the tests of durativity and intentionality to the verb kirdinawa, I used the verb with the concrete object 'door,' and with the metaphorical object 'heart.'

Applying the test of durativity 'for a minute' to the verb kirdinawa 'open' shows that the verb has durativity feature in its component in concrete contexts because the action happens instantly. Opening a door, cannot take a minute therefore, the action of the verb kirdinawa resembles break. In the metaphorical context it is difficult to decide whether the verb has durativity feature or not because the sentence is accepted by some Sorani speakers and rejected by others. The sentence(61) means literally that Ali told me a secret or something in his heart that no one knows it, but the same meaning can be expressed in a better way in Sorani by using the expression 'some talked about what is in his/her heart.' That is why the sentence (62) is not accepted by some native Sorani speakers. If I go with those who accept the sentence, I would say that the verb in that specific context
has durativity feature as the action of telling someone about what is in your heart can take same time and it cannot be achieved instantly.
(61) ??Ali bo xolak-ek darg- aka- i krd-awa-0 Ali for moment-a door the- ERG3 do-open.perf-ABS3
"Ali opened the door for a moment"
(62) ?Ali bo xolak-ek dl- i xoi bo krd-m- awa-0

Ali for moment-a heart - ERG3 his for do- ERG1-open.perf-ABS3 "Ali opened his heart for a moment for me"

In the imperfective test the verb exhibits a durativity feature in the concrete context because expresses an action in the simple present. The verb also exhibits a durative feature in the metaphorical context (if we accept the sentence) because it expresses an action in the simple present.
(63) Ali darg- aka- da- kat-awa- 0 Ali door the imperf- do-again NOM3 "Ali opens the door"
??Ali dl- i xoi bo min da- kat- awa
Ali heart-ERG3 his for me imperf-do- again-NOM3
"Ali opens his heart for me"

The verb kirdinawa does not show the expected result in the -awa test as the verb ends in the affix -awa and Sorani as many other languages in the world does not permit the duplication of the same form as in (65):
*Ali darg- aka- i krd-awa- awa 0 Ali door the- ERG3 do- again.perf- again ABS3 "Ali opened the door"

The verb has no intentionality feature because the object has no pieces to be used for a purpose.
??Ali darg- aka- da- kat-awa- 0 boy brwata darawa Ali door the imperf-do-again-NOM3 for going out "Ali opens the door to go out"
??Ali dl- i xoi bo min da-kat- awa boy esrahar-kat Ali heart-ERG3 his for me imperf-do-again-NOM3 for relief-do "Ali opens his heart for me to relieve himself"

I summarize the results of the semantic tests for the verb kirdinawa in Table 10. The results for the durativity tests were mixed. The 'for a minute' test the verb has no durativity feature in the concrete context while it exhibits a durativity feature in the metaphorical context. The verb kirdinawa does not show the expected result in the -awa test as the verb ends in the affix -awa and Sorani as many other languages in the world doesn't prefer the duplication of the same form The imperfective test showed that kirdinawa expresses a durative action in both the concrete and metaphorical contexts. I expected the pieces test for intentionality to produce the same results as the tests for durativity in that an intentional act would be expected to take some time to unfold. The results for the pieces test support this expectation in that kirdinawa has an unintentional component in concrete and metaphorical contexts. The imperfective test only produced an odd result for the metaphorical object. The non-durative results suggest that the verb kirdinawa has a CAUSE component in its semantic representation.

| The verb | Durativity |  |  | Intentionality |
| :--- | :--- | :--- | :--- | :--- |
| kirdinawa 'open' | for a minute | imperfective | - awa | pieces |
| Concrete | non-durative | durative |  | unintentional |
| Metaphorical | durative | durative |  | unintentional |

## Table10. Semantic test for the verb kirdinawa

### 6.3.7 Halkeshan 'picking'

I used the verb halkeshan 'picking' with the concrete object 'carrot' in the tests of durativity and intentionality; the verb has no metaphorical use. Applying the test of durativity 'for a minute' to the verb halkeshan shows that in the concrete context, the verb lacks durativity feature as the action of the verb has to be achieved instantly and cannot be continued for a minute.

$$
\begin{align*}
& \text { ?? Azad bo xolak- ek } \begin{array}{c}
\text { guizar- aka-i }
\end{array} \text { hal- kasha- } \quad 0  \tag{68}\\
& \text { Azad for minute- a carrot- the-ERG3 } \\
& \text { up- weigh.perf-ABS3 } \\
& \text { "Azad picked the carrot for a minute" }
\end{align*}
$$

The result in the imperfective test shows that the verb has durativity feature as it can be used in the simple present tense.

Azad guizar- aka hal- da- keshe- t
Azad carrot- the up- imperf- weigh-NOM3
"Azad picks the carrot"

The verb passes the -awa test but with odd results as it gives the sense that the action has not been achieved and that is why the doer has to repeat it again to complete the action.
?Azad guizar-aka-i hal- kasha- awa- 0 (repeated without fixing) Azad carrot-the-ERG3 up- weigh- have-ABS3
"Azad have picked the carrot again"

The 'pieces' test shows that the verb exhibits intentional action as the agent can use the pieces of the object for a purpose.

| Azad guizar- aka-i | hal- |
| :--- | :--- |
| Azasha- $c c c$ | 0 |
| boy bexwat |  |
| "Azad picked the carrot to eat it" |  |

I summarize the results of the semantic tests for the verb halkeshan in Table 11. The results for the durativity tests were mixed. The 'for a minute' test showed that the verb has no durativity feature in the concrete context. The imperfective test showed that the verb has durativity. In the pieces test the verb exhibits intentionality. The most interesting result was that one I got after I applied the -awa tests on the verb because it gives the sense that the action has not been achieved and that is why the doer has to repeat it again to complete the action. This result supports the durative feature of the verb. These results suggest that the verb kalkeshan has a PRODUCE component in its semantic representation.

| The verb | Durativity |  |  | Intentionality |
| :--- | :--- | :--- | :--- | :--- |
| halkeshan 'pick' | for a minute | imperfective | -awa | pieces |
| Concrete | non-durative | durative | durative | intentional |

## Table11. Semantic test for the verb halshkan 'picking'

### 6.3.8 Darhenan 'take out'

I used the verb darhenan 'take out' with the concrete object 'potato' and with the metaphorical object 'eye' in the tests of durativity and intentionality. The verb darhenan did not pass the 'for a minute' test of durativity. In the concrete context, the sentence gives the sense that the farmer took out the potato from underground for a while and put it back again, but this is a repair meaning and does not refer to the time needed to take the potato out of the ground. The verb lacks durativity feature in the concrete context. In the metaphorical context, the sentence is totally unacceptable as it gives the sense that someone is literary taking out someone else's eyes instead of only punishing them.
??jutyar- aka bo xolak- ek batata- ka- y dar- hena la binarz farmer- the for moment- a potato- the-ERG3 out- take-perf from underground "The farmer dug out the potato for a moment"
(73) ?chaw-t bo xolak-ek dar- da- heni- m agar wa b-kaet eye- your for minute-a out- imperf- take- NOM1 if like- this-do "I will punish you if you do that for a minute"

In the imperfective test, the verb exhibits durativity in the concrete context as it can be used in the simple present tense. In the metaphorical context it lacks durativity because it has a future repair meaning of "I will punish you."
jutyar- aka batata- ka dar- da- hen- e la binarz farmer- the potato- the out-imperf- take- NOM3 from underground "The farmer dug the potato"
(75) chaw-t da- da- hen-im agar wa b-kaet eye- your imperf- out- take-NOM1 if like- this-do "I will punish you if you do that"

In the -awa test, the verb exhibits durativity in the concrete context as it gives the sense of repetition without fixing; the sentence makes no sense in the metaphorical context.
(76) jutyar- aka batata- ka- y dar- hena- y- awa (repeated without fixing) farmer- the potato- the- ERG3 out- take-ERG3 -have
"The farmer has dug the potato again"
*chaw-t dar- da- heni-m- awa eye-your out- imperf- take-NOM1-again
"I will punish you again"

The 'pieces' test shows that the verb has intentionality feature in its component in the concrete context as the pieces of the object can be used for a purpose, but in the metaphorical context the verb makes no sense as the object which is the eyes cannot have pieces and accordingly the object pieces cannot be used for a purpose.
(78) jutyar- aka batata- ka- y dar- he- na boy befroshet farmer- the potato- the- ERG3 out- take- cause.perf for selling-it "The farmer dug the potato for selling it"
(79) chaw-t dar- da- heni- m bowy awa na- kaet eye-your out- imperf- take-NOM1 in order this not make "I will punish you so that you do not do that"

I summarize the results of the semantic tests for the verb darhenan in Table 12. The results for the durativity tests were mixed. The 'for a minute' test results show that the verb lacks durativity feature in the concrete and metaphorical contexts In the
imperfective test the verb has a durative feature in its components.in the $-a w a$ test the verb has durativity feature in the concrete and metaphorical contexts. The verb has intentionality feature in its component in the concrete context while it makes no sense in the metaphorical context. These results show that the verb darhenen has the semantic component PRODUCE with the concrete objects and CAUSE component with the metaphorical objects.

| The verb | Durativity |  |  | Intentionality |
| :--- | :--- | :--- | :--- | :--- |
| darhenan 'take out' | for a minute | imperfective | - awa | pieces |
| Concrete | non-durative | durative | durative | intentional |
| Metaphorical |  | non-durative |  | non-intentional |

## Table 12. Semantic test for the verb darhenen

### 6.4 Compound verbs

### 6.4.1 Peakeshan 'hit'

The verb is composed of two elements, the preposition pea 'on' and the verb kasha 'weigh,' both of those elements form the compound verb that means hit in Sorani. I used the verb peakeshan 'hit' with the concrete object 'me' for the tests of durativity and intentionality. The verb does not have a metaphorical use. The durativity test 'for a minute' shows that the verb exhibits durativity in the concrete context as the action of hitting can be performed for a minute or more.
(80) Adil bo xolak- ek pea- ya- kesha- m- 0

Adil for minute-a on- ERG3- hit.perf-ERG1-ABS1
"Adil hit me for a minute"

The imperfective test results show that the verb is also has a durativity feature as it can be used with a simple present meaning.
(81) Adil pea-ya- ma- da keshe Adil on-ERG3- NOM1 imperf- hit "Adil hits me"

The -awa test also shows that the verb has durativity as the action can be repeated without fixing the object.
(82) Adil pea- ya- ya- kesha- m- awa- 0 (repeated without fixing) Adil on- ERG3- ERG3- hit.perf-ERG1- have-ABS1
"Adil hit me again"

The 'pieces' test shows that the verb lacks intentionality as the action does not turn the object into usable pieces.
(83) ??Adil pea-ya- ma- da keshe bo xoshi

Adil on- ERG3- NOM1 imperf- hit for fun "Adil hits me for fun"

I summarize the results for the verb peakeshan in Table 13. These results show that the verb peakeshan has the semantic component PRODUCE. The pieces test of intentionality does not correlate with the tests for durativity.

| The verb | Durativity |  |  | Intentionality |
| :--- | :--- | :--- | :--- | :--- |
| peakeshan'hit' | for a minute | imperfective | $-a w a$ | pieces |
| Concrete | durative | durative | durative | unintentional |

Table 13. Semantic test for the verb peakeshan

### 6.4.2 Wirdkirdin 'make small'

The meaning of the verb wurdkirdin 'make small' changes when the object that undergoes its action changes. When the action is applied to a hard object such as wood or chocolate, the verb can be translated as "breaking into pieces" and should accordingly behave like a break verb (84). But when the action is applied to a soft object such as meat or bread, the verb is translated as "cut into pieces, dice", and it should therefore behave as a cut verb (85).
(84) Ali dar- aka -y wurd- kird- 0

Ali wood- the- ERG3 small- do.perf-ABS3
"Ali broke wood into pieces"
(85) Min gosht-aka m wurd- kird-0

I meat- the- ERG1 small-do.perf.ABS3
"I diced meat into small pieces"

Applying the durativity test 'for a minute' to the verb wurdkirdin 'dicing' with the concrete object 'meat' as in (86) shows that it exhibits durativity. It has no metaphorical uses in this sense. When the durativity test 'for a minute' is applied to the verb with a hard object such as 'wood' as in (87) to mean 'breaking into pieces', the 'for a minute' test shows that it still has durativity as the action of breaking into pieces needs some duration to be achieved.
(86) Min bo xolak- ek gosht-aka m wurd- kird- 0 I for moment- a meat- the- ERG1 small-do.perf.ABS3 "I diced meat into small pieces for a moment"
(87) Ali bo xolak- ek dar-aka - y wurd-kird- 0 Ali for moment- a wood-the- ERG3 small-do.perf-ABS3 "Ali cut wood into small pieces for a moment"

The imperfective test shows that the verb in both senses has durativity as the verb can be used in the simple present tense.

Min gosht- aka- wurd- da- ka--m I meat- the- small- imperf- do-NOM1 "I dice the meat into small pieces"
(89) Ali dar- aka- wurd- da- ka- t Ali wood- the small-imperf- do-NOM3 "Ali cuts the wood into small pieces"

The -awa test shows that the verb wurdkirdin 'make small' has a durativity feature and can express the sense of repetition without fixing the object.
(90) Min gosht- aka- m wurd- kird- awa (repeated without fixing) I meat- the- ERG1 small- do.perf-have "I have diced the meat into small pieces again"
(91) Ali dar- aka- i wurd- kird- awa (repeated without fixing) Ali wood- the- ERG3 small- do.perf-have
"Ali have cut the wood into small pieces again"

The verb wurdkirdin passes the 'pieces' test in the concrete context with 'meat' because the resulting pieces can be used for a purpose (92). The verb also passes the 'pieces' test with the breaking into pieces interpretation as the resulting pieces can also be used to perform other actions (93).
(92) Min gosht- aka- m wurd- kird- 0 boy lenem I meat- the- ERG1 small- do.perf.ABS3 for cooking "I diced the meat into small pieces for cooking"

Ali dar- aka-i wurd-kird- 0 boy besutene Ali wood- the- ERG3 small-do.perf-ABS3 for burning "Ali cut the wood into small pieces for burning"

I summarize the results for the verb wurdkirdin in both of its interpretations in Table 14. The pieces test of intentionality correlates with the tests for durativity. These results show that the verb wurdkirdin has the semantic component PRODUCE.

| The verb | Durativity | Intentionality |  |  |
| :--- | :--- | :--- | :--- | :--- |
| wurdkirdin 'dicing, break into <br> pieces' | for a minute | imperfective | $-a w a$ | pieces |
| Concrete | durative | durative | durative | intentional |

Table 14. Semantic test for the verb wurdkirdin 'making small'

### 6.5 Summary and conclusion

In this chapter I applied the semantic tests of durativity (for a minute, imperfective, -awa), and intentionality (pieces) to a group of simple, complex and compound verbs in Sorani Kurdish. These tests provide semantic evidence for the CAUSE and PRODUCE components in the lexical conceptual structures for the verbs. I summarized the results of all the tests with the verbs in Table 15 which includes a column showing whether the verb has a CAUSE or PRODUCE component in its LCS.

| The verbs | Durativity |  |  | Intentionality | LCS |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | for a minute | Imperfective | -awa | pieces |  |
| Simple verbs |  |  |  |  |  |
| bchre 'cut by force' |  |  |  |  |  |
| Concrete | non-durative | non-durative | non-durative | unintentional | CAUSE |
| Metaphorical | durative | non-durative | durative | intentional | PRODUCE |
| jneen 'mince' |  |  |  |  |  |
| Concrete | durative | durative | durative | Intentional | PRODUCE |
| haree 'grind' |  |  |  |  |  |
| Concrete | durative | durative | durative | Intentional | PRODUCE |
| Metaphorical | non-durative | durative | non-durative | Unintentional | CAUSE |
| rnee 'pick' |  |  |  |  |  |
| Concrete | durative | durative | durative | Intentional | PRODUCE |
| Complex verbs |  |  |  |  |  |
| the verb dabre 'cut off' |  |  |  |  |  |
| Concrete | durative | non-durative | non-durative | unintentional | CAUSE |
| Metaphorical | non-durative | durative | non-durative | unintentional | CAUSE |
| halbchre 'open by force' |  |  |  |  |  |
| Concrete fragile | non-durative | durative | durative | unintentional | CAUSE |
| Concrete hard | non-durative | durative | non-durative | intentional | PRODUCE |
| dabchre 'cut by force' |  |  |  |  |  |
| Concrete | durative | durative | durative | intentional | PRODUCE |
| halbre 'lift' |  |  |  |  |  |
| Concrete | non-durative | non-durative | durative | unintentional | CAUSE |
| Metaphorical | non-durative | non-durative | durative | unintentional | CAUSE |
| dashka 'break downwordly' |  |  |  |  |  |
| Concrete | non-durative | durative | durative | intentional | PRODUCE |
| Metaphorical | non-durative | durative | non-durative | intentional | PRODUCE |
| kirdinawa 'open' |  |  |  |  |  |
| Concrete | non-durative | durative |  | unintentional | CAUSE |
| Metaphorical | durative | durative |  | unintentional | CAUSE |
| halkeshan 'pick' |  |  |  |  |  |
| Concrete | non-durative | durative |  | Intentional | PRODUCE |
| darhenan 'take out' |  |  |  |  |  |
| Concrete | non-durative | durative | durative | intentional | PRODUCE |
| Metaphorical |  | non-durative |  | non-intentional | CAUSE |
| Compound verbs |  |  |  |  |  |
| peakeshan 'hit' |  |  |  |  |  |
| Concrete | durative | durative | durative | unintentional | PRODUCE |
| wurdkirdin 'make small' | durative | durative | durative | Intentional | PRODUCE |

## Table 15. Semantic test results for the Sorani verbs

A close look at Table 15 shows that the semantic tests that I used did not produce consistent results for many verbs. For some verbs, e.g. bchre and haree, the tests produced consistent results for the verbs in concrete contexts and inconsistent results in the metaphorical contexts. In general, the tests produced more consistent results in concrete contexts than in metaphorical contexts, although many of the verbs lack metaphorical uses. In general, the pieces test of intentionality supported the results of the durativity tests, although there were some cases, such as the concrete use of the verb dashka, in which the pieces test only supported the result of one of the durativity tests. In general, the semantic tests were successful in providing evidence for a CAUSE or PRODUCE component in the LCS of the verbs.

Many of the verbs produced different results in concrete and metaphorical contexts. The 'for a minute,' 'imperfective' and -awa tests show that the verb bchre 'cut by force' is not durative in concrete contexts. According to the pieces test, it lacks an intentional component in concrete contexts. These results suggest that in concrete contexts the verb bchre has the CAUSE component in its LCS. In metaphorical contexts the verb bchre exhibits durativity in the 'for a minute' and -awa tests. The pieces test shows that it has an intentional component in metaphorical contexts. The imperfective test did not agree with the other tests in the metaphorical context. I cannot explain this difference. I conclude that the verb bchre has the CAUSE component in concrete contexts, but it has the PRODUCE component in metaphorical contexts.

The semantic tests that I used show that the elements in the LCS's of a verb can change when the object that undergoes the action of the verb changes. For example, the action expressed by the verb shka 'break' is considered an instant action when it is
applied to glasses, while the action is considered durative when the object is a door. Therefore, its LCS would include the element CAUSE with glasses and PRODUCE with doors. Curiously, the semantic elements of a verb may remain the same in different contexts even though the translation into English alternates between cut and break. The compound verb wurdkirdin can be translated as "breaking into pieces" when the action expressed by the verb is applied to a hard object such as wood or chocolate. But when the action is applied to a soft object such as meat or bread, the verb is translated as "cut into pieces, dice." The semantic tests show that the verb wurdkirdin has a PRODUCE component in both of these contexts. The English translations do not always predict the semantic features of Sorani verbs.

The morphological form of the verb also plays role in changing the elements in the LCS of the verb. For example, the complex verb halbre 'lift' which is composed of the prefix hal- and the verb bre 'cut' made me think that it would have the PRODUCE element of a cut verb in its LCS, but it did not. When the verb is used with concrete object such as a chair, the verb has the CAUSE components in its LCS. I conclude that the morphological form of the word is also a factor that has a role in changing the Components of the LCSs of the verbs and accordingly affect the semantics of the verbs.

The results show that verbs do not have a fixed semantic representation that can be tied to the presence of semantic components such as CAUSE and PRODUCE. The object that undergoes the action of the verb as well as the morphological form of the verb has an enormous influence on the durativity and intentionality features of the verb. To the extent that such features support the attribution of the semantic components CAUSE and PRODUCE, I conclude that the LCS of verbs varies with their context of use. In the
following chapter, I compare the syntactic behavior of the verbs with the semantic results to test whether the syntactic behavior of verbs can be tied to their semantic features in different contexts of use.

## Chapter Seven: Implications and results

### 7.1 Introduction

My dissertation investigated the model of verb argument representation originally proposed in an article by Guerssel et al. (1985). Guerssel et al. investigated the lexical entries for the verbs 'cut' and 'break' in the languages Berber, English, Warlpiri, and Winnebago. Their study examined those aspects of meaning which contribute to verb participation in four lexical alternations. The causative-inchoative alternation is a lexical alternation that characterizes pairs of verbs in which the intransitive member of the pair, the inchoative verb, denotes a change of state, and the transitive member of the pair, a causative, denotes a bringing about of this change of state (Pinon 2001). The conative is an alternation in which the object in the transitive form is demoted to a prepositional phrase headed by 'at' in the intransitive form in English, e.g. 'Sally swatted at the fly'. The conative construction does not occur in many languages. The middle alternation is an alternation in which the verb needs an adverb to convey a generic meaning, e.g., 'Flies swat easily'. The passive alternation was also included in their analysis.

Guerssel et al. (1985) propose that the syntactic behavior of verbs, within a language can be explained by reference to their semantic representation. The writers argue that "the distinctive syntactic properties characterizing each class arise from its lexical properties" (Guerssel et al., 1985:49). They claim that differences in transitivity alternations in these languages are attributed to the way the semantic representation of "agent" appears in the lexical representation of the verbs. They state that the agents of 'break' verbs CAUSE the action while the agents of 'cut' verbs PRODUCE the action. Guerssel et al. did not provide a definition for either the predicate CAUSE or PRODUCE.

Chapter one provides a comprehensive review of the researches that deal with components of verb meaning, specifically 'cut' and 'break' verbs, and any elements that contribute to change the meaning of the verb such as the context of use, the object that undergoes the action of the verb, the syntactic alternations and the morphological form of the verb. Chapter one presents many studies that explore the semantics of cut and break verbs in many languages. The studies added to the Guerssel et al. research by diagnosing the use of verbs in different contexts. However these studies still have some significant limitations. I showed how languages vary in the way they categorize 'cut' and 'break' verbs. Languages differ in how they divide cut and break actions. Some languages have two divisions and other languages have more than two divisions.

I tested the Guerssel et al. hypothesis with data from the Sorani variant of Kurdish. My dissertation presents a new database for Sorani Kurdish derived from three main sources. The first was my own intuition as a native speaker of Sorani, and the second was from on line Sorani newspapers. The second source is the newspapers that I checked date back to 2000 because the online sources were available only from 2000 and on. The third source was my native consultants. I consulted 6 speakers of Sorani, 5 males and one female between 29-32 years old. Two of my consultants have lived in the United States in a Midwest university town for almost a year, and the other four for four months. I asked my consultants to use the verbs in different sentences to see if the verbs occur in different syntactic forms. I also asked them to use the verbs with objects in concrete and metaphorical contexts. I provided the original source sites, the name of the newspaper, and the date in Appendix 1.

Chapter two presents a basic description of the grammar and morphology of Sorani Kurdish that includes a description of the syntactic alternations of the simple, compound and complex verbs in Sorani Kurdish. Verbs in Sorani undergoes the causative alternation and the 'break' verbs has a causative marker $-n$ that attaches to the verb as a reference to the agent, while the cut verbs do not have the causative marker in the causative alternation. Both 'cut' and 'break' verbs in Sorani undergo the inchoative. The verbs also undergo the middle alternation and the existence of an adverb is a prerequisite to give the sense of the middle alternation. Passive is another alternation that the Sorani verbs undergo and the verbs affix - $r a$ is attached to the verbs to indicate the passive case of the verbs. What is interesting is that Sorani verbs do not undergo the conative alternation. If the native speaker of Sorani wants to express a conative meaning s/he resorts either to the use of the negative form of the verb to refer to the fact that the action has not been achieved, or s/he adds the word hawlida 'try to' to the verb to indicate that the action is not achieved. Chapter two set the stage for the reader to understand the morphology of Sorani verbs- which will be shown in the work- and how it plays great role in the semantic of the verbs.

Chapter three provides a review of extensional semantics in concrete and metaphorical contexts and introduces the syntactic behavior of simple verbs in Sorani Kurdish. I introduce the methodology I followed in the chapter. I used the simple verbs in different contexts -concrete and metaphorical- to explore their syntactic and semantic behavior.

In chapter four, I introduced the syntax and the morphology of the complex and compound verbs in Sorani. Complex verbs consist of a prefix such as $d a$ - or hal- that is
attached to a simple verb. The prefix adds a new element to the meaning of the verb such as directionality. Compound verbs combine a non-verbal element such as an adverb or a noun and a verbal element to form a compound verb with a meaning that does not derive directly from the meaning of the non-verbal and verbal elements. In chapter four I provide a review of extensional semantics in concrete and metaphorical contexts and introduce the set of simple verbs in Sorani Kurdish. Syntactically, all of the complex and the compound verbs undergo the causative, middle and passive alternations. However, not all of them undergo the inchoative alternation. The absence of an inchoative form does not correlate with the inability to use a verb in metaphorical contexts. Semantically, many of the verbs can be used in both concrete and metaphorical contexts, while several verbs only have concrete uses.

In chapter five I provide four semantic tests on cut and break classes of verbs to find independent semantic support for the semantic representation of the verbs. I used the 'for a minute' clause and imperfective aspect to test whether the verbs express a durative or a non-durative action. I used the $-a w a$ test to test whether the addition of the $-a w a$ suffix expresses the repetition of the action. Durative actions can be stopped before completing the action; therefore there is no need to finish it and then repeat it again. My results show that the action of the verb changes depending on whether the object is hard or soft, and whether the verb is used in concrete or metaphorical contexts.

I also proposed the use of an agent intentionality test which determines whether an agent intends to use the pieces of the object for a certain purpose. This test can be applied to verbs in concrete contexts, but not in the metaphorical contexts. The objects
that are affected by the action in the metaphorical contexts cannot be used directly by the agent for a certain purpose such as the impossibility of using a 'heart' after breaking it.

In chapter six I applied the tests for durativity and intentionality to the simple, compound and complex verbs and found that the semantic tests that I used show that the elements in the LCS's of a verb can change when the object that undergoes the action changes. For example, the action expressed by the verb shka 'break' is considered an instant action when it is applied to glasses, while the action is considered durative when the object is a door. Therefore, its LCS would include the element CAUSE with glasses and PRODUCE with doors. Curiously, the semantic elements of a verb may remain the same in different contexts even though the translation into English alternates between cut and break. The compound verb wurdkirdin can be translated as "breaking into pieces" when the action expressed by the verb is applied to a hard object such as wood or chocolate. But when the action is applied to a soft object such as meat or bread, the verb is translated as "cut into pieces" The semantic tests show that the verb wurdkirdin has a PRODUCE component in both of these contexts. The English translations do not always predict the semantic features of Sorani verbs.

### 7.2 Research Questions

Chapter one introduced the main research questions of the dissertation. This section uses the results of my study to address each question in turn.

1. What is the correspondence between the concrete objects used with cut and break verbs in Sorani Kurdish and English?

Chapters 3 and 4 compared the semantic extensions of cut and break verbs in Sorani and English. They show that while there is significant overlap between Sorani and English in the concrete objects that are used and not used with these verbs, there are also differences. I found that the verbs shka 'break,' bre 'cut,' bchre 'cut by force,' and wurdkirdin 'cut into pieces, break into pieces' can sometimes be used with the same concrete objects in both languages and at other times they are used with different concrete objects. I looked at many contexts (Chapter 3, Table 2) for shka 'break' in Sorani and English in concrete contexts and I found out that the verbs in both languages can be used with glass, window, stone, branch of tree, chair, plates, boxes, doors, bread, ground, cars, watches, eggs, finger, leg, hand, skull, back and nose. The verb shka is used with nuts, while the verb 'break' is used with egg yolk, water of a pregnant woman, dawn, and hair, which means that the verbs in both languages share more objects that can undergo the action than the objects that do not undergo the actions of the verbs.

The verbs bre and 'cut' in Sorani and English share the concrete objects bread, meat, wood, paper, cloth, finger, hand, leg, rope and road (Table 7, Chapter 2). The verb bre in Sorani can be used with woman hair while the verb 'cut' can be used with face. The data in Table 7, Chapter 3 shows that the verbs 'cut' and bre share number 11 objects and do not share only 1 object. The English verb 'cut' can refer to cutting paper with an instrument, while the Sorani verb bre can apply to tearing paper neatly by hand. I concluded that whereas the English verb 'cut' focuses on the instrument used in the action, the Sorani verb bre focuses on the result of the action.

Sorani has several verbs with semantic extensions that overlap the extensions of both the English verbs 'cut' and 'break.' The verb bchre in Sorani indicates an action of
cutting achieved by force. The action is achieved without a tool. I could not find an exact equivalent for the verb in English, as it is used in some contexts to mean 'cut' and in others to mean 'break.' The verb bchre is translated into English by the verbs 'break,' 'snap,' 'cut,' 'hit-cut,' 'break up,' 'crack' and 'force-cut' (Chapter 3, sentences 32(a-e) for the concrete objects and the sentences $33(\mathrm{a}-\mathrm{e})$ for the metaphorical contexts. The verb bchre in Sorani can be used with the concrete objects strand, rope, wires, weld, and meat, and with the metaphorical objects Heart, abdomen, speech, breath (Chapter 3, Table 12).

The verb wurdkirdin is a compound verb that literally means 'making something small'. If it refers to an action on a piece of meat it would translate into English as 'slice.' If it refers to an action on a stone it would translate in English as 'break' (Chapter 4, Table 31). These verbs disprove the Guerssel et al. conjecture that verbs divide neatly into 'cut' and 'break' verb classes. The objects that verbs are used with and not the underlying semantic representation affect their interpretation.
2. What is the correspondence between the metaphorical objects used with 'cut' and 'break' verbs in Sorani Kurdish and English?

Chapters 3 and 4 also compared the semantic extensions of 'cut' and 'break' verbs in Sorani and English with metaphorical objects. These comparisons show that while there is significant overlap between Sorani and English in the metaphorical objects that are used and not used with these verbs, some differences exist. In the metaphorical contexts (Chapter 3, Table 2) the verbs share the objects ${ }^{1}$ record, rules, trust, promise, fasting, cold, fever, heart that undergo the actions of the verbs in both languages, but they do not share ablution, desire, market, price, fear, loneliness, tongue, arm, back, nose,

[^16]confidence as those objects undergo the action of the verb shka but not 'break.' Those results show that the verbs shka and 'break' share more concrete objects that can undergo the actions of the verbs than metaphorical objects.

The verb bre is used with many metaphorical objects that cannot be used with the verb cut in English such as liver, arm, nose, tongue, sound, back, road, salary, houses, relationship, conversation, ability and borders. The English verb 'cut' can be used with teeth and seconds. The verbs cut and bre share only the objects of electricity, water, phone and the internet, which means that the metaphorical objects they share are fewer than the metaphorical objects they do not share.
3. What are the syntactic properties of Sorani Kurdish verbs in concrete and metaphorical contexts?

Table 1 shows the syntactic components of the LCSs of Sorani verbs. The label CAUSE indicates that the verb is acceptable in inchoative constructions, while the label PRODUCE indicates the verb is not acceptable in inchoative constructions.

| Simple Verbs | Concrete | Metaphorical |
| :--- | :--- | :--- |
| shka 'break' | CAUSE | CAUSE |
| bre 'cut' | PRODUCE | CAUSE |
| bchre 'cut by force' | CAUSE | CAUSE |
| jneen 'mince' | PRODUCE |  |
| haree 'grind' | CAUSE | CAUSE |
| rnee 'pick' | PRODUCE |  |
| Complex Verbs | Concrete | Metaphorical |
| kirdinawa 'open' | CAUSE | CAUSE |
| darhenan 'take out' | CAUSE | CAUSE |
| dabre 'cut off' | CAUSE | CAUSE |
| halbchreen 'force open' | CAUSE (fragile) |  |
| halbchreen 'force open' | PRODUCE (hard) |  |
| dabchre 'cut by force'' | PRODUCE |  |
| halbre 'lift' | PRODUCE | PRODUCE |
| dashka 'break downword' | CAUSE | CAUSE |
| halkeshan 'pick' | PRODUCE |  |
| Compound verbs | Concrete | Metaphorical |
| peakeshan 'hit' | PRODUCE |  |
| wurdkirdin 'make small' | CAUSE |  |

Table 1. The syntactic components of the LCSs of Sorani verbs
The results indicate that some verbs as shka 'break,' dabre cut off,' kirdinawa 'open,' 'bchre 'cut by force,'haree 'grind,' halbre 'lift, dashka 'break downwardly,' darhenan 'take out,' and peayakeshan 'hit' have the same LCS components even when the contexts changes from concrete to metaphorical. For example, the verb shka 'break' has the CAUSE component in the concrete and metaphorical contexts. The other verbs that I tested, such as bre 'cut' and halbchre 'open by force,' have a different component in their LCS when the object changes. For example, the verb bre 'cut' has the component PRODUCE in it LCS in concrete contexts and the component CAUSE in metaphorical contexts. This means that the components in the LCSs of some verbs change when the context of use is changed. The Guerssel et al. conjecture does not predict such changes. 4. What are the semantic features of Sorani Kurdish verbs in concrete and metaphorical contexts?

Table 2 shows the semantic features of the LCSs of the verbs in concrete and metaphorical contexts. In this table CAUSE indicates that the verb has non-durative and
unintentional semantic features, while PRODUCE indicates that the verb has durative and intentional semantic features.

| Context |  |  |
| :--- | :--- | :--- |
| Simple Verbs | Concrete | Metaphorical |
| shka 'break' | CAUSE | CAUSE |
| bre 'cut' | PRODUCE | CAUSE |
| bchre 'cut by force' | CAUSE | PRODUCE |
| jneen 'mince' | PRODUCE |  |
| haree 'grind' | PRODUCE | CAUSE |
| rnee 'pick' | PRODUCE |  |
| Complex Verbs | Concrete | Metaphorical |
| kirdinawa 'open' | CAUSE | CAUSE |
| darhenan 'take out'' | PRODUCE | CAUSE |
| dabre 'cut off' | CAUSE | CAUSE |
| halbchreen 'force open' | PRODUCE (FRAGILE OBJCTS) |  |
| halbchreen 'force open' | CAUSE (HARD OBJECTS) |  |
| dabchre 'cut by force' | PRODUCE |  |
| halbre 'lift' | CAUSE | CAUSE |
| dashka 'break downword' | PRODUCE | PROUCE |
| halkeshan 'pick' | PRODUCE |  |
| Compound verbs | Concrete | Metaphorical |
| peakeshan 'hit' | PRODUCE |  |
| wurdkirdin 'make small' | PRODUCE |  |
| Table 2. Semantic comp |  |  |

Table 2. Semantic components of Sorani verbs
I found that some verbs have the same semantic component in concrete and metaphorical contexts such as shka 'break,' dabre cut off,'kirdinawa 'open,' halbre 'lift, dashka 'break downwardly,' and peayakeshan 'hit'. The verbs bre 'cut,' bchre 'cut by force,' haree 'grind,' and darhenan 'take out' have different semantic components in concrete and metaphorical contexts. Many verbs in Sorani show durative features in the concrete contexts as the verbs bre, jneen, hareen, rnen, halbchre, dabchre, halbre, dashka, kalkeshan, darhenan, and wurdkirdin, while other verbs, such as bchre, show durative features metaphorically, and other verbs show non durative features, such as the verb shka and dabre in the concrete and metaphorical contexts.

Almost all of the verbs show mixed results for intentionality. The verbs can show intentionality in its concrete uses and unintentionality in its metaphorical contexts. The Guerssel et al. conjecture does not predict a change of features in metaphorical contexts.

The verb halbchre 'open by force' has different semantic features depending on the hardness of the object. The Guerssel et al. model does not predict such object effects. 5. Do the properties of simple verbs predict the properties of complex and compound verbs in Sorani Kurdish?

The results of the syntactic and semantic tests show that the properties of simple verbs do not predict the properties of complex verbs in Sorani Kurdish. Each verb behaves according to the specific contexts in which it is used. For example, the verb halbre 'lift' behaves differently from the verb bre even they both share the same base which is bre. The verb dabchre 'cut by force downwardly' has different properties than the verb bchre 'cut by force' as the verb dabchre has no metaphorical uses and different syntactic features even they have the same base which is bchre.
6. Does the correspondence between the syntactic and semantic properties of the Sorani Kurdish verbs support the Guerssel et al. proposal?

Next I compare the syntactic and semantic features of the Sorani verbs to determine if their syntactic properties correlate with their semantic features. Table 3 compares the syntactic properties of the verbs shown in Table 1 with the semantic features of the verbs shown in Table 3.

| The verbs | Syntactic feature | Semantic feature |
| :--- | :--- | :--- |
| Simple verbs |  |  |
| shka 'break' | CAUSE | CAUSE |
| concrete | CAUSE | CAUSE |
| metaphorical |  |  |
| bre 'cut' | PRODUCE | PRODUCE |
| concrete |  |  |


| metaphorical | CAUSE | CAUSE |
| :---: | :---: | :---: |
| bchre 'cut by force' |  |  |
| concrete | CAUSE | CAUSE |
| metaphorical | CAUSE | PRODUCE |
| jneen 'mince' |  |  |
| concrete | PRODUCE | PRODUCE |
| haree 'grind' |  |  |
| concrete | CAUSE | PRODUCE |
| metaphorical | CAUSE | CAUSE |
| rnee 'pick' |  |  |
| concrete | PRODUCE | PRODUCE |
| Complex verbs |  |  |
| dabre 'cut off' |  |  |
| concrete | CAUSE | CAUSE |
| metaphorical | CAUSE | CAUSE |
| halbchreen 'open by force' |  |  |
| concrete fragile | CAUSE | PRODUCE |
| concrete hard | PRODUCE | CAUSE |
| metaphorical |  |  |
| dabchre 'cut by force' |  |  |
| concrete | PRODUCE | PRODUCE |
| halbre 'lift' |  |  |
| concrete | PRODUCE | CAUSE |
| metaphorical | PRODUCE | CAUSE |
| dashka 'break downwordly' |  |  |
| concrete | CAUSE | PRODUCE |
| metaphorical | CAUSE | PRODUCE |
| kirdinawa 'open' |  |  |
| concrete | CAUSE | CAUSE |
| metaphorical | CAUSE | CAUSE |
| halkeshan 'pick' |  |  |
| concrete | PRODUCE | PRODUCE |
| darhenan 'take out' |  |  |
| concrete | CAUSE | PRODUCE |
| metaphorical | CAUSE | CAUSE |
| Compound verbs |  |  |
| peakeshan 'hit' |  |  |
| concrete | PRODUCE | PRODUCE |
| wurdkirdin 'make small' |  |  |
| concrete | CAUSE | PRODUCE |

## Table 3. Comparison of the syntactic and semantic properties of Sorani verbs

Some of the verbs have the same syntactic and semantic features in concrete and metaphorical contexts, such as the verbs shka 'break,' bre 'cut,'dabre 'cut off,' kirdinawa 'open,' and darhenan 'take out'. While some verbs do not have a metaphorical uses, they
still have the same syntactic and semantic components, e.g., jneen 'mince,' rnee 'pick,'halkeshan 'pick,'and peakeshan 'hit.' I found that some verbs have different syntactic and semantic components, such as the verb bchre 'cut by force,' and darhenan 'take out.' For example, the verb bchre 'cut by force' has the semantic component PRODUCE in metaphorical contexts, while it has the syntactic component CAUSE in the same contexts.

I found out some interesting results about some verbs as the verbs halbchreen 'open by force,' and wurdkirdin 'breaking into small pieces, cutting into small pieces.' The verb halbchreen 'open by force has PRODUCE component in its semantic LCS with concrete fragile objects, and has the CAUSE component in its syntactic LCS with concrete fragile objects while it has CAUSE component in its semantic LCS with concrete hard object and PRODUCE component in its syntactic LCS, which means that changing the kind of object from fragile to hard affects the component in the LCS of the verb.

### 7.3 Implications of the results for Guerssel et al. (1985) hypothesis

The Guerssel et al. (1985) study created simple lexical entries that showed a native speaker lexical competence knowledge in his/her language. To achieve that goal, the writers depended on universal principles of grammar. The writers assumed that the syntactic behavior of a certain verb within a language could be explained in the light of its lexical representation and the way in which the elements of the representation are arranged. Guerssel's study examined those aspects of meaning which contribute to verb participation in several transitivity alternations. Guerssel et al. link verb behavior in four
syntactic alternations to verb meaning. Guerssel et al. (1985) claim that the syntactic behavior of verbs within a language can be explained by reference to their semantic representation. The writers argue that "the distinctive syntactic properties characterizing each class arise from its lexical properties" (Guerssel et al. 1985:49). They claim that differences in transitivity alternations in these languages are attributed to the way the semantic representation of "agent" appears in the lexical representation of the verbs. Their study examined the behavior of 'break' verbs as a representation of change-of-state verbs and 'cut' verbs as a representation of motion-contact-effect verbs.

When I applied their hypothesis to verbs in Sorani Kurdish I found that the cut and break verbs do not divide neatly into two groups. Some verbs, such as the verb bchre 'cut by force,' behaves in certain contexts and alternations as cut verbs and in others as break verbs. The verb halbchre 'open by force' undergoes the inchoative alternation when the object that undergoes the action is a concrete fragile object such as a letter, but it does not undergo the inchoative alternation when the object is a hard concrete object such as a can.

I came to the conclusion that all the simple verbs of 'break,' 'cut' and 'pick' undergo the causative alternation. There is a causative marker attached to the verb in the causative alternation, but the causative marker is attached only to the verbs as shka 'break' and bchre 'cut by force' when the agent intentionally achieves the action. As those the action of those two verbs can be achieved unintentionally. The verbs shka, bchre and bre when it is used metaphorically can undergo the inchoative alternation as all the other verbs indicate a specific action that has to be achieved by an agent. All the verbs can undergo the middle alternation, except for the verb rnee 'pick'. One explanation for
this might be the morphology of the verb as it starts with /r/ sound and in the middle alternation the verb has to have another /r/ sound in the middle of the word which makes it difficult for the speaker to pronounce. All the verbs undergo the passive in which the verb ends with $-r a$ as a passive indicator. Semantically the simple verbs are divided into two groups according to the degree of control and intentionality. What I mean by degree of control is the ability of the agent to control the kind of change and the number of pieces that results from achieving the action on the object, e.g to cut a piece of meat into two or three pieces. Intentionality means whether the agent can achieve the action accidently without intending it.

The actions expressed by the verbs shka 'break,' haree 'grind,' and rnee 'pick' are actions on which the agent has no control over the result of the action. For example, one cannot control the number of the pieces when breaking a glass or grinding wheat. While the actions expressed by the verbs bre 'cut,' bchre 'cut by force,' and jnee 'mincing' are actions that the agent has the ability to control the result of the action as when one can cut something into two or three pieces or bchre a rope into two pieces.

Regarding intentionality, the actions expressed by the verbs shka 'break,' and bchre 'cut by force' can be achieved by an agent intentionally or accidently, while the actions expressed by the verbs' haree 'grind,' and rnee 'pick' bre 'cut,' and jnee 'mincing' cannot be achieved without intentionality except in some special cases, e.g., when one cuts his/her finger unintentionally while making salad.

The morphological form of the verb also plays role in changing the elements in the LCS of the verb. For example, the complex verb halbre 'lift' which is composed of the prefix hal and the verb bre 'cut' made me think that it would have the PRODUCE
element of a 'cut' verb in its LCS, but it did not. When the verb is used with concrete object such as a chair, the verb has the CAUSE components in its LCS. I conclude that the morphological form of the word is also a factor that has a role in changing the Components of the LCSs of the verbs and accordingly affect the semantics of the verbs.

### 7.4 Conclusion

Sorani Kurdish verbs demonstrate different semantic components from English verbs in their meaning as they are used in different contexts with different objects. Verbs may have different semantic components in their meaning when they are used with different objects. Verbs are likely to have different syntactic features in concrete and metaphorical contexts. The Guerssel et al. model must be extended to account for varying syntactic features in different contexts of use. Verbs in different languages do not have the same syntactic behavior even when they are semantically similar. Semantic equivalents differ in the types of objects that undergo the actions, both concrete and metaphorical.

The results that I reached at in my dissertation have implications for the Guerssel et al. conception of the LCSs of verbs as a representation of verb meaning. An assumption of this conception is that the verb's meaning, and hence its LCS, would remain unchanged in different contexts. My results show that the syntactic and semantic features of verbs in English and Sorani change in contexts determined by the direct object. These changes show that the LCS represents the meaning of the verb phrase rather than the meaning of the verb as Guerssel et al. originally proposed. Such changes suggest that the syntactic and semantic properties of verbs reflect the speaker's perspective on an
event rather than the meaning of the individual verb. The durativity of the event rather than the meaning of the individual verb determines whether the event can be expressed in an inchoative sentence.

My results also have some implications for the construction approach to verb argument structure. Construction theory claims that the properties of a verb determine the constructions in which the verb can appear. The results that I reached show the opposite as the construction in which the verb appears determine the syntactic and semantic properties of the verb. As Pustejovsky (1995) suggests, the constructions in which a verb appears coerce the verb's syntactic and semantic properties. The speaker must decide the circumstances under which such coercion is possible, not the verb.

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## Appendix

$\left.\begin{array}{|l|l|l|l|}\hline \text { Verb } & \text { newspaper } & \text { date } & \text { website } \\ \hline \begin{array}{l}\text { Bchra 'cut } \\ \text { by force }\end{array} & \text { awene } & 24 / 7 / 2011 & \begin{array}{l}\text { http://www.awene.com/Direje.aspx?Babet=Hewal\&ji } \\ \text { mare=13669 }\end{array} \\ \hline \text { inchoative } & \text { azad34.blogfa } & 25 / 2 / 2012 & \text { http://azad34.blogfa.com/post-8.aspx } \\ \hline \text { inchoative } & \text { bryarmagazin } & 25 / 2 / 2012 & \begin{array}{l}\text { http://www.bryarmagazine.com/edu/index.php?pageid } \\ \text { =75 }\end{array} \\ \hline \text { inchoative } & \text { bryarmagazin } & 25 / 2 / 2012 & \begin{array}{l}\text { http://www.bryarmagazine.com/edu/index.php?pageid } \\ \text { =75 }\end{array} \\ \hline \text { inchoative } & \text { bryarmagazin } & 25 / 2 / 2012 & \begin{array}{l}\text { http://www.bryarmagazine.com/edu/index.php?pageid } \\ \text { =75 }\end{array} \\ \hline \text { inchoative } & \text { chatrpress } & 25 / 2 / 2012 & \begin{array}{l}\text { http://www.chatrpress.com/(A(dokmQUOfzAEkAAA } \\ \text { AYzA5ODEwZmMtNWZjYi00NDdhLTgxZGQtNG } \\ \text { EwMWZmZGM0MzQwbIYd9oLvF- }\end{array} \\ \hline \text { inchoative } & \text { haseenews } & 8 / 8 / 2011 & \begin{array}{l}\text { iatcdivwdG49z0wy01))/Detail.aspx?id=590\&Action= } \\ 2 \& A u t h e r I D=223\end{array} \\ \hline \text { http://www.haseenews.com/?option=com_content\&vi } \\ \text { ew=article\&id=824\%3A2011-08-08-14-41- } \\ 48 \& c a t i d=57 \% 3 A 2011-05-14-16-41- \\ \text { 06\&Itemid=57\&fontstyle=f-larger }\end{array}\right\}$

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| inchoative | krg | 25/7/2011 | http://www.krg.org/articles/detail.asp?smap=0101020 $0 \& \operatorname{lngnr}=13 \& r n r=26 \& a n r=40855$ |
| inchoative | kuldp | 12/30/2006 | http://kuldp.org/dreje.php?id=117 |
| inchoative | kurdclick | 25/2/2012 | http://www.kurdclick.net/vb/converse.php?u=19746\& $\mathrm{u} 2=20298$ |
| inchoative | kurdistanan | 8/7/2011 | http://www.kurdistanan.net/print.php?sid=26530 |
| inchoative | kurdistanpost | 2011-07-21 | http://www.kurdistanpost.com/view.asp?id=6af4d973 |
| inchoative | kurdistanpost | 2011-09-23 | http://www.kurdistanpost.com/view.asp?id=a607f537 |
| inchoative | kurdiu | 12/12/2010 | http://www.kurdiu.org/hawal/?pageid=55022 |
| inchoative | kurdiu | 12/12/2010 | http://www.kurdiu.org/hawal/?pageid=55022 |
| inchoative | kurdiu | 12/12/2010 | http://www.kurdiu.org/hawal/?pageid=55022 |
| inchoative | kurdzhin | 8/23/2010 | http://www.kurdzhin.net/forum.php/viewtopic.php?id $=108584$ |
| inchoative | pcdk | 4/20/2008 | http://www.pcdk.org/kurdi/print.php?sid=1896 |
| inchoative | penusakan | 8/7/2011 | http://penusakan.com/index.php?option=com_content \&view=article\&id=548:2011-07-08-08-50-34\&catid=101:hemn-reawf\&Itemid=66 |
| inchoative | peshang.blogf a | 25/2/2012 | http://peshang.blogfa.com/post-534.aspx |
| inchoative | pukmedia | 25/2/2012 | http://www.pukmedia.com/kurdish/index.php?option= com_content\&view=article\&id=22211\%3A2011-05-02-06-42-47\&Itemid=395 |
| inchoative | rebazirasty | 25/2/2012 | http://www.rebazirasty.com/print.php?type=N\&item_i d=741 |
| inchoative | sbeiy | 25/2/2012 | http://www.sbeiy.com/(A(XQmX4LFHzAEkAAAA MTYwNDRjYTMtMmE4OS00MWNjLWFjMTYtM GFiOTdmODc2Mzlm56DPUXO6P_Uj1x8mkgy_Cvo wCe41))/ku/newsdetail.aspx?id=28857\&cat=3 |


| inchoative | suzeni.blogfa | 25/2/2012 | http://suzeni.blogfa.com/post-54.aspx |
| :---: | :---: | :---: | :---: |
| inchoative | translations.la unchpad | 25/2/2012 | https://translations.launchpad.net/ubuntu/lucid/+sourc e/ubuntuone-client/+pots/ubuntuoneclient/ckb/+filter?person=jwtiyar |
| inchoative | translations.la unchpad | 25/2/2012 | https://translations.launchpad.net/ubuntu/lucid/+sourc e/ubuntuone-client/+pots/ubuntuoneclient/ckb/+filter?person=jwtiyar |
| inchoative | voanews | 25/2/2012 | http://www.voanews.com/kurdish/news/a-58-2009-09-03-voa5-89227057.html |
| inchoative | yariga | 25/2/2012 | http://www.yariga.net/?p=25073///\&wpmp_switcher= desktop |
| Verb | newspaper | date | website |
| Bchrand 'cut by force | baiewe.blogfa | 25/2/2012 | http://baiewe.blogfa.com/post-196.aspx |
| causative | beya | 19/9/2010 | $\begin{aligned} & \text { http://www.beyan.info/Direje.aspx?C=Witar\&J=56 } \\ & 8 \end{aligned}$ |
| causative | bzotnawanet | 25/2/2012 | http://bzotnawanet.org/DirejeyWtar.aspx?Babet= $\underline{\text { wtar\&Jimare }=608}$ |
| causative | bzotnawanet | 25/2/2012 | http://bzotnawanet.org/DirejeyWtar.aspx?Babet= wtar\&Jimare=608 |
| causative | cawyxelik | 25/2/2012 | http://cawyxelik.re- <br> invent.net/(A(2msxZZ4aywEkAAAAYTI5ZDY3ZTM <br> tNzU4Ny00YWQzLTk2ZDQtOTk4MDNhNDJiZTQ5 <br> H90m3CCmrEcKTsom zxdFHMPCDU1))/print.asp <br> $\underline{x}$ ?id=2175\&AspxAutoDetectCookieSupport=1 |
| causative | cawyxelik | 25/2/2012 | http://cawyxelik.re- <br> invent.net/\%28A\%282msxZZ4aywEkAAAAYTI5Z <br> DY3ZTMtNzU4Ny00YWQzLTk2ZDQtOTk4MDNhN <br> DJiZTQ5H90m3CCmrEcKTsom_zxdFHMPCDU1\%2 <br> 9\%29/print.aspx?id=2175\&AspxAutoDetectCookie <br> Support=1 |
| causative | chrakan | 25/2/2012 | http://www.chrakan.com/jimare-1462.html |
| causative | dangiislam | 27/3/2009 | http://www.dangiislam.org/content/2219 |
| causative | dengiamerika | 17/9/2012 | http://www.voanews.com/kurdish/news/middle-east/arab_protests_20feb11-116562593.html |


| causative | dimane | 22/11/2006 | http://www.dimane.com/index.php?misc=search <br> \&subaction=showfull\&id=1164190787\&archive=1 <br>  |
| :---: | :---: | :---: | :---: |
| causative | emrro | 14/4/2011 | http://emrro.com/setsalletawan.htm |
| causative | emrro | 13/7/2010 | http://www.emrro.com/bizutneweyjinanu.htm |
| causative | hawpshti | 17/5/2008 | http://www.hawpshti.com/ku/index.php?option= com_content\&task=view\&id=490\&Itemid=39 |
| causative | islamhouse | 25/2/2012 | http://www.islamhouse.com/pr/231252 |
| causative | klawrojna | 25/2/2012 | $\begin{aligned} & \text { http://www.klawrojna.com/index.php?option=co } \\ & \text { m_content\&view=article\&id=5492\&catid=42\&Item } \\ & \text { id=182 } \end{aligned}$ |
| causative | knwe | 19/8/2011 | http://knwe.org/Direje.aspx?Jimare=3740\&Cor=2 <br> \&Besh=Witar |
| causative | ku.radionawa | 6/10/2011 | http://ku.radionawa.com/\%28A\%28RPQTsJ66zA EkAAAAMWE1NTNiNGMtYTIzYi00NDFjLWFjM2M tMDgwN2EyZWNhNDI14fzjEGojp02GRBBzf1_lpSu 1mxU1\%29\%29/Detail.aspx?id=9309\&LinkID=85 \&AspxAutoDetectCookieSupport=1 |
| causative | kurdistannet | 4/14/2011 | http://www.kurdistannet.org/2011/index.php?op tion=com content\&view=category\&id=363:2009-04-18-10-36- <br> 59\&layout=blog\&Itemid=199\&limitstart=25 |
| causative | kurdistannet | 25/2/2012 | http://kurdistannet.org/2011/index.php?option=c <br> om content\&view=article\&id=2083:100- <br> \&catid=513:2010-09-28-21-41- <br> $\underline{\text { 27\&Itemid=153\&month }=6 \& y \text { ear }=2012}$ |
| causative | kurdistanpost | 15/9/2010 | http://www.kurdistanpost.com/view.asp?id=b419 edbc |
| causative | kurdistanpost | 20/9/2009 | http://www.kurdistanpost.com/view.asp?id=6314 034e |
| causative | kurdistanpost | 22/9/2011 | http://www.kurdistanpost.com/view.asp?id=2189 1d99 |
| causative | kurdistantv | 17/7/2011 | http://www.kurdistantv.net/default1.aspx?page=a rticles\&c=economic\&id=69384 |
| causative | kurdsat | 22/11/2011 | http://www.kurdsat.tv/hewal.php?id=642\&cor=ci hani |


| causative | kurdstanmedi <br> a | $25 / 2 / 2012$ | http://www.kurdistanmedia.com/kurdi/rbrn/3/fi <br> le/14.php |
| :--- | :--- | :--- | :--- |
| causative | mydream | $25 / 2 / 2012$ | http://www.mydream.blogfa.com/post-22.aspx |
| causative | pcdk | $13 / 4 / 2011$ | http://www.pcdk.org/kurdi/print.php?sid=9483 |
| causative | pcdk | $27 / 3 / 2008$ | http://pcdk.org/kurdi/print.php?sid=1797 |
| causative | penusakan | $23 / 12 / 2011$ | http://www.penusakan.com/index.php?option=co <br> m_content\&view=article\&id=3047:2011-12-23-18- <br> $46-14 \& c a t i d=39: h a w a l \& I t e m i d=54 ~$ |
| causative | pepule.blogfa | $28 / 3 / 2008$ | http://pepule.blogfa.com/post-41.aspx |
| causative | peshang.blogf <br> a | $25 / 2 / 2012$ | http://peshang.blogfa.com/post-534.aspx |
| causative | sorani.irib.ir | $27 / 7 / 2010$ | http://sorani.irib.ir/hewal/cihan/item/107969- <br> laingrani-jinge-benzinxanekani-kompaniai-bi-pi- |
| causative | sbeiy | peshmergeka <br> n | $25 / 2 / 2012$ | | http://www.peshmergekan.com/arshif.php?id=85 |
| :--- |
| 36 |


|  |  |  | ian-le-lenden-daxst |
| :---: | :---: | :---: | :---: |
| causative | surchy.yoo7 | 16/4/2011 | http://surchy.yoo7.com/t1290-topic |
| causative | werash.wordp ress | 25/12/2009 | http://werash.wordpress.com/2009/12/25/\%D8 \%B9\%D9\%87\%E2\%80\%8C\%D8\%A8\%D9\%87\% E2\%80\%8C\%D8\%AF\%D9\%84\%DB\%8E\%D8\%B1 <br> \%D8\%AD\%D9\%80\%D9\%80\%D8\%B2\%D8\%A8\% D9\%80\%D9\%80\%D9\%87\%E2\%80\%8C\%D9\%83 \%D9\%80\%D9\%80\%D9\%87\%E2\%80\%8C\%DB\% 8C\%E2\%80\%8C- <br> \%D8\%B9\%D9\%80\%D9\%80\%D9\%88/ |
| causative | xameynusera <br> n | 28/7/2010 | http://www.xameynuseran.com/ku/print.php?typ e=N\&item_id=138 |
| causative | xendan | 4/7/2011 | http://www.xendan.org/dreja.aspx?jmara=27090 |
| causative | xendan | 2/2/2010 | http://xendan.org/dreja.aspx?Jmara=2113\&Jor=3 |
| causative | yjrk.blogfa | 25/2/2012 | http://yjrk.blogfa.com/post-156.aspx |
| causative | yjrk.blogfa | 25/2/2012 | http://yjrk.blogfa.com/post-156.aspx |
| bchre 'cut by force' | facebook | 25/2/2012 | $\begin{aligned} & \text { http://ar- } \\ & \text { ar.facebook.com/media/set/comments/?set=a. } 105 \\ & \underline{982362834914.6390 .105978106168673} \end{aligned}$ |
| causative | islamhouse | 25/2/2012 | http://www.islamhouse.com/p/338870 |
| causative | peshmergeka <br> n | 25/2/2012 | $\underline{\text { http://peshmergekan.eu/index a.php?skip=1523 }}$ |
| causative | rojawa | 25/2/2012 | http://www.rojawa.com/ferhangi/syamek-nejafimin.htm |
| Bre 'cut' | awene | 18/8/2011 | http://www.awene.com/DirejeyGoshe.aspx? $] i m a r$ $\mathrm{e}=1039$ |
| Inchoative | awene | 26/11/2010 | http://www.awene.com/DirejeyGoshe.aspx?]imar $\mathrm{e}=767$ |
| Inchoative | awene | 19/5/2011 | http://www.awene.com/Direje.aspx?Babet=Babet \&Cor=Birura\&jimare=2367 |
| Inchoative | awene | 19/5/2011 | http://www.awene.com/Direje.aspx?Babet=Babet \&Cor=Birura\&jimare=2367 |
| Inchoative | awene | 25/1/2011 | http://www.awene.com/Direje.aspx?Babet=Hewal |


|  |  |  | \&jimare=10391 |
| :---: | :---: | :---: | :---: |
| Inchoative | awene | 19/12/2010 | http://www.awene.com/Direje.aspx?Babet=Babet \&Cor=Raport\&jimare=1910 |
| Inchoative | awene | 29/3/2010 | http://www.awene.com/Direje.aspx?Babet=Hewal \&jimare $=6567$ |
| Inchoative | awene | 30/8/2009 | http://www.awene.com/Direje.aspx?Babet=Babet \&Cor=Raport\&jimare=909 |
| Inchoative | awene | 26/1/2010 | http://www.awene.com/Direje AweneSport.aspx? ذimare=2579\&CoriHewal=\&Cor=4\&Reng= |
| Inchoative | awene | 8/3/2009 | http://www.awene.com/DirejeyGoshe.aspx?]imar $\mathrm{e}=253$ |
| Inchoative | awene | 8/3/2009 | http://www.awene.com/DirejeyGoshe.aspx?]imar $\mathrm{e}=253$ |
| Inchoative | awene | 2/3/2011 | http://www.awene.com/Direje.aspx?Babet=Babet \&Cor=Chawpekewtin\&jimare=2112 |
| Inchoative | awene | 2/3/2011 | http://www.awene.com/Direje.aspx?Babet=Babet \&Cor=Chawpekewtin\&jimare=2112 |
| Inchoative | awene | 30/12/2009 | http://www.awene.com/Direje.aspx?Babet=Babet \&Cor=Birura\&jimare=1046 |
| Inchoative | awene | 26/7/2008 | http://www.awene.com/Direje.aspx?Babet=Babet \&Cor=Raport\&jimare=165 |
| Inchoative | awene | 26/7/2008 | http://www.awene.com/Direje.aspx?Babet=Babet \&Cor=Raport\&jimare=165 |
| Inchoative | awene | 26/7/2008 | http://www.awene.com/Direje.aspx?Babet=Babet \&Cor=Raport\&jimare=165 |
| Inchoative | awene | 26/7/2008 | http://www.awene.com/Direje.aspx?Babet=Babet \&Cor=Raport\&jimare=165 |
| Inchoative | awene | 2/2/2011 | http://www.awene.com/Direje.aspx?Babet=Babet \&Cor=Chawpekewtin\&jimare=2043 |
| Inchoative | awene | 8/10/2009 | http://www.awene.com/Direje.aspx?Babet=Babet \&Cor=Chawpekewtin\&jimare=945 |
| Inchoative | awene | 15/12/2009 | http://www.awene.com/Direje.aspx?Babet=Heme reng\&jimare=806 |
| Inchoative | awene | 16/7/2008 | http://www.awene.com/Direje.aspx?Babet=Babet |


|  |  |  | \&Cor=Chawpekewtin\&jimare=155 |
| :---: | :---: | :---: | :---: |
| Inchoative | awene | 8/9/2008 | http://www.awene.com/Direje AweneSport.aspx? ఏimare=499\&CoriHewal=Kurdistan\&Cor=1 |
| Inchoative | awene | 3/12/2008 | http://www.awene.com/Direje.aspx?Babet=Heme $\underline{\text { reng\&jimare }=371}$ |
| Inchoative | knwe | 3/4/2011 | http://www.knwe.org/Direje.aspx?Cor=2\&Besh= Witar\&Jimare=6954 |
| Inchoative | knwe | 3/4/2011 | http://www.knwe.org/Direje.aspx?Cor=2\&Besh= Witar\&Jimare=6954 |
| Inchoative | knwe | 3/4/2011 | http://www.knwe.org/Direje.aspx?Cor=2\&Besh= $\underline{\text { Witar\&Jimare }=6954}$ |
| Inchoative | knwe | 3/4/2011 | http://www.knwe.org/Direje.aspx?Cor=2\&Besh= Witar\&Jimare=6954 |
| Inchoative | knwe | 17/3/2011 | http://www.knwe.org/Direje.aspx?Jimare=6719\& Cor=2\&Besh=Witar |
| Inchoative | knwe | 9/10/2011 | http://knwe.org/Direje.aspx?Cor=12\&Besh=Arast e\&Jimare=8107 |
| Inchoative | knwe | 2/6/2011 | $\begin{aligned} & \text { http://knwe.org/Direje.aspx?]imare=8164\&Cor=2 } \\ & \text { \&Besh=Witar } \end{aligned}$ |
| Inchoative | knwe | 26/1/2011 | http://www.knwe.org/Direje.aspx?]imare=5850\& Cor=2\&Besh=Witar |
| Inchoative | knwe | 1/6/2011 | $\begin{aligned} & \text { http://www.knwe.org/Direje.aspx?]imare=8140\& } \\ & \text { Cor=2\&Besh=Witar } \end{aligned}$ |
| Inchoative | knwe | 29/7/2011 | $\begin{aligned} & \text { http://knwe.org/DirejeHewal.aspx?Jimare=7143\& } \\ & \text { Cor=1\&Besh=Hewal } \end{aligned}$ |
| Inchoative | knwe | 19/1/2011 | http://www.knwe.org/Direje.aspx?Jimare=5764\& Cor=2\&Besh=Witar |
| Inchoative | knwe | 30/12/2010 | http://www.knwe.org/Direje.aspx?]imare=5512\& Cor=4\&Besh=Witar |
| Inchoative | knwe | 23/11/2010 | $\begin{aligned} & \text { http://knwe.org/Direje.aspx?]imare=4987\&Cor=2 } \\ & \text { \&Besh=Witar } \end{aligned}$ |
| Inchoative | knwe | 4/10/2010 | http://www.knwe.org/Direje.aspx?]imare=4340\& Cor=2\&Besh=Witar |
| Inchoative | knwe | 20/10/2010 | $\underline{\text { http://knwe.org/Direje.aspx? }] \text { imare=4581\&Cor=5 }}$ |


|  |  |  | \&Besh=Witar |
| :---: | :---: | :---: | :---: |
| Inchoative | knwe | 23/2/2011 | http://www.knwe.org/Direje.aspx? Jimare=5358\& Cor=9\&Besh=Araste |
| Inchoative | knwe | 23/2/2011 | http://www.knwe.org/Direje.aspx? Jimare=5358\& Cor=9\&Besh=Araste |
| Inchoative | knwe | 25/7/2011 | http://www.knwe.org/Direje.aspx?Jimare=9209\& Cor=4\&Besh=Witar |
| Inchoative | knwe | 23/3/2011 | http://knwe.org/DirejeHewal.aspx?Jimare=6044\& Cor=1\&Besh=Hewal |
| Inchoative | knwe | 15/7/2010 | http://knwe.org/Direje.aspx?]imare=3286\&Cor=5 \&Besh=Witar |
| Inchoative | knwe | 19/8/2010 | http://www.knwe.org/Direje.aspx? Iimare=3740\& Cor=2\&Besh=Witar |
| Inchoative | knwe | 19/8/2010 | http://www.knwe.org/Direje.aspx? Iimare=3740\& Cor=2\&Besh=Witar |
| Inchoative | knwe | 19/8/2010 | http://www.knwe.org/Direje.aspx? Jimare=3740\& Cor=2\&Besh=Witar |
| Inchoative | knwe | 14/7/2010 | $\begin{aligned} & \text { http://www.knwe.org/Direje.aspx? } \mathrm{jimare}=2913 \& \\ & \text { Cor=11\&Besh=Araste } \end{aligned}$ |
| Inchoative | knwe | 14/7/2010 | http://www.knwe.org/Direje.aspx? Jimare=2913\& Cor=11\&Besh=Araste |
| Inchoative | knwe | 19/6/2010 | http://www.knwe.org/Direje.aspx?]imare=2999\& Cor=2\&Besh=Witar |
| Inchoative | knwe | 18/5/2010 | http://knwe.org/Direje.aspx?]imare=2635\&Cor=5 \&Besh=Witar |
| Inchoative | knwe | 23/12/2010 | http://www.knwe.org/DirejeHewal.aspx?Jimare=5 187\&Cor=1\&Besh=Hewal |
| Inchoative | knwe | 30/11/2010 | $\begin{aligned} & \text { http://knwe.org/Direje.aspx? Jimare=5097\&Cor=5 } \\ & \text { \&Besh=Witar } \end{aligned}$ |
| Inchoative | knwe | 2/5/2010 | http://www.knwe.org/DirejeHewal.aspx?Cor=1\&B esh=Hewal\&Jimare=2032 |
| Inchoative | knwe | 15/1/2011 | http://www.knwe.org/DirejeHewal.aspx?Cor=1\&B esh=Hewal\&Jimare=5395 |
| Inchoative | knwe | 4/3/2010 | http://www.knwe.org/DirejeHewal.aspx? $i$ imare=1 |


|  |  |  | $\underline{\text { 400\&Cor=1\&Besh=Hewal }}$ |
| :--- | :--- | :--- | :--- |
| Inchoative | knwe | $4 / 3 / 2010$ | $\underline{\text { http://www.knwe.org/DirejeHewal.aspx?]imare=1 }}$ <br> $\underline{400 \& C o r=1 \& B e s h=H e w a l ~}$ |
| Inchoative | knwe | $17 / 1 / 2010$ | $\underline{l}$ |


| passive | pcdk | 12/2/2009 | http://pcdk.org/kurdi/page.php?sid=6030 |
| :---: | :---: | :---: | :---: |
| passive | raniacity | 30/7/2011 | http://www.raniacity.net/index.php?option=com content\&view=article\&id=83:valentine-chye\&catid=19:2011-07-04-12-41-12\&Itemid=30 |
| passive | skurd | 25/4/2011 | http://skurd.net/Dreje.aspx?B=1\&id=793 |
| passive | so.firatnews | 13/9/2011 | http://so.firatnews.com/index.php?rupel=nuce\&n uceID=508 |
| passive | zankokurd | 13/2/2008 | http://www.zankokurd.org/Direje.aspx?Babet=Wi tar\&Jimare=83 |
| Dabchre 'cut downwardl y' | knwe | 15/7/2011 | $\begin{aligned} & \text { http://knwe.org/Direje.aspx?]imare=9040\&Cor=2 } \\ & \text { \&Besh=Witar } \end{aligned}$ |
| inchoative | kurdistanan | 25/7/2010 | http://www.kurdistanan.net/cat200.php?sid=689 $\underline{2}$ |
| inchoative | kurdistanan | 25/7/2010 | ```http://www.kurdistanan.net/cat200.php?sid=689 2``` |
| inchoative | kurdistanan | 26/6/2010 | $\begin{aligned} & \underline{\text { http://www.kurdistanan.net/cat200.php?sid=212 }} \\ & \underline{36} \end{aligned}$ |
| inchoative | pcdk | 4/14/2008 | http://pcdk.org/kurdi/print.php?sid=1865 |
| Dabra 'cut off' | kurdistannet | 9/10/2008 | $\begin{aligned} & \text { http://kurdistannet.org/net/index.php?option=co } \\ & \text { m content\&view=article\&id=15437:2010-10-09-- } \\ & \text { 06-05-28\&catid=110:2009-01-10-21-52- } \\ & \underline{05 \& \text { Itemid }=157} \end{aligned}$ |
| Inchoative | kurdistannet | 9/10/2008 | ```http://kurdistannet.org/net/index.php?option=co m}\mathrm{ content&view=article&id=15437:2010-10-09- 06-05-28&catid=110:2009-01-10-21-52- 05&Itemid=157``` |
| Inchoative | kurdistannet | 9/11/2008 | ```http://kurdistannet.org/net/index.php?option=co m_content&view=article&id=15437:2010-10-09- 06-05-28&catid=110:2009-01-10-21-52- 05&Itemid=157``` |
| Inchoative | kurdistannet | 9/11/2008 | http://www.kurdistannet.org/net/index.php?opti on=com content\&view=article\&id=4931:2009-07-06-20-27-19\&catid=110:2009-01-10-21-5205\&Itemid=157 |


| Inchoative | peshang | $25 / 2 / 2012$ | $\underline{\text { http://www.peshang.com/index.php?option=com }}$ <br> $\underline{\text { content\&view=article\&id=550:as\&catid=52:hewal }}$ <br> $\underline{\text { \&Itemid=201 }}$ |
| :--- | :--- | :--- | :--- |
| Inchoative | kurdistanpost | $\underline{3 / 2 / 2010}$ | $\underline{\underline{\text { http://www.kurdistanpost.com/view.asp?id=2ed7 }}}$ |
| Inchoative | kurdistanpost | $\underline{3 / 2 / 2010}$ |  |


| Inchoative | pcdk | 3/8/2009 | $\begin{aligned} & \text { http://www.pcdk.org/kurdi/pcdknews.php?sid=4 } \\ & \underline{207} \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| Inchoative | pcdk | 3/9/2009 | $\begin{aligned} & \text { http://www.pcdk.org/kurdi/pcdknews.php?sid=4 } \\ & \underline{207} \end{aligned}$ |
| Inchoative | pcdk | 3/10/2009 | ```http://www.pcdk.org/kurdi/pcdknews.php?sid=4 207``` |
| Inchoative | pcdk | 3/11/2009 | ```http://www.pcdk.org/kurdi/pcdknews.php?sid=4 207``` |
| Inchoative | pcdk | 3/12/2009 | ```http://www.pcdk.org/kurdi/pcdknews.php?sid=4 207``` |
| Inchoative | pcdk | 3/13/2009 | $\begin{aligned} & \text { http://www.pcdk.org/kurdi/pcdknews.php?sid=4 } \\ & \underline{207} \end{aligned}$ |
| Inchoative | pcdk | 3/14/2009 | $\begin{aligned} & \text { http://www.pcdk.org/kurdi/pcdknews.php?sid=4 } \\ & \underline{207} \end{aligned}$ |
| Inchoative | pcdk | 3/15/2009 | ```http://www.pcdk.org/kurdi/pcdknews.php?sid=4 207``` |
| Inchoative | pcdk | 3/16/2009 | $\begin{aligned} & \text { http://www.pcdk.org/kurdi/pcdknews.php?sid=4 } \\ & \underline{207} \end{aligned}$ |
| Inchoative | pcdk | 3/17/2009 | $\begin{aligned} & \text { http://www.pcdk.org/kurdi/pcdknews.php?sid=4 } \\ & \underline{207} \end{aligned}$ |
| Inchoative | xendan | 9/11/2010 | http://www.xendan.org/dreja3.aspx?]mara=1777 3\&Jor=5 |
| Inchoative | xendan | 9/11/2010 | http://www.xendan.org/dreja3.aspx?]mara=1777 3\&Jor=5 |
| Inchoative | dgkradio | 22/11/2011 | http://dgkradio.com/(A(AmokTLHfzAEkAAAAYT MwNTNiZWItZjkzNy00Y2Q1LThlZjUtZWU4MmUz YTk2YzdkvRXiJQaSEYU4L4 CHpvzFd25yhg1))/Det ail1.aspx?id=6639\&LinkID=9\&AspxAutoDetectCoo kieSupport=1 |
| Inchoative | gzing | 10/3/2012 | http://gzing.org/index.php?id=208 |
| Inchoative | helwist | 25/2/2012 | http://www.helwist.com/Tenz/2011/22\%20\%20 5\%20\%20hezb\%20i\%20dimokrat.htm |
| Inchoative | rudaw | 28/12/2010 | http://rudaw.net/kurdish/index.php/werzsh/439 <br> 8.html |


| Inchoative | facebook | 27/10/2011 | $\begin{aligned} & \text { http://www.facebook.com/Yariga.net/posts/2689 } \\ & \underline{67253142370} \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| Inchoative | qadirzada | 25/2/2012 | http://qadirzada.com/Henar.bo.sivil.html |
| Inchoative | rebin89 | 25/2/2012 | http://rebin89.page.tl/\%26\%231588\%3B\%26\%2 $\underline{31610 \% 3 B \% 26 \% 231593 \% 3 B \% 26 \% 231585 \% 3 B-}$ \%26\%231608\%3B- $\underline{\% 26 \% 231607 \% 3 B \% 26 \% 231734 \% 3 B \% 26 \% 2316}$ $\underline{06 \% 3 B \% 26 \% 231585 \% 3 B \% 26 \% 231575 \% 3 B \% 26}$ \%231608\%3B\%26\%231607\%3B\%26\%238204\% $\underline{\text { 3B.htm }}$ |
| Inchoative | aknews | 12/10/2011 | http://aknews.com/ku/aknews/9/266536/?AKm obile=true |
| Inchoative | aknews | 12/10/2011 | http://aknews.com/ku/aknews/9/266536/?AKm obile=true |
| Inchoative | zilankurd4.pe rsianblog.ir | 25/2/2012 | http://zilankurd4.persianblog.ir/post/106 |
| Inchoative | zilankurd4.pe rsianblog.ir | 25/2/2012 | http://zilankurd4.persianblog.ir/post/106 |
| Inchoative | aweza | 11/27/2011 | http://www.aweza.co/sport/drezha.php?id=647\& babat=76 |
| Inchoative | knwe | 19/10/2011 | http://ww.w.knwe.org/Direje.aspx?Jimare=8216\& Cor=12\&Besh=Araste |
| Inchoative | rwgash | 3/10/2011 | ```http://rwgash.info/meko/viewtopic.php?pid=699 66``` |
| Inchoative | sayakurd | 25/2/2012 | http://www.sayakurd.com/(A(davi8YNywEkAAAANGViNTRkOTktNmVmNC00MWZm LTk4NWMtZmJiMDQ4MThjM2M0cgsy3RNiotl6NF hmsoAKjbT4Xmo1))/Detail.aspx?id=299\&LinkID= 40\&AspxAutoDetectCookieSupport=1 |
| Inchoative | sargardan | 25/2/2012 | http://sargardan.sa.funpic.org/index.php?paged=6 |
| Inchoative | dev.akpn | 1/11/2011 | http://dev.akpn.net/ku/aknews/5/270457/ |
| Inchoative | kaziwa | 25/2/2012 | http://www.kaziwa.com/files/kurd.php?id=117 |
| Inchoative | emrro | 7/1/2011 | http://emrro.com/raperindubare.htm |
| Inchoative | xozga | 28/07/2011 | http://www.xozga.com/nawdaran/index.php/hun <br>  |


| Inchoative | sorani | 4/8/2008 | http://sorani.irib.ir/islam/ayini/item/105358-pisengi-mrovani?tmpl=component\&print=1 |
| :---: | :---: | :---: | :---: |
| Inchoative | rozhgar | 7/25/2011 | $\begin{aligned} & \text { http://www.rozhgar.net/vb/archive/index.php/t- } \\ & \text { 1249.html } \end{aligned}$ |
| Inchoative | freewebhostin garea | 25/2/2012 | http://naza.ueuo.com/viewtopic.php?pid=3565 |
| Inchoative | xebat | 5/31/2010 | http://www.xebat.net/detail articals.php?id=852 \& $\mathrm{z}=9 \& \mathrm{l}=1$ |
| Inchoative | yariga | 25/2/2012 | http://www.yariga.net/?p=66556 |
| Inchoative | iwpr | 30/7/2007 | $\underline{\text { http://iwpr.net/node/28609 }}$ |
| Inchoative | rpk93 | 31/10/2001 | http://www.rpk93.org/helnawesheetewe.htm |
| Inchoative | standardkurd | 7/4/2010 | http://www.standardkurd.net/Direje.aspx?Cor=H emereng\&Jimare $=600$ |
| Inchoative | kurdistanukur d | 25/2/2012 | http://www.kurdistanukurd.com/DiriyjeyBabetek an.aspx?Babet=Syasy\&Jimare=124 |
| Inchoative | sbeiy | 29/2/2008 | http://www.sbeiy.com/ku/print/Dosya Rozhnam a.aspx?ArticleID=131 |
| Inchoative | mlazm | 25/2/2012 | http://mlazm.net/viewtopic.php?pid=51347 |
| Inchoative | surens | 18/9/2011 | http://www.surens.com/Direje.aspx?Cor=7\&Jimar $\mathrm{e}=1133 \& B e s h=$ Witar |
| Inchoative | surens | 18/9/2012 | http://www.surens.com/Direje.aspx?Cor=7\&Jimar e=1133\&Besh=Witar |
| Inchoative | surens | 18/9/2013 | $\begin{aligned} & \text { http://www.nrttv.com/K Direje.aspx?]imare=475 } \\ & \underline{0} \end{aligned}$ |
| Inchoative | kurdistani | 3/8/2011 | http://www.kurdistani- <br> nwe.com/Direje.aspx? Jimare=9403\&Cor=5\&Besh= <br> Witar |
| Inchoative | hewalnews | 7/4/2011 | http://www.hewalnews.com/(A(HyERnIW3zAEkA AAAYWImMDcyYTItNTJiOS00ZTg5LTk3YTMtMTU 0ZTIxZWJjYTk4WSLi67v9FEjG96AKM5S2t3TZOE1))/Print.aspx?id=4814 |
| Inchoative | guzarisht | 25/2/2012 | http://guzarisht.info/wtar.php?id=2247 |
| Inchoative | mklove | 25/2/2012 | http://mklove.net/mako/viewtopic.php?id=2998 |


| Inchoative | zhyan | 25/2/2012 |  |
| :---: | :---: | :---: | :---: |
| Inchoative | zhyan | 25/2/2012 | ```http://www.zhyan.net/vb/showthread.php?t=365 7``` |
| Inchoative | zhyan | 25/2/2012 | http://www.zhyan.net/vb/showthread.php?t=365 $\underline{7}$ |
| Inchoative | gullchin | 25/2/2012 | http://www.gullchin.com/meko/viewtopic.php?id $=24065$ |
| Inchoative | gullchin | 25/2/2012 | http://www.gullchin.com/meko/viewtopic.php?id $=24065$ |
| Inchoative | kurdistantv | 10/7/2010 | http://www.kurdistantv.net/usercontrols/print fr iendly.aspx?id=41418 |
| Inchoative | kurdistantv | 10/8/2010 | http://www.kurdistantv.net/usercontrols/print fr iendly.aspx?id=41418 |
| Inchoative | kaniaw | 25/2/2012 | http://www.kaniaw.net/meko/viewtopic.php?id= 376 |
| Inchoative | aweze | 15/4/2010 | http://aweze.com/meko/viewtopic.php?id=1229 |
| Inchoative | radionawa | 5/30/2010 | http://www.radionawa.com/(A(yhPBMKFIzAEkA AAAOTRIMDM2OWYtMTVhYi00MDNhLTg00GUtO GQ4NTc2ZGEwMmU50JLpKWTpw7fc0tGELQIbho 5LUN01))/Detail.aspx?id=15802\&LinkID71\&Aspx AutoDetectCookieSupport=1 |
| Inchoative | asoxendan | 25/2/2012 | http://asoxendan.com/dreja.aspx?=hewal\&jmara $=$ 7268\&Jor=9 |
| Inchoative | kurdistanonli ne | 2/7/2010 | $\underline{\text { http://kurdistanonline.net/details.php?id=57 }}$ |
| Inchoative | kurdistanonli ne | 2/8/2010 | $\underline{\text { http://kurdistanonline.net/details.php?id=57 }}$ |
| Inchoative | dengekan | 20/3/2008 | http://www.dengekan.info/dengekan/6/1164.htm l |
| Inchoative | kurdzhin | 25/2/2012 | http://www.kurdzhin.net/forum.php/viewtopic.p $\underline{\text { hp?id=111407 }}$ |
| Inchoative | niqash | 19/07/2006 | http://www.niqash.org/articles/?id=1331\&lang=k u |


| Inchoative | ydkurd | 15/7/2008 | http://ydkurd.org/Diriyje.aspx?Jimare=15\&Babet =Chandwhwner |
| :---: | :---: | :---: | :---: |
| Inchoative | ydkurd | 15/7/2009 | http://ydkurd.org/Diriyje.aspx?]imare=15\&Babet =Chandwhwner |
| Inchoative | pak | 25/2/2012 | http://pak-eu.com/files/print.php?id=346 |
| Inchoative | pak | 25/2/2012 | http://pak-eu.com/files/print.php?id=346 |
| Inchoative | shaqlawapres <br> s | 25/2/2012 | http://shaqlawapress.com/forums/showthread.ph p ? $\mathrm{p}=23761$ \& langid $=4$ |
| Inchoative | sorani | 4/8/2008 | http://sorani.irib.ir/islam/ayini/item/105358-pisengi-mrovani?tmpl=component\&print=1 |
| Inchoative | hewargeiashi q | 27/4/2004 | http://hewargeiashiq.blogspot.com/2004 04 01 a rchive.html |
| Inchoative | awene | 25/2/2012 | http://www.awene.com/DirejeyGoshe.aspx? $] i m a r$ $\mathrm{e}=381$ |
| Inchoative | parwardaihala bja | 25/2/2012 | http://www.parwardaihalabja.com/website/index .php?option=com content\&view=article\&id=591:-99-\& catid=131:2011-02-15-20-22-18\&Itemid=247 |
| Inchoative | parwardaihala bja | 25/2/2012 | http://www.parwardaihalabja.com/website/index .php?option=com content\&view=article\&id=591:-99-\&catid=131:2011-02-15-20-22-18\&Itemid=247 |
| Dabre 'cut off | aknews | 25/2/2012 | http://www.aknews.com/ku/aknews/9/273936/ ?AKmobile=true |
| Causative | anarkismo | 28/8/2008 | http://www.anarkismo.net/article/9717 |
| Causative | asoxendan | 25/2/2012 | http://www.asoxendan.com/drejaWtar.aspx?Nusa rID=35\&Jmara=2667 |
| Causative | awene | 5/1/2010 | http://www.awene.com/DirejeyGoshe.aspx? Jimar e=497 |
| Causative | awez.blogfa | 25/2/2012 | http://www.awez.blogfa.com/post-66.aspx |
| Causative | chaknews | 14/4/2008 | http://www.chaknews.com/kurdish/readarticle.p hp?article id=224 |
| Causative | civlmag | 25/2/2012 | http://www.civilmag.com/news/Siasyi/S\%2031/ yasa\%20ba\%20yakjare\%20qadre\%20la\%20za7m atkehsn\%20dabredddddddddd/index.php |
| Causative | dengekan | 25/2/2012 | http://www.dengekan.info/dengekan/6/5169.htm |


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| :---: | :---: | :---: | :---: |
| Causative | edebi- <br> meh.blogfa | 25/2/2012 | http://edebi-meh.blogfa.com/post-247.aspx |
| Causative | facebook | 25/2/2012 | http://www.facebook.com/notes/venus- <br>  50-5or/150465551711248?ref=nf |
| Causative | klawrojna | 1/25/2011 | http://www.klawrojna.com/index.php?option=co $\underline{m}$ content\&view=article\&id=21313:2011-01-25-22-24-40\&catid=13\&Itemid=30 |
| Causative | knwe | 6/6/2011 | http://knwe.org/Direje.aspx?]imare=8223\&Cor=2 \&Besh=Witar |
| Causative | kurdinberlin | 25/2/2012 | http://www.kurdinberlin.info/agadari/helbjardn. html |
| Causative | kurdinberlin | 25/2/2012 | http://kurdinberlin.info/helbjardn/beyanname.ht ml?besh=Nusraw\&perrge=nusraw\&nujimare $=190$ 6 |
| Causative | kurdishperspe ctive | 4/9/2011 | http://kurdishperspective.com/expand.php?id=42 73 |
| Causative | kurdistannet | 4/20/2009 | $\begin{aligned} & \text { http://kurdistannet.org/net/index.php?option=co } \\ & \text { m content\&view=article\&id=2796:2009-04-20-10- } \\ & \text { 25-50\&catid=52:2009-01-02-16-20- } \\ & \text { 09\&Itemid }=146 \end{aligned}$ |
| Causative | kurdistanpost | 9/16/2011 | $\begin{aligned} & \underline{\text { http://www.kurdistanpost.com/view.asp?id=fb5e }} \\ & \underline{\text { 7a10 }} \end{aligned}$ |
| Causative | kurdocide | 21/4/2008 | http://www.kurdocide.com/ku/readarticle.php?ar ticle id=204 |
| Causative | kurdocide | 21/4/2008 | http://www.kurdocide.com/ku/readarticle.php?ar ticle id=204 |
| Causative | mawtani | 13/07/2011 | http://www.mawtani.com/cocoon/iii/mobile/ku/ features/iii/features/iraqtoday/2011/07/13/feat ure-02 |
| Causative | mkurdan | 25/2/2012 | http://www.mkurdan.com/viewtopic.php?id=917 4 |
| Causative | nawendiashti | 25/2/2012 | http://nawendiashti.com/k/news.php?readmore= 81 |


| Causative | nawendiashti | 25/2/2012 | http://nawendiashti.com/k/news.php?readmore= 81 |
| :---: | :---: | :---: | :---: |
| Causative | pasawan | 18/6/2011 | http://pasawan.net/index.php?option=com conte nt\&view=article\&id=108:2011-06-18-17-25-05\&catid=36:2011-06-12-11-18-37 |
| Causative | penusakan | 25/2/2012 | http://www.penusakan.com/index.php?option=co m content\&view=article\&id=1807:2011-10-11-23-06-31\&catid=42:zardashtyakan\&Itemid=60 |
| Causative | pukmedia | 10/31/2011 | http://www.pukmedia.com/kurdish/index.php?op <br> tion=com content\&view=article\&id=31403:2011- <br> 10-31-17-48-48\&catid $=38: 2009-10-08-14-18-$ <br> 58\&Itemid=182 |
| Causative | pukmedia | 25/2/2012 | http://pukmedia.co/kurdish/index.php?option=co <br> m content\&view=article\&id=31175:2011-10-27- <br> 12-39-39\&catid=54:2009-12-07-16-10- <br> 41\&Itemid=374 |
| Causative | qadirzada | 25/2/2012 | http://qadirzada.com/Qadaxakrdni.kimiawi.html |
| Causative | rojikurd | 25/2/2012 | http://www.rojikurd.info/wordpress/?page id=13 1 |
| Causative | rozhnama | 25/2/2012 | http://rozhnama.net/(A(5LIPL7pizAEkAAAAYTkw NGEyMDYtZmUzMy00NjczLTkwODEtM2E4ZWM0 ODM4NTljH9D10dusz1PTjDzjifzHM8dIf4Q1))/Det ail.aspx?id=832\&LinkID=76\&Action=3\&AspxAuto DetectCookieSupport=1 |
| Causative | standardkurd | 14/10/2009 | http://www.standardkurd.net/Direje.aspx?Cor=Bi rwrayNwseran\&Jimare=1186 |
| Causative | standardkurd | 14/10/2009 | http://www.standardkurd.net/Direje.aspx?Cor=Bi rwrayNwseran\&Jimare=1186 |
| Causative | xendan | 11/5/2011 | http://xendan.org/drejaWtar.aspx?NusarID=505\& Imara=2985 |
| Causative | xendan | 11/5/2011 | http://xendan.org/drejaWtar.aspx?NusarID=505\& Imara=2985 |
| Dabrra 'cut off' | cawyxelik.reinvent | 25/2/2012 | http://cawyxelik.reinvent.net/(A(uBx5eJRVywEkAAAAN2Y5YTc2ZDU tZWI3OC00ZDk1LTg3MjctNWI5NmZkZTdkYTYy9 Ol- <br> ScBfkrCkj 0V6qCY87xKFj01))/print.aspx?id=2467 |


| Passive | xameynusera <br> n | 19/2/2010 | http://www.xameynuseran.com/ku/print.php?typ e=N\&item id=84 |
| :---: | :---: | :---: | :---: |
| Dadabre 'cut off' | akarcomputer | 25/2/2012 | ```http://akarcomputer.com/showthread.php?p=165 61``` |
| Inchoative | akarcomputer | 16/8/2010 | http://www.komin- <br> online.com/index.php?komin=naverok\&id=90 |
| Inchoative | aknews | 26/11/2011 | http://www.aknews.com/ku/aknews/5/274612/ |
| Inchoative | aknews | 13/11/2011 | http://173.201.38.81/ku/aknews/1/272133/?AK mobile=true |
| Inchoative | baran09.blogf a | 25/2/2012 | http://baran09.blogfa.com/post-68.aspx |
| Inchoative | beuran.mihan blog | 25/2/2012 | http://www.beuran.mihanblog.com/extrapage/be wran1 |
| Inchoative | bryarmagazin <br> e | 25/2/2012 | http://www.bryarmagazine.com/edu/index.php?p ageid=3 |
| Inchoative | chakran | 25/2/2012 | http://www.chaknews.com/kurdish/readarticle.p hp?article id=679 |
| Inchoative | chawyxelk | 25/2/2012 | http://www.chawyxelk.com/(A(bm41tn5lzAEkAA AAZWQyZTUyY2YtMDljOC00MTU5LTg2OWUtZGV hZTI1MGNmM2E0k4dgirz5b4qAzfu7eGrna0jXI6U 1))/Detail.aspx?id=677\&TypeID=4\&AutherID=53 |
| Inchoative | derunnasy | 25/2/2012 | http://derunnasy.com/sیز <br>  ses-و\% jimare4964.html |
| Inchoative | emrro | 23/12/2009 | http://www.emrro.com/xiwendinewec.htm |
| Inchoative | estanews | 27/08/2011 | http://www.estanews.com/Default.aspx?page=arti cle\&c=motionnews\&id=459 |
| Inchoative | facebook | 25/2/2012 | http://fa-ir.facebook.com/notes/هْ <br>  <br>  <br>  |
| Inchoative | ickevald | 25/2/2012 | http://ickevald.net/perherngren/english/kurdish nonlinear resistance perherngren.htm |
| Inchoative | ickevald | 25/2/2012 | $\underline{\text { http://ickevald.net/perherngren/english/kurdish }}$ |


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| Inchoative | kurdistanukur d | 7 / 7 / 2011 | http://www.kurdistanukurd.com/DiriyjeyBabetek an.aspx?Babet=Byrwraazad\&Jimare=67 |
| Inchoative | kurditgroup | 5/30/2011 | http://www.kurditgroup.org/n/13495 |
| Inchoative | kurditgroup | 5/30/2011 | http://www.kurditgroup.org/n/13495 |
| Inchoative | kurditgroup | 5/30/2011 | http://www.kurditgroup.org/n/13495 |
| Inchoative | monde-diplomatiquekurde | 19/9/2011 | http://www.monde-diplomatiquekurde.com/news.php?readmore=104 |
| Inchoative | mukriyan.blo gfa | 25/2/2012 | http://mukriyan.blogfa.com/9004.aspx?p=2 |
| Inchoative | nashmilgulala.blogsp ot | 14/10/2011 | http://nashmil- <br> gulala.blogspot.com/2011/10/blog-post 14.html |
| Inchoative | oax.blogfa | 14/9/2011 | http://oax.blogfa.com/post-119.aspx |
| Inchoative | oax.blogfa | 29/7/2009 | http://guzarisht.info/wtar.php?id=214 |
| Inchoative | peraw.wordpr ess | 31/10/2010 | http://peraw.wordpress.com/2010/12/31/نلمع⿰زو /تایبدمئ-sسا/ |
| Inchoative | peyamner | 25/2/2012 | http://www.peyamner.com/details.aspx?l=1\&id=2 43679 |
| Inchoative | pjak | 28/6/2008 | http://www.pjak.org/kurdi.php?id=826 |
| Inchoative | qelem | 10/7/2011 | http://www.qelem.org/kurdi/arshive/wetar/349 4.txt?print\&\&\&\&\&\&\&\&\&output type=txt |
| Inchoative | qelem | 10/8/2011 | http://www.qelem.org/kurdi/arshive/wetar/349 4.txt?print\&\&\&\&\&\&\&\&\&output type=txt |
| Inchoative | qelem | 3/8/2011 | http://qelem.org/kurdi/arshive/wetar/3518.html |
| Inchoative | rastypost | 25/2/2012 | http://rastypost.com/bash.php?mode=Textek\&bst and=textek\&nunrx=723 |
| Inchoative | rawanews | 25/2/2012 | http://www.rawanews.com/details.aspx?=News\&I D=164\&Babat=1 |
| Inchoative | $\begin{aligned} & \text { regaykurdista } \\ & \mathrm{n} \end{aligned}$ | 25/2/2012 | http://www.regaykurdistan.com/rega ku/index.p hp?option=com content\&view=article\&id=8689\% 3A2011-10-11-13-44-20\&catid=50\%3A2009-12- |


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| :---: | :---: | :---: | :---: |
| Inchoative | roshngari | 25/2/2012 | $\begin{aligned} & \text { http://www.roshngari.com/Ssaraki.php?recordID } \\ & =273 \end{aligned}$ |
| Inchoative | rubernet | 25/2/2012 | http://rubernet.net/culture/980-tawandyarde.html |
| Inchoative | sarwarkurd | 20/10/2010 | http://www.sarwarkurd.blogfa.com/post426.aspx |
| Inchoative | shifayquran | 25/2/2012 | http://www.shifayquran.net/index.php?option=co <br> m content\&view=article\&id=1128:2011-03-06-22- <br> 14-03\&catid=46:2011-02-11-08-34-06\&Itemid=67 |
| Inchoative | shno | 13/6/2010 | http://shno.blogfa.com/8903.aspx |
| Inchoative | sorani | 4/3/2010 | http://sorani.irib.ir/hewal/iran/item/93966- <br> wtekani-meqami-mezni-riberi-le-dimanei- <br> liprsrawani-nizam-w-c\%20zin-w-twijekani- <br> corbecori-cemawer-da?tmpl=component\&print=1 |
| Inchoative | spedatv | 22-02-2010 | http://www.spedatv.net/hawal/?pageid=2180 |
| Inchoative | wpeshmerge | 9/8/2011 | http://www.wpeshmerge.org/detail articals.php?i $\mathrm{d}=6390 \& \mathrm{z}=1 \& \mathrm{l}=1$ |
| Inchoative | xendan | 9/6/2011 | $\begin{aligned} & \text { http://xendan.org/drejab.aspx?Imara=26055\&Jor } \\ & =24 \end{aligned}$ |
| Dadashake ‘break downwardl y | aminsorkhabi .blogspot | 25/2/2012 | http://aminsorkhabi.blogspot.com/2011/02/blogpost 4776.html |
| Inchoative | kurditgroup | 25/2/2012 | http://www.kurditgroup.org/node/7248 |
| Inchoative | pukswed | 2/15/2010 | http://pukswed.se/read.php?id=781 |
| Inchoative | pukswed | 1/9/2010 | http://pukswed.se/read.php?id=565 |
| Daebre 'cut off' | ajansknews.bl ogspot | 12/12/2010 | http://ajansknews.blogspot.com/2010/12/blogpost_12.html |
| Causitive | aknews | 24/12/2011 | http://www.aknews.com/ku/aknews/3/280232/ |
| Causitive | aknews | 28/10/2011 | http://www.aknews.com/ku/aknews/3/269758/ ?tpl=print.tpl |
| Causitive | astafe | 25/2/2012 | http://www.astafe.eu/2011/1112/1215-1.htm |


| Causitive | awene | 1/7/2011 | http://www.awene.com/Direje.aspx?Babet=Hewal \&jimare=13289 |
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| Causitive | awene | 30/5/2011 | http://www.knwe.org/Direje.aspx? Jimare=8085\& Cor=2\&Besh=Witar |
| Causitive | brwska | 16/12/2011 | http://brwska.net/articles/item/468-chon-hindikas-ba-taqa-chrkayak-dabna-dadwer?.html |
| Causitive | civilmag | 25/2/2012 | http://www.civilmag.com/news/wutar/W\%2045 /sarwar\%20salar/index.php |
| Causitive | ckb.wikipedia | 25/2/2012 | http://ckb.wikipedia.org/wiki/\%D8\%AC\%D9\%88 \%D9\%88\%DA\%B5\%DB\%95 |
| Causitive | ckb.wikipedia | 25/2/2012 | http://ckb.wikipedia.org/wiki/\%D8\%AC\%D9\%88 \%D9\%88\%DA\%B5\%DB\%95 |
| Causitive | dastan | 25/2/2012 | http://www.dastan.se/babat.shneyeki-dikeyi-dashne-murad-2011.htm |
| Causitive | dengekan | 25/2/2012 | http://www.dengekan.info/dengekan/11/12074.h tml |
| Causitive | emrro | 10/11/2010 | http://emrro.com/herfedurekan.htm |
| Causitive | emrro | 10/11/2010 | http://emrro.com/herfedurekan.htm |
| Causitive | facebook | 24/10/2011 | ```http://ar- ar.facebook.com/permalink.php?story_fbid=30355 9069671107&id=116925665001116``` |
| Causitive | facebook | 25/2/2012 | $\begin{aligned} & \text { http://www.facebook.com/MamSleman/posts/10 } \\ & 3825969716411 \end{aligned}$ |
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| Causitive | facebook | 6/9/2011 | http://www.facebook.com/ink.heart.sl/posts/187 813631292215 |
| Causitive | gerdiglani | 25/2/2012 | http://gerdiglani.blogfa.com/post-27.aspx |
| Causitive | gulan-media | 25/2/2012 | http://www.gulanmedia.com/to_print.php?id=386\&section=7 |
| Causitive | guzarisht | 4/7/2010 | http://guzarisht.info/wtar.php?id=1249 |


| Causitive | gzing | 9/10/2010 | http://gzing.org/index.php?id=215 |
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| Causitive | hawlati | 6/1/2011 | http://www.hawlati.co/babetekan/10083 |
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| Causitive | hkkurdistan | 2/9/2011 | http://www.hkkurdistan.org/nuseran/aso-k/banikau-2-hawa....htm |
| Causitive | http://sorani.i rib.ir/ | 18/6/2011 | http://sorani.irib.ir/babetekan/ferhengi-huneri/item/118071-resed-besiwei-rastewxobbinn |
| Causitive | khabatmedia | 25/2/2012 | http://www.khabatmedia.com/modules.php?nam $\mathrm{e}=$ News\&file=print\&sid=314 |
| Causitive | kmelody | 25/2/2012 | http://kmelody.net/2011/11/14/dashni-murad-woshyar-ahmed/ |
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| Causitive | knwe | 13/3/2011 | http://knwe.org/Direje.aspx?Jimare=6600\&Cor=2 \&Besh=Witar |
| Causitive | kurdistanan | 23/6/2010 | http://www.kurdistanan.net/print.php?sid=21188 |
| Causitive | kurdistanmed ia | 25/2/2012 | http://www.kurdistanmedia.com/kurdi/plcy/file/ 22019.php |
| Causitive | kurdistanpost | 11/18/2011 | http://www.kurdistanpost.com/view.asp?id=d282 edeb |
| Causitive | kurdistanpost | 5/13/2009 | http://www.kurdistanpost.com/view.asp?id=93f4 9712 |
| Causitive | kurdistanpost | $\underline{12 / 7 / 2010}$ | $\begin{aligned} & \text { http://www.kurdistanpost.com/view.asp?id=bdb1 } \\ & \underline{91 \mathrm{f} 2} \end{aligned}$ |


| Causitive | kurdistanpost | 9/11/2011 | http://www.kurdistanpost.com/view.asp?id=fa33 2fd5 |
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| Causitive | kurdistanukur d | 25/2/2012 | http://www.kurdistanukurd.com/DiriyjeyBabetek an.aspx?Hawpol=9\&Babet=Mafymrov |
| Causitive | malmokurd | 25/2/2012 | http://malmokurd.com/home/index.php?option=c <br> om content\&view=article\&id=554:2011-11-06-22- <br> 13-53\&catid $=50: 2011-08-14-21-51-00 \&$ Itemid $=80$ |
| Causitive | omer88h.blog spot | 6/10/2009 | http://omer88h.blogspot.com/2009/10/blogpost 7063.html |
| Causitive | penusakan | 6/11/2011 | ```http://penusakan.com/index.php?option=com_con tent&view=article&id=2198:2011-11-06-20-36- 48&catid=106:d-salar-basire&Itemid=66``` |
| Causitive | r-komalsoran | 25/2/2012 | http://www.r- <br> komalsoran.com/dangikomal/index.php?option=c om_content\&view=article\&id=2318:2011-08-10-$05-56-26 \&$ catid $=56: 2010-06-24-03-29-$ <br> 14\&Itemid=79 |
| Causitive | rojhelattimes | 24/10/2011 | http://rojhelattimes.org/read.php?id=4242 |
| Causitive | rojsport.word press | 25/2/2012 | http://rojsport.wordpress.com/2011/09/13/\%D9 \%87\%DB\%95\%D9\%88\%D9\%84\%DB\%8E\%D8\% B1- <br> \%D8\%A8\%DB\%95\%D8\%A8\%D8\%B1\%D8\%AF\% D9\%86\%DB\%95\%D9\%88\%DB\%95- <br> \%D9\%84\%DB\%95- <br> \%D9\%BE\%D8\%B1\%D8\%B3\%DB\%8C\%D9\%BE\% DB\%86\%D8\%B1\%D8\%A7- <br> \%D8\%AC\%D8\%A7\%DB\%8C\%D8\%A7\%D9\%BE\% DB\%86\%D8\%B1/ |
| Causitive | roshenbiry | 25/2/2012 | http://www.roshenbiry.com/mshke\%20reshe\%2 0ferhad\%20kerim.htm |
| Causitive | rubernet | 25/2/2012 | http://www.rubernet.net/articles/347-sirwanibraim.html |
| Causitive | rudaw | 21/09/2010 | http://rudaw.net/kurdish/index.php/tarawge/34 32.html |
| Causitive | rwgash | 15/7/2011 | http://www.rwgash.info/meko/viewtopic.php?id= 8833 |
| Causitive | sarbast | 18/10/2010 | http://www.sarbast.com/?p=1055 |


| Causitive | shaqlawapost | 25/2/2012 | http://www.shaqlawapost.com/forums/showthre ad.php?t=15064 |
| :---: | :---: | :---: | :---: |
| Causitive | venusfaiq | 21/12/2010 |  |
| Causitive | youtube | 27/4/2012 | http://www.youtube.com/watch?v=Sw13T3aVsXo |
| Causitive | zmziran | 25/2/2012 | http://www.zmziran.com/ku/news.php?readmore $=949$ |
| Daharet 'grind' | awene | 17/9/2009 | http://www.awene.com/DirejeyGoshe.aspx?Jimar $\mathrm{e}=429$ |
| Inchoative | facbook | 8/31/2011 | http://ko- <br> kr.connect.facebook.com/note.php?note id=15832 $\underline{1580915789}$ |
| Inchoative | kurdistanpost | 8/17/2009 | $\begin{aligned} & \underline{\text { http://www.kurdistanpost.com/view.asp?id=cfb2 }} \\ & \underline{\text { 0b66 }} \end{aligned}$ |
| Inchoative | kurdistanpost | 2/8/2009 | $\begin{aligned} & \text { http://www.kurdistanpost.com/view.asp?id=f542 } \\ & \text { 21ac } \end{aligned}$ |
| Inchoative | nrt | 25/2/2012 | http://www.shaqam.net/ku/index.php?option=co <br> m content\&view=article\&id=582:nrt-------- <br> \&catid=100:2010-02-04-05-05-42\&Itemid=217 |
| Inchoative | pcdk | 3/5/2010 | http://pcdk.org/kurdi/page.php?sid=6692 |
| Dashand 'break downwardl y' | chaknews | 12/3/2005 | http://www.chaknews.com/kurdish/readarticle.p hp?article id=124 |
| Causative | facebook | 25/2/2012 | http://da- dk.facebook.com/media/set/?set=a. 22086459462 1347.51146 .209735629067577 \&type $=1$ |
| Halbra 'lift' | civilmag | 25/2/2012 | http://www.civilmag.com/news/Siasyi/S\%2013/ hade\%20adab\%20parlamantarakane\%20eran/ind ex.php |
| Inchoative | peshmergeka <br> n | 8/10/2008 | $\begin{aligned} & \text { http://www.peshmergekan.com/index a.php?id=9 } \\ & \underline{135} \end{aligned}$ |
| Halbrra 'lift' Passive | emrro | 25/2/2012 | http://emrro.com/sherkirdinledij.htm |


| Haldabre 'lift' | 140 | 22/8/2008 | ```http://140.dk/index.php?option=com content&vie w=article&id=218:-22-&catid=2:2009-11-23-14- 30-30&Itemid=27``` |
| :---: | :---: | :---: | :---: |
| Causative | atanahaee | 25/2/2012 | http://www.atanahaee.com/roman/136 |
| Causative | bakrajoo | 27/3/2010 | http://www.bakrajoo.com/ku/index.php?option=c om content\&view=article\&id=544:are\&catid=47:a pplication\&Itemid=82 |
| Causative | chra | 25/2/2012 | http://chra.tv/news/--/4505-2011-02-01-18-5718.html |
| Causative | civilmag | 25/2/2012 | http://www.civilmag.com/news/komelaiaty/K\%2 030/la\%20ftwacheakanawa\%20shaytan\%20dabe nm/index.php |
| Causative | dazgayrunaky | 25/2/2012 | http://www.dazgay- <br> runaky.com/ku/index.php?option=com content\&v <br> iew=article\&id=446:2011-05-19-05-39- <br> 51\&catid=136:2010-12-30-14-24-31\&Itemid=291 |
| Causative | edebimeh.blogfa | 25/2/2012 | http://edebi-meh.blogfa.com/post-232.aspx |
| Causative | emrro | 12/12/2010 | http://www.emrro.com/dumilyard.htm |
| Causative | emrro | 6/11/2011 | http://emrro.com/seferishewdiz.htm |
| Causative | klawrojna | 7/28/2011 | http://www.klawrojna.com/index.php?option=co <br> m content\&view=article\&id=21651:2011-07-28- 21-46-39\&catid=13\&Itemid=30 |
| Causative | klawrojna | 1/1/2010 | http://www.klawrojna.com/index.php?option=co $\underline{m}$ content\&view $=$ article\&id=18896\&catid=42\&Ite $\underline{\text { mid }=182}$ |
| Causative | kurd it grop | 25/2/2012 | http://www.kurditgroup.org/topic/3503 |
| Causative | kurdistanpost | 2011/05/12 | $\begin{aligned} & \text { http://www.kurdistanpost.com/view.asp?id=122d } \\ & \underline{47 \mathrm{c} 9} \end{aligned}$ |
| Causative | peshang.blogf <br> a | 25/2/2012 | http://peshang.blogfa.com/post-386.aspx |
| Causative | qelem | 30/07/2011 | http://qelem.org/kurdi/arshive/chirok/3512.html |
| Causative | qelem | 26/8/2011 | http://qelem.org/kurdi/arshive/wetar/3542.html |
| Causative | rojpress | 25/2/2012 | http://rojpress.wordpress.com/2011/09/04/seda |

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| Inchoative | awene | 20/2/2011 | http://www.awene.com/Direje.aspx?Babet=Babet \&Cor=Birura\&jimare=2086 |
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| Inchoative | awene | 2/6/2011 | http://www.awene.com/Direje.aspx?Babet=Heme $\underline{\text { reng\&jimare }=1674}$ |
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| Inchoative | awene | 24／6／2011 | http：／／www．awene．com／Direje．aspx？Babet＝Babet \＆Jimare $=2477$ |
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| Inchoative | awene | 11／1／2010 | http：／／www．awene．com／Direje AweneSport．aspx？〕imare＝2491\＆CoriHewal＝\＆Cor＝3\＆Reng＝ |
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| Inchoative | awene | 5／10／2009 | http：／／www．awene．com／Direje AweneSport．aspx？ ذimare＝2025 |
| Inchoative | awene | 23／8／2008 | http：／／www．awene．com／Direje．aspx？Babet＝Hewal \＆jimare＝950 |
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| Inchoative | awene | 10/6/2009 | http://www.awene.com/Direje.aspx?Babet=Babet \&Cor=Raport\&jimare=750 |
| Inchoative | awene | 10/6/2009 | http://www.awene.com/Direje.aspx?Babet=Babet \&Cor=Raport\&jimare=750 |
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| Inchoative | hawlati | 29/8/2011 | $\underline{\text { http://www.hawlati.co/babetekan/5665 }}$ |
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| Inchoative | hawlati | 29/8/2011 | $\underline{\text { http://www.hawlati.co/babetekan/5665 }}$ |
| Inchoative | hawlati | 25/7/2001 | http://www.hawlati.co/babetekan/3772 |
| Inchoative | hawlati | 2/6/2011 | $\underline{\text { http://www.hawlati.co/babetekan/1092 }}$ |
| Inchoative | hawlati | 2/6/2011 | $\underline{\text { http://www.hawlati.co/babetekan/1092 }}$ |
| Inchoative | knwe | 14/10/2011 | http://knwe.org/Direje.aspx?Cor=8\&Besh=Araste \& Jimare=8156 |
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| Inchoative | knwe | 11/1/2011 | http://www.knwe.org/Direje.aspx?Cor=12\&Besh= Araste\&Jimare=4919 |
| Inchoative | knwe | 11/1/2011 | http://www.knwe.org/Direje.aspx?Cor=12\&Besh= Araste\&Jimare=4919 |
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| Inchoative | knwe | 5/6/2011 | http://www.knwe.org/Direje.aspx?]imare=6483\& Cor=12\&Besh=Araste |
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| Inchoative | knwe | 22/4/2011 | $\begin{aligned} & \text { http://knwe.org/Direje.aspx?]imare=7349\&Cor=2 } \\ & \text { \&Besh=Witar } \end{aligned}$ |


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| Inchoative | knwe | 9/6/2010 | http://www.knwe.org/Direje.aspx?Cor=12\&Besh= Araste\&Jimare=2517 |
| Inchoative | knwe | 18/9/2010 | $\begin{aligned} & \text { http://www.knwe.org/Direje.aspx?]imare=3682\& } \\ & \text { Cor=12\&Besh=Araste } \end{aligned}$ |
| Inchoative | knwe | 30/6/2010 | $\begin{aligned} & \text { http://www.knwe.org/Direje.aspx?]imare=2742\& } \\ & \text { Cor=12\&Besh=Araste } \end{aligned}$ |
| Inchoative | knwe | 30/6/2010 | $\begin{aligned} & \text { http://www.knwe.org/Direje.aspx?]imare=2742\& } \\ & \text { Cor=12\&Besh=Araste } \end{aligned}$ |
| Inchoative | knwe | 5/8/2010 | http://knwe.org/Direje.aspx? Iimare=3560\&Cor=2 \&Besh=Witar |
| Inchoative | knwe | 11/8/2010 | http://www.knwe.org/DirejeHewal.aspx?]imare=3 488\&Cor=1\&Besh=Hewal |
| Inchoative | knwe | 11/8/2010 | http://www.knwe.org/DirejeHewal.aspx?]imare=3 488\&Cor=1\&Besh=Hewal |
| Inchoative | knwe | 18/3/2010 | http://knwe.org/Direje.aspx? Jimare=1619\&Cor=8 \&Besh=Araste |
| Inchoative | knwe | 6/3/2010 | http://www.knwe.org/Direje.aspx?]imare=1737\& Cor=2\&Besh=Witar |
| Inchoative | knwe | 3/5/2011 | $\begin{aligned} & \text { http://knwe.org/Direje.aspx? Jimare=7577\&Cor=4 } \\ & \text { \&Besh=Witar } \end{aligned}$ |
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| Inchoative | knwe | 2/1/2010 | http://www.knwe.org/Direje.aspx?Cor=12\&Besh= Araste\&Jimare=762 |


| Inchoative | knwe | 2/1/2010 | http://www.knwe.org/Direje.aspx?Cor=12\&Besh= Araste\& Jimare=762 |
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| Inchoative | knwe | 5/6/2011 | http://www.knwe.org/Direje.aspx?Cor=4\&Besh= Witar\&Jimare=8201 |
| Inchoative | knwe | 19/12/2009 | http://www.knwe.org/Direje.aspx?]imare=669\&C or=5\&Besh=Witar |
| Inchoative | knwe | 22/4/2010 | $\begin{aligned} & \text { http://knwe.org/Direje.aspx?]imare=2001\&Cor=1 } \\ & \text { 2\&Besh=Araste } \end{aligned}$ |
| Inchoative | knwe | 22/4/2010 | http://knwe.org/Direje.aspx?]imare=2001\&Cor=1 2\&Besh=Araste |
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| Inchoative | knwe | 24/6/2010 | http://www.knwe.org/Direje.aspx?Jimare=2679\& Cor=9\&Besh=Araste |
| Inchoative | knwe | 16/11/2009 | http://www.knwe.org/Direje.aspx?Cor=8\&Besh=A $\underline{\text { raste\&Jimare }=271}$ |
| Inchoative | knwe | 16/11/2009 | http://www.knwe.org/Direje.aspx?Cor=8\&Besh=A $\underline{\text { raste\&Jimare }=271}$ |
| Inchoative | knwe | 12/3/2011 | http://www.knwe.org/Direje.aspx?]imare=5514\& Cor=7\&Besh=Araste |
| Inchoative | knwe | 12/3/2011 | http://www.knwe.org/Direje.aspx?]imare=5514\& Cor=7\&Besh=Araste |
| shkandi(bre ak) | asoxendan | 25/2/2012 | http://www.asoxendan.com/dreja.aspx?=hewal\&j mara=11228\&Jor=3 |
| Causative | awene | 14/3/2011 | http://www.awene.com/Direje.aspx?Babet=Babet \&Cor=Birura\&jimare=2147 |
| Causative | awene | 25/7/2010 | http://www.awene.com/Direje.aspx?Babet=Babet \&Cor=Birura\&jimare=1486 |
| Causative | ayandenews | 25/2/2012 | http://01.ayandenews.com/news/32268/ |
| Causative | bextewery | 25/2/2012 | http://www.bextewery.net/kurdi/print.php?id=17 $47$ |
| Causative | chrakan | 25/2/2012 | http://chrakan.com/jimare-1008.html |


| Causative | derunnasy | 11/12/2010 | http://derunnasy.com/babeti_tir/babetijimare3824.html |
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| Causative | europainfos | 25/2/2012 | http://www.europainfos.de/video/video/sSuy1vu SJUY\&feature=youtube_gdata_player |
| Causative | evin1 | 25/2/2012 | http://www.evin1.com/meko/viewtopic.php?pid= 119258 |
| Causative | facebook | 25/2/2012 | http://www.facebook.com/topic.php?uid=359885 179881\&topic=14551 |
| Causative | gazii sport | 25/2/2012 | ```http://www.sport.gazii.com/?page=pages/news/1 21``` |
| Causative | gullchin | 28/6/2009 | http://www.gullchin.com/meko/viewtopic.php?id $=15382$ |
| Causative | h4kurd | 25/2/2012 | http://h4kurd.com/h4kurd200/archive/index.php /thread-17470.html |
| Causative | hanisi.blogfa | 25/2/2012 | http://www.hanisi.blogfa.com/post-29.aspx |
| Causative | hewal | 19/2/2011 | http://www.hewalnews.com/\%28A\%283j2c13xbz AEkAAAAODgzMjlmMzYtMGJiOS000TUxLWFjMW MtODI1YjVjNjllZDRiNt4F09TfGFWn26_ur9N3p96 Pnqs1\%29\%29/Detail.aspx?id=4221\&LinkID=6 |
| Causative | knwe | 31/7/2011 | http://knwe.org/Direje.aspx?]imare=9308\&Cor=2 \&Besh=Witar |
| Causative | knwe | 22/3/2010 | http://www.knwe.org/Direje.aspx?]imare=1630\& Cor=12\&Besh=Araste |
| Causative | knwe | 1/11/2010 | http://www.knwe.org/DirejeHewal.aspx?Cor=1\&B esh=Hewal\&Jimare=4606 |
| Causative | knwe | 31/7/2011 | http://knwe.org/Direje.aspx?Jimare=9308\&Cor=2 \&Besh=Witar |
| Causative | kurdclick | 4/22/2011 | http://www.kurdclick.net/vb/showthread.php?t= 44590 |
| Causative | kurdclick | 25/2/2012 | $\begin{aligned} & \text { http://www.kurdlove.net/vb/showthread.php?p= } \\ & 404 \end{aligned}$ |
| Causative | kurdclick | 25/2/2012 | http://www.kurdlove.net/vb/showthread.php?p= 404 |
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| Causative | kurdip | 25/2/2012 | http://kurdip.com/ |
| Causative | Kurdistan <br> Regional <br> Government | 31/6/2007 | http://www.krg.org/articles/print.asp?anr=16028 \& lngnr=13\&rnr=26 |
| Causative | kurdistanan | 19/4/2008 | $\begin{aligned} & \text { http://www.kurdistanan.net/cat200.php?sid=917 } \\ & 0 \end{aligned}$ |
| Causative | kurdistanmed ia | 25/2/2012 | http://www.kurdistanmedia.com/kurdi/plcy/file/ 718.php |
| Causative | kurdistannet | 25/2/2012 | http://www.kurdistannet.org/2011/index.php?op tion=com_content\&view=article\&id=2472\&catid=3 09\&Itemid=201 |
| Causative | kurdistannet | 25/2/2012 | ```http://www.kurdistannet.org/2011/index.php?op tion=com_content&view=article&id=2472&catid=3 09&Itemid=201``` |
| Causative | kurdistanonli ne | 25/2/2012 | http://www.kurdistanonline.net/oldsite/news.ph p?newsid=5368 |
| Causative | kurdistanpost | 5/7/2009 | http://www.kurdistanpost.com/view.asp?id=ba05 f34c |
| Causative | mlazm | 3/4/2009 | http://www.mlazm.net/viewtopic.php?id=5201 |
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| Causative | peshmergeka n | 25/2/2012 | http://www.peshmergekan.com/index_a.php?skip $=3570$ |
| Causative | peshmergeka <br> n | 25/2/2012 | http://www.peshmergekan.com/index_a.php?skip $=3570$ |
| Causative | $\begin{aligned} & \text { regaykurdista } \\ & \mathrm{n} \end{aligned}$ | 25/2/2012 | http://www.regaykurdistan.com/rega_ku/index.p hp?option=com_content\&view=article\&id=9720\% 3A2011-12-14-14-13-53\&catid $=50 \% 3 A 2009-12$ -$08-15-21-48 \&$ Itemid=167\&lang=en |
| Causative | regayrasty | 25/2/2012 | http://www.regayrasty.org/chirok/32.htm |
| Causative | rubernet | 25/2/2012 | http://www.rubernet.net/articles/3942-amedrubernet.html |
| Causative | rudaw | 8/12/2011 | http://rudaw.net/kurdish/komelayeti/9840.html |


| Causative | sbeiy | 25/2/2012 | http://sbeiy.com/\%28A\%28xe4sGP38zAEkAAAA NGEyNGJlOTYtZmQxOS00NTkxLWEwZWItZDVhY WM5YTk4YWJkSDzaIhAC-nR- <br> lxonC2L89H8PIn41\%29\%29/sport/championship /SportDetail.aspx?id=8604\&LinkID=2 |
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| Causative | sbeiy | 25/2/2012 | http://www.sbeiy.com/\%28A\%28hJaq7YP2zAEkA AAANDk0ZDJiMDQtMzhhOC00N2Q1LWFkNWEtM 2JhYjgwMTJhN2ZmUz0YcxoAeQwN7ZFzlwUxl60p RGc1\%29\%29/Sport/Championship/SportDetail.a spx?id=8567\&LinkID=2 |
| Causative | standardkurd | 12/12/2009 | http://www.standardkurd.net/Direje.aspx?Cor=Bi rwrayNwseran\&Jimare=1344 |
| Causative | tuimalik | 26/10/2011 | http://www.tuimalik.com/meko/viewtopic.php?pi $d=56480$ |
| Causative | webchin | 31/12/2007 | http://www.webchin.org/Meko/viewtopic.php?id $=4068$ |
| Causative | xendan | 28/04/2011 | http://xendan.org/drejaWtar.aspx?NusarID=234\& Jmara=2907 |
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| Causative | zarikrmanji | 25/2/2012 | http://www.zarikrmanji.com/kon/index.php?opti on=com content\&view=article\&id=737:2010-07-15-06-52-55\&catid=118:2010-05-11-18-2810\&Itemid=245 |
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| shkeanra (break) | awene | 26/8/2011 | http://www.awene.com/Direje.aspx?Babet=Hewal \&jimare=14494 |
| Passive | awene | 18/4/2011 | http://www.awene.com/Direje.aspx?Babet=Hewal \&jimare=12095 |
| Passive | awene | 20/2/2011 | http://www.awene.com/Direje.aspx?Babet=Hewal \&jimare=10845 |
| Passive | awene | 39142 | http://www.awene.com/Direje AweneSport.aspx? ذimare=3885 |


| Passive | awene | 19/6/2011 | http://www.awene.com/Direje AweneSport.aspx? ذimare=3957 |
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| Passive | awene | 17/4/2010 | http://www.awene.com/Direje.aspx?Babet=Hewal \&jimare=6761 |
| Passive | awene | 17/4/2010 | http://www.awene.com/Direje.aspx?Babet=Hewal \&jimare=6761 |
| Passive | awene | 38476 | http://www.awene.com/DirejeyGoshe.aspx? Jimar $\mathrm{e}=306$ |
| Passive | awene | 13/3/2010 | http://www.awene.com/Direje.aspx?Babet=Hewal \& Jimare=6412 |
| Passive | awene | 38025 | http://www.awene.com/Direje AweneSport.aspx? ذ皿are=468\&CoriHewal=Cihan\&Cor=3 |
| Passive | awene | 23/5/2008 | http://www.awene.com/Direje.aspx?Babet=Babet \&Cor=Birura\&jimare=67 |
| Passive | knwe | 39390 | $\begin{aligned} & \text { http://knwe.org/Direje.aspx?]imare=7737\&Cor=2 } \\ & \text { \&Besh=Witar } \end{aligned}$ |
| Passive | knwe | 26/4/2011 | http://www.knwe.org/Direje.aspx?Jimare=5978\& Cor=8\&Besh=Araste |
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| Passive | knwe | 39334 | $\begin{aligned} & \text { http://knwe.org/Direje.aspx?]imare=10436\&Cor= } \\ & \text { 4\&Besh=Witar } \end{aligned}$ |
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[^0]:    ${ }^{1}$ What is meant by "physical" is that the change caused by the action is seen. There is visible effect on the object that is the result of achieving the action.
    ${ }^{2}$ The application of the verb that is used to describe the action on abstract objects.

[^1]:    ${ }^{3}$ All the examples in (1) , (2), and (3) are taken from Guerssel et al. (1985)-p 50.

[^2]:    ${ }^{4}$ The LCS and the LS will be fully explained in the next section.

[^3]:    ${ }^{5}$ Semantic primitives refer to the smallest basic elements in the components of verb meaning that cannot be analyzed more as 'go', and 'be.'

[^4]:    ${ }^{6}$ The arguments are a term that is used in syntax to refer to the number of nouns that the verb selects in a certain context as the subject and the object.

[^5]:    ${ }^{7}$ Result and kind of change means whether the object is separated totally, or there is still link between the pieces.

[^6]:    ${ }^{1}$ The Izāfa or ezāfé (Persian: اضافه، 1 ), also written as Izofa and Izafat, is a Persian language grammatical construct which links two words together; it consists of an unstressed vocal -e or -i[1] (with a connecting -y- after vowels) that sometimes approximately corresponds to the English preposition of. It is generally not indicated in writing.[2]
    Common uses of the ezafe are:[3]

    - Possessive: barādar-e Maryam 'Maryam's brother' (this can also apply to pronominal possession-barādar-e man 'my brother'-but in speech it is much more common to use possessive suffixes: barāarar$\mathrm{am})$.
    - Adjective-noun: barādar-e bozorg 'the big brother'
    - Given name/title-family name: mohammad-e mosaddegh Mohammad Mosaddeq, agha-ye mosaddegh Mr. Mosaddeq
    The term is inherited from Arabic iḍāfa, which means a genitive construction. It is also traditionally used in Turkic languages, where it applies to a typologically quite different structure. Ottoman Turkish used it extensively, in its original function (the official name of the Ottoman Empire was Devlet-i Âliye-i Osmaniyye), although there it is transcribed as -i rather than -e. It is also used extensively in Urdu, mainly in poetic settings.
    (http://dictionary.sensagent.com/izafa/en-en/)

[^7]:    ${ }^{2} D a$ is the imperfective aspect marker in Sorani. It can be used to express a continuous action in the past or in the present but it should be accompanied by the suffix "awa".

[^8]:    ${ }^{1}$ The external factor is any outside factor that surrounds the object and causes its 'breaking such as an agent or a natural force, the wind for example. The internal factor is any factor that resides inside the object and causes its 'breaking such as the kind of material the thing is made of.

[^9]:    ${ }^{2}$ The act of breaking here is not physical, for example if you 'break' someone's nose this means you made him loose her/his dignity.
    ${ }^{3}$ For the English data I consulted two sources: the first was http://www.mycobuild.com/free-search.aspx Thanks also to English native speakers Clifton Pye and Kelly Berkson for their judgments.
    ${ }^{4}$ The act of breaking here is not physical, for example if you 'break' someone's nose this means you made him loose her/his dignity.

[^10]:    ${ }^{5}$ The verb bre in the causative alternation has no causative marker because the causative marker is usually attached to verbs in which the action is achieved by the subject mentioned in the structure of the sentence or it is used with the verbs that can alternate. The verb bre in when it is used in contexts where there is definite subject achieved action especially when a tool is needed and the tool should be carried by an agent. Kurdish does not attach the causative marker to it.

[^11]:    ${ }^{6}$ Even the word "path" has not been defined by Guerssel, but it is clear that the path is considered as part of the whole process of 'cutting' since the agent has the ability to choose the place from which s/he wants to achieve to cut on the object, and the agent can stop in the middle of the action without completing it. This is not possible with the verb break since the whole action is not a process but one uncontrolled action.

[^12]:    ${ }^{7}$ This issue is controversial because some linguists argue that bare hands or teeth could be considered as tools, but others disagree by saying that they are parts of human body.

[^13]:    ${ }^{8}$ This means that the agent cannot control the number of the pieces that are resulted from the action.

[^14]:    ${ }^{1}$ The verb jneen will be discussed in the next section.

[^15]:    *bo xolak- ek pardax- aka-m shka- n(d)- 0 For minute- a glass- the- ERG1 break.perf- cause- ABS3 "I break the glass for a minute"

[^16]:    ${ }^{1}$ For the English data I consulted two sources: the first was http://www.mycobuild.com/free-search.aspx and English native speakers as my supervisor Clifton Pye and some of my classmates as Kelly .

