

*The Journal of Teaching Language Skills (JTLS)*  
4 (2), Summer 2012, Ser. 67/4  
(Previously *Journal of Social Sciences & Humanities*)

## **Acquisition of English Unergative and Unaccusative Structures by Persian EFL Learners**

**M. J. Rezai \***  
Assistant Professor  
Yazd University, Yazd  
email: mjrezai@yahoo.com

**A. A. Ariamanesh**  
M. A., in TEFL  
Yazd University, Yazd  
email: aa.ariamanesh@gmail.com

### **Abstract**

The acquisition of argument structures has been studied by a variety of second language acquisition scholars within the past two decades (Atay, 2010; Can, 2009; Chay, 2006, & Kras, 2007, among others). In the present study, 'Predicate' as the most substantial element of a sentence is investigated. There are three English verb-types which seem to be more problematic for Persian EFL learners: (a) Paired Ergative verbs (e.g. *open*); (b) Unergative verbs (e.g. *cry*) and (c) Unaccusative verbs (e.g. *die*). The study aims to shed more light on the learnability problems with which Persian EFL learners are faced in the acquisition of the afore-mentioned structures. Additionally, the role of cross-linguistic influence and proficiency is investigated. The results show that the participants had learning problems associated with Unaccusative predicates as well as the intransitive (inchoative & middle) variants of Paired Ergative verbs. Additionally, the role of L1 (Persian) was detected in the acquisition of unergatives and inchoatives more clearly when the learners experienced learning difficulties as the result of negative transfer from L1. In the case of unaccusatives, the challenges are attributed to the lack of L2 intuitive knowledge of the learners.

**Keywords:** acquisition, unergative, unaccusative, paired ergative, inchoative

---

Received: 08/ 02/2011      Accepted: 02/19/2012

\* Corresponding author

### 1. Introduction

In the field of second language acquisition (SLA hereafter), it has been widely recognized that a true knowledge of the syntactic structures of the target language is of high importance, serving many substantial purposes. The syntax of the target language has been the focus of attention for the scholars working in SLA. In this regard, the question shifts toward how to deal with the form of the language being taught and acquired. Research has proved that teaching the grammatical features of L2 is very helpful, if not a necessity. Therefore, some concepts like explicit and implicit teaching of grammar or positive and negative evidence were introduced, supported and rejected time to time by different professionals in the field.

Chomsky (1989), relying on his rationalist perspective, supports the idea that in the acquisition of a language, positive evidence which is obtained naturally and authentically is vital for acquisition to take place. The others like Labov (1969), who are interested in interactionism, believe in both positive and negative evidence. Labov describes negative evidence as providing the learners with what is not possible in the target language. White (2003) goes through the direct and indirect tendencies in teaching grammar explaining that positive evidence is experienced through the linguistic data children or learners encounter authentically whereas negative evidence is the presentation of information about ungrammaticality in L2. She also asserts that direct negative evidence may be exemplified by direct error correction and grammar teaching. Bowles and Montral (2008) go around the role of explicit instruction of L2 grammar and explain that positive evidence is represented in the possible utterances in the target language while negative evidence is the information regarding the impossibility of certain structures in L2. They mention that positive evidence is not sufficient in L2 acquisition especially for the structures lacking in L1 not L2. In general, it can be said that positive evidence in SLA is found in the utterances available in the input the learners are faced with in authentic texts and conversations without the intervention of conscious teaching and learning. Negative

evidence, in contrast, is provided through direct formal instruction and corrective feedback, or simply error correction. As a result, it seems that both positive and negative evidence are crucial in second language acquisition.

Generally speaking, it is the predicate of a sentence which determines the type and place of the arguments as well as their number. For example, a predicate like '*sleep*' requires one external argument which comes in the pre-verbal position, i.e. the subject of the verb:

1. I sleep.

To give another example, the verb '*break*' usually and pervasively applies two arguments; one pre-verbal subject and one post-verbal object:

2. David broke the glass.

Paying attention to some differences between English and Persian in terms of word-order patterns and syntactic structures clearly shows that some English verb-types and structures are not so easy for Persian learners to learn and use in their productions. In this regard, a well-known hypothesis named Unaccusative Hypothesis (UH) seems to play an important role. UH is a syntactic hypothesis formulated and introduced by Perlmutter (1978) and broadened by Burzio (1986). It claims that there are two classes of intransitive verbs: Unergative verbs which apply a deep-structure subject (the external pre-verbal argument) and no direct object (the internal argument); e.g.:

3. I sleep.

And Unaccusative verbs which apply a deep-structure object (which can appear in the external subject position) and no true external subject; e.g.:

4. He died.

The important point here is that this hypothesis deals with deep-structure configuration and tries to explain the predicate/argument behaviors by referring to underlying structures which determine acceptable surface-structure manifestations.

Unaccusative Hypothesis was first assumed to be a fully semantic-based hypothesis, but then it was concluded that it is a kind of lexical-

semantic and syntactic interface (Levin & Rappaport Hovav, 1995). In other words, UH is semantically predicted and determined while it is syntactically encoded and manifested. One point worth noticing is the difference between unergative and unaccusative verbs. Unergative verbs apply a real subject which is the agent or the doer of the verb while for unaccusatives the case is different; that is, what comes in the pre-verbal position is not the true subject or the agent of the verb, rather it seems to be the underlying object (complement) which has been inverted to pre-verbal position (subject position).

In English, as stated by Levin & Rappaport Hovav (1995), there are two constructions in which unaccusative verbs (not unergatives) are usually used:

5. There-insertion constructions; like: *There appeared a ship on the horizon.*
6. Locative inversion constructions; like: *On the horizon appeared a ship.*

The original sentence is ‘*A ship appeared on the horizon*’. In the first construction, ‘*there*’ fills the position of subject and by this process the underlying object, ‘*a ship*’ goes to the post-verbal position. In the second construction, the phrase ‘*on the horizon*’ which is technically called ‘Locative’ is fronted to the subject position and like the first construction (5), what appears in post-verbal position is the underlying object of the sentence. If a verb can be used in such constructions, as Levin & Rappaport Hovav (1995) believe, it is very likely an unaccusative verb. Of course, it does not mean that unergative verbs can never come in such constructions. Another point is that some of the basically unaccusative verbs have causative counterparts indicating that they may be used in transitive or passive structures. Just imagine the verb ‘*evaporate*’ which is basically unaccusative, but under some specific circumstances and with some subjects it can be used transitively, e.g. ‘*The sun is constantly evaporating the earth’s moisture.*’

English has at least three intransitive structures:

- a. Unergative verb with a single external argument; (*I sleep.*)
- b. Unaccusative verb with a direct internal argument (object); (*The leaves fell.*)
- c. Anti-causative verb with a direct internal argument; (*The door opened.*)

Notice that the verbs of the third division (c) are normally used in transitive or passive structures since they are basically causative or dyadic predicates which use two arguments: one as the cause or the agent and the other as the patient. Nonetheless, some of them (e.g. *open, break, wash, clean, cut, sell, cook*, etc.) under some specific conditions and with some specific internal arguments (direct objects) can appear in intransitive/inchoative structures. For example, it is grammatical to say:

7. The window broke.

But not:

8. \* His promise broke.

The verbs of the third class (c) introduced above are what Can (2009) calls 'Paired Ergative' verbs which can be used both transitively and intransitively. For example, it is correct to write:

9. The rice cooks rapidly.

Or:

10. The chef cooks the rice rapidly.

The point is that in the first example (9), it seems that we are talking about a general fact about the internal features of that kind of rice, but in the latter example we are talking about an activity in which somebody is doing something on something; consequently, a causative or SVO structure is formed.

After introducing some essential points which fall at the heart of the present study, in the following part, some relevant studies conducted in this field along with their general findings are reviewed. Then, the objectives which substantiate the impetus of the study are introduced. In the next step, the research method is explained followed by the data

analysis steps. Finally, a close attention will be paid to the discussion of the obtained results as well as the conclusion of the current study.

## 2. Review of the Literature

After the introduction of Unaccusativity or Split Intransitivity hypothesis by Perlmutter (1978) claiming that there are two subclasses of Intransitive verbs (unergatives and unaccusatives which are not homogenous), many researchers tried to conduct descriptive and empirical studies on the topic of Unaccusativity aiming to see how well second language learners behave when perceiving and producing unergative and unaccusative structures (Burzio, 1986; Levin & Rappaport Hovav, 1995; Van Valin, 1987, 1990) . Here, some of more recent studies in this field are reviewed.

Cabrera and Zubizarreta (2005) conducted a study regarding the overgeneralization of causatives and the concept of transfer. They aimed to explore the role of L1 in the overgeneralization of L2 causative constructions. They tested two groups of learners at different proficiency levels: one group whose L1 was English and was learning Spanish as L2, and one whose L1 was Spanish, learning English as L2. The results showed that L1 properties determine which verb classes appear in the causative forms in the interlanguage.

Chay (2006) carried out a study on the acquisition of English ergative constructions by East Asian EFL learners taking into account the issue of pragmatics and morpho-syntactic transfer. The study was organized so as to explore the characteristics of East Asian EFL learners' overpassivization of English ergative constructions. The research was a cross-linguistic study in which the effect of three languages (Chinese, Japanese and Korean) as L1 was detected on English learning. It was concluded that the overpassivization and strange transitivization are attributed to L1 inherent semantic/syntactic rules and the correlation between L1 and L2.

Kras (2007) conducted a study on Unaccusativity aiming to survey the aspects of split intransitivity acquisition in Croatian-English

interlanguage grammar. The results of the study showed that most participants were able to realize the grammaticality or ungrammaticality of unaccusatives and unergatives in the acceptability judgment task. Also, apart from the lower group, the other students were sensitive to the passivization of unaccusatives and unergatives. The results further confirmed the role of proficiency in unaccusative/unergative acquisition. Another result of the study was that the learners had a higher tolerance of passive morphology with unaccusatives than unergatives; it verifies the fact that unaccusatives are more susceptible to incorrect passivization. Also, the influence of L1 was detected, specifically for the lower learners.

Park and Lakshmanan (2007) focused on the distinction between unaccusative and unergative predicates when they are used with resultative phrases. The results revealed that the Korean learners in two levels (intermediate and advanced) correctly performed on resultative structures with transitive (11) and unaccusative predicates (12):

11. He painted his car yellow. (transitive)

12. Her hair grew long. (unaccusative)

Nonetheless, the intermediate learners had problems with unergatives in resultative constructions. Indeed, they were not confident in rejecting those constructions. Hence, it was concluded that there was a significant difference between the performance of the learners regarding unaccusatives and unergatives. Additionally, no significant difference was found between the intermediate and advanced groups of Korean EFL learners.

Overpassivization of unaccusative/unergative verbs in L2 was the theme of a study carried out by Ghaffar-Samar and Karimi-Alvar (2007). It was concluded that Iranian L2 learners of English significantly overpassivize unaccusatives more than unergatives. Similarly, it was found that there was a significant difference between monadic and dyadic predicates in terms of overpassivization. The important point is that unaccusative verbs are more susceptible to overpassivization since the L2 learners realize that the surface subject of such predicates bears the

features of direct object; hence, the passive form is more likely to be formed. In contrast, the internally-caused verbs (unergatives), which are usually monadic, are less susceptible to overpassivization since there is no trace of direct object in such structures.

Escutia (2008) conducted a study with the central aim of finding errors present in the production of English unaccusative predicates by Spanish learners. Six high intermediate Spanish EFL learners were selected as the participants and the data were extracted from written homework compositions of these students. The results of the study showed that L2 learning is not the re-lexicalization of the structures of L1 in L2 words. The general findings of the study reiterate that the acquisition of English unaccusative structures is greatly affected by the first language of the learners and that the correct perception and production of such structures are dependent on the correct understanding of these structures in the target language itself not what L1 prefers.

Can (2009) focused on the acquisition of English Ergative verbs in order to diagnose the status of acquisition of such verbs by Turkish learners of English. It was revealed that English paired ergative verbs posed more difficulty for Turkish learners of English. Specifically, the inchoative use of paired ergative verbs and the use of these verbs in middle constructions were found to be more problematic. Furthermore, it was revealed that proficiency had a negative effect on the acceptance of ergative (intransitive variant of paired ergatives) structures, i.e. *“the more learners know about syntactic positions of grammatical units and the semantic roles that they can bear, the more they avoid the ergative structure and favor the passive”* (Can, 2009: 2836).

Atay (2010) made an attempt on causativity so as to find out the effects of instruction on Turkish EFL learners' acquisition of causative/inchoative structures. The study aimed to examine if there was any difference between the students who received contrastive form-focused instruction and those who received no instruction in terms of their knowledge on transitivity alternations in English. The final results of the study showed that there was a significant difference between the



students who received direct instruction and those who did not receive any instruction on causative/inchoative alternations. Therefore, the study indicated that more direct instruction on grammatical features of English argument structures is required.

Looking at the previous studies carried out in the field along with their findings, we can deduce the following noteworthy points:

- a. It is distinguishable for EFL learners that unergatives and unaccusatives are not the same; they are not homogenous.
- b. The role of L1 is significant in the acquisition of such structures.
- c. Unaccusatives are more likely to be used in passive voice; overpassivization is more applicable to unaccusatives.
- d. The fact that overpassivization is used more with unaccusatives not with unergatives shows that L2 learners consider that what comes in the position of subject in unaccusative structures is not a true subject; it is a deep-structure object.
- e. Many EFL learners prefer to use transitive or passive form of paired ergative verbs; not the inchoative or middle alternations. This tendency can be attributed to the low proficiency of learners or low frequency of such constructions.

Note that the mentioned points are not always substantiated for all L2 learners since the effect of L1 and the conditional/environmental factors are very important in the acquisition process.

### 3. Objectives

This study is an attempt to explore the potential problems Persian EFL learners may encounter when trying to acquire and produce English Unergative, Unaccusative and Paired Ergative structures along with the related argument and predicate relationships. The central objective of the current study is to explore the scope of knowledge Persian EFL learners at different proficiency levels have on the argument structures in which the mentioned verb-types are used. Also, the degree of their confidence in these structures is going to be tested on different test occasions

(production, translation and recognition) to find out the difference between the learners' perception and production of such structures.

In particular, this study aims to assess the intuitive knowledge of Persian L2ers of English regarding unaccusative structures. Furthermore, the study tries to detect the role of Persian (L1) grammar in the acquisition of English argument structures. Also, the study intends to show which categories of English intransitive verbs are more challengeable and susceptible to overpassivization for Persian learners of English.

The following questions were addressed in the current study:

1. Which subclasses of English verbs, i.e. Unergatives, Unaccusatives and Paired Ergatives, pose more learning difficulties for Persian EFL learners?
2. Regarding English intransitive verbs (unergatives and unaccusatives), which verb group is more overpassivized by Persian EFL learners?
3. Does Proficiency affect the learners' performance when perceiving and producing English argument structures?
4. What is the role of Persian syntactic structures in the acquisition of English argument structures?
5. Is there basically any difference between the perception and production of English argument structures by Persian EFL learners?

## **4. Methodology**

### **4.1 Participants**

78 students studying English as a foreign language in Yazd University took part in the study as the participants. Their age range varied between 19 and 26. 55 students were at BA level studying English language and literature, and 23 MA students who were studying English language teaching (ELT). The participants took an Oxford Quick Placement Test (Allan, 1992) and based on the results, they were divided into three levels

of Proficiency: 30 students were placed as lower intermediate level (scores between 28-34) who were mostly freshmen BA students, 31 students as upper intermediate (scores between 37-43), and 17 students (who were usually among MA students) as the advanced participants (scores 45+).

#### 4.2 Instruments

Three tests were prepared and administered in order to collect the related data. The first test, a production test, was a slide-show of pictures containing 30 simple pictures each of which conveyed an activity or state. This test contained 6 unergative verbs (e.g. *talk*), 6 unaccusative verbs (e.g. *die*), 7 paired ergative verbs (e.g. *wash*) and 4 fillers which were not related to the verb-types under examination.

For each paired ergative verb, two pictures were inserted: one conveying the intransitive use and the other, the transitive use. At the top of each picture the corresponding verb was displayed so as to remind the learners of the verb to be used in their productions. These pictures were used as motivators for the participants to use the verbs in their productions. Appendix I offers a list of the different verbs used along with a sample.

The second test was a translation task where the participants were required to translate 30 simple Persian sentences into English. The point was that all sentences, included in the translation test, were Persian translations of English sentences extracted from different books written by native linguists or from different monolingual dictionaries. The Persian translations were completely correct, fluent and based on Persian contemporary and standard prose. The test contained 7 unergative, 8 unaccusative and 10 paired ergative verbs only in intransitive use. We included paired ergative verbs only in intransitive form since it was predicted and then confirmed by the results of a pilot study that the learners would have few or even no problems with the transitive use of paired ergative verbs (the results of the first and third tests also confirm this claim). Five fillers were included in this test, too. Appendix II offers

a list of the verbs used in the second task accompanied by some sample stimuli.

The third test was a grammaticality judgment task which included 62 items covering 52 experimental items plus 10 fillers. In this test, 7 unergative verbs were used each in two forms: one intransitive (which was correct) and one in passive or transitive form (which was incorrect). Also, there were 7 unaccusative verbs similar to the unergative verbs, and 12 paired ergative verbs which were used in two forms: one in transitive or passive form and the other in intransitive (inchoative or middle) form. No incorrect forms were considered for the paired ergative verbs. A list of the verbs used as well as some sample stimuli is presented in Appendix III.

Totally, in these three tests which were the instruments for the data collection, 32 different English verbs were used as experimental items, i.e. 8 unergative, 8 unaccusative and 16 paired ergative verbs. One extra point worth noting is that the paired ergative verbs were composed of either basically and pervasively transitive (causative) verbs which have intransitive alternations as well (e.g. *wash, read, clean*, etc.) or basically and pervasively unaccusative verbs which have transitive counterparts too (e.g. *evaporate, sink, melt*, etc.). We listed the members of these two groups under the title of Paired Ergative verbs for the sake of simplification and ease of reference.

### 4.3 Procedure

The process of data collection began by the administration of the first test, i.e. Picture Slide-Show. In order to administer the test, the participants were invited to the laboratory equipped with a video projector in order to show the pictures to all of the participants simultaneously. The participants were asked to write a simple sentence using the presented verb (as the main verb) on their answer sheets after being exposed to each picture. This test was administered during a short time (about 30 minutes). Since we wanted to elicit the first sentences which came to the minds of the learners quickly after seeing each picture;

the learners were asked to produce the sentences without too much conscious thinking.

The second test, translation, was administered after one week in order to decrease the effect of testing on learning. The time limit in this test was longer than that of the first test and the learners had enough time (about 40 minutes) to translate the sentences into the target language. In this test, the preferred verbs were presented to the participants at the end of each sentence and they were asked to use the verbs in the parentheses as the main verb for their English translations.

Finally after a one-week interval, the test of grammaticality judgment was administered in order to see the degree of confidence of the learners in the grammaticality or ungrammaticality of the presented sentences. All of the sentences were extracted from monolingual dictionaries or from authentic books in linguistics and the related fields in English. The participants could complete the test in 20 minutes. A sample item using a Likert scale is displayed below (13). -2 means the sentence is certainly ungrammatical, +2 shows it is certainly grammatical, -1 and +1 show less confidence in ungrammaticality and grammaticality respectively, and 0 implies not sure.

13. The house burnt totally. -2  -1  0  +1  +2

It should be pointed out that the order of the administration of the tests was deliberately as follows: Production, Translation and Recognition. The reason behind such an arrangement was to decrease the effect of each test on the following one. The process of data collection started from the task which offered the least clue to the learners about the intended structures and it ended with the test which gave the learners the correct and incorrect examples of different English verb-types in different sentences and constructions.

## 5. Data Analysis

Table 1 compares the mean scores of the three groups of participants for different verb types in the Picture task. It is easily possible to see the similarities and differences among the participants from different levels.

Although the figures are close to each other, we can see that on unaccusatives, the advanced students had a slightly better performance than the other two groups. For the other verb types, the differences are very minimal. An interesting point is that for inchoatives, which seem to be the most problematic verb type, the mean score of the advanced learners (M=.35) was slightly better than that of the upper (M=.33) or lower intermediate (M=.28) learners. All the groups indeed manifested a lot of variability in their performance.

Table 1. Descriptive statistics of the three groups in picture slide-show task

Contexts	Proficiency	Mean	SD
Transitive Paired Ergatives	Lower intermediate	<b>.82</b>	.18
	Upper intermediate	<b>.77</b>	.16
	Advanced	<b>.81</b>	.11
Inchoative Paired Ergatives	Lower intermediate	<b>.28</b>	.15
	Upper intermediate	<b>.33</b>	.14
	Advanced	<b>.35</b>	.16
Unergatives	Lower intermediate	<b>.91</b>	.17
	Upper intermediate	<b>.93</b>	.11
	Advanced	<b>.94</b>	.08
Unaccusatives	Lower intermediate	<b>.84</b>	.15
	Upper intermediate	<b>.87</b>	.14
	Advanced	<b>.94</b>	.10

Figure 1. Mean of different contexts across proficiency in picture slide-show task

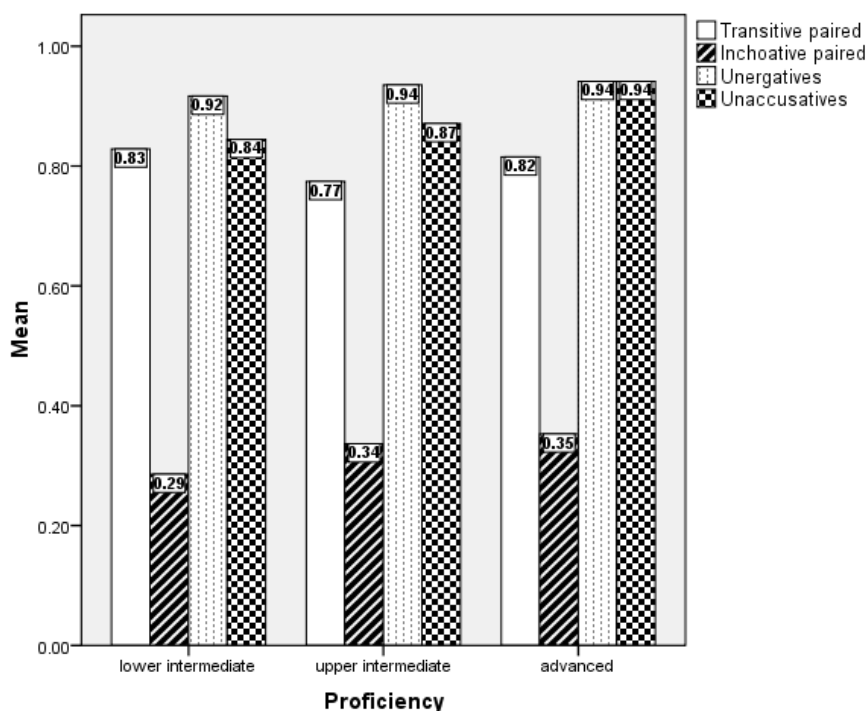


Figure 1 shows the mean scores of different contexts in the first test; it also compares the three groups of learners in terms of their mean scores. The graph indicates that there were no sharp differences among different mean scores for the three groups of participants; but, the mean scores of the four contexts or verb types were different from each other, specifically, that of inchoatives (the second bar in each part) was sharply less than the other three mean scores. Unergatives and unaccusatives had the highest mean scores, and unergatives were the topmost. The most straightforward outcome of this graph, which is clearly recognized, is that the learners in all three groups of proficiency had many problems with intransitive (either inchoative or middle) use of paired ergative verbs. In such cases, the participants used either transitive or passive form of the verb instead of using it in the intransitive form.

In order to analyze the results of the first task (picture slide-show), a mixed between-within subjects analysis of variance was conducted to explore the impact of proficiency on the acquisition of Persian EFL learners of unergative, unaccusative and paired ergative structures. There was not a statistically significant main effect for proficiency [ $F(2, 75) = 1.89, p = .157$ ]. There was a statistically significant main effect for context [ $F(3, 73) = 3.04, p = .000$ ] with a very large effect size (eta squared = .92). Nonetheless, the interaction effect for context and proficiency was not statistically significant [ $F(6, 146) = .83, p = .543$ ] (See Table 2 below).

Table 2. ANOVA results for picture slide show task

Effect	Value	F	Hyp. df	Error df	Sig.	Partial Eta Squared
context						
Wilks' Lambda	.074	3.046	3.000	73.000	.000	.926
context *						
Proficiency						
Wilks' Lambda	.935	.837	6.000	146.000	.543	.033

Given the significant main effect for Context, Table 3 compares the performance of the participants on the four different contexts in the picture task. The only context lacking statistical significance was unergatives vs. unaccusatives.

Table 3. Pairwise comparisons of different contexts in picture slide-show task

Context (I)	Context (J)	Sig.
Transitive Paired Ergatives	Inchoative Paired Ergatives*	.000
Transitive Paired Ergatives	Unergatives*	.000
Transitive Paired Ergatives	Unaccusatives*	.021
Inchoative Paired Ergatives	Unergatives*	.000
Inchoative Paired Ergatives	Unaccusatives*	.000
Unergatives	Unaccusatives	.330

\* shows the two contexts are different significantly at 0.05



Table 4 displays the results of the participants' performance on the three contexts or verb types in the translation task. Looking at the table, we can observe that the performance of the participants on unergatives and unaccusatives is much more satisfactory than that of inchoative paired ergatives.

Table 4. Descriptive statistics of the contexts across proficiency in translation task

Context	Proficiency	Mean	SD
Inchoative Paired Ergatives	Lower intermediate	<b>.48</b>	.20
	Upper intermediate	<b>.42</b>	.17
	Advanced	<b>.50</b>	.11
Unergatives	Lower intermediate	<b>.87</b>	.11
	Upper intermediate	<b>.94</b>	.10
	Advanced	<b>.94</b>	.12
Unaccusatives	Lower intermediate	<b>.83</b>	.14
	Upper intermediate	<b>.89</b>	.10
	Advanced	<b>.96</b>	.05

Figure 2. Mean of different contexts across proficiency in translation task

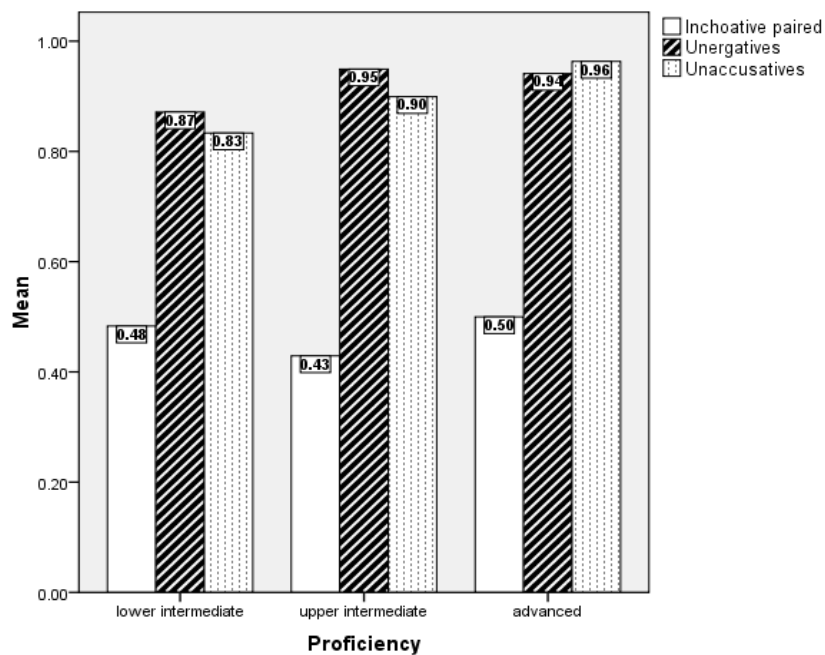


Figure 2 shows the mean score of the performance of each proficiency group on the three verb types (inchoative paired ergative, unergative and unaccusative) in the translation task. It is clear that inchoatives are more problematic for all three groups. Unergatives along with unaccusatives pose less learning difficulties. The performance of the advanced participants seems a bit different since they had the best performance on unaccusative contexts.

A mixed between-within subjects ANOVA was conducted to explore the impact of proficiency on the acquisition of Persian EFL learners of inchoative paired ergative, unergative and unaccusative structures in the translation task. There was a statistically significant main effect for proficiency factor [ $F(2, 75) = 3.38, p = .039$ ]; however, the effect size was moderate (eta squared = .08). Also, as indicated in Table 5, there was a statistically significant main effect for context [ $F(2, 74) = 2.13, p = .000$ ] with a very large effect size (eta squared = .85). The interaction effect for context and proficiency turned to be statistically significant too [ $F(4, 148) = 2.75, p = .030$ ] with a moderate effect size (eta squared = .06).

Table 5. ANOVA results for translation task

Effect	Value	F	Hypo. df	Error df	Sig.	Partial Eta Squared
context						
Wilks' Lambda	.148	2.131	2.000	74.000	.000	.852
context *						
Proficiency						
Wilks' Lambda	.866	2.758	4.000	148.000	.030	.069

Table 6 reveals the dual comparisons between different contexts in terms of the corresponding mean scores. As it is clear, the mean of inchoative paired ergatives was significantly different from those of the other contexts (unergatives & unaccusatives), but the mean difference between the unergatives and unaccusatives was not significant.

Table 6. Pairwise comparisons of different contexts in translation Task

Context (I)	Context (J)	Sig.
Inchoative Paired Ergatives	Unergatives*	.000
Inchoative Paired Ergatives	Unaccusatives*	.000
Unergatives	Unaccusatives	.531

\* shows the two contexts are different significantly at 0.05

Table 7 encompasses the detailed results of the grammaticality judgment task (GJT). Before dealing with the details of the table, it is worth repeating that both unergatives and unaccusatives were divided into two groups: grammatical (intransitive) and ungrammatical (transitive or passive) structures aiming at finding the difference between grammatical and ungrammatical structures. Like the first task, the paired ergatives were divided into two groups of transitive and intransitive (inchoative or middle). The maximum score for each correct response was +1.

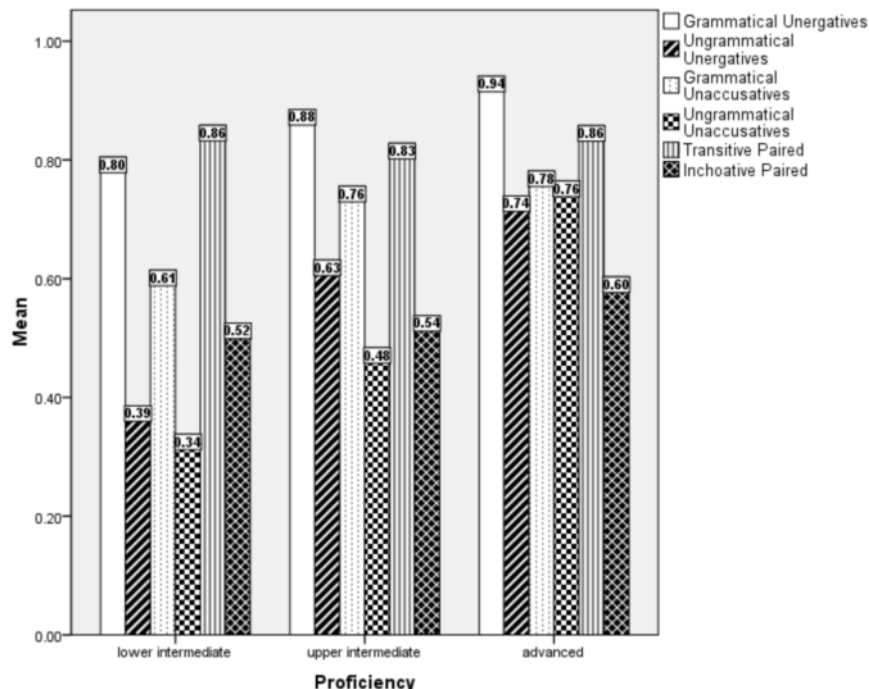
Table 7. Descriptive statistics of different contexts across proficiency in GJT.

Context	Proficiency	Mean	SD
Grammatical Unergatives	Lower intermediate	<b>.80</b>	.18
	Upper intermediate	<b>.88</b>	.14
	Advanced	<b>.94</b>	.08
Ungrammatical Unergative	Lower intermediate	<b>.38</b>	.27
	Upper intermediate	<b>.63</b>	.23
	Advanced	<b>.73</b>	.20
Grammatical Unaccusatives	Lower intermediate	<b>.61</b>	.20
	Upper intermediate	<b>.75</b>	.15
	Advanced	<b>.78</b>	.16
Ungrammatical Unaccusatives	Lower intermediate	<b>.33</b>	.21
	Upper intermediate	<b>.48</b>	.21
	Advanced	<b>.76</b>	.18
Transitive Paired Ergatives	Lower intermediate	<b>.85</b>	.14
	Upper intermediate	<b>.82</b>	.14
	Advanced	<b>.85</b>	.10
Inchoative Paired Ergatives	Lower intermediate	<b>.52</b>	.19
	Upper intermediate	<b>.53</b>	.17
	Advanced	<b>.60</b>	.13

It can be seen that almost in all contexts the mean score of the advanced participants is higher than those of the other participants in the other two groups. This finding may prove the positive role of proficiency factor on the acquisition of English argument structures.

As displayed in the above table, the most outstanding difference between advanced participants and lower/upper intermediate participants can be attributed to ungrammatical unaccusatives where the performance of the advanced participants was far better than that of the other learners; confirming the richer knowledge of the advanced participants in this regard. Another point is that for the lower and upper intermediate participants, ungrammatical unaccusatives bore the least mean score, while for the advanced participants inchoatives were the most difficult context. Generally, the participants had more problems with inchoative and middle variants of paired ergative predicates.

Figure 3. Mean of different contexts across proficiency in grammaticality judgment task



For analyzing the results of the grammaticality judgment task, a mixed between-within subjects ANOVA was conducted to explore the impact of proficiency on the acquisition of English unergative, unaccusative and paired ergative structures by Persian EFL learners. A statistically significant main effect was observed for proficiency [ $F(2, 75) = 23.30, p = .000$ ] with quite a large effect size (eta squared = .38). As displayed in Table 8, there was also a statistically significant main effect for context [ $F(5, 71) = 64.97, p = .000$ ] with a very large effect size (eta squared = .82). The interaction effect for context and proficiency was also statistically significant [ $F(10, 142) = 3.69, p = .000$ ] with a large effect size (eta squared = .20).

Table 8. ANOVA results for grammaticality judgment task

Effect	Value	F	Hypo. df	Error df	Sig.	Partial Eta Squared	
context	Wilks' Lambda	.179	64.974 <sup>a</sup>	5.000	71.000	.000	.821
context * Proficiency	Wilks' Lambda	.630	3.694 <sup>a</sup>	10.000	142.000	.000	.206

Table 9 below contains the results of the pairwise (dual) comparisons between different contexts in the GJT. The L2 learners had a significant difference between the grammatical and ungrammatical structures. They had a more categorical decision on the grammatical constructions.

Table 9. Pairwise comparisons of different contexts in GJT

Context (I)	Context (J)	Sig.
Grammatical Unergatives	Ungrammatical Unergatives*	.000
Grammatical Unergatives	Grammatical Unaccusatives*	.000
Grammatical Unergatives	Ungrammatical Unaccusatives*	.000
Grammatical Unergatives	Transitive Paired Ergatives	1.00
Grammatical Unergatives	Inchoative Paired Ergatives*	.000
Ungrammatical Unergatives	Grammatical Unaccusatives*	.003
Ungrammatical Unergatives	Ungrammatical Unaccusatives	.534
Ungrammatical Unergatives	Transitive Paired Ergatives*	.000
Ungrammatical Unergatives	Inchoative Paired Ergatives	1.00
Grammatical Unaccusatives	Ungrammatical Unaccusatives*	.000
Grammatical Unaccusatives	Transitive Paired Ergatives*	.000
Grammatical Unaccusatives	Inchoative Paired Ergatives*	.000
Ungrammatical Unaccusatives	Transitive Paired Ergatives*	.000
Ungrammatical Unaccusatives	Inchoative Paired Ergatives	1.00
Transitive Paired Ergatives	Inchoative Paired Ergatives*	.000

\* shows the mean difference is significant at 0.05 level

By comparing the performance of the learners on the three test occasions, it is concluded that in the case of Unergatives and Unaccusatives the learners had better performance in Picture Slide-Show and Translation tasks, while for Inchoative (& middle) structures the learners experienced fewer problems in Grammaticality Judgment (Recognition) task. The already mentioned results imply that the participants were less confident in the recognition of correct unergative and unaccusative structures, and less confident in the production of inchoative and middle constructions.

## 6. Discussion

Having reviewed the main results of the three tests, we now would address the main study questions in turn. The following issues can be directly linked to the acquisition of English argument structures by Persian EFL learners.

### **6.1 Role of verb-type**

It was manifested and statistically proved that Persian EFL learners have problems with Inchoative and Middle structures as two intransitive variants of Paired Ergative verbs. Based on the results of the third test, Persian EFL learners, specifically at lower levels of proficiency, have varying intuitions in dealing with unaccusative structures. The L2 learners need, if they want to make progress, to be exposed to more input on unaccusative verbs and their syntactic behavior in different sentence types. It is useful to deal with the underlying structure of unaccusative constructions in order to use these verbs in the surface structure accurately.

The findings of the current study are in line with Park and Park (2000), who concluded that intermediate learners had difficulties with middle constructions in English. Similarly, Can (2009) concluded that paired ergative verbs and specifically the intransitive variants of these verbs pose many learning problems for Turkish learners of English. The findings of the present study confirm the previous related results.

### **6.2 Overpassivization**

One of the by-product outcomes of the data obtained from the participants is that Persian EFL learners are tempted to overpassivize unaccusatives more than unergatives. This finding was clearly obtained from the results of the third test. In the grammaticality judgment task, it was recognized that the learners had low confidence in rejecting passivized unaccusative structures, while they were more confident in rejecting passivized unergatives. Therefore, it can be argued that unaccusatives are overpassivized more than unergatives by Persian EFL learners.

The findings of this study are in line with those of Kras (2007) who asserts that unaccusatives are more susceptible to incorrect passivization than unergatives. The results also substantiate Ghaffar-Samar and Karimi-Alvar (2007) who concluded that unaccusatives are

overpassivized by Persian learners of English more than unergative predicates.

### 6.3 Role of proficiency

One of the findings of this study, which serves important implications, is that proficiency which was the most important independent variable of the study was proved to be generally significant. Except for the first test in which the proficiency factor was not significant, in the other two tests (Translation & Grammaticality Judgment) proficiency was recognized to be a significant factor. Therefore, it might be concluded that the more the learners are exposed to the target language input, the better they will perform on English argument structures. In this regard, the finding of the present study is against what Can (2009) concluded claiming that proficiency has a negative effect in the behavior of the L2 learners dealing with English ergative (inchoative & middle) structures.

### 6.4 Cross-linguistic influence

The next question to be addressed is the role of Persian argument structures on the acquisition of English unergative, unaccusative and paired ergative structures. The following important points can be deduced from the performance of the participants in the three tests of this study.

a. Regarding unergatives, it was mentioned that Persian has the capability to transform some unergative verbs into transitive form by adding causative morpheme ‘*an*’ or ‘*ani*’ to the verb. For instance:

14. Xabidan (to sleep) —→ Xabandan or  
Xabanidan (transitive)

The underlined parts in the transitive variants are causative morphemes which have changed an unergative verb into transitive. This possibility in Persian which is absent in English may encourage Persian EFL learners to use English unergative verbs in transitive form. This wrong tendency was observed in the



second and third test specifically in the performance of the intermediate learners. Therefore, the role of Persian syntax is obvious in this sense. It can be claimed that the reason why the participants were not so confident dealing with ungrammatical unergatives compared with their confidence toward grammatical unergatives is originated in the already mentioned mismatch between Persian and English.

**b.** In the case of unaccusatives, the role of Persian syntax can also be traced. In Persian, most passive verbs are formed by using past participle of the verb plus a form of ‘*Shodan*’ (become). For example ‘*Xordan*’ (to eat) is changed into passive as: ‘*Xorde*’ (eaten) + ‘*shod*’ (became), rendering ‘*Xorde shod*’ (was eaten). By this introductory explanation, we can say that some Persian equivalents of English unaccusative structures contain "shodan" as part of the verb, which misleads Persian learners into using English passive due to the formal similarity between "shodan" in Persian unaccusatives and "shodan" in Persian passives. This similarity may encourage Persian learners of English to use passive form for those unaccusative verbs wrongly (see example 16).

15. *Xorshid az posht-e yek abr nemayan shod-ø.*

Sun from behind-EZ a cloud appear became-3<sup>rd</sup> sg

The Sun appeared from behind a cloud.

The underlined part in the Persian example is what usually comes with passive verbs in Persian. It means that in the Persian alternation, the verb seems to be passive. As a result, Persian EFL learners may use the following sentence:

16. \*The Sun was appeared from behind a cloud.

Of course, this is not the case for all of the unaccusative verbs, but the process may be behind some of the incorrect uses of English unaccusative verbs by Persian EFL learners.

**c.** As explained earlier, inchoative and middle constructions of English are among the most problematic structures for Persian

EFL learners to go through. It was mentioned that such a deficiency may have its roots in several issues. We can explain the reason from the perspective of the mismatches between Persian and English. See the following examples (17 & 18):

17. The door opened.

18. Her books translate easily.

Example (17) is an inchoative and (18) is a middle construction in English. It is worth reminding that the former is an inchoative structure since it refers to a real action (timed and placed) whereas the latter is a middle construction since it refers to a general feature; not a specific action in real time and place (Quirk, Greenbaum, Leech & Svartvik, 1985). Now consider the Persian counterparts (19 & 20).

19. Dar baz shod-ø.

Door open became-3<sup>rd</sup> sg.

The door opened.

20. Ketabha-ye ou be rahati tarjome mishavand.

Books-EZ she easily translation become-3<sup>rd</sup> pl.

Her books translate easily.

Here, the comparison of Persian and English sentences shows that some English inchoative and middle constructions are likely to be translated into passive-like forms in Persian where the mistranslation seems to stem from the presence of "shod" and "mishavand" both of which are used in passive constructions too. This seems to be the source of Persian EFL learners' deficiency in English inchoative and middle structures as intransitive variants of paired ergative verbs; therefore, the L2 learners may produce: '*The door was opened.*' and '*Her books are translated easily.*' instead.

To summarize, it can be claimed that Persian argument structures and the related verb behaviors are influential in the acquisition of English unergative, unaccusative and paired ergative structures. Such a finding is in line with that of Cabrera and Zubizarreta (2005), concluding that L1 has an influential role in the acquisition of L2 argument structures. Also, Chay (2006) reached the conclusion that overpassivization and strange

transitivization of English inchoative and middle constructions are attributed to the L1's semantic and syntactic features.

### **6.5 Perception and production**

The last question was to examine the difference between the perception and production of English argument structures by Persian EFL learners. The data were analyzed to find in which task the learners had better performance regarding different verb contexts. After analyzing the data, it was manifested that regarding unergative predicates the participants had roughly similar mean scores, i.e. their performance was not significantly different in the three tests. However, for unaccusative structures the performance of the learners in picture slide-show and grammaticality judgment task was significantly different. Also, their performance on unaccusatives was significantly different in the translation task and grammaticality judgment. The mean score of the learners for unaccusatives in the grammaticality judgment task was lower than those of the picture slide-show and translation tasks. This finding may show that the learners were less successful in recognizing correct unaccusatives than producing them.

Regarding inchoative and middle constructions as two intransitive alternations of paired ergative verbs, the performance of the learners was significantly different among all three tests. In other words, the mean score of the learners in pictures task was significantly different from their mean scores in the translation and judgment tasks. Additionally, their mean in the translation task was significantly different from their mean score in the judgment task. The interesting outcome for inchoatives and middles is that the performance of the learners in the translation task is better than that of the picture slide-show task, and their performance in the judgment task is better than that of the translation task. This recent finding shows that Persian EFL learners have more problems in their production than recognition of inchoative and middle constructions.

To summarize, it can be mentioned that Persian learners of English have better performance in their production in the case of unaccusative

verbs, but they are better in recognizing correct inchoative and middle structures.

It was predicted that Persian L2 learners of English will have few problems with the transitive form of paired ergative verbs and unergatives whereas in the case of unaccusatives and inchoative/middle constructions, they will experience challenging problems. After analyzing the data and considering the results, it was proved that the predictions were confirmed and accepted at the end of the study.

### **7. Conclusion**

Subscribing to the general outcomes of the current study, it is possible to focus on Full Transfer Full Access (FT/FA) hypothesis so as to explain the behavior of Persian EFL learners acquiring English argument structures. FT/FA hypothesis (Schwartz & Sprouse 1994, 1996) claims that at the early stages of SLA, first, the entire grammar of L1 is transferred into L2; then, with the intervention of UG and more exposure to the target language input, the entire grammar of L2 is accessed. Going through the results of the current study and focusing on the behavior of different learners with different proficiency levels, it can be stated that what FT/FA claims was observed in this study. The most outstanding proof is attributed to the results of the grammaticality judgment task where the lower intermediate participants experienced problems with the unergative predicates whose counterparts in Persian can change into transitive. The already mentioned problem was significantly obviated in the behavior of the advanced learners. Further, in the case of inchoative and middle constructions, the advanced learners fared far better than the lower intermediate and even upper intermediate participants indicating that the advanced learners, with more exposure to L2 input, can discard L1 grammar and reach the full access of L2 grammar of middles and inchoatives. In the case of unaccusative predicates, it is worth noting that many Persian EFL learners believe that any 'change of state' must be attributed to an external cause. Therefore, the intermediate learners often tended to accept the grammaticality of passivized unaccusative predicates

while the advanced learners (especially in the grammaticality judgment task) had the best performance on unaccusative structures.

Referring to the three tests administered in this study, it was revealed that in the translation and grammaticality judgment tasks proficiency was found to be a significant variable. This fact implies that more exposure to the target language input and more knowledge in the grammar of L2 result in more satisfactory performance in using the language being acquired. This idea is in line with what FT/FA hypothesis claims.

If Persian EFL learners know that some English verbs cannot be used in transitive or passive structures and some of them are used both transitively and intransitively, they would have better perceptions and productions when dealing with English argument structures. Moreover, the knowledge of English unergative, unaccusative and paired ergative structures is very beneficial and can help the learners avoid notorious mistakes in their interlanguage representations.

The results of this study (especially those of unaccusative, inchoative and middle structures) may be taken into account both in the selection of texts for teaching English grammar and the trends applied for the process of teaching English argument structures. Moreover, the results of this study reveal that even the advanced learners who have spent several years studying English at the university level have problems with some English verb-types and the related structures. This may convey the fact that such structures have received inadequate attention in the curriculum. Therefore, it seems that more attention must be paid to these structures at the lower levels of English language instruction.

### References

- Allan, D. (1992). *The Oxford Placement Test*. Oxford: Oxford University Press.
- Atay, D. (2010). Different effects of instruction on Turkish EFL learners' acquisition of causative/inchoative alternation. *International*

- Conference on New Trends in Education and Their Implications*, 741-46. Antalya, Turkey.
- Bowles, M., & Montrul, S. (2008). The Role of Explicit Instruction in the L2 Acquisition of the a-personal. *Somerville, MA: Cascadilla Proceedings Project*, 25-35.
- Burzio, L. (1986). *Italian Syntax: A Government-Binding Approach*. Dordrecht: Reidel.
- Cabrera, M., & Zubizarreta, M. L. (2005). Overgeneralization of Causatives and Transfer in L2 Spanish and L2 English. *Somerville, MA: Cascadilla Proceedings Project*, 15-30.
- Can, A. (2009). Acquisition of English ergative verbs by Turkish students. *Brocedia Social and Behavioral Sciences*, 1, 2832-37.
- Chay, H. T. (2006). Adversity passives of English ergative constructions by East Asian EFL learners: Pragmatic and morphosyntactic transfer of L1. *Journal of British & American Studies*, 14, 139-68.
- Chomsky, N. (1989). Some notes on economy of derivation and representation. *MIT Working Papers in Linguistics*, 10, 43-74.
- Escutia, M. (2008). Transfer and universal grammar in unaccusative constructions errors. *Miscellanea: A Journal of English and American Studies*, 37, 23-38.
- Ghaffar-Samar, R., & Karimi-Alvar, N. (2007). *Discourse pragmatics and verb type: Overpassivization in unaccusative/unergative verbs in L2*. Unpublished MA dissertation, Tarbiat Modares University of Tehran, Iran.
- Kras, T. (2007). Split intransitivity in Croatian-English interlanguage grammar. *Research Centre for English and Applied Linguistics, University of Cambridge*, 87-133.
- Labov, W. (1969). Contraction, Deletion and Inherent Variability of the Copula. *Language*, 45, 715-62.
- Levin, B. (1993). *English Verb Classes and Alternations: A Preliminary Investigation*. Chicago: University of Chicago Press.
- Levin, B., & Rappaport Hovav, M. (1995). *Unaccusativity: At the Syntax-Lexical Semantics Interface*. Cambridge, MA: MIT Press.

- Park, K. S., & Lakshmanan, U. (2007). The unaccusative-unergative distinction in resultatives: evidence from Korean L2 learners of English. *Somerville, MA: Cascadilla Proceedings Project*, 328-38.
- Park, M. K., & Park, K. J. (2000). Middle construction processing of English by Korean learners. *Somerville, MA: Cascadilla Proceedings Project*, 181-88.
- Perlmutter, D. M. (1978). Impersonal Passives and the Unaccusative Hypothesis. *Proceedings of the Fourth Annual Meeting of the Berkeley Linguistics Society*, 157-89.
- Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. (1985). *A Comprehensive Grammar of the English Language*. New York: Longman Inc.
- Schwartz, B. D., & Sprouse, R. A. (1994). *Word order and nominative case in nonnative language acquisition: A longitudinal study of (L1 Turkish) German interlanguage*. Amsterdam: John Benjamins.
- Schwartz, B. D., & Sprouse, R. A. (1996). L2 cognitive states and the Full Transfer/Full Access model. *Second Language Research*, 12, 40-72.
- Van Valin, R. D. Jr. (1987). The unaccusative hypothesis vs. lexical semantics: Syntactic vs. semantic approaches to verb classification. *NELS*, 17, 641-61.
- Van Valin, R. D. Jr. (1990). Semantic parameters of split intransitivity. *Language*, 66, 221-60.
- White, L. (2003). *Second Language Acquisition and Universal Grammar*. New York: Cambridge University Press.

### Appendices

#### Appendix I Different Verb-Types Tested in Picture Slide-Show Task.

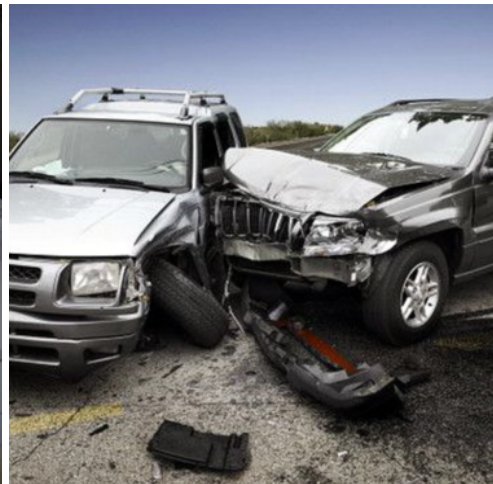
Unergative	Unaccusative	Paired Ergative
Talk	Die	Wash
Laugh	Fall	Cut
Sleep	Arrive	Open
Bark	Appear	Burn
Swim	Remain	Break
Cry	Happen	Evaporate
		Melt

#### A sample of the Picture Slide-Show task:

Cut



Happen



#### Appendix II Different Verb-Types Tested in Translation Task.

Unergative	Unaccusative	Paired Ergative
Laugh	Die	Clean
Resign	Exist	Break
Swim	Appear	Increase
Talk	Happen	Cut
Sleep	Glow	Open
Cry	Fall	Burn
Shout	Remain	Start
	Arrive	Melt
		Ring
		Read



**A sample of the Translation task:**

- 1- Latifahā:ye ou hamishe mara: mikhanda:nad. (laugh)
- 2- Jostojo kardim vali a:n vajeh vojood nada:sht. (exist)
- 3- Mahe gozashte ghaymatha: afza:yesh ya:ft. (increase)
- 4- Goosht be ra:hati miborad. (cut)

**Appendix III** Different Verb-Types Tested in Grammaticality Judgment Task

Unergative	Unaccusative	Paired Ergative
Laugh	Glow	Measure
Resign	Remain	Increase
Sleep	Die	Burn
Shout	Arrive	Clear
Swim	Exist	Develop
Cry	Appear	Break
Talk	Happen	Read
		Open
		Ring
		Clean
		Sink
		Cut

**A sample of the Grammaticality Judgment task:**

- 1- After the fire, very little remained of the house.  
-2  -1  0  +1  +2
- 2- The baby was slept by his mother.  
-2  -1  0  +1  +2
- 3- The house burnt totally.  
-2  -1  0  +1  +2
- 4- The door opened completely.  
-2  -1  0  +1  +2