REPUBLIC OF TURKEY
ÇUKUROVA UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES
DEPARTMENT OF ENGLISH LANGUAGE TEACHING

ACQUISITION OF CAUSATIVE / INCHOATIVE TRANSITIVITY ALTERNATIONS BY TURKISH LEARNERS OF L2 ENGLISH

Esra ALTUNKOL

A PHD DISSERTATION

ADANA / 2011

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Supervisor: Asst. Prof. Dr. Cem CAN

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ÖZET

ETTİRGEN/BAŞLAMALI GEÇİŞLİLİK DEĞİŞİMLERİNİN İKİNCİ DİL OLARAK İNGİLİZCE ÖĞRENEN TÜRKLER TARAFINDAN EDİNİMİ

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Bu çalışmanın amacı iki boyutludur. İlk amaç, anadili Türkçe olan ve İngilizceyi ikinci dil olarak edinen Türklerin İngilizcedeki ettirgen/başlamalı geçişlilik değişimlerini edinme süreçlerinde ana dilin etkisini araştırmaktı. İkinci amaçsa vurgulamalı kural öğretim tekniğinin öğrenenlerin ettirgen/başlamalı geçişlilik değişimlerini edinme süreçlerine yardımcı olup olmadığını görmekti. Çalışmanın birinci bölümü için Çukurova Üniversitesi İngilizce Öğretmenliği Bölümü ikinci sınıfta okuyan 53 öğrenciye Dilbilgisi Yargı ve Düzeltme Testi (DYDT), Tercih Testi (TT) ve Çeviri Testi (ÇT)'nden oluşan bir ön-test verildi. Ön-testten sonra sınıflardan biri çalışmanın deney grubu diğeri de kontrol grubu olarak belirlendi. Deney grubuna bilinç yükseltme aktiviteleri şeklinde vurgulamalı kural öğretim tekniği uygulanırken kontrol grubu ettirgen/başlamalı geçişlilik değişimleri konusunda hiçbir açıklamaya maruz kalmadı. Uygulamadan bir hafta sonra iki gruba da son-test; 10 hafta sonraysa yine iki gruba izleme testi verildi. Çalışmanın başında iki grup arasında istatistiksel olarak bir fark olmamasına rağmen çalışmanın sonunda uyguladığımız Karışık Ölçümler için İki Faktörlü ANOVA testi deney grubunun DYDT'deki başarısının kontrol grubunun başarısından istatistiksel olarak anlamlı bir şekilde farklı olduğunu göstermiştir.

Anahtar Kelimeler: Ettirgen/başlamalı geçişlilik değişimi, Bilinç yükseltme, Vurgulamalı kural öğretimi, Anadil etkisi, İkinci dil edinimi

ABSTRACT

ACQUISITION OF CAUSATIVE/INCHOATIVE TRANSITIVITY ALTERNATIONS BY TURKISH SPEAKERS OF L2 ENGLISH

Esra ALTUNKOL

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The aim of this study was two-fold. The first aim was to investigate whether L1 has a role in the acquisition of English causative/inchoative transitivity alternations by Turkish native speakers of L2 English. The second aim was to see whether explicit instruction would help learners in their acquisition of causative/inchoative transitivity alternations. For the first part of the study, a pre-test that consisted of a grammaticality judgment and correction task (GJCT), a preference task (PT) and a translation task (TT) was given to 53 second-year students attending Çukurova University English Language Teaching Department. After the pre-test, one of the classes served as the experimental group and the other as the control group. The experimental group received explicit instruction in the form of consciousness-raising activities while the control group was not exposed to any instruction on causative/inchoative transitivity alternations. One week after the treatment, we gave the post-test to both groups and 10 weeks after the post-test we gave the follow-up test again to both groups. At the beginning of the study, performance of the participants in both groups did not show any statistically significant difference. However, the mixed design ANOVA test revealed that performance of the participants in the experimental group differed significantly on the GJCT from that of the control group at the end of the study.

Key Words: causative/inchoative transitivity alternation, consciousness raising, explicit instruction, L1 influence, second language acquisition

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TABLE OF CONTENTS

Pages

ÖZET ..... **iii**

ABSTRACT ..... **iv**

ACKNOWLEDGEMENTS ..... **v**

LIST OF ABBREVIATIONS ..... **ix**

LIST OF TABLES ..... **x**

LIST OF FIGURES ..... **xiii**

LIST OF APPENDICES ..... **xiv**

CHAPTER 1
INTRODUCTION

1.1. Background of the Study 1

1.2. Statement of the Problem 3

1.3. Aim of the Study 5

1.4. Research Questions 5

1.5. Limitations of the Study 6

1.6. Operational Definitions 6

1.7. Overview of the Thesis 7

CHAPTER 2
REVIEW OF LITERATURE

2.0. Introduction 8

2.1. Contrastive Analysis and SLA 8

2.2. Universal Grammar and SLA 10

2.3. Unaccusative and Unergative Verbs 16

2.4. Causativity and Causative/Inchoative Transitivity Alternations 18

2.4.1. Periphrastic Causatives 18

2.4.2. Lexical Causatives 19

2.4.3. Morphological Causatives 19

2.4.4. Causative/Inchoative Transitivity Alternation in Turkish and English 22

2.5. Studies on Causative/Inchoative Transitivity Alternations 27
2.6. Role of Instruction in SLA 30
2.6.1. Different Types of Instruction 31
2.6.2. Studies on the Role of Instruction 33
2.7. Focus of the Present Study 35
2.8. Conclusion 37

CHAPTER 3
METHODOLOGY

3.0. Introduction 39
3.1. Participants and Research Design 39
3.2. Instruments 40
3.2.1. Grammaticality Judgment and Correction Task 40
3.2.2. Preference Task 42
3.2.3. Translation Task 43
3.3. Pilot Studies 44
3.4. The Procedure 49
3.5. Lesson Plans 50
3.6. Reflections on the Procedure 54
3.7. Data Analysis 55
3.8. Conclusion 55

CHAPTER 4
FINDINGS

4.0. Introduction 57
4.1. Analysis of the Pre-Test for Both Groups 57
4.2. Analysis of the Pre-Test GJCT 59
4.3. Analysis of the Pre-Test PT 69
4.4. Analysis of the Pre-Test TT 74
4.5. Analysis of the Post-Test GJCT 77
4.6. Analysis of the Post-Test PT 84
4.7. Analysis of the Post-Test TT 89

4.8. Statistical Analysis of the Pre-Test, Post-Test and Follow-up test GJCT 92
4.9. Statistical Analysis of the Pre-Test, Post-Test and Follow-up test PT..... 94
4.10. Statistical Analysis of the Pre-Test, Post-Test and Follow-up test TT 95
4.11. Conclusion 96

CHAPTER 5
DISCUSSION AND CONCLUSION

5.0. Introduction..... 97
5.1. Evaluation of the Research Questions..... 97
5.2. Implications for English Language Teaching..... 100
5.3. Suggestions for Further Research 101

REFERENCES..... 102
APPENDICES..... 110
CURRICULUM VITAE 123

LIST OF ABBREVIATIONS

3sg.	:	Third person singular
acc	:	Accusative
AJT	:	Acceptability Judgment Task
anticaus	:	Anticausative
CA	:	Contrastive Analysis
caus	:	Causative
C-R	:	Consciousness-Raising
dat	:	Dative
FonF	:	Focus on Form
FonFs	:	Focus on Forms
FT/FA	:	Full Transfer/Full Access
FT/PA	:	Full Transfer/Partial Access
gen	:	Genitive
GJCT	:	Grammaticality Judgment and CorrectionTask
inch	:	Inchoative
intr	:	Intransitive
L1	:	First Language
L2	:	Second Language
lex	:	lexical
NT/FA	:	No Transfer/Full Access
PA	:	Partial Access
per	:	Periphrastic
plu	:	Plural
poss	:	Possessive
PP	:	Prepositional Phrase
PT	:	Preference Task
PT/FA	:	Partial Transfer/Full Access
PT/PA	:	Partial Transfer/Partial Access
SLA	:	Second Language Acquisition
tr	:	Transitive
TT	:	Translation Task
UG	:	Universal Grammar

LIST OF TABLES

Pages

Table 1. Summary of the Claims On UG Availability and Transfer..... 14
Table 2. Summary of Major Differences Between Unaccusatives and Unergatives 17
Table 3. Instructional Types and Their Operationalization in the Studies Reviewed by Norris and Ortega (2000) 37
Table 4. Summary of Participant Characteristics 40
Table 5. Verbs Used in GJCT. 41
Table 6. Verbs Used in TT..... 43
Table 7. Distribution of Correct/Incorrect Judgments for Alternating Verbs in the Pilot GJCT …….. 45
Table 8. Distribution of Correct/Incorrect Judgments for Non-Alternating Verbs in the Pilot GJCT ……..... 45
Table 9. T-test Results for Alternating and Non-Alternating Verbs In the Pilot GJCT……..... 46
Table 10. T-test Results for transitive and Intransitive Verbs in the Pilot GJCT 47
Table 11. Frequencies and Percentages of Lexical/Periphrastic Causatives in the Pilot PT …… 47
Table 12. Frequencies and Percentages of Correct/Incorrect Usages in the Pilot TT.... 48
Table 13. Topics Covered in Turkish Linguistics Course 49
Table 14. T-test Results of the Pre-Test 58
Table 15. Chi-Square results of the Part A of the Pre-Test PT..... 58
Table 16. Distribution of Correct/Incorrect Judgments for Alternating Verbs in the Pre-Test GJCT…….. 59
Table 17. Distribution of Correct/Incorrect Judgments for Non-Alternating Verbs in the Pre-Test GJCT…..... 64
Table 18. Group Statistics for Alternating and Non-Alternating Verbs in the Pre-Test GJCT…….. 68
Table 19. Paired Samples T-test Results for Alternating and Non-Alternating Verbs in the Pre-Test GJCT……..... 68
Table 20. Group Statistics for Transitive and Intransitive Verbs in the Pre-Test GJCT 69

Table 21. Paired Samples T-test results for transitive and intransitive verbs in the pre-test GJCT…… ..69
Table 22. Preferences of the Participants in Part A of the Pre-Test PT 70
Table 23. Preferences of the Participants in Part B of the Pre-Test PT..... 73
Table 24. Distribution of Correct and Incorrect Translations in the Pre-Test TT..... 75
Table 25. Group statistics for pre-test and post-test GJCT..... 77
Table 26. Distribution of Correct/Incorrect Judgments for Alternating Verbs in the Pre- and Post-Test GJCT..... 78
Table 27. Distribution of Correct/Incorrect Judgments for Non-Alternating Verbs in the Pre- and Post-Test GJCT..... 80
Table 28. Experimental Group's Statistics for Alternating and Non-Alternating Verbs in the Post-Test GJCT..... 82
Table 29. Paired Samples T-test Results for Alternating and Non-Alternating verbs in the post-test GJCT..... 83
Table 30. Experimental Group's Statistics for Transitive and Intransitive Verbs in the Post-Test GJCT….. 83
Table 31. Paired Samples T-test Results for Transitive and Intransitive Verbs in the Post-Test GJCT….. 84
Table 32. Chi-square Results of Part A of the Post-Test PT 85
Table 33. Preferences of Participants in Part A of the Pre- and Post-Test PT..... 86
Table 34. Group Statistics for Pre-Test and Post-Test Part B of the PT 88
Table 35. Preferences of Participants in Part B of the Pre- and Post-Test PT..... 88
Table 36. Group Statistics for Pre-Test and Post-Test TT..... 89
Table 37. Distribution of Correct/Incorrect Translations in the Pre- and Post-Test TT……..... 90
Table 38. Group Statistics for Pre-Test, Post-Test and Follow-Up Test GJCT..... 92
Table 39. Results of Mixed Design ANOVA Test for the GJCT 93
Table 40. Group statistics for Pre-Test, Post-Test and Follow-Up Test Part B of the PT…….. 94
Table 41. Results of Mixed Design ANOVA Test for Part B of the PT 94
Table 42. Group Statistics for Pre-Test, Post-Test and Follow-Up Test TT 95
Table 43. Results of Mixed Design ANOVA Test for TT 95

LIST OF FIGURES

Pages

Figure 1. Language Acquisition from A Generative Perspective 10
Figure 2. Direct Access Model of L2 Learning 12
Figure 3. No Access Model of L2 Learning 12
Figure 4. Indirect Access Model of L2 Learning 13
Figure 5. Types of Causatives in Turkish 20
Figure 6. How Instruction, Input, and L1 Transfer Might Interact with Universal Grammar to Affect the Acquisition of a Morphological Unit 34

LIST OF APPENDICES

Pages

Appendix A. Grammaticality Judgment and Correction Task 110
Appendix B. Preference Task 117
Appendix C. Translation Task 119
Appendix D. Worksheet I 121
Appendix E. Worksheet II 122

CHAPTER 1

INTRODUCTION

1.1. Background of the Study

In the last decade, the study of lexicon has attracted much attention in the generative SLA framework. Within this framework, there are two main approaches to the lexicon. The first one is the *projectionist view* which assumes that children have the innate knowledge of syntactic and semantic representations and through their interaction with the environment they come to notice the different aspects of verb meaning (Sorace, 2004). Thus, this view presumes that argument structure alternations which change the syntactic behavior of a verb are rule-governed (Levin and Rappaport Hovav, 1995). *Constructionist approach*, on the other hand, places more importance on the syntactic structure in determining the behavior of a verb. It assumes that the projection of arguments is determined by syntactic structures and aspectual constraints (Borer, 2004).

Recent work on the acquisition of lexicon, however, has led researchers to take on a different view. Sorace (2000, 2004) and Keller and Sorace (2003) present the *Auxiliary Selection Model* to account for argument structure alternations. In this model, Sorace suggests that the complexity of verb behavior cannot be solely explained by a syntactic account nor a lexical account because neither projectionist nor constructionist view can explain variation represented in verb behavior across languages. In line with Sorace, Montrul (2001a) maintains that verb meaning and argument structure alternations are constrained not only by lexical information but also syntactic structure. Göksun, Küntay and Naigles (2008), for example, studied Turkish children's use of morphosyntactic bootstrapping in interpreting verb meaning and they found that morphosyntactic cues such as nominal case markers support learning verbs and their arguments. They found that Turkish children were more sensitive to nominal case markers than to the verbal causative morpheme when presented with novel sentences.

Transitivity alternations exist in all languages, however, the way such alternations are represented is not universal. Some languages, like Turkish, have derivational processes to mark transitivity alternations while others, such as English, have no overt morphology in the formation of such alternations. Montrul (2001b) states that transitivity alternations cause problems for an L2 learner as they require the knowledge of both the lexical and syntactic information a verb carries.

Transitivity alternations can come in different forms: middle alternation, causative alternation, substance/source alternation or causative/inchoative alternation (Levin, 1993). Not all verbs can alternate in transitivity, however, in all languages there are change-of-state verbs which participate in causative/inchoative alternations. *melt*, *freeze*, *rise*, *drop*, *clean*, *feed*, *dry*, *burn* are some examples of alternating causative/inchoative verbs in English. These verbs can act as transitive and intransitive. When they are used to convey a causative meaning, they act as transitive verbs.

1. a. She burned the paper.
   b. The paper burned.

In (1a), *burn* has two arguments (agent and theme) which can be roughly said to be a causer (she) and a causee (the paper). However, (1b) has only one argument (theme) and *burn* expresses a change of state as it focuses on the final state of the theme. This kind of alternation is called causative/inchoative alternation and it is represented in a different way in English and Turkish. Turkish, unlike English, has a special grammatical device that changes the valency of verbs.

2. a. Ahmet kağıdı yırttı.
      Ahmet paper-acc tear-past-3sg
      Ahmet tore the paper apart.
   b. Kağıt yırt-ıl-dı.
      Paper tear-anticaus-past
      The paper tore.

Montrul (2000) asserts the following:

> In order for learners to acquire the causative/inchoative alternation, they must first learn the noncompositional idiosyncratic meaning of a verb. If learners cannot distinguish the difference in meaning between *break* and *cut* then they are unlikely to know the syntactic behavior of these lexical items. To acquire that a verb expresses a change of state . . ., for instance, a learner must know that there is a systematic relationship between semantic predicates . . . and how the participants of the event . . . map onto syntactic functions. . . . Finally, in order to acquire whether a change-of-state verb alternates or not, a learner must acquire the narrow aspects of meaning that constrain the causative/inchoative alternation, such as the nature of the Agent (specified or nonspecified) and the nature of the cause event (internal or external). (p. 246)

As Montrul suggests, the acquisition of causative/inchoative transitivity alternations require a more informed understanding of the relationship between semantic and syntactic properties of verbs. Being fundamentally different in forming causative structures, we expect that Turkish native speakers of L2 English will encounter difficulties in distinguishing verb behavior in causative/inchoative transitivity alternations.

1.2. Statement of the Problem

Turkish students learning English as a foreign language are reputed to have difficulty in recognizing transitivity alternations in causative/inchoative verbs in English. It is not very unlikely for an English teacher to hear sentences like [*I slept the baby] or [*He felled the book] from the learners. This type of learner errors may be stemming from lack of knowledge of deep lexical meaning of verbs, as well as from the properties of learner's L1, as has been discussed in the literature.

For instance, Özhan and Zeyrek (2006) investigated the judgments of Turkish learners of L2 English about the alternating and non-alternating unaccusative verbs in English. Their study focused on examining whether Turkish learners of English are more likely to passivize unaccusatives in externally caused events than in internally caused events and whether they are more likely to passivize unaccusatives with a transitive counterpart than those without. Their findings pertaining to the first question revealed that learners rely on universal principles when they lack the knowledge of

semantic structure of unaccusative verbs. However, their secondary finding revealed that learners overgeneralize the rule in their L1.

Montrul (2001b) also investigated the L1 effect in the acquisition of causative/inchoative transitivity alternations in English by Spanish and Turkish learners. She found that although some of the argument structure alternation errors could be stemming from L1 influence, UG could also be at play to some extent since learners with different L1 backgrounds seem to follow a similar developmental path.

As suggested by Montrul (2000), the acquisition of causative/inchoative alternations requires the knowledge of complex lexical properties of a verb. Given that Turkish and English differ in how they represent this alternation, it is assumed that Turkish learners of L2 English will have difficulties in identifying and producing such transitivity alternations. In this study, we aim to determine the role of L1 in identifying and using causative/inchoative transitivity alternations in English by Turkish learners.

Another aspect of language learning we are interested in investigating in this study is the role of explicit instruction in SLA. The role of instruction in SLA has been widely studied, and most researchers agree on the importance of explicit and implicit instruction. Long (1983), in his seminal review of the research investigating the effect of instruction concludes that instruction is beneficial for both child and adult L2 learners on all proficiency levels. Following Long, Norris and Ortega (2000) summarized the findings from studies investigating the effect of instruction in SLA between the years of 1980 and 1998. The most important conclusion they drew in their study was that explicit instruction is more effective than implicit instruction.

Sharwood-Smith (1981) and Rutherford (1987) and Rutherford and Sharwood-Smith (1985) developed an approach called Consciousness Raising (C-R) that emphasizes the role of instruction in raising consciousness of learners of different language items to be learned. Although they primarily focus on teaching of grammar items, we believe that the idea can be extended to cover different aspects of language. Therefore, in line with the previous research on L1 influence and explicit instruction in L2 acquisition, our study will focus on the role of instruction in ruling out the possible L1 effect on L2 acquisition.

1.3. Aim of the Study

As discussed above, the role of L1 in L2 acquisition is still vague and asks for further research. Another much debated issue is to what extent instructed SLA is effective in the language learning process. Hence, the aim of this study is two-fold. Firstly, we will investigate whether L1 has any effect on the judgments and reproductions of English causative/inchoative transitivity alternations by Turkish learners. Since causative/inchoative transitivity alternations are represented differently in Turkish and English, the first aim of the present study will be to determine whether there is an L1 effect in the acquisition of such alternations. Another aim of the study is to identify the role of explicit instruction in ruling out the possible L1 effect on Turkish learners' performance on causative/inchoative transitivity alternations in English.

1.4. Research Questions

In this study, we aim to find answers to the following questions:

Before the treatment:

1- Is there any influence of L1 on the judgments of causative/inchoative transitivity alternations by Turkish native speakers of L2 English?
2- Is there a role of L1 on the preference of causative forms in English (periphrastic or lexical) by Turkish native speakers of L2 English?
3- Is there any influence of L1 on the translated production of causative structures in English by Turkish native speakers of L2 English?

After the treatment:

4- Does explicit instruction help Turkish learners of L2 English to distinguish between grammatical and ungrammatical sentences involving causative/inchoative transitivity alternations?
5- Does explicit instruction change the preferences of Turkish learners of L2 English regarding the causative structures?

6- Does explicit instruction help Turkish learners of L2 English to produce grammatical sentences involving causative structures?
7- Is the effect of explicit instruction durable?

1.5. Limitations of the Study

All of the data collected are valid just for the participants who take part in the study. In addition, other variables like the social background and the sex of the participants are not considered in this research. That is, during the evaluation of the tasks and the calculation of the data, there might be an error probability.

1.6. Operational Definitions

The definitions of the key terms and concepts used frequently in this study are given in alphabetical order below:

Consciousness-Raising: Drawing learners' attention to features of the second language (Cook, 2001).

Explicit Knowledge: Explicit knowledge is knowledge of a language which is represented consciously in the mind of the learner and it can be verbalized on request (Ellis, 2003).

Focus on Form: 'incidental discussion of grammar arising from meaningful language in the classroom (Cook, 2001, p. 39).

Focus on Forms: 'deliberate discussion of grammar without reference to meaning' (Cook, 2001, p. 39).

Implicit Knowledge: Implicit knowledge is intuitive and tacit knowledge of a language which a learner is unaware, and therefore cannot be directly reported or verbalized. (Ellis, 2003).

Inchoative verb: A verb which denotes a change of state.

1.7. Overview of the Thesis

In the first chapter, a brief introduction to the current approaches to the lexicon is given. Within this frame, transitivity alternations are discussed and causative/inchoative transitivity alternations in English and Turkish are briefly illustrated. Then, the research questions are given following the statement of the problem. Finally, limitations of the study and the operational definitions are presented.

The second chapter presents the theoretical background to the acquisition of L2 causative/inchoative transitivity alternations and the role of instruction. The chapter starts with an overview of history of SLA studies. It then focuses more specifically on causative/inchoative transitivity alternations in English and Turkish. Finally, the chapter ends with the discussion of the role of instruction in SLA with a focus on Consciousness Raising and explicit instruction.

The third chapter is devoted to the methodological considerations and the research procedure of the study. In this chapter the participants and the instruments are presented Following this, the procedure of the application and data collection are given along with the lesson plans used.

In the fourth chapter, the analysis of the data gathered from the data collection tools is analyzed and discussed in relation to the literature and research questions.

The fifth chapter discusses the findings in relation to the aim of the study and research questions. Some implications and suggestions are also provided in this chapter.

CHAPTER II

REVIEW OF LITERATURE

2.0. Introduction

In this chapter, we will start by reviewing the research conducted in SLA around the role of L1 influence and Universal Grammar. We will then discuss the typological differences between Turkish and English causatives and causative/inchoative alternations. Finally, we will summarize the research investigating the role of instruction in SLA.

2.1. Contrastive Analysis and SLA

The early SLA studies (from 1950s to 1970s) were held around what was called Contrastive Analysis (CA) Hypothesis which followed the structural linguistics and behaviorist psychology (Towell and Hawkins, 1994). Fries (1945) and Lado (1957) were the first proponents of this hypothesis.

As behaviorist psychology sees learning as an associative task that involves developing a set of linguistic habits, CA Hypothesis proposes that L1 acquisition is rendered possible through reinforcement, association, and generalization (Flynn, 1987). The primary premise of CA Hypothesis is that L1 and L2 learning are similar since both of them are seen as processing a set of habits. Since second language learning is the same as first language learning, then, L2 is acquired in the same way as L1 is acquired. The only difference between the two is that L2 also involves the transfer of L1 linguistic properties (James, 1981).

The general assumption of CA is that "individuals tend to transfer the forms and meanings and the distribution of the forms and meanings of their native language and culture" (Lado, 1957, p. 2). This means that the L2 learner's work is to transfer the linguistic patterns and habits from the L1 to the L2. If the pattern to be learned is the same as the one already present in L1, positive transfer of these linguistic habits, but not

the learning, takes place. When the two patterns do not match, then, there is a negative transfer of L1 linguistic habits resulting in interference. Therefore, the L2 learner must learn the new linguistic patterns to overcome such interference in L2 learning (Lado, 1957).

Basically, CA studies try to account for similarities and differences in L1 and L2 learning. Soon after its emergence in 1950s, many studies were conducted aiming at investigating CA's role in L2 acquisition. There was supporting evidence for CA as well as non-supporting evidence which mainly came from foreign language classrooms. The errors and mistakes of the language learners were observed to stem from the negative transfer from their native languages. For example, Dommergues and Lane (1976) reported an L1 transfer effect on a study they conducted with French native speakers learning English. Also, in their contrastive analysis of the data pertaining to the use of English demonstratives by Japanese learners, Niimura and Hayashi (1996) concluded that the knowledge of differences and similarities between the two languages is beneficial to the L2 learners.

As structuralist approaches to language learning processes were shaken by Chomskyian cognitive theories of language acquisition, CA Hypothesis was also left unsupported. Other studies, for example, have shown that differences between L1 and L2 do not always interfere with learning (Sciarone, 1970), and similarities do not always facilitate learning (Duskova, 1969). Moreover, as Larsen-Freeman and Long (1991) put it, not all contrasts between L1 and L2 lead to learning difficulties, and not all similarities guarantee a simple and error free acquisition.

However, today CA studies have taken a different stance than its original position. Brushing off its behaviorist claims, researchers now turn to CA Hypothesis to have a better understanding of the languages involved (Dekydtspotter and Renaud, 2009; Devos, Defrancq and Noel, 1996; Eckman, Elreyes and Iverson, 2003; Egbert and Vöge, 2008). Lardiere (2009) proposes that the native language knowledge of the L2 learner is the basis for comparison in L2 acquisition since no such ease or difficulty is present in L1 acquisition. She also assumes that knowledge on similarities and differences between languages involved in the acquisition process might be useful for the SLA researchers in better describing the learning tasks at hand.

2.2. Universal Grammar and SLA

Universal Grammar (UG) (Chomsky, 1981**,** 1986, 1993, 1995) is a theory which hypothesizes that human beings are born with knowledge of universal principles underlying the structure of human language. Its main premise is that a person knows a set of principles which are fixed and shared by all languages, and a set of parameters which vary across languages. As Chomsky (1976) puts it "UG is the system of principles, conditions and rules that are elements or properties of all human languages…" (p. 29).

The central claim of the theory is that children acquire the language on the basis of UG. That is, with the interaction of the innate principles and the triggering of the relevant parameters present in the primary linguistic data, the child acquires the language (see Figure 1. below).

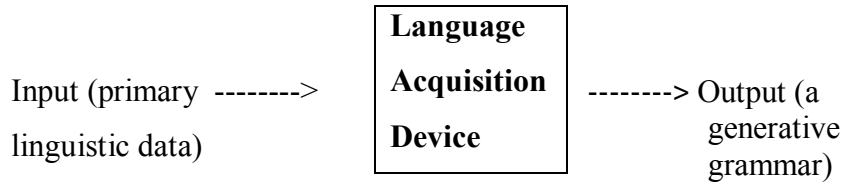


Figure 1. Language acquisition from a generative perspective. (based on Cook and Newson 2007, p. 53).

UG theory was later on revised in the *Minimalist Program* by Chomsky (1995). In the Minimalist Program, UG is taken by default to account for the language acquisition, and the linguistic theory is built upon this assumption. The major difference in Minimalist Program is that the technical devices used to describe the syntax are reduced minimally (Radford, 2004).

UG theory gained a prominent reputation in first language acquisition because of its explanatory adequacy that as a theory of syntax it also accounts for how children acquire their language. However, UG as a model of L2 acquisition, despite the rich evidence - supporting and non-supporting, is still met with much debate. For example, Carroll (2001) states that UG fails to solve the problem of second language acquisition,

because it lacks the transition theory which a theory of SLA requires. That is, “it does not describe the changes in what is represented in a learner, and how one knowledge state develops into another” (p. 37). On the other hand, Schwartz and Sprouse (1998) conclude that:

> In the 1980s, we were—metaphors aside—asking the right question for adult L2 acquisition research: "Is Universal Grammar accessible to the (adult) L2 learner?" And we even had the right answer: "To find out requires testing for the operation of UG constraints." Where we got side-tracked is in not giving the argument for UG from the underdetermination problem—the bedrock of the Chomskyian paradigm—the respect it's due. It's time we should. (p. 10)

UG proponents in SLA mainly claim that language acquisition is actually the resetting of the parameters. Parameter resetting occurs when there is a mismatch between the L1 and L2 parameters. As UG is the initial state of the language faculty prior to any linguistic experience, in L2 acquisition the learner has already a grammar with fixed principles and parameters. Thus, the L2 acquisition process is seen as the resetting of the parameters not present in the native language.

UG, as an L2 acquisition model, became a major topic in the field in the early 1980s. Early studies were conducted around the issue of access to UG, sometimes termed as availability of UG to the L2 learner. The research aiming at finding an answer to the question “Is UG accessible to the L2 learner?” yielded with new hypotheses.

Direct access hypothesis claims that UG is still available to the adult L2 learners, but L1 has no role in L2. It supposes that UG is in direct interaction with L2 data irrespective of L1 values. In this view, L2 acquisition has a process similar to the L1 acquisition and the learner has to set the principles and parameters relevant to the L2 in question. As can be seen in Figure 2, L1 and L2 have no interaction during the L2 acquisition.

L1 learning → L1 competence

↕

Universal Grammar

↕

L2 learning → L2 competence

Figure 2. Direct Access model of L2 learning
(adapted from Cook and Newson, 1996, p. 292).

The hypothesis gained evidence mainly from Bley-Vroman, Felix and Ioup (1988), Felix (1988) and White's (1988, 1992) studies. In these studies subjects were able to display knowledge of UG in their judgments of grammaticality.

No access hypothesis claims that UG has no role in the acquisition of L2, and that transfer from L1 cannot be explained in terms of UG. As Figure 3. shows, this view implies that L2 learner does not rely on UG in the acquisition process.

L2 learning → L2 competence

L1 learning → L1 competence

↕

Universal Grammar

Figure 3. No Access model of L2 learning
(adapted from Cook and Newson, 1996, p. 294).

The central claim of this view comes from the errors of L2 learners which violate the principles of UG. The hypothesis is that if there is violation of the principles of UG in L2 acquisition, then UG is not available to the L2 learner. Instead of UG existence, no access hypothesis proponents (Clahsen and Muysken, 1986). claim that general learning and problem solving strategies play a major role in L2 acquisition.

Finally, *indirect access hypothesis* assumes that UG is partially available to the L2 learner, and L2 learner has access only to the principles already present in the L1 data. Therefore, the claim is that UG is accessible by means of L1. However, if there is a mismatch of parameter values between L1 and L2, there will be no parameter

resetting. Figure 4. shows the indirect access model of L2 learning. As can be seen in the figure, UG is accessible to the L2 learner only through the L1.

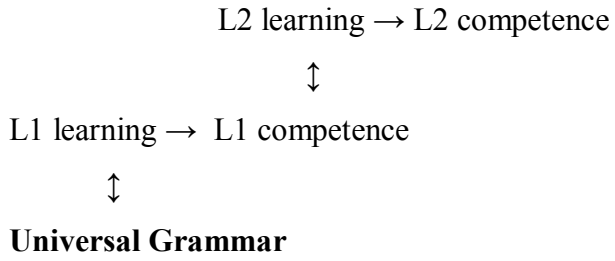


Figure 4. Indirect Access model of L2 learning
(adapted from Cook and Newson, 1996, p. 293).

This hypothesis was supported by the studies of Schachter (1988, 1996), and Johnson and Newport (1991). Another view is that when there is a mismatch of parameter values between L1 and L2, the learner resets the parameter values appropriate for the L2. This view was supported by the work of White (1989, 1996) and Cook (1993). Later research into the access to UG issue, however, yielded with diverse claims about the UG availability and transfer. White (2000) summarizes five hypotheses in the following table:

Table 1

Summary of the Claims on UG Availability and Transfer (Based on White, 2000, p. 14

	FT/PA	**NT/FA**	**FT/FA**	**PT/FA**	**PT/PA**
Initial State	L1	UG	L1	UG and parts of L1	Parts of UG and L1
Grammar Development	UG principles (via L1)	UG principles	UG principles	UG principles	(Some) UG principles
	L1 parameter settings + local adjustments	L2 parameter settings	Parameter resetting from L1 → L2	Parameter resetting from L1 → L2	Parameters associated with functional features remain unspecified
	Possibility of wild grammars	No wild grammars	No wild grammars	No wild grammars	Locally wild grammars
Final State	L1 (+ local adjustments) L2 not attainable	L2	L2 possible but not inevitable	L2	L2 not attainable

As can be inferred from Table 1, in Full Transfer/Partial Access (FT/PA) hypothesis L2 initial state is the L1 final state. If a value is absent in L1, it will also not be available in L2, and ILs do not show new parameter settings. No Transfer/Full

Access (NT/FA) hypothesis implies that L2 grammar is acquired on the basis of UG principles, and parameters interact directly with L2 input. L1 final state does not constitute the L2 learner's grammar or mental representation at any stage. Full Transfer/Full Access (FT/FA) hypothesis assumes that L1 and L2 acquisition differ with respect to their starting point, but are similar with respect to involvement of UG. L1 grammar is assumed to constitute the L2 initial state. Partial Transfer/Full Access (PT/FA) hypothesis claims that L2 initial state draws on properties of both L1 and UG mutually. Only part of the L1 grammar is represented in the L2 initial state. Partial Transfer/Partial Access (PT/PA) hypothesis rejects the view that a native-like competence in L2 is attainable.

Moreover, no access view is left out of the picture, since it underdetermines the final grammar the L2 learner achieves (White, 2000). Also, the POS argument which counts for L1 acquisition also accounts for L2 acquisition, and no access view fails to provide an answer to the logical problem of L2 acquisition.

With supporting and non-supporting data, UG access in L2 acquisition is still an unanswered question puzzling the minds of the researchers in the field. On one hand, evidence from Felix's (1988) research indicates that "adult L2 learners do have consistent intuitions about grammaticality contrasts involving principles of UG" (as cited in Cook, 1993, p. 206). On the other hand, similar research by Felix and Weigl (1991) claims "none of the effects associated with UG; whatever the basis for their judgments was, it was almost certainly not UG" (as cited in Cook, 1993, p. 206).

Whether the question of 'Is UG available in L2 acquisition?' worth considering has been much debated in SLA. Bley-Vroman (1998) underlines the importance of the question in that although it is not succinctly answered, the question keeps researchers think actively on the issue and brings about important results. Also, he warns SLA researchers to keep in mind that in order to solve the problem at hand, variable outcome and cases of 'failure' must be answered before arriving at an adequate theory of language learning.

Instead of trying to find an answer to this overwhelming question, White (1998) suggests:

> …that it is time to focus more on the **nature** of the representations that L2learners achieve. Not that we ignored this in the past, but it always seems to be secondary. *Is UG available? - let's take a look at the grammar* ..... I think we should be prepared to reverse this focus and concentrate more on the nature of the IL representation. We must recognize that it may not always be appropriate to dwell on the UG question. (p. 4)

And in her analysis of the recent SLA research, White (2003) reasons that the mainstream in the field "shift[ed] from overarching questions like 'Is UG available?' or 'What kind of UG access is there in L2?' to a closer examination of the nature of the interlanguage grammar, with particular focus on whether interlanguage grammars exhibit properties characteristic of natural language" (p.17).

Inspired from the UG claim in SLA, we aim to find out the possible problems that would stem from different linguistic features concerning the causative/inchoative transitivity alternation in Turkish and English. However, instead of investigating UG availability, we want to describe and discuss what happens in the language of the learner when coping with parametric variations.

2.3. Unaccusative and Unergative Verbs

According to the Unaccusative Hypothesis (Burzio, 1986; Perlmutter, 1978) intransitive verbs fall into two categories: unergatives and unaccusatives. The main difference between an unaccusative and unergative verb is related to argument structure. The argument of an unaccusative verb is always in object position, whereas unergatives require an argument in subject position. Consider the following examples:

(3) a. John died.
b. John ran.

In example (3a), *die* is an unaccusative verb in that it implies a dynamic change of state. In (3b), on the other hand, *run* is an unergative verb as it implies an agentive activity. Another major difference between unaccusatives and unergatives is that unergative verbs typically do not undergo alternation processes while some unaccusatives do.

(4) a. The girl laughed.

*b. John laughed the girl.

(5) a. The boy broke the window.

b. The window broke.

(6) a. John died.

*b. Peter died John.

In (4a), *laugh* is an unergative intransitive verb as its only argument appears in subject position. As seen in (4b), it is also a non-alternating verb. *die* and *break* are both unaccusative verbs. However, only *break* undergoes an alternation whereas *die* does not. Such differences in the underlying syntactic characteristics of intransitive verbs cause problems for the language learners as they require the knowledge of deep lexical properties of verbs (Montrul, 2001a). Table 2. below summarizes the main differences between unaccusatives and unergatives.

Table 2

Summary of Major Differences Between Unaccusatives and Unergatives

Unaccusative	***Unergative***
-imply a dynamic change of state e.g. John died. John öldü.	- imply an agentive activity e.g. John ran. John koştu.
- might undergo alternation processes e.g. The boy broke the window. The window broke. Çocuk pencereyi kırdı. Pencere kırıldı.	-do not generally undergo alternation processes e.g. The girl laughed. *John laughed the girl. Kız güldü. *John kızı gülüldü.
-unaccusatives imply a nonvolitional meaning e.g. John fell. John düştü.	-unergatives imply a volitional meaning e.g. John laughed. John güldü.

2.4. Causativity and Causative/Inchoative Transitivity Alternations

Causatives fall into three categories: periphrastic (also called analytic), lexical and morphological. Languages differ in how they express causativity. For example, English uses both periphrastic and lexical causatives, whereas Turkish has morphological causatives only. However, in all causative categories, causative structures imply two events, a caused event and a causing event.

2.4.1. Periphrastic Causatives

This type of causativity involves a predicate that is embedded within a larger predicate and that expresses an indirect causation (Dixon, 2004). Periphrastic causatives have a rather formulaic nature that involves X causing Y to do something. There are three common verbs that are used in periphrastic causative structures in English; *make*, *get*, and *have*, as in (7), (8) and (9).

(7) a. The child drank the milk.
b. The mother made [the child drink the milk].
The mother requires the child to drink milk.

(8) a. The man cooked the dinner.
b. She had [the man cook the dinner].
She caused the man to cook the dinner.

(9) a. I went to the cinema with my friends.
b. My friends got me to [go to the cinema with them].
My friends persuaded me to go to the cinema with them.

Unlike *make* and *have* causatives, though, *get* has a different form. It is followed by an object and infinitive, not the base form of the verb.

Although quite uncommon, English allows double causatives as in the following:

(10) The principal made the teachers make the students clean the school.

Here, there is a primary causer (the principal) who requires the secondary causer (the teacher) to cause the actor (the students) to do something.

Turkish does not have periphrastic causatives.

2.4.2. Lexical causatives

Lexical causatives, unlike periphrastic causatives, require a single verb which carries all the lexical properties to indicate causation (Dixon, 2004). Besides, lexical causatives always express a direct causation and are not productive. All lexical causatives are transitive verbs, and they can be paraphrased by the means of the verb *cause*. While *to learn* is not a lexical causative, the verb *to teach* is a lexical causative which can be paraphrased as *to cause someone to learn something*. Similarly, while the verb *to fall* is not a lexical causative, *to drop* is a lexical causative which can be paraphrased as *to cause something to fall*. Following are some lexical causative verbs in English: *kill* (cause to die), *remind* (cause to remember), *entertain* (cause to have fun), *send* (cause to receive), *raise* (cause to rise), *feed* (cause to eat), *convince* (cause to believe).

Like periphrastic causatives, lexical causatives are commonly used in English. However, knowledge of lexical causatives requires knowledge of the underlying lexical properties of a verb, whereas the usage of periphrastic causatives requires the knowledge of constructional properties. In this sense, the acquisition of lexical causatives seems rather more complex.

2.4.3. Morphological causatives

This type of causative structure requires a morphological suffix that attaches to a verb (Dixon, 2004). As mentioned above, English expresses causativity with periphrastic or lexical causatives. However, agglutinative languages like Turkish express causativity with morphology. In Turkish, the insertion of the suffixes *-dır*, *-ır*, *-t* or one of their allomorphs into the base verb results in a causative structure.

(8) a. Çocuk yemek ye-di.

Child food eat-past-3sg

The child ate the food.

b. Anne çocuğa yemek ye-dir-di.

Mother child-dat food eat-caus-past-3sg

The mother made the child eat the food.

As can be seen in (8b), in Turkish the suffix *–dır* attaches to the base verb *ye-mek* and derives a new verb *ye-dir-mek*. The derived verb *yedirmek* acts like a lexical causative, but this lexicalization in Turkish is achieved by derivational morphological processes. Demircan (2003) categorizes Turkish causatives in the following way:

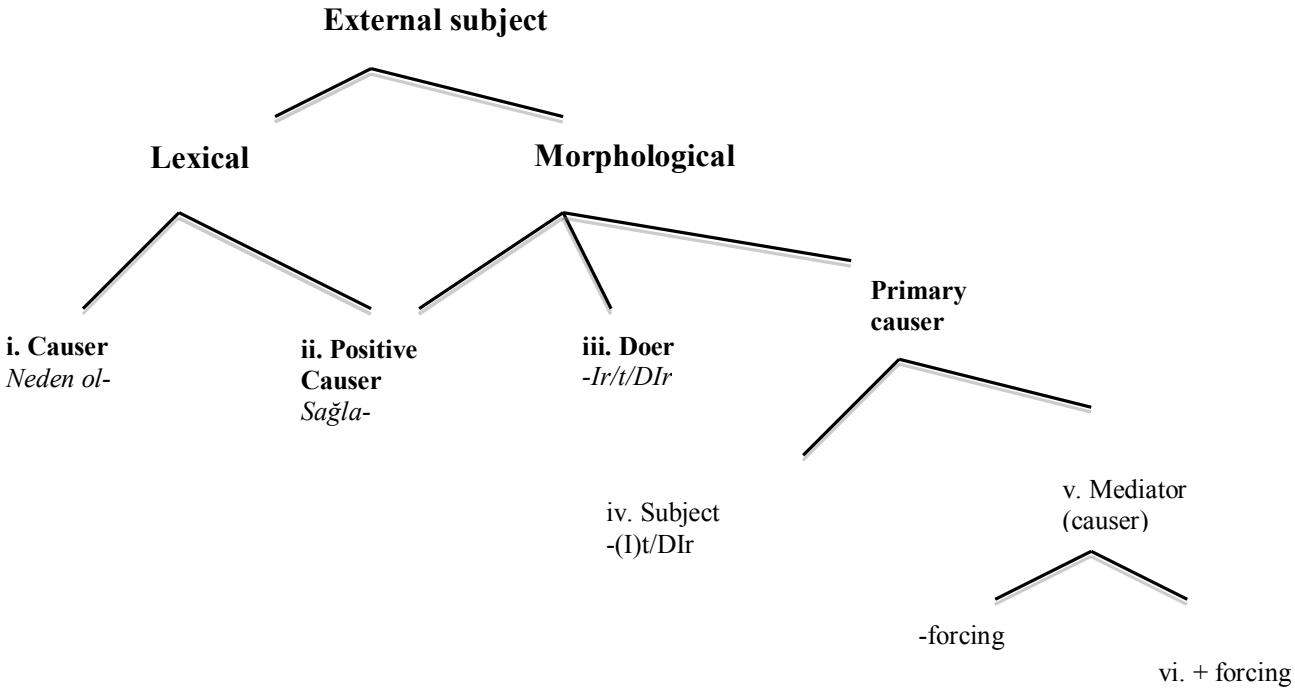


Figure 5. Types of causatives in Turkish (adapted from Demircan, 2003)

According to Demircan's categorization, Turkish also observes lexical causatives with the verbs *neden ol-* (to cause something negative) and *sağla-* (to cause something positive).

(i) Adam kedi-nin ölme-si-ne neden ol-du

The man cat-gen die-gen-dat cause-past-3sg

The man caused the cat to die.

(Dede, 1986, as cited in Demircan, 2003, p.30)

(ii) Doktor hasta-nın iyileşme-si-ni sağla-dı
Doctor patient-gen get better-gen-acc provide-past-3sg
The doctor caused the patient to get better.

(Göksel, 1993, as cited in Demircan, 2003, p. 30)

Most other causativization is achieved through derivational morphology. When the *doer* causes something to happen, the verb takes *Ir/t/DIr* morpehemes.

(iii) Karga peynir-i düş-ür-dü.
Crow cheese-acc fall-caus-past-3sg
The crow caused the cheese to fall. / The crow dropped the cheese.

(Demircan, 2003, p. 30)

When there is a *primary causer* making a subject do something, the verb again takes the same morphemes but when there is a mediator, the result is a double causative.

(iv) Çavuş er-ler-i koş-tur-du
Sergeant soldier-plu-acc run-caus-past-3sg
The sergeant made the soldiers run. / The sergeant marched the soldiers.

(v) Yüzbaşı çavuş-a er-ler-i koş-tur-t-tu
Lieutenant sergeant-dat soldier-plu-acc run-caus-caus-past-3sg
The lieutenant made the sergeant make the soldiers run. / The lieutenant made the sergeant march the soldiers.

(Demircan, 2003, p. 31)

When there is forcing involved in the action, triple causativization is observed.

(vi) Yüzbaşı çavuş-a er-ler-i koş-tur-t-tur-du
Lieutenant sergeant-dat soldier-plu-acc run-caus-caus-caus-past-3sg
The lieutenant forced the sergeant to make the soldiers run. / The lieutenant forced the sergeant to march the soldiers.

(Demircan, 2003, p. 31)

2.4.4. Causative/Inchoative Transitivity Alternation in Turkish and English

The knowledge of argument structure plays an important role in the acquisition of transitivity alternations because only certain verb patterns participate in transitivity alternations (Montrul, 2001a). Jackendoff (2002) asserts that how many syntactic arguments a verb can take is highly dependent on its meaning, and selectional restrictions are a part of verb meaning. Similarly, Hale and Keyser (2002) suggest that "it is the behavior of a verb, not its form, that gives evidence of its argument structure" (p. 138).

Some verbs take one argument (e.g., *sleep*, *cry*) while some may take up to three arguments (e.g., *give*, *sell*). The knowledge of argument structure is relevant in the acquisition of lexical causatives in that a lexical causative verb must take at least two arguments (X, Y).

(9) a. I dropped my books.
b. John fed the cat.
c. Maria put her books on the table.

As illustrated in (9a) and (9b), *drop* (I, my books) and *feed* (John, the cat) must at least take two arguments, whereas *put* in (9c) requires three (Maria, her books, on the table). Sometimes, though, verbs undergo argument structure alternations which change their syntactic behavior:

(10) a. I opened the door.
b. The door opened.

In (10b) one of the obligatory arguments of the lexical causative verb *open* is omitted. Therefore, in (10a) *open* acts like a transitive verb whereas in (10b) it acts like an intransitive verb. Not all lexical causatives undergo transitivity alternations:

(11) a. John fed the cat.
*b. The cat fed.

Unlike English, transitivity alternation in Turkish is achieved through morphological processes. New words are derived by the attachment of the suffixes *–DIr, -Ir* or *–t:*

(12) a. Mehmet'in kalemi düş-tü.
Mehmet-poss pen-poss fall-past-3sg
b. Mehmet kalem-i-ni düş-ür-dü.
Mehmet pen-poss-acc drop-caus-past-3sg
Mehmet dropped his pen.

(13) a. Selma uyu-du.
Selma sleep-past-3sg
Selma slept.
b. Selma bebeğ-i uyu-t-tu.
Selma baby-acc sleep-caus-past-3sg
Selma made the baby sleep.

düş- (*fall*) in Turkish is a verb that requires only one argument and it is an intransitive verb. In (12b) the causative suffix *–Ir* (in this case its allomorph *–ür*) has been attached to the base form and a new word is derived (*düşür-* meaning *drop*) which is a transitive verb and which requires at least two arguments. Similarly, in (13b) the valency of the intransitive verb *uyumak* is increased by the attachment of the causative suffix *–t*.

As Levin (1993) shows, there are many types of transitivity alternations such as middle alternation, causative alternation or substance/source alternation. In this study, we are only interested in causative alternations, more specifically in causative/inchoative alternations. Haspelmath (1993) suggests the following definition for causative/inchoative alternations:

> It is a pair of verbs which express the same basic situation (generally a change of state, more rarely a going on), and differ only in that the **causative** verb meaning includes an agent participant who causes the situation, whereas the **inchoative** verb meaning excludes a causing agent and presents the situation as occurring spontaneously. (p. 90)

A typical example taken from Haspelmath (1993):

(14) a. (inchoative) *The stick broke.*
b. (causative) *The girl broke the stick.*

Haspelmath (1993) divides causative/inchoative verbs into three main types:

1. **Causative alternations**: the inchoative verb is basic and the causative verb is derived. This is achieved by adding the causative morphemes (-DIr, -t or -Ir) to the verb in Turkish:

(15) a. Can gül-dü.
Can laugh-past-3sg
Can laughed.
b. Sevgi Can'ı gül-dür-dü.
Sevgi Can-acc laugh-caus-past-3sg
Sevgi made Can laugh.

2. **Anticausative alternations:** the causative verb is basic and the inchoative verb is derived. In Turkish, anticausative alternation is achieved through reducing the valency of verbs (generally the inchoative verbs are intransitive unlike causative verbs which are transitive) by adding the *–ıl* suffix to the transitive verb in Turkish.

(16) a. Mehmet pencere-yi kır-dı.
Mehmet window-acc break-past-3sg
Mehmet broke the window.
b. Pencere kır-ıl-dı.
Window break-anticaus-past-3sg
The window broke.
(17) a. Ahmet kağıd-ı yırt-tı.
Ahmet paper-acc tear-past-3sg
Ahmet tore the paper.
b. Kağıt yırt-ıl-dı.

Paper tear-anticaus-past-3sg

The paper tore.

3. **Non-directed alternations:** Neither the inchoative nor the causative verb is derived from the other. Haspelmath divides non-directed alternations into three categories: labile (the same verb is used both in causative and inchoative form – no overt morphology), equipollent (both are derived from the same stem which expresses the basic situation, by means of different affixes, auxiliary verbs or stem modifications) and suppletive (different verb roots are used).

Turkish observes causative and anticausative alternations. There are also suppletive pairs in Turkish (yak- / yan- ; ısın- / ısıt) and English (kill / die). Since there is no morphological modifications involved in English causative/inchoative alternations, English observes labile alternations.

As Haspelmath (1993) also points out the inchoative verbs are semantically similar to the passive of the causative in English.

(14) a. (inchoative) *The stick broke.*
b. (causative) *The girl broke the stick.*
c. (passive) *The stick was broken.*

The major difference between inchoative and passive forms is that in the inchoative sentence the situation is understood as occurring without an agent and the situation occurs in a spontaneous manner. Therefore, the semantic condition for causative/inchoative verbs is the absence of **agent-oriented meaning components**. (Haspelmath, 1993). Similarly, *-ıl* morpheme is homophonous with the passive morpeheme in Turkish and might present ambiguity in meaning. The phrases *kendi kendine* or *kendiliğinden* (by itself) are used to eliminate such ambiguity.

(16) a. Pencere kır-ıl-dı.
Window break-anticaus/pass-past-3sg
The window is/was broken.
The window broke.

b. Pencere kendiliğinden kır-ıl-dı.
Window by itself break-anticaus-past-3sg
The window broke by itself.

Unergative verbs, such as *koşmak* in (17) do not undergo transitivity alternations in Turkish. As can be seen in (18) not all unaccusative verbs can alternate in transitivity either.

(17) a. Kız koş-tu.
The girl run-past-3sg
The girl ran.
*b. Kız koş-ul-du.
The girl run-anticaus-past-3sg
(18) a. Nur düş-tü.
Nur fall-past-3sg
Nur fell.
*b. Nur düş-ül-dü.
Nur fall-anticaus-past-3sg

As the phenomenon of transitivity alternation is universal, there are change-of-state verbs which participate in causative/inchoative alternations in all languages. However, the formation of such alternations differ crosslinguistically. Unlike Turkish, causative/inchoative transitivity alternation is represented with no overt morphology in English. *melt*, *tear*, *drop*, *break*, *freeze*, *dry*, *burn* and *rise* are some examples of alternating causative/inchoative verbs in English (Levin, 1993).

These verbs can act as transitive and intransitive. When they are used to convey a causative meaning, they act as transitive verbs.

(19) a. She burned the paper.
b. The paper burned.

In (19a), *burn* has two arguments (agent and theme). However, (19b) has only one argument (theme) and *burn* expresses a change of state as it focuses on the final state of the theme. Similarly, in (20) the inchoative verb *freeze* alternates in transitivity.

(20) a. The ice froze my fingers.
b. My fingers froze.

To summarize, transitivity alternations occur in all languages; however, the way they are realized on the surface is not universal. Some languages, like Turkish, employ derivational processes to mark transitivity alternations while others, such as English, have no overt morphology in the formation of such alternations and resort to different mechanisms. Montrul (2001a) states that transitivity alternations cause problems for the L2 learner as they require the knowledge of both the lexical and syntactic information a verb carries. Moving from this claim, we aim to investigate the possible problems posed for the Turkish native speakers.

2.5. Studies on Causative/Inchoative Transitivity Alternations

Causative/inchoative transitivity alternation has been investigated in many studies taking typologically different languages into focus. In this section, a detailed account of these studies will be given.

A great number of studies came from Silvina Montrul who looked at causative/inchoative transitivity alternations in different languages – Spanish, Turkish and English (Montrul 1997, 1999, 2000, 2001a, 2001b, 2001c, 2001d). In her most comprehensive study (1997), she investigated the interaction of universal principles and L1 knowledge in interlanguage grammars and whether there was a developmental pattern followed by speakers of typologically diverse languages. Her participants were Turkish and Spanish speaking learners of English, Spanish and English speaking learners of Turkish and Turkish and English speaking learners of Spanish. In order to test whether L1 plays a role in the acquisition of causative/inchoative transitivity alternation and whether L2 learners make transitivity errors with non-alternating, unaccusative and unergative verbs, Montrul utilized a picture judgment and a grammaticality judgment task. Her results from these three distinct but related studies

confirmed that L2 learners know which verbs alternate in transitivity and which verbs do not and the errors occurred regardless of the native languages of the participants. She concluded that these errors were developmental and that L1 and L2 acquisition are guided by the same linguistic mechanisms. However, she also found strong L1 influence at the morphological level stemming from the morphological marking of alternating verbs in each language tested. In fact, Montrul (1997, 2000) proposes a modular view of transfer in which she claims that some aspects of grammar are more likely to be transferred than others. In her view of transfer, argument structure is a more global aspect of language and universal linguistic principles play a greater role in its acquisition, and language specific aspects such as morphological marking are more likely to be transferred.

Following Montrul, Cabrera (2005), Cabrera and Zubizarreta (2005a) and Cabrera and Zubizarreta (2005b), investigated the acquisition of English and Spanish by Spanish and English native speakers respectively. English and Spanish are similar in constructing lexical causatives; however, they differ in specific aspects. In order to see whether L1 has a role in the acquisition of lexical causatives, they used an Acceptability Judgment Task (AJT) in which they presented the participants with sentences and asked them to rate the sentences as acceptable/grammatical on a 7-point Likert scale. They also asked the participants to rewrite the correct versions of the sentences that they rated in the negative end of the scale. Their results indicated that at earlier stages learners do not pay attention to lexical cues but rather to syntactic cues hence they appear to transfer syntactic properties of their L1 in the earlier stages of acquisition and in the advanced level lexical properties are more likely to be transferred. They also concluded that transfer is developmentally constrained.

Helms-Park (2001) looked at the acquisition of English causatives by Hindi-Urdu and Vietnamese learners in order to see whether lexical properties of verbs in L1 are transferred to the L2 lexicon. She worked with Hindi-Urdu and Vietnamese speakers because these two languages differ from each other in terms of causative constructions. For example, Vietnamese allows periphrastic causatives whereas in Hindi-Urdu no *make*-type periphrastic causatives occur. Her prediction was that Vietnamese speakers would produce English periphrastic causatives earlier than Hindi-Urdu speakers. She gave the participants a production test with pictures, a multiple

choice preference test and a grammaticality judgment task. She reported that at all levels of proficiency the Vietnamese speakers were more accurate in their judgments of grammaticality than Hindi-Urdu speakers. Drawing on her findings, Helms-Park concluded that semantic information from L1 lexicon is partly transferred to the L2 lexicon and that L1 and L2 lexicon are in interaction at the semantic level.

In order to test Montrul's claim that difference in languages in terms of morphological marking on causative/inchoative verbs can pose difficulty for learners, Kim (2005) studied the Korean learners' and English learners' acquisition of English and Korean respectively. Like Turkish, Korean also observes a morphological difference between causative/inchoative verbs that alternate in transitivity. In Korean, inchoativity is achieved through the insertion of an anticausative morpheme to the verb stem, a process similar to Turkish. In order to test that difference in morphological marking in languages would create difficulty for English and Korean learners of Korean and English respectively, Kim utilized a picture judgment task in which each picture was presented with two sentences and the participants had to judge which sentence described the picture correctly. In line with Montrul, Kim's results confirm that difference in forming causative/inchoative transitivity alternations causes difficulty for the L2 learner. However, her results contradict with Montrul's in terms of nature of transfer. Kim argues for a pattern-based transfer approach in which patterns are defined in terms of their structural properties and their meaning while Montrul maintains that transfer occurs based on verb classes.

Although not specifically investigating causative/inchoative transitivity alternation, Inagaki (2001) found that L1 influence persists when an argument structure in the L2 constitutes a subset of its counterpart in the L1. His focus was on argument structure differences in motion verbs with goal PPs in English and Japanese. Japanese and English are in a subset-superset relationship in terms of motion verbs with goal PPs. English has a wider range of verbs that occur in such constructions whereas Japanese does not allow manner of motion verbs to appear with goal PPs. Inagaki's results showed that since English learners of Japanese were not exposed to positive evidence that tell them certain verbs cannot appear with goal PPs, Japanese learners of English performed better than English learners of Japanese. Thus, Inagaki concluded that if

there is a subset-superset relationship between the two languages, acquisition of argument structure will not be difficult when the L2 is a superset of the L1.

To summarize, all of the studies listed above claim that L1 has an influence on the acquisition of L2 argument structure. Montrul argues for a modular view of transfer in which some aspects of language are more likely to be transferred than others. In her view, argument structure is a more global aspect and UG plays a role in its acquisition whereas language specific aspects such as morphological marking are more likely to be transferred. Cabrera claims that transfer is developmentally constrained since her findings showed that learners pay more attention to syntactic cues at the earlier stages of acquisition and lexical properties are more likely to be transferred at the advanced level. Helms-Park states that semantic information from L1 lexicon is partly transferred to the L2 lexicon and that L1 and L2 lexicon are in interaction at the semantic level. Kim's results are in line with Montrul's that difference in morphological marking regarding the causative/inchoative forms in the two languages involved causes difficulty for the learners. However, Montrul claims for a class-based transfer whereas Kim argues for a pattern-based transfer approach. Although not on causative/inchoative transitivity alternations, Inagaki's results contribute to the understanding of L2 argument structure acquisition. He proposes that a subset-superset relationship between L1 and L2 will determine the ease and the difficulty of argument structure acquisition. Even though these studies contradict in some aspects, all of them agree upon the fact that L1 has a role in the acquisition of L2.

2.6. Role of Instruction in SLA

In the last decades, the role of instruction in SLA has been widely studied in classroom settings. Whether formal instruction, drawing learners' attention to target forms, enhances L2 acquisition has led SLA researchers to test the role of instruction taking different target forms into focus. Long's (1983) seminal review of the research investigating the effect of instruction postulates that instruction is beneficial for both child and adult L2 learners on all proficiency levels. Norris and Ortega (2000) in their meta-analysis of research on the role of effectiveness of instruction between the years of 1980 and 1998 also conclude that explicit instruction is more effective than implicit instruction and more importantly that the effect of instruction was durable.

As Norris and Ortega (2000) point out in their meta-analysis of the studies about the effectiveness of instruction, the focus of recent studies have shifted from inquiring whether instruction makes a difference to what type of instruction works best. It is therefore necessary to give an account of different types of instruction here.

2.6.1. Different Types of Instruction

A review of the literature on the role of instruction reveals many different types and subtypes of instruction utilized by the researchers. In this section, we will give a brief explanation on different instruction types as encountered in the literature.

Explicit instruction vs Implicit instruction: Explicit instruction implies giving direct grammatical explanations accompanied with rules and corrective feedback whereas implicit instruction implies non-focused exposure to the target linguistic items. Many studies on the role of instruction find explicit instruction to be superior in terms of providing larger gains to the learners. In their summary of the studies focusing on the effectiveness of instruction, Norris and Ortega (2000) found that explicit types of instruction are more effective than implicit types. Similarly, DeKeyser (2003) reviewed the research on implicit and explicit instruction and concluded that explicit learning provides larger gains on the part of the learner. He also asserted that even the studies that favored implicit learning were not truly implicit in nature with at least some kind of awareness involved in the learning process. Generally, studies now center on which subtypes of explicit instruction result in better gains.

Focus on Form vs Focus on Forms: Long (1991) categorized form-focused instruction into two main approaches: *Focus on Form* (FonF) and *Focus on Forms* (FonFs). According to this distinction, FonFs implies that learners are aware that they are studying a particular linguistic form and their only focus is on the structure being learned. FonF, on the other hand, implies that linguistic forms are learned in meaningful communicative tasks. In FonFs approach, learners are treated as ‘students’ rather than ‘users’ of a language and language to be studied is seen as an ‘object’ (Ellis, 2001). In contrast with FonFs, FonF is centered around meaningful communicative tasks and students’ attention is drawn to “linguistic elements as they arise incidentally in lessons whose overriding focus is on meaning or communication” (Long, 1991, p. 45-46).

Negative Feedback: The key function of negative feedback is to draw the learner's attention to his/her performance errors. Negative feedback can be in the form of explicit corrective feedback or implicit feedback. Implicit negative feedback can be corrections or clarifications on request whereas explicit negative feedback implies indicating directly that there is a problem in the learner's production (Campillo, 2003). There is a substantial amount of research that claims that negative feedback fosters the language learning process (Lightbown and Spada, 1990; White, Spada, Lightbown and Ranta 1991; Lyster and Ranta, 1997; Lyster and Mori, 2006; Yang and Lyster, 2010). In their recent comprehensive review on the issue of corrective feedback, Lyster and Saito (2010) found that corrective feedback facilitates L2 acquisition at least until the delayed post-tests in those studies.

Consciousness Raising and Input Enhancement: Consciousness raising (C-R) (later termed as Input Enhancement, Sharwood-Smith, 1993) can be defined as drawing learner's attention to the target items by means of explicit instruction and making the input salient to the learner. As Rutherford and Sharwood-Smith (1988) point out "C-R is a continuum ranging from intensive promotion of conscious awareness through pedagogical role articulation on one end, to the mere exposure of the learner to specific grammatical phenomenon on the other" (p. 3). Ellis (1993) makes a distinction between C-R and practice. He believes that practice results in sentences produced by the learners whereas C-R activities result in understanding of the target forms and it does not necessarily require the learners to produce sentences nor verbalize the rules learned. C-R, indeed, is seen as a process and not a product.

Since UG hypothesizes that there are principles which can be found in all languages and parameters which may take different values in different languages, it inevitably plays a role in C-R. In order to draw learner's attention to a linguistic form and make the learner notice that his/her production is different from the input, the teacher needs to focus on the parametric differences between the target language and the L1. C-R activities, then, involve highlighting the target item in the input hence making it more salient, explicit rule explanation, negative feedback, raising meta-linguistic awareness and so on. Sang-Ki and Huang (2008) reviewed studies that focused on investigating the effect of visual input enhancement such as boldfacing or underlining.

Their results indicated that learners who were provided enhanced texts outperformed those who were given unenhanced texts.

2.6.2. Studies on the Role of Instruction

As input has gained much interest from SLA researchers, the field has seen a proliferation of studies focusing on the role of instruction and input enhancement. As seen in Norris and Ortega's (2000) comprehensive review on the role of instruction, instruction has been found to be effective especially when given explicitly. In this section, we will turn our attention to some of the studies on instruction in a more detailed way.

Fotos (1993) investigated the effectiveness of C-R activities in raising the amount of noticing of Japanese EFL students. The instruction she provided included teacher-fronted grammar explanation for the first experimental group, and interactive, grammar problem-solving tasks for the second experiment group, and finally instruction with no C-R activity for the control group. Her results revealed that both types of instruction given to the experimental groups resulted in more noticing by the learners than the control group.

Leow (1998) investigated whether amount of exposure (single vs multiple) and type of exposure (teacher-centered vs learner-centered) to the same morphological unit had positive effects on the Spanish L2 development of adult learners. In order to test the effectiveness of single vs multiple and teacher-centered vs learner-centered instruction, he created four groups; single exposure teacher-centered, single exposure learner-centered, multiple exposure teacher-centered and multiple exposure learner-centered groups. His results indicated that multiple exposure and learner-centered groups performed significantly better on the same morphological unit.

Spada and Lightbown (1999) studied francophone students' use of English wh-questions with copula be, yes/no questions and wh- questions with auxiliary second. The primary focus of their research was on whether instruction aimed at a more advanced level than learners' current stage was more beneficial than instruction aimed at the next level in their L2 development. Their instruction intervention did not include any type of explicit rule explanation or L1/L2 comparison and contrast in English and

French. Rather, they used materials that provided the learners with frequent exposure to the target form. They used a variety of measurements to test the learners' knowledge and use of English questions, such as oral production, scrambled sentences and a preference task. Their results indicated that explicit instruction provided with contrastive meta-linguistic information might be needed to contribute to the interactions between L1 constraints and developmental processes.

Investigating how instruction, L2 input, L1 and UG interact in the development of L2 morphosyntactic knowledge, Toth (2000) proposed a modular account of L2 acquisition. The aim of his study was to see whether input and instruction could counteract L1 transfer. The instruction he provided was of form-focused, communicative type. He administered pre-, post, and delayed tests to his experimental and control groups which consisted of a grammaticality judgment and two production tasks. His conclusion can be summarized in the following figure:

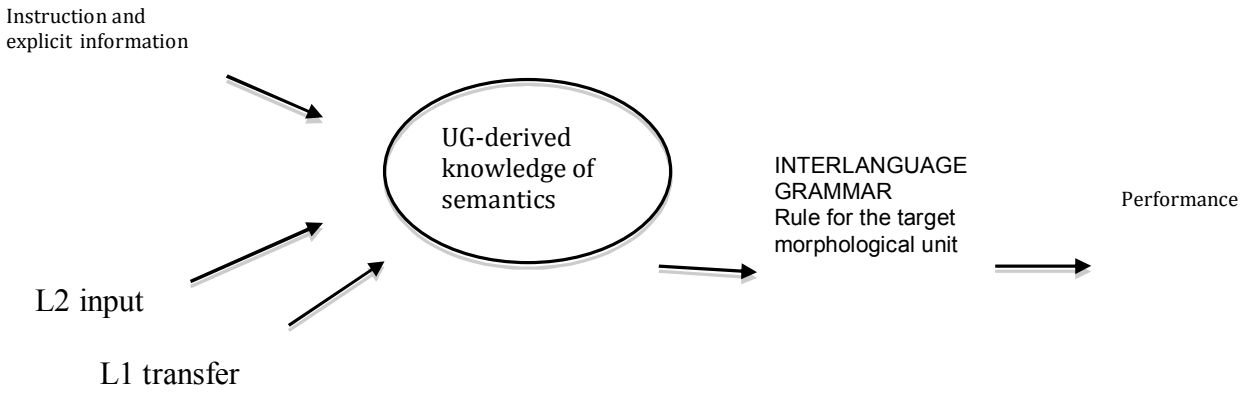


Figure 6. How instruction, input, and L1 transfer might interact with Universal Grammar to affect the acquisition of a morphological unit (adapted from Toth, 2000).

The results of his study showed that although many learners added the target morphological unit to their L2 grammar, L1 transfer and overgeneralization errors were also present. As seen in the Figure 6., Toth (2000) advocates a modular view of L2 acquisition since his findings suggested that L2 grammars are affected by multiple variables.

Özkan (2005), in her study investigating the role of input enhancement, found that learners did better on post- and delayed post-tests after receiving instruction in the form of input enhancement and C-R. She studied the acquisition of English reflexives and pronominals by Turkish learners. She gave a Comprehension and Translation Task to her students in the experimental and control groups before and after instruction. Her results revealed that students in the experimental group outperformed the students in the control group, and the delayed post-test revealed that the effect of her instruction was durable.

Bowles and Montrul (2008) investigated whether explicit instruction and practice with explicit feedback facilitate learners' L2 grammar regarding Spanish morphology. They had an experimental group that consisted of low-intermediate English learners of L2 Spanish and a control group with the same characteristics. The only difference between the groups was that the experimental group received instruction on the target form whereas the control group did not receive any instruction. The instruction provided was explicit explanation, practice exercises and corrective feedback. The explicit instruction given also included contrastive information between Spanish and English regarding the target morphological unit. Their findings indicated that explicit instruction and practice accompanied with explicit feedback facilitated the instructed group's knowledge on the target linguistic item. Another important finding was that although the instructed group performed better than the control group on the target form, they still significantly differed from the native speaker group. However, a weakness of this study is that there was no delayed test administered after the post-test. Therefore, we do not know whether the effect of instruction was durable.

On the whole, all of the studies listed above claim that instruction especially when given explicitly facilitates second language learning. However, Truscott (1998) criticizes the research that favors explicit research on the grounds that the effects of instruction is not durable and instruction only results in meta-linguistic competence and not in real language competence. He concludes that:

> Thus, learners' success on tests of metalinguistic knowledge does not imply that they have acquired any actual knowledge of language. A large percentage of the studies routinely cited as evidence for the value of form-focused instruction did rely on tests of this sort (tests assessing spontaneous

> language use), so they do not constitute evidence for the value of instruction (or noticing). (p. 118)

Nevertheless, Truscott underestimates the large body of research which suggests that instruction is beneficial by claiming that instruction intervention is not only ineffective but also unhelpful. Furthermore, he does not suggest any solutions to overcome the problem of testing spontaneous language use.

2.7. Focus of the Present Study

As was stated before, the aim of this study is two-fold. In the first part of the study, we will investigate whether there is any L1 influence in the performance of Turkish students on the causative/inchoative transitivity alternations in English. In the second part, we aim to find out whether explicit instruction (in the form of C-R activities) can preempt a possible L1 transfer in the participants' L2 grammar. Toth (2000) argues for a modular approach in L2 acquisition which takes multiple variables into consideration in the development of L2 grammar (instruction, L1 transfer, L2 input and UG). This is, in fact, in line with Montrul's (2000) suggestion that L2 acquisition is modular. Unlike Montrul, Toth adds the instruction module to her view, which we believe is very relevant in L2 acquisition since most of L2 acquisition happens in classroom settings where instruction is an integral part.

Norris and Ortega (2000) found four components of instruction pervasive in the studies they reviewed. These four components are:

1. presentation of rules
2. provision of negative feedback
3. exposure to relevant input
4. opportunities for practice

Our study will also follow this procedure as outlined by Norris and Ortega. Studies Norris and Ortega reviewed revealed differences in the way instruction treatment was characterized. The different instructional types and their characteristics listed by Norris and Ortega are shown in Table 3. (taken from Doughty, 2003):

Table 3

Instructional Types and Their Operationalization in the Studies Reviewed by Norris and Ortega (2000)

Instructional type	***Operationalization, as derived from study descriptions***
Explicit	+ Rule explanation (deductive/metalinguistic), *or* + direction to attend to forms and arrive at rules (explicit induction)
Implicit	− Rule explanation, *and* − direction to attend to forms
Focus on meaning	Exposure to L2 targets or experience with L2 tasks, *but* no attempts to effect shifts of learner attention
Focus on form	Integration of forms and meaning, *any of*: a) designing tasks that promote engagement with meaning prior to form b) seeking task essentialness/naturalness of L2 forms c) ensuring unobtrusiveness d) documenting L2 mental processes (e.g., "noticing") e) selecting target forms by analysis of learner needs f) considering IL constraints
Focus on forms	None of (a)–(d) above apply, *and* learner attention was nevertheless focused in some particular way on the particular structure targeted for learning

In our study, our focus is on explicit instruction rule explanation. Rule explanation will be metalinguistic since the participants will be exposed to the target form in a linguistics course and not in a genuine language course where the primary aim is L2 teaching/learning. The instruction intervention will be of a consciousness raising type with a FonFs nature as described in Long (1991).

2.8. Conclusion

This chapter has presented the relevant theoretical framework of the study. The first part of the chapter focused on Contrastive Analysis and Universal Grammar in relation with SLA. The first part also included a detailed description of causativity, causative/inchoative transitivity alternations both in English and Turkish and studies on causative/inchoative transitivity alternations.

The second part of the study dealt with the role of instruction in SLA. In this part, some main types of instruction were explained since there are many types and subtypes of instruction in the literature. Following this, the chapter gave a summary of studies investigating the role of instruction. Finally, focus of the study was given at the end of the chapter stating the instruction type utilized in this particular study.

Chapter 3 is devoted to the description of the research process, including the pilot study and instructional intervention.

CHAPTER 3

METHODOLOGY

3.0. Introduction

This chapter describes the design of the study. In the first part, we describe the participant characteristics as well as the task properties. Following task descriptions, we give a detailed account of the pilot studies carried out before the main study. The procedure and the lesson plans we followed are also given in this chapter. The chapter ends with the researcher's reflections on the procedure and the data analysis process.

3.1. Participants and Research Design

In this study, we follow a mixed methods research design. In the first part of the study, we describe our findings pertaining to the pre-test and post-test making comparisons between the two where necessary. In the second part, we follow an experimental research method with a control and an experimental group of students studying at the English Language Teaching Department of Çukurova University.

The participants in this study were selected from the students attending English Language Teaching Department of Çukurova University, Adana through convenience sampling. To serve our purpose, we did our experiment with two groups of 2nd year students as they had to take a course called 'Turkish Linguistics'. One group served as our control group whereas the other group was experimental. In this course, students are presented with linguistic characteristics of Turkish in terms of phonetics, phonology, morphology, syntax and semantics. Also, in this year, they take an 'Introduction to Linguistics' course in which the focus is on phonetic, phonological, morphological, syntactic and semantic features of language.

In total there were 53 participants involved in the study. The ages of the participants ranged between 18 and 23. None of the participants ever lived in a country where English was spoken as a native language. Gender is not a variable in the study, so

the participants were chosen randomly regardless of their gender. Table 4. below summarizes the characteristics of the participants involved in the study.

Table 4

Summary of Participant Characteristics

N	Control	Experimental	Total
	33	20	53
L1	Turkish		
Department	ELT		
Age Range	18 – 23		

3.2. Instruments

The instruments of this study include a Grammaticality Judgment and Correction Task (GJCT) (see Appendix A), a Preference Task (PT) (see Appendix B), a Translation Task (TT) (see Appendix C).

3.2.1. Grammaticality Judgment and Correction Task

Grammaticality Judgment and Correction Task (GJCT) consists of 40 items. In this task, participants are asked to read sentences and judge them as Correct or Incorrect and if they judge a sentence incorrect to correct it. The purpose of the GJCT is to test Turkish native speakers' intuitions about grammaticality regarding causative / inchoative transitivity alternations in English. The reason for having them correct the sentences they judge as incorrect is to ensure that they find the sentence incorrect in terms of causative / inchoative transitivity alternation. With this task, we aim to find out which alternating and non-alternating verbs are accepted and/or rejected.

In the task there are 10 alternating and 10 non-alternating verbs chosen from Levin's book (1993) on English verb classes. Alternating verbs have causative and inchoative pairs whereas non-alternating verbs are either causative or inchoative and do not undergo causative/inchoative alternation. Each verb appears twice in the task. All the alternating verbs are grammatical whereas non-alternating verbs come in

grammatical/ungrammatical pairs. Hence, there are 30 grammatical and 10 ungrammatical sentences in the task. Some of the non-alternating verbs are originally transitive while some are intransitive. Table 5. lists the verbs used in the task.

Table 5

Verbs Used in GJCT

Alternating	In/transitive – Non - alternating
Burn	Cut - tr
Dry	Write -tr
Freeze	Cry - int
Melt	Laugh - int
Soften	Appear - int
Fade	Kick – tr
Shrink	Destroy – tr
Warm	Kill - tr
Open	Die - int
Increase	Hit – tr

Note: tr – transitive int - intransitive

Following is a sample sentence taken from the GJCT. (See Appendix A for the whole task).

The door opened.

(_) Correct (_) Incorrect

Corrected version:

_____

The grammatical sentences used in this task were created with the help of a software called Grey's Vocabulary Teacher. This software consists of over 2,600 words which are all presented in an authentic context in over 50,000 sentences. The researcher scanned the verbs to be used in the task and chose from the sentences among the search results tailoring them where necessary.

3.2.2. Preference Task

Preference Task (PT) has two parts. In Part A, participants are presented with sentence pairs with each alternating verb and asked which sentence they would be more likely to say. Part B of the task consists of sentence pairs with non-alternating verbs. In both parts of the task, verbs are used first as a lexical causative and then as a periphrastic causative.

Following is a sample sentence pair taken from the task (See Appendix B for the complete task).

a. The sun dried my clothes.
b. The sun made my clothes dry.

The purpose of the Part A of the task is to see whether participants prefer lexical causatives over periphrastic causatives. In Turkish there are no periphrastic causatives and in Part A of the task both sentences could be translated into Turkish roughly in the same way.

Güneş	çamaşır-lar-ım-ı	kuru-t-tu.
The sun	clothe-pl-poss-acc	dry-caus-past-3sg

The sun dried my clothes/The sun made my clothes dry.

In Part B of the task, the purpose is to see whether participants prefer to use causative verbs as lexical causatives or periphrastic causatives and whether they prefer to use inchoative verbs as lexical or periphrastic causatives. In each sentence pair, one sentence is ungrammatical. The hypothesis is that since Turkish requires morphological processes in forming causative structures, participants would be more likely to use periphrastic causatives in both tasks.

Verbs used in this task are the same as the ones in the GJCT.

3.2.3. Translation Task

Translation Task (TT) has 27 sentences in Turkish and participants are asked to translate these sentences into English using the verbs given in parentheses. Seven sentences in the task are used as distractors. The rest of the ten verbs given are all non-alternating verbs taken from the GJCT. The verbs used in the task can be categorized as follows:

Table 6

Verbs Used in TT

Verb	***Transitive***	***Intransitive***
Appear		+
Cry		+
Laugh		+
Cut	+	
Write	+	
Destroy	+	
Kill	+	
Hit	+	
Kick	+	
Die		+

In this task each verb is given twice. The sentences with inchoative verbs convey an inchoative and a causative meaning. Therefore, participants are expected to use these verbs in a periphrastic construction to convey the causative meaning. The sentences with causative verbs convey a passive and a causative meaning. Therefore, participants are expected to use these verbs as lexical causatives to convey the causative meaning. The purpose of the task is to see the tendency of the participants in making causative and inchoative sentences. For the inchoative verbs, it is important to see whether they will treat the verbs as lexical causatives or periphrastic causatives. For the causative verbs, it is important to see whether the participants will prefer to make the passive sentences as inchoative or passive and also whether they will prefer to use these

verbs as lexical or periphrastic causatives. In other words, we want to find out whether the participants will alternate these non-alternating verbs in transitivity.

Following are two sample sentence pairs taken from the task exemplifying both causative and inchoative verbs (See Appendix C for the complete task).

Inchoative:		Causative:	
1.	Mehmet çok güldü.	1.	Çocuk masayı tekmeledi.
2.	Şakaları beni güldürdü.	2.	Masa tekmelendi.

3.3. Pilot Studies

Before conducting the main research, two pilot studies were carried out with another group of 2nd year ELT students. The purpose of the first pilot study was to determine the validity and the reliability of the items utilized in GJCT, PT and TT. The results and the feedback from the participants in the pilot study provided an important insight in giving the final form to the tasks. Feedback from three professors in the ELT department was also taken into consideration in finalizing the tasks. Two native speakers of English proofread the sentences in GJCT and PT in order to ensure the originality of the sentences.

The second pilot study was conducted with two groups of 2nd year ELT students in order to conduct a pilot statistics on the data collected. For this pilot study, we gave the tasks to 41 students and analyzed the test results. Table 7. below shows descriptive statistics of correct and incorrect judgments for alternating verbs in GJCT in the pilot study. Table 8. displays the descriptive statistics of correct and incorrect judgments of non-alternating verbs in the GJCT in the pilot study.

Table 7

Distribution of Correct/Incorrect Judgments for Alternating Verbs in the Pilot GJCT

Verb	***TR***						***INTR***					
	Correct		Incorrect		Total		Correct		Incorrect		Total	
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*
Dry	37	90.2	4	9.8	41	100.0	30	73.2	11	26.8	41	100.0
Open	38	92.7	3	7.3	41	100.0	14	34.1	27	65.9	41	100.0
Freeze	25	61.0	16	39.0	41	100.0	36	87.8	5	12.2	41	100.0
Melt	28	68.3	13	31.7	41	100.0	36	87.8	5	12.2	41	100.0
Burn	31	75.6	10	24.4	41	100.0	28	68.3	13	31.7	41	100.0
Shrink	28	68.3	13	31.7	41	100.0	35	85.4	6	14.6	41	100.0
Soften	38	92.7	3	7.3	41	100.0	29	70.7	12	29.3	41	100.0
Warm	34	82.9	7	17.1	41	100.0	32	78.0	9	22.0	41	100.0
Increase	29	70.7	12	29.3	41	100.0	39	95.1	2	4.9	41	100.0
Fade	26	63.4	15	36.6	41	100.0	32	78.0	9	22.0	41	100.0

TR: Transitive sentence INTR: Intransitive sentence

Table 8

Distribution of Correct/Incorrect Judgments for Non-Alternating Verbs in the Pilot GJCT

	Verb		**Correct judgment**		**Incorrect judgment**	
			f	*%*	*f*	*%*
Intr.	Bleed	Tr.	29	70.7	12	29.3
		Intr.	28	68.3	13	31.7
	Appear	Tr.	26	63.4	15	36.6
		Intr.	40	97.6	1	2.4
	Die	Tr.	37	90.2	4	9.8
		Intr.	37	90.2	4	9.8
	Laugh	Tr.	38	92.7	3	7.3
		Intr.	41	100.0	0	0.0
	Total	Tr.	130	79.27	34	20.73
		Intr.	146	89.02	18	10.98

(Table 8 Continued)

Tr.	Cut	Tr.	33	80.5	8	19.5
		Intr.	33	80.5	8	19.5
	Write	Tr.	40	97.6	1	2.4
		Intr.	35	85.4	6	14.6
	Kick	Tr.	39	95.1	2	4.9
		Intr.	34	82.9	7	17.1
	Destroy	Tr.	37	90.2	4	9.8
		Intr.	35	85.4	6	14.6
	Kill	Tr.	39	95.1	2	4.9
		Intr.	38	92.7	3	7.3
	Hit	Tr.	39	95.1	2	4.9
		Intr.	31	75.6	10	24.4
	Total	Tr.	227	92.28	19	7.72
		Intr.	206	83.74	40	16.26

The examination of Table 7 and 8 reveals that *open*, *dry*, *soften*, *appear*, *write* and *laugh* are statistically noteworthy verbs.

We also ran two independent samples t-test on the pilot GJCT. In the first t-test, our independent variables were alternating and non-alternating verbs. Table 9 below shows the results for the GJCT in the pilot study.

Table 9

T-test results for Alternating and Non-Alternating Verbs in the Pilot GJCT

		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.
	Equal variances assumed	,009	,936	-8,401	80	,00	-5,024	,598
	Equal variances not assumed			-8,401	78,83	,00	-5,024	,598

$t_{(39)} = 8,401$ (sig= 0,00), $p<0,05$

As can be seen in the Table 9, there was a statistically significant difference (t(39)=8,401(sig.=0,000), p<0,05) between the participant judgments of alternating and non-alternating sentences in favor of non-alternating verbs. Participants (n=41) were

significantly better in judging the sentences with non-alternating verbs.

The other t-test was run with transitive and intransitive verbs as independent variables. Table 10 below presents the t-test results for transitive and intransitive verbs in the pilot GJCT .

Table 10

T-test Results for Transitive and Intransitive Verbs in the Pilot GJCT

		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.
	Equal variances assumed	,000	,997	-2,747	80	,007	- 1,609	,598
	Equal variances not assumed			-2,747	79,46	,007	-1,609	,598

$t_{(39)} = 2{,}747$ (sig= 0,007), $p<0{,}05$

As is apparent in Table 10, participants (n=41) performed significantly ($t_{(39)} = 2{,}747$ (sig.=0,007) $p<0{,}05$) better on intransitive verbs.

Table 11 below shows the frequencies and percentages of lexical and periphrastic causatives in the pilot PT.

Table 11

Frequencies and Percentages of Lexical/Periphrastic Causatives in the Pilot PT

Verb	**Lexical**	**Periphrastic**		
	f	*%*	*f*	*%*
Dry	15	36.6	26	63.4
Open	31	75.6	10	24.4
Freeze	20	48.8	21	51.2
Melt	24	58.5	17	41.5
Burn	25	61.0	16	39.0
Shrink	23	56.1	18	43.9
Soften	28	68.3	13	31.7
Warm	25	61.0	16	39.0
Increase	28	68.3	13	31.7
Fade	21	51.2	20	48.8

The PT analysis revealed that participants preferred lexical causatives over periphrastic causatives.

Table 12 below shows the frequencies and percentages of correct and incorrect usages in the pilot TT.

Table 12

Frequencies and Percentages of Correct/Incorrect Usages in the Pilot TT

Verb	**Correct**	**Incorrect**		
	f	*%*	*f*	*%*
Bleed	31	75.6	10	24.4
Laugh	38	92.7	3	7.3
Cut	19	46.3	22	53.7
Write	38	92.7	3	7.3
Destroy	10	24.4	31	75.6
Kill	33	80.5	8	19.5
Appear	25	61.0	16	39.0
Hit	10	24.4	31	75.6
Kick	11	26.8	30	73.2
Die	34	82.9	7	17.1

The analysis of the TT revealed that verbs *laugh* and *write*, which were judged correctly in the GJCT, were used correctly in the translations too. Verbs *kick*, *hit* and *destroy* were found to be problematic in that participants lacked the knowledge of causatives in English, but still had the knowledge that these verbs are intransitive.

The analysis of the pilot study led us to make the following changes in our tasks:

1. The intransitive verb *bleed* was replaced with the intransitive verb *cry* in all tasks.
2. Non-alternating verbs were added to the PT in order to have a better understanding of the participants' preferences.
3. Sentences in the TT were edited to have a better comparison with the GJCT

and PT results.

3.4. The Procedure

The pre-testing session which includes the administration of the GJCT, PT and TT took place in the 3rd week of the semester. The tasks were given to two groups on different days. All the tasks were given at once and the participants first worked on the GJCT and PT and finally on TT. The whole session took an hour for both groups. Some participants had to ask the English counterparts of some words in the TT and the Turkish definition was given when a participant asked for an unknown word.

The course had started two weeks prior the pre-testing session. The topics covered in the course in each week are given in Table 13.

Table 13

Topics Covered in Turkish Linguistics Course

1	Communication: Human and Language
2	Language
3	Language Acquisition
4	Phonetics and Phonology
5	Semantics
6	Morphology
7	Syntax

All throughout the course, the focus was on the linguistic properties of Turkish and comparison was made between Turkish and English in each aspect studied during the course. Pre-test was given in the third week of the course before studying Turkish phonetics and phonology. Causative/inchoative transitivity alternation was studied twice (in Week 5 and Week 6) during the course to ensure that all of the students taking the pre-test were present in the class.

The post-test session took place one week after the treatment was over. Post-testing session took less time than pre-testing for both groups. While pre-testing took almost an hour, participants submitted their post-tests in half an hour.

Follow-up test was given to both groups in the third week of the 2011 spring semester (10 weeks after the post-test).

3.5. Lesson Plans

While preparing the lesson plans for the experimental group, we kept in mind the four components that Norris and Ortega (2000) found pervasive in the studies they reviewed:

1. presentation of rules
2. provision of negative feedback
3. exposure to relevant input
4. opportunities for practice

The instruction type we utilized was explicit in that we used rule explanation and direction to attend to forms and arrive at rules. The activities we created were C-R activities such as highlighting the target form, cross-linguistic exploration (comparison with Turkish), hypothesis building (writing the rules for the target form), reconstruction (manipulating the input to notice the underlying patterns), identify (searching for the target form in authentic forms), and so on.

The lesson plans we utilized are given below. The worksheets given to the students can be found in Appendix D.

LESSON PLANS
Teacher Name: Esra Altunkol
Class/Audience: Sophomore students (Class 2N6)
Materials: Worksheets

Goals:

1. The first aim of these lessons is consciousness-raising on causative/inchoative transitivity alternations. To do this, first of all the teacher will have students share their pre-existing notions about causatives in Turkish and English. Students will then be presented with the typology of causatives (periphrastic, lexical and morphological). *(Presentation of rules)*
2. Students will be exposed to a variety of causative sentences in Turkish and English. *(Exposure to relevant input)*
3. Morphological differences in forming causatives between Turkish and English will be highlighted to make the students notice the differences between the two languages. *(Provision of negative feedback)*
4. The notion of causative/inchoative transitivity alternation will be presented marking the differences between Turkish and English. *(Presentation of rules)*
5. Students will be presented with exercises that will give them an opportunity to practice the new target form. *(Opportunities for practice)*

LESSON I

Activity I

Objective: Recalling students' previous knowledge

Duration: 10 Minutes

Task: The teacher writes some English and Turkish sentences in causative structure on the board and helps students recall their previous knowledge on causatives.

I made my friend call my father.
I broke my pencil.
Ödevimi ablama yaptırdım.
Evi çocuklara temizlettim.

Students then will be asked to write the rules for making causatives in English and Turkish to enhance the metalinguistic awareness on causatives.

Activity II

Objective: Hypothesis building

Duration: 15 Minutes

Task: Discussing their answers, the teacher lists down the ways causatives can be constructed in Turkish and English with examples. The teacher asks the students if they can think of different verbs that can be used as a lexical causative verb in English. The students will be encouraged to write sentences with the lexical causative verbs they come up with.

Activity III

Objective: Creating awareness on lexical causatives

Duration: 10 minutes

Task: The teacher gives a list of sentences with lexical causative verbs and asks students to spot the errors in them.

Activity IV

Objective: Presentation of causative/inchoative transitivity alternation

Duration: 20 Minutes

Task: The teacher writes the following sentences on the board and asks students if there is a difference in meaning.

I broke the window.
The window broke.

Then, the teacher asks the students to translate these sentences to Turkish to see if Turkish has a similar alternation.

Students are encouraged to think and discuss about how some verbs alternate in transitivity to build up metalinguistic awareness.

Later, students will be given the following verbs and asked to write causative sentences with these verbs in English.

bleed, sleep, try, close, fly, cool

Students will be asked if those verbs can alternate in line with the examples presented. From their answers, the rule for the alternation will be drawn together with the students.

Activity V

Objective: Cross-language exploration

Duration: 20 Minutes

Task: Students will be given the following Turkish verbs and asked to write Turkish causative sentences with them.

açmak, uyumak, kırmak, gülmek, boyamak, batmak

Students will be asked to think about whether Turkish has a similar way of alternating verbs in transitivity. The morphological process involved in Turkish will be explained and exemplified.

Activity VI

Objective: Assignment

Task: Students will be given the following assignment:

'For the next week, I want you to observe and note down every inchoative verb you encounter in any source you have access to (books, songs, the Internet). Bring your list and examples to the class next week.'

By doing this assignment, students will develop an awareness of causative/inchoative transitivity alternation and start noticing the causative/inchoative alternations used in authentic texts.

LESSON II

Activity I

Objective: Discussing students' findings for the assignment.

Duration: 15 minutes

Task: The lesson starts with the teacher asking students for specific sentences they found for their assignment. Selected examples from their assignment will be written on the board. The teacher will then ask the students to write the causative version of the

inchoative sentences on the board and see which of them can alternate and which of them can't.

Activity II

Objective: Identifying the target form

Duration: 10 minutes

Task: Students will be given a worksheet with highlighted passive, causative and inchoative verbs and asked to identify which form is used.

For some sentences, students will be asked to give situations for when the statements can be used.

Activity III

Objective: Discussion among students, arriving at rules, consolidation of the rule

Duration: 15 minutes

Task: Students will be asked the following questions about the worksheet they just analyzed.

1-Make 5 more sentences with causative and inchoative verbs about your life.
2-Try to form a language rule that explains the use of causative and inchoative verbs in your sentences and questions.
3-Share your questions and rule with your group and choose the best rule.

3.6. Reflections on the Procedure

The motivation of the students in the experimental group was higher than I expected. Seeing my students thinking about the problem actively and trying to find a solution to the problems presented also raised my motivation. When I left the classroom at the end of the first lesson, I was happy and satisfied. During the lessons, I could observe all of my students thinking about the subject matter. It was also a great motivation to me when they told me they had not learnt anything interesting like this in a long time and they thanked me for teaching them something so 'cool'.

As for the procedure, at first, all of the students thought that the sentences I gave

them in the inchoative form was incorrect and they thought they should be passives instead. It was interesting to observe them trying to figure out how such sentences could be correct. At the beginning, they rejected the sentences I wrote on the board. Then, I assured them that they are a hundred percent correct and I encouraged them to think about different examples. Later, they came up with examples I couldn't think of before. I actually could observe when they 'learnt' the subject matter.

I think the best part of the C-R activities was that they kept my students fully awake all throughout the lessons. They were alert for new information from beginning to the end, and they were in control of their learning process. Also, having the students think actively about the subject matter helped me to keep their attention on the lesson.

3.7. Data Analysis

The data was computerized with the help of SPSS (Statistical Package for Social Scientists). Before computerizing the data, the tasks were sorted out in the following way: In the GJCT, every correct and incorrect answer was given a value, (1) and (0) respectively. In the PT, every lexical causative construction was given (1) and every periphrastic causative construction was given (2) in Part A. In Part B, if the preference was correct, it was given (1) and if it was incorrect it was given (0). For the TT, all the translations were carefully evaluated in terms of the correct usage of the verb. The important factor here was the usage of verbs with or without an object. If the verb was correctly used in the translation, it was given (1). If the verb was incorrectly used regarding transitivity, it was given (0).

In order to see whether there was a statistically significant difference between two groups at the beginning of the study, we ran an independent samples t-test on the data obtained from the pre-test. At the end of the data collection procedure, the test of mixed design ANOVA was conducted to see if there was a statistically significant difference between the groups at the end of the study, that is to measure the effect of instruction.

3.8. Conclusion

This chapter has presented the methodological considerations of the study. The

chapter started with participant characteristics and gave a detailed description of the tasks used in the study. A large part of the chapter was devoted to the analysis of the pilot studies carried out before the main study. The procedure of data collection and instructional intervention were also described in a detailed way. The chapter also included the lesson plans utilized during the instructional intervention. Lastly, the chapter focused on the reflections of the researcher on the lessons and the data analysis procedure.

The following chapter presents the findings obtained from the data collection tools used in the study.

CHAPTER 4

RESULTS AND DISCUSSION

4.0. Introduction

In this study, we aim to investigate the L1 effect on the causative/inchoative transitivity alternations and the role of formal instruction in ruling out the possible L1 effect. For this purpose, we collected data from ELT students at Çukurova University. The data was collected in three stages. The first part of the data consists of the pre-test which has three different tasks (GJCT, PT, TT). After the pre-test, treatment was given which was later followed by a post-test. In order to test the long-term effect of the treatment, participants were also asked to take a follow-up test. In this chapter, the results of the data analysis are presented and discussed.

4.1. Analysis of the Pre-Test for Both Groups

In order to find out whether control and experimental groups performed significantly different on pre-test, independent samples t-tests were conducted with the GJCT, PT (Part B) and TT scores. The t-test results are shown in Table 14:

Table 14

T-test Results of the Pre-Test

Task	Groups		p
	Experimental	Control	
	Mean Scores		
GJCT	31.60	33.06	.120
PT (Part B)	9.35	8.88	.125
TT	18.70	18.88	.701

As seen in Table 14, the t-tests conducted on GJCT ($t_{(51)} = 1.58$, $p > 0.05$), PT (Part B) ($t_{(51)} = -1.56$, $p > 0.05$) and TT ($t_{(51)} = .38$, $p > 0.05$) did not reveal a statistically significant difference between the groups. This means that if there is a statistically

significant difference between the groups on the post-tests, it will be due to the instructional intervention.

Since the Part A of the PT asks the participants to give their preferences between two grammatically correct options, it doesn't let us run a t-test on it. In order to see if the preferences of the participants in the experimental and control groups differed significantly, we ran a chi-square test on this task. Table 15. shows the chi-square results for Part A of the PT:

Table 15
Chi-square Results of the Part A of the pre-test PT

Item #		EG n=20		CG n=33		Total n=53		x^2	df	p
		f	%	f	%	f	%			
2	lex	13	65.0	22	66.7	35	66.0	.015	1	.901
	per	7	35.0	11	33.3	18	34.0			
3	lex	9	45.0	16	48.5	25	47.2	.061	1	.805
	per	11	55.0	17	51.5	28	52.8			
4	lex	9	45.0	14	42.4	23	43.4	.034	1	.854
	per	11	55.0	19	57.6	30	56.6			
5	lex	14	70.0	25	75.8	39	73.6	.212	1	.645
	per	6	30.0	8	24.2	14	26.4			
6	lex	6	30.0	14	42.4	20	37.7	.818	1	.366
	per	14	70.0	19	57.6	33	62.3			
7	lex	10	50.0	18	54.5	28	52.8	.103	1	.748
	per	10	50.0	15	45.5	25	47.2			
8	lex	9	45.0	18	54.5	27	50.9	.454	1	.500
	per	11	55.0	15	45.5	26	49.1			
9	lex	11	55.0	13	39.4	24	45.3	1.224	1	.269
	per	9	45.0	20	60.6	29	54.7			
1	lex	6	30.0	6	18.2	12	22.6	-	-	-
	per	14	70.0	27	81.8	41	77.4			
10	lex	16	80.0	26	78.8	42	79.2	-	-	-
	per	4	20.0	7	21.2	11	20.8			

As seen in Table 15., the preferences of participants in both groups didn't reveal a significant difference on Items 2, 3, 4, 5, 6, 7, 8 and 9 ($p>0.05$ for all the items listed). Items 1 and 10 didn't meet the requirements of chi-square test; therefore, only frequencies and percentages of these items are given. Basing on this finding, we can again claim that any difference between the preferences of both groups at the end of the study will be stemming from the instructional intervention.

4.2. Analysis of the Pre-Test GJCT

The GJCT used in this study contains a set of 40 sentences in which alternating and non-alternating verbs were used. Alternating verbs came in grammatical pairs only. Non-alternating verbs were used grammatically and ungrammatically in each pair (see Appendix A). The purpose of this task was to elicit the intuitions of the participants about the grammaticality and ungrammaticality of the sentences presented. In this task participants were also asked to correct the sentences they judged as incorrect. This was done to ascertain that the sentence was judged incorrect for the verb used in it. This way, sentences which were judged incorrect for other reasons were accepted as a correct judgment as long as the verb was used correctly.

Table 16. below shows descriptive statistics of correct and incorrect judgments for alternating verbs in the GJCT.

Table 16

Distribution of Correct/Incorrect Judgments for Alternating Verbs in the Pre-Test GJCT

Verb	***TR***				***INTR***			
	Correct		Incorrect		Correct		Incorrect	
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*
Dry	50	94.3	3	5.7	36	67.9	17	32.1
Open	53	100.0	0	0.0	12	22.6	41	77.4
Freeze	32	60.4	21	39.6	50	94.3	3	5.7
Melt	33	62.3	20	37.7	50	94.3	3	5.7
Burn	42	79.2	11	20.8	31	58.5	22	41.5
Shrink	45	84.9	8	15.1	47	88.7	6	11.3
Soften	50	94.3	3	5.7	33	62.3	20	37.7
Warm	40	75.5	13	24.5	37	69.8	16	30.2
Increase	45	84.9	8	15.1	49	92.5	4	7.5
Fade	30	56.6	23	43.4	40	75.5	13	24.5

TR: Transitive sentence INTR: Intransitive sentence

As can be seen in Table 16, participants performed better on the task when dealing with sentences containing *open*, *soften* and *dry* in the transitive form. Majority of the participants could recognize transitive sentences with alternating verbs *open*, *soften* and *dry* (over 90% for all three verbs). On the other hand, what is interesting in this data is that participants' intuitions plummet dramatically when *open* is used in the intransitive form. Only 22.6% of the participants judge the following sentence as correct (Numbers next to the items indicate the number they come in the task):

3. The door opened.

When asked to correct this sentence if they judged it as incorrect, all of the students corrected it as the following (SC means Student Correction hereafter):

SC1: The door is/was opened.

This can suggest two things. The low performance of participants in judging *open* as correct in the intransitive form may be resulting from the fact that participants have not encountered such sentences before. Considering that the frequency of *open* used in the transitive form outnumbers the intransitive use in the second language learning context, it is only normal for the participants to have difficulty in recognizing sentences like (3). Another reason for the low performance of the participants might be linked to the L1 effect. The exact counterpart of the sentence in (3) in Turkish would be:

Kapı	aç-ıl-dı.
Door	open-anticaus/pass-past-3sg

The door opened./The door is/was opened.

The Turkish sentence has two readings unlike its English counterpart. The *–ıl* morpheme stands for both passive and anti-causative morpheme in Turkish. If the corrections of the participants are considered, we might conclude that the participants treated this sentence as passive rather than the anti-causative while the sentence in (3) is in the inchoative form in English. Since both forms are not distinguishable in Turkish and since such transitivity alternations are never formally taught, participants might be unaware of the fact that such a form exists in either Turkish or English.

When we look at Table 16, we see that participants were the least successful in judging the transitive sentences with *freeze*, *melt* and *fade.* Twenty-one participants (out of 53) judged the following sentence incorrectly:

23. When I took the ice cubes out of the tray, they froze my fingers.

When asked to correct (23), the following corrections were made by the participants who judged it as incorrect:

SC2: When I took the ice cubes out of the tray, they made my fingers froze(n). (*f*=10)
SC3: When I took the ice cubes out of the tray, my fingers froze. (*f*=9)

As seen in the corrections provided, participants who judged (23) incorrectly reconstructed it as either a periphrastic causative or inchoative sentence. This might again imply that participants prefer periphrastic causatives over lexical causatives due to the fact that the knowledge of lexical causatives is not taught explicitly unlike periphrastic causatives. Since students are rarely, if at all, taught detailed subcategorization frames of verbs in class, and since *freeze* is more commonly used in periphrastic causative constructions, it is not very surprising for the participants to come up with the correction they provided. *freeze* was judged correctly in the inchoative form by almost all of the participants (94.3%). This explains the second correction they provided. Majority of the participants feel that *freeze* is an intransitive verb by default, and lack the knowledge that it alternates in transitivity.

Same can also be said for *melt.* Participants performed better on the intransitive form treating it as an inchoative verb and rejecting it in the transitive form. Corrections provided for the transitive *melt* are below:

SC4: The ice was finally melted by the sun. (*f*=5)
SC5: The sun made the ice melt(ed). (*f*=13)

As the corrections suggest, participants also preferred *melt* in a periphrastic causative like *freeze*.

fade also seems to be a problematic verb. Only 56.6% and 75.5% participants judged it correctly in the transitive and intransitive forms respectively. Participants who judged it as incorrect in the transitive form provided the following corrections:

SC6: This shampoo made my hair fade. (*f*=20)
SC7: This shampoo is faded my hair. (*f*=2)

Like *freeze*, participants also preferred *fade* in a periphrastic causative structure rejecting it in the transitive form. However, they also did not perform very well on the inchoative form. They provided the following correction for the intransitive sentence:

SC8: *Versace once said that fashions are/were fade.* (*f*=9)

This time participants preferred the passive instead of the inchoative. The close relationship between the inchoative and passive forms can be attributed to this preference. Still, participants did better on the intransitive form.

Although most participants do not have a problem with *increase* in the intransitive sentence, their performance decreases if we look at the transitive sentence. Eight out of 53 participants judged the following sentence incorrectly:

40. Drugs increase athletes' heart rates and reaction time.

Six of the participants who judged (40) incorrectly provided the following correction for it (while the rest of them did not provide any correction at all):

SC9: Drugs make the athletes' heart rates and reaction times increase. (f=6)

As seen in the correction above, participants also feel that *increase* sounds better in a periphrastic causative construction. However, important thing to note here is the fact that they judge (40) as incorrect although it is perfectly correct. This again suggests us that participants lack the knowledge of lexical properties of the verb *increase*.

Participants performed better on the verb *burn* in the transitive form (79.2%) than the intransitive (58.5%). Still though, the general performance is low if we consider the frequency of the verb. The correction provided for *burn* in the transitive form is below:

SC10: The eyes and the lung can be burnt by the chemicals. (*f*=4)
SC11: Chemicals can make the eyes and the lungs burn. (*f*=2)

As seen in the corrections, participants either constructed the sentence in the passive or periphrastic causative structure. This indicates that they do not know whether *burn* can be used as a lexical causative. The correction provided for *burn* in the intransitive form is:

SC12: Books won't be burnt. (*f*=19)

Participants again preferred the passive form over the inchoative form. This might be because they are not familiar with the inchoative usage.

Participants' performances on the transitive and intransitive *shrink* were similar (84.9%; 88.7% respectively). One striking correction for the transitive *shrink* is noteworthy though:

SC13: I can't put this sweater in the dryer or it will shrinken the sweater.

The verb *shrinken* in the correction implies that the participant has the notion of lexical causatives since the suffix *–en* in English is used to derive verbs from adjectives giving them a causative meaning. However, the verb *shrink* is not one of those verbs and carries the causative meaning in itself. For that particular participant, we can say that s/he has the notion of lexical causatives but lacks the knowledge of which verbs have causative meanings in themselves.

The performance of the participants on the verb *warm* in general is low (75.5%; 69.8% transitive and intransitive respectively). The corrections provided for the transitive and intransitive *warm* are below:

SC14: Transitive: *This blanket will make you warm.* (*f*=12)

SC15: Intransitive: *The weather has been really bad for a while, but nowadays it's warm.* (*f*=9)

In the first correction, participants preferred the periphrastic causative rejecting *warm* as a lexical causative. In the second correction, participants rejected *warm* as a verb altogether and preferred the adjective instead. This implies that participants do not know whether *warm* is an inchoative verb that can also be used as a lexical causative.

From the data in Table 16., it is also apparent that participants slightly performed better in judging the alternating verbs in the transitive form. This might also be due to the fact that the inchoative form is almost never explicitly taught to Turkish foreign language learners of English.

Table 17

Distribution of Correct/Incorrect Judgments for Non-Alternating Verbs in the Pre-Test GJCT

	Verb		**Correct judgment**		**Incorrect judgment**	
			f	*%*	*f*	*%*
Intr.	Cry	Tr.	40	75.5	13	24.5
		Intr.	53	100.0	0	0.0
	Appear	Tr.	21	39.6	32	60.4
		Intr.	47	88.7	6	11.3
	Die	Tr.	41	77.4	12	22.6
		Intr.	50	94.3	3	5.7
	Laugh	Tr.	39	73.6	14	26.4
		Intr.	52	98.1	1	1.9
	Total	Tr.	141	66.52	71	33.47
		Intr.	202	95.27	10	4.72
Tr.	Cut	Tr.	50	94.3	3	5.7
		Intr.	45	84.9	8	15.1
	Write	Tr.	52	98.1	1	1.9
		Intr.	43	81.1	10	18.9
	Kick	Tr.	53	100.0	0	0.0
		Intr.	46	86.8	7	13.2
	Destroy	Tr.	51	96.2	2	3.8
		Intr.	49	92.5	4	7.5
	Kill	Tr.	51	96.2	2	3.8
		Intr.	48	90.6	5	9.4
	Hit	Tr.	51	96.2	2	3.8
		Intr.	36	67.9	17	32.1
	Total	Tr.	308	96.83	10	3.16
		Intr.	267	83.96	51	16.03

As mentioned before, non-alternating verbs in the GJCT came in grammatical/ungrammatical sentence pairs unlike the alternating verbs which were used grammatically in all sentences. The results obtained from the descriptive analysis of correct and incorrect judgments regarding the non-alternating verbs are presented in Table 17. above. The first column in the table shows whether the verbs are originally considered as transitive or intransitive. The Tr./Intr. next to each verb in the third column is used to indicate whether the verb is used in the transitive or intransitive form in the sentence in question.

The most striking result to emerge from the data is that the participants' performance on the verb *appear* shows a great contrast. When used in the intransitive form, almost all of the subjects (88.7%) could judge the sentence as correct.

1.Our earlier human ancestors appeared in Africa.

Participants who judged (1) as incorrect provided the following correction:

SC16: Our ancestors were appeared. (*f*=6)

As seen in the correction, participants rejected the inchoative form and changed it to passive. While they had little difficulty in judging (1) as correct, their judgments for the following sentence was less successful:

* 11. The magician appeared the rabbit out of his hat.

Only 21 participants could judge (11) as incorrect. This low performance can be attributed to the L1 effect as the Turkish counterpart of this sentence reads as the following:

Sihirbaz	şapka-sı-n-dan	tavşan	çık-ar-dı/çık-ar-t-tı.
Magician	hat-poss-abl	rabbit	take-caus-past-3sg-out

The magician took a rabbit out of his hat.

As seen above, the Turkish equivalent of the sentence is constructed in the causative form. The participants might have treated the verb *appear* in (11) as the causative verb *çıkar(t)mak* in Turkish since *appear* in (11) acts as a lexical causative although it is used incorrectly. This might suggest that participants still know that lexical causatives exist in English but they fail to recognize that *appear* does not undergo causative/inchoative transitivity alternations.

Generally, participants were successful in judging *laugh* in intransitive form (98.1%). While 39 participants could judge *laugh* in the transitive form correctly, all of the participants except for one could judge it correctly in the intransitive form. This result is not surprising when we consider that *laugh* is originally an intransitive verb. What is interesting is that, 4 participants made the following correction to (8) in which laugh was used as a transitive verb.

*8. His joke laughed me.
SC17: His joke was laughed me.

Although these participants could judge the sentence correctly, their correction reveals that they still have a problem with its causativization.

When we look at *cry,* we see that participants have no problem with seeing it in an intransitive sentence as it should be. All of the participants (100.0%) accepted *cry* in the intransitive form. However, when presented with *cry* in a transitive form, 13 participants judged it incorrectly accepting the sentence below:

*37. This movie always cries me.

It is apparent from (37) that participants who judged it as correct thought *cry* is a lexical causative.

Almost all of the participants judged *die* in the intransitive form correctly (94.3%). The three who thought *die* was not ok in the intransitive sentence provided the following correction for it:

SC18: Shirley was in a terrible car accident, but luckily she wasn't died.

Participants again rejected the inchoative form and preferred to use the passive.

Corrections provided for the transitive *die* are similar. While most of the participants (77.4%) could judge that transitive *die* was incorrect, their correction shows that they still do not know if it is a transitive or intransitive verb:

SC19: The insects were died by the pesticide. (*f*=6)

Twelve participants judged the transitive *die* incorrectly accepting it as a lexical causative.

When we look at the judgments for the transitive verbs, we see that the overall performance for transitive *write* was high. Only one participant failed to judge it correctly in the transitive form whereas 10 participants did so in the intransitive form. This might again be due to the fact that *write* is originally transitive.

If we look at *hit*, we see that participants did better in judging it correctly in the transitive form. Fifty-one participants judged it correctly in the transitive form while only 36 participants could do so in the intranstive. Comparatively, participants did better in judging *write* and *hit* in the transitive form. This fact leads us to conclude that generally, participants who fail to judge these verbs correctly in the intransitive form lack the knowledge of the lexical properties of the verbs in question.

The performance of the participants on the verbs *cut*, *kick*, *destroy* and *kill* are similar. Participants performed better on the transitive verbs in general. They were less successful in their judgments for the intransitive forms. Like *write*, this might be due the fact that these verbs are transitive in nature.

To assess the GJCT, we looked at two different verb categories. Our first group consisted of alternating and non-alternating verbs. In order to see whether there was a statistically significant difference between these verb groups, we ran a paired samples t-test. Table 18. below illustrates the group statistics for the GJCT for the first verb group.

As can be seen in the table, 53 participants answered the GJCT. Since alternating and non-alternating verb groups consisted of 20 sentences each, the mean scores given below show the average scores achieved on each verb category out of 20. It is apparent from Table 18. that participants performed better on the non-alternating verbs in the GJCT. That means their performance is better on non-alternating verbs.

Table 18

Group Statistics for Alternating and Non-Alternating Verbs in the Pre-Test GJCT

	n	Mean*	Std. Deviation
Alternating	53	14.34	2.46
Non-alternating	53	17.32	2.17

*20 sentences for each category (Total 40 sentences)

When we look at the group statistics for alternating and non-alternating verb categories in Table 18, we see that participants (n=53) were correct in their judgments with a mean score of 14.34/20 for alternating verbs and 17.32/20 for non-alternating verbs. Table 19. below presents the t-test results for the GJCT with the alternating and non-alternating verbs as variables. The t-test score $t_{(52)}$=6.54 (sig.=0.000), p<0.000 shows that there is a statistically significant difference between alternating and non-alternating verbs in favor of non-alternating verbs (see Table 19). Put in a different way, participants were significantly better in judging the sentences with non-alternating verbs correctly.

Table 19

Paired Samples T-test Results for Alternating and Non-Alternating Verbs in the Pre-Test GJCT

	t	df	Sig. (2-tailed)
Alternating-Non-alternating	6.54	52	.000

We also ran a paired samples t-test with transitive and intransitive verbs as variables. Table 20. below displays the group statistics for this t-test. As with the first category of verbs (alternating and non-alternating), there were also 20 sentences for each category (transitive and intransitive). The results obtained from the preliminary analysis of Table 20. show that there is not a significant difference between the mean

scores of transitive and intransitive verbs. The mean score for transitive verbs is 16.40/20, and for intransitive verbs 16.11/20. When we look at the relationship between the variables transitive and intransitive, we see that participants (n=53) did not show a statistically significant difference in their judgments ($t_{(52)}$ = 1.076 (sig.=.287) p>0.05) (see Table 21.).

Table 20

Group statistics for Transitive and Intransitive Verbs in the Pre-Test GJCT

	n	Mean*	Std. Deviation
Transitive	53	16.40	1.93
Intransitive	53	16.11	1.90

*20 sentences for each category (Total 40 sentences)

Table 21

Paired Samples T-test Results for Transitive and Intransitive Verbs in the Pre-Test GJCT

	t	df	Sig. (2-tailed)
Transitive-Intransitive	1.076	52	.287

To sum up, we can conclude that participant judgments were significantly more correct on non-alternating verbs. However, there is not a statistically significant difference between transitive and intransitive verbs. This suggests that participants lack the knowledge of which verbs alternate in transitivity.

4. 3. Analysis of the Pre-Test PT

The PT consisted of two parts, Part and Part B. The purpose of the Part A was to see whether participants prefer lexical causatives over periphrastic causatives. In Turkish there are no periphrastic causatives and in Part A of the task both sentences could be translated into Turkish roughly in the same way.

Table 22. below displays the descriptive statistics for Part A of the PT.

Table 22

Preferences of the Participants in Part A of the Pre-Test PT

Verb	**Lexical**		**Periphrastic**	
	f	*%*	*f*	*%*
Dry	12	22.6	41	77.4
Open	35	66.0	18	34.0
Freeze	25	47.2	28	52.8
Melt	23	43.4	30	56.6
Burn	39	73.6	14	26.4
Shrink	20	37.7	33	62.3
Soften	28	52.8	25	47.2
Warm	27	50.9	26	49.1
Increase	42	79.2	11	20.8
Fade	24	45.3	29	54.7

Table 22. shows that participants preferred *dry*, *freeze*, *melt*, *shrink* and *fade* as periphrastic causatives more often than lexical causatives whereas they preferred *open*, *burn*, *soften*, *warm* and *increase* as lexical causatives.

In the GJCT, participants were more correct in their judgments for *dry* when it was used as a transitive verb. This result is surprising. While 50 participants (n=53) accepted *dry* as a lexical causative in the GJCT, only 12 preferred it as a lexical causative in the Part A of the PT. The reason for this might be that in the GJCT sentence, there was another verb involved and this complicated the processing of the sentence by the participants. For this reason, they might have resembled the sentence to a periphrastic causative structure.

GJCT sentence: Don't bother drying the dishes.
PT sentence: The sun dried my clothes.

freeze was judged more correctly when it was used as an intransitive verb in the GJCT. Ten participants corrected the transitive verb changing it to a periphrastic causative:

SC20: They made my fingers froze(n).

For this reason, we expected the participants to prefer the periphrastic causative in the Part A of the PT with a higher frequency. However, only 28 participants preferred it in a periphrastic construction.

Another interesting finding from the PT analysis is related to the preference of *open*. Thirty-five participants preferred *open* in a lexical causative whereas only 18 preferred it in a periphrastic causative. This result is inconsistent with the GJCT. In the GJCT, all of the participants (100.0%) accepted *open* when used in a transitive sentence, which is very similar to the one in the PT:

GJCT sentence: The children opened the door.
PT sentence: The wind opened the door.

Considering the low frequency of *open* in a periphrastic causative, it is noteworthy that 18 participants preferred the following:

2a. The wind made the door open.

Comparison of preferences for *soften* and *increase* with the GJCT judgments also reveals striking findings. *soften* was judged as correct in a transitive sentence by 50 participants and only by 33 participants when used in an intransitive sentence in the GJCT. Participants who judged the following sentence as incorrect provided a correction reproducing the sentence as passive:

GJCT sentence: He softened when the child started to cry
SC21: *He was softened when the child started to cry*. (*f*=15)

In the PT, only 25 participants preferred the periphrastic causative with *soften*. This means participants' preference to accept *soften* as a transitive verb is consistent with their judgments.

Transitive *increase* was accepted as correct by the majority of the participants (84.9%) in the GJCT, and only 8 participants thought it was incorrect. Six participants who judged the transitive sentence as incorrect provided the following correction:

SC22: Drugs make the athletes' heart rates and reaction times increase.

On the contrary, *increase* was preferred as a lexical causative by 42 participants, and only 11 participants preferred it in a periphrastic causative. Thus, GJCT judgments and PT preferences for *increase* are consistent.

Participants' preferences for *melt* and *shrink* are similar. While 23 and 20 participants preferred these verbs as lexical causatives respectively, 30 and 33 respectively preferred them as periphrastic causatives in the PT. This result is consistent with the GJCT judgments. Both verbs were judged as correct when used in intransitive sentences with higher frequencies (50; 47 respectively), and they were rejected as lexical causatives by 20 (*melt*) and 8 (*shrink*) participants.

Findings related to the verbs *warm* and *fade* are also similar. *warm* was preferred as a lexical causative by 27 participants, and *fade* by 24 participants. When we look at the GJCT judgments, we see that *warm* was accepted as a lexical causative in the transitive form by 40 participants and *fade* by 30 participants. Participants' judgments and preferences seem to support each other for both verbs.

burn was preferred as a lexical causative by the majority of the participants (73.6%) in the PT. When we look at the GJCT judgments, we see that it was accepted in the transitive form by 42 participants. This again shows that the judgments and the preferences of the participants are consistent.

To sum up, although there is consistency with the judgments and the preferences for most of the verbs, there is inconsistency for three verbs (*dry*, *freeze, open*). For example, although *freeze* was judged incorrect as a transitive verb 21 times in the GJCT and was corrected as a make-causative 10 times, it was still preferred as a lexical causative in the PT by almost half of the participants. Another conclusion that can be drawn from Part A of the PT is that participants' preferences do not tend to favor any type of causatives. In Montrul's (1997) study, participants preferred lexical causatives over periphrastic causatives. Her hypothesis was that Turkish learners would prefer the periphrastic construction because of the overt causative morpheme in Turkish.

However, her findings were the opposite. Her conclusion was that some learners simply did not know the periphrastic causative construction in English. In our case, though, we cannot say that the participants lacked the knowledge of make-causatives since the corrections they provided in the GJCT show that they know how to make a periphrastic causative construction.

Table 23

Preferences of the Participants in Part B of the Pre-Test PT

	Verb	**Correct usage**		**Incorrect usage**	
		f	%	*f*	%
Lex.	Cut	52	98.1	1	1.9
	Kick	53	100.0	0	0.0
	Destroy	49	92.5	4	7.5
	Kill	52	98.1	1	1.9
	Write	52	98.1	1	1.9
	Hit	52	98.1	1	1.9
Per.	Cry	49	92.5	4	7.5
	Appear	35	66.0	18	34.0
	Laugh	40	75.5	13	24.5
	Die	46	86.8	7	13.2

The purpose of Part B of the task was to see whether participants prefer to use causative verbs as lexical causatives or periphrastic causatives and whether they prefer to use inchoative verbs as lexical or periphrastic causatives. In each sentence pair, one of the preference was ungrammatical. The hypothesis is that since Turkish requires morphological processes in forming causative structures, participants would be more likely to use periphrastic causatives in Part B.

Table 23 above shows the distribution of correct and incorrect preferences for non-alternating verbs. The first column shows whether the correct preference should be lexical or periphrastic.

It is clear from Table 23 that participants were more successful in their preferencs for *cut*, *kick*, *destroy*, *kill* and *hit* which were all correct as lexical causatives. However, the preferences for the periphrastic causatives seem to be problematic. For example, *appear* was preferred as a lexical causative 18 times. This is, however,

consistent with participants' GJCT judgments. In the GJCT, also, 32 participants judged *appear* incorrectly as a transitive verb. Preferences and judgments for *laugh* are also consistent. Thirteen participants judged *laugh* incorrectly as a transitive verb and 13 participants preferred it as a lexical causative in the PT.

Overall preferences in Part B of the PT suggest that participants do not have a problem with non-alternating verbs that have a lexical causative meaning. However, participants have difficulty in identifying non-alternating verbs that are inchoative. They tend to use inchoative verbs as lexical causatives. This result is in line with Montrul's (1997) study in which her participants preferred lexical causatives over periphrastic causatives although Turkish requires complex morphological processes. It could be that the relative complexity of make-causatives complicates the processing of the sentences for the learners, and the lack of knowledge about which verbs alternate in transitivity makes the learners prefer lexical causatives over periphrastic causatives.

4.4. Analysis of the Pre-Test TT

Table 24. below shows the correct and incorrect translations for inchoative and causative verbs in the task. *Inch* and *Caus* in the first column indicates whether the verb is a causative or inchoative verb. Next to the verbs *inch*, *caus*, and *pass* indicate whether the verb is expected to be used in an inchoative, causative or passive form.

Table 24

Distribution of Correct and Incorrect Translations in the Pre-Test TT

	Verb		**Correct translation**		**Incorrect translation**	
			f	*%*	*f*	*%*
Inch.	Cry	Inch.	53	100.0	0	0.0
		Caus.	51	96.2	2	3.8
	Appear	Inch.	49	92.5	4	7.5
		Caus.	41	77.4	12	22.6
	Die	Inch.	49	92.5	4	7.5
		Caus.	39	73.6	14	26.4
	Laugh	Inch.	52	98.1	1	1.9
		Caus.	49	92.5	4	7.5
	Total	Inch.	203	95.77	9	4.22
		Caus.	180	84.92	32	15.07
Caus.	Cut	Caus.	52	98.1	1	1.9
		Pass.	52	98.1	1	1.9
	Write	Caus.	53	100.0	0	0.0
		Pass.	51	96.2	2	3.8
	Kick	Caus.	53	100.0	0	0.0
		Pass.	51	96.2	2	3.8
	Destroy	Caus.	52	98.1	1	1.9
		Pass.	50	94.3	3	5.7
	Kill	Caus.	53	100.0	0	0.0
		Pass.	50	94.3	3	5.7
	Hit	Caus.	53	100.0	0	0.0
		Pass.	44	83.0	9	17.0
	Total	Caus.	316	99.36	2	0.63
		Pass.	298	93.68	20	6.31

It is obvious from the table that participants have no problem with the verb *cry* (100% in inchoative and 96.2% in causative form). This might be due to the high usage frequency of the verb. However, it is still noteworthy that the verb was used as a lexical causative 2 times (ST means Student Translation hereafter):

ST1: The man cried the girl.

The verb *laugh* also does not seem to be problematic although the GJCT judgments and the PT preferences suggested otherwise. It was used correctly in inchoative and causative forms (98.1% and 92.5% respectively). The incorrect translation for the causative form is below:

ST2: Her jokes laughed me. (*f*=4)

Although *appear* was used correctly in the inchoative form by the majority of the participants (92.5%), it was not used correctly in the causative form by 12 participants. The incorrect translation is given below:

ST3: This drug appeared red sports on my face. (*f*=11)

As can be seen in the translation, 11 participants preferred to use *appear* as a lexical causative. Compared with the GJCT judgments and the PT preferences, this result is not surprising. Thirty-two participants had judged *appear* as correct as a lexical causative in the GJCT and it was preferred as a lexical causative by 18 participants in the PT. We can conclude that participants lack the knowledge of the properties of *appear*.

Similarly, *die* was used correctly in the inchoative form by the majority of the participants (92.5%), but not in the causative form (73.6%). It was used as a lexical causative in 13 translations:

ST4: Cigarette dies people. (*f*=13)

Again, compared with the GJCT judgments and the PT preferences, such translations are not surprising. It is also apparent that *die* is a problematic verb for the participants in spite of its high usage frequency.

When we look at the causative verbs, however, we see that the only problematic verb is *hit*. While participants had no difficulty in translating *hit* using it in a causative structure (100.0%), they were not so successful in their translations for the passive *hit* (83.0%):

ST5: He was hit to our car. (*f*=4)
ST6: They hit our car. (*f*=3)

As seen in the translations, participants constructed the sentence in active voice or failed in their attempts of constructing it in passive voice. This might have stemmed

from the lack of knowledge about passive voice in English, because only 67.9% of the participants could also judge *hit* correctly in the intransitive form in the GJCT.

*(29) A player hit during the game.

In (29) it is treated as an inchoative verb, but drawing from the general tendency of the participants to treat inchoative verbs as passive we can say that it is understood as passive here. This fact leads us to conclude that, generally, participants who fail to judge *hit* correctly in the intransitive form lack the knowledge of the lexical properties of the verb.

4. 5. Analysis of the Post-Test GJCT

GJCT was first delivered to experimental and control groups prior to the treatment. After the treatment, GJCT was administered as a post-test to both groups to see whether there was a difference in the performances of both groups. Since we do not expect a significant difference between control group's pre- and post-test performances (see Table 25 for mean scores), here we will look into the nature of the experimental group's judgments only.

Table 25

Group Statistics for Pre-Test and Post-Test GJCT

Groups	PRETEST			POSTTEST		
	N	Mean	Sd.	N	Mean	Sd.
Experimental	20	31.60	2.68	20	37.35	2.03
Control	29	33.24	3.67	29	33.52	2.42

Table 26 below shows the distribution of correct and incorrect judgments for alternating verbs in the post-test GJCT by the experimental group, in comparion to pre-test.

Table 26

Distribution of Correct/Incorrect Judgments for Alternating Verbs in the Pre- and Post-Test GJCT

	Pre-test n=53								Post-test n=20					
Verb	***TR***				***INTR***				***TR***				***INTR***	
	Correct		Incorrect		Correct		Incorrect		Correct		Incorrect		Correct	Incorrect
	f	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%
Dry	50	94.3	3	5.7	36	67.9	17	32.1	20	100.0	0	0.0	20	100.0
Open	53	100.0	0	0.0	12	22.6	41	77.4	20	100.0	0	0.0	20	100.0
Freeze	32	60.4	21	39.6	50	94.3	3	5.7	18	90.0	2	10.0	20	100.0
Melt	33	62.3	20	37.7	50	94.3	3	5.7	18	90.0	2	10.0	20	100.0
Burn	42	79.2	11	20.8	31	58.5	22	41.5	18	90.0	2	10.0	20	100.0
Shrink	45	84.9	8	15.1	47	88.7	6	11.3	19	95.0	1	5.0	20	100.0
Soften	50	94.3	3	5.7	33	62.3	20	37.7	20	100.0	0	0.0	20	100.0
Warm	40	75.5	13	24.5	37	69.8	16	30.2	18	90.0	2	10.0	20	100.0
Increase	45	84.9	8	15.1	49	92.5	4	7.5	17	85.0	3	15.0	20	100.0
Fade	30	56.6	23	43.4	40	75.5	13	24.5	11	55.0	9	45.0	20	100.0

TR: Transitive sentence INTR: Intransitive sentence

As can be seen in Table 26, participants performed better on the task when dealing with sentences containing *open*, *soften* and *dry* in the transitive form and *open*, *freeze*, *melt* and *warm* in the intransitive form. All of the participants in the experimental group could recognize transitive sentences with alternating verbs *open*, *soften* and *dry* and intransitive sentences with alternating verbs *open*, *freeze*, *melt* and *warm*. Compared with the judgments in the pre-test (see also Table 16.), we see that participants were also successful in their judgments for *open*, *soften*, and *dry* in transitive sentences, but the important thing to note here is that while in the pre-test only 22.6% of the participants could judge *open* in intransitive form correctly, all of the participants judged it correctly in the post-test.

When we look at Table 26, we see that participants were the least successful in judging the transitive sentences with *fade.* Only 55% of the participants could judge it correctly in the post-test. Similarly, only 56.6% of the participants could judge it correctly in the pre-test. This means that participants' judgments for *fade* did not change after the treatment. They also came up with similar corrections for the transitive *fade*:

SC23: This shampoo made my hair fade. (*f*=8)

SC24: My hair was faded. (*f*=1)

As seen in the first correction, participants preferred *fade* in a periphrastic causative rejecting it in the transitive form. On the other hand, unlike in the pre-test, all but one participants judged the intransitive *fade* correctly.

When we turn to *increase*, we see that like the pre-test, most participants do not have a problem with it in the intransitive sentence (95% correct judgment). In contrast, their judgments are less correct on the transitive sentence (85% correct judgment) similar to the pre-test performance. The correction provided is below:

SC25: Drugs make the athletes' heart rates and reaction times increase. (*f*=2)

Again, similar to the pre-test correction, participants reconstructed the sentence as a periphrastic causative.

Participants still have problems with the verb *burn* in the post-test. Although the correct judgments have increased in the post-test, the intransitive *burn* was still judged as incorrect by 15% of the participants in the experimental group. The correction provided for intransitive *burn* is below:

SC26: Books won't be burnt. (*f*=3)

From this incorrect judgment and the correction provided, we can assume that these three participants do not know that *burn* is an alternating verb and that it can be used as a lexical causative.

As in the pre-test, participants' performances on the transitive and intransitive *shrink* were close (95%; 100% respectively). However, there is an increase in the correct judgments in the post-test.

The performance of the participants on the verb *warm* in the post-test improved. While 69.8% of the participants in the pre-test accepted *warm* as an intransitive verb, all of the participants in the post-test did so. For the transitive usage, we can conclude that

although most of the participants judged the transitive *warm* correctly, the two incorrect judgments are still noteworthy. Similar to the pre-test correction, the following correction was given for the transitive *warm:*

SC27: This blanket will make you warm. (*f*=2)

Overall, we can conclude that participants were slightly more successful in judging the alternating verbs in the transitive form similar to the pre-test. It is also apparent in the Table 25. that the participants in the experimental group outperformed the participants in the control group. This difference is likely to stem from the treatment given to the experimental group.

Table 27

Distribution of correct/incorrect judgments for non-alternating verbs in the pre- and post-test GJCT

			Pre-test n=53				**Post-test n=20**			
			Correct judgment		**Incorrect judgment**		**Correct judgment**		**Incorrect judgment**	
	Verb		*f*	%	*f*	%	*f*	%	*f*	%
Intr.	Cry	Tr.	40	75.5	13	24.5	17	85.0	3	15.0
		Intr.	53	100.0	0	0.0	20	100.0	0	0.0
	Appear	Tr.	21	39.6	32	60.4	19	95.0	1	5.0
		Intr.	47	88.7	6	11.3	20	100.0	0	0.0
	Die	Tr.	41	77.4	12	22.6	19	95.0	1	5.0
		Intr.	50	94.3	3	5.7	20	100.0	0	0.0
	Laugh	Tr.	39	73.6	14	26.4	17	85.0	3	15.0
		Intr.	52	98.1	1	1.9	20	100.0	0	0.0
	Total	Tr.	141	66.52	71	33.47	72	90.0	8	10.0
		Intr.	202	95.27	10	4.72	80	100.0	0	0.0
Tr.	Cut	Tr.	50	94.3	3	5.7	20	100.0	0	0.0
		Intr.	45	84.9	8	15.1	17	85.0	3	15.0
	Write	Tr.	52	98.1	1	1.9	20	100.0	0	0.0
		Intr.	43	81.1	10	18.9	16	80.0	4	20.0
	Kick	Tr.	53	100.0	0	0.0	20	100.0	0	0.0
		Intr.	46	86.8	7	13.2	18	90.0	2	10.0
	Destroy	Tr.	51	96.2	2	3.8	20	100.0	0	0.0
		Intr.	49	92.5	4	7.5	18	90.0	2	10.0
	Kill	Tr.	51	96.2	2	3.8	20	100.0	0	0.0
		Intr.	48	90.6	5	9.4	19	95.0	1	5.0
	Hit	Tr.	51	96.2	2	3.8	20	100.0	0	0.0
		Intr.	36	67.9	17	32.1	19	95.0	1	5.0
	Total	Tr.	308	96.83	10	3.16	120	100.0	0	0.0
		Intr.	267	83.96	51	16.03	107	89.2	13	10.8

Table 27. above presents the descriptive analysis of correct and incorrect judgments regarding the non-alternating verbs in the post-test GJCT. As seen in the table, participants were highly successful (100% for all verbs in this category) in judging the intransitive verbs *cry*, *appear*, *die* and *laugh* when they were used in an intransitive form.

Compared with the pre-test, we see that the participants' performance on *appear* improved dramatically (see also Table 17.). When used in the intransitive form, all of the subjects could judge *appear* correctly, and when used in the transitive form all but one participants judged it correctly. In contrast to the pre-test, participants' judgments on the transitive *appear* were more correct on the post-test (compare 39.6% to 95%). This means participants rejected the incorrect sentence, which implies that they became aware that *appear* is a non-alternating verb after the treatment.

Similar to the pre-test, participants judged *die* correctly in the intransitive form. All of the participants could judge *die* correctly as an intransitive verb on the post-test. However, judgments for the transitive *die* differ on the post-test in that participants tended to reject the transitive *die* with a higher percentage on the post-test (95%, compare with 77.4% on the pre-test). This again suggests that participants in the experimental group learned that *die* does not alternate in transitivity after the treatment.

Compared with the pre-test judgments for intransitive *laugh,* the post-test judgments are similar. Participants accepted the intransitive *laugh* in both tests. While the post-test judgments were more correct (85% compared to 73.6% on the pre-test) for the transitive *laugh*, participants were still more successful in accepting the correct intransitive form than rejecting the incorrect transitive form.

Same can be said for *cry*. Participants again judged the intransitive *cry* correctly (100% on both tests). However, 85% of the participants rejected the transitive *cry* (compare with 75.5% on the pre-test). We can conclude that although only 85% of the participants in the experimental group rejected the transitive *cry*, there is still improvement in the post-test performance compared to the pre-test.

When we look at the judgments for the transitive verbs in Table 27, we see that all participants were correct in their judgments for all of the transitive verbs in the transitive form on the post-test. On the pre-test, participants were also better in accepting the transitive verbs in the transitive form than rejecting the intransitive form; however, compared with the pre-test, there is a noticable increase in the correct judgments in the post-test .

Participants were the least successful in judging *write*, *cut*, *kick* and *hit* in the intransitive form correctly on the pre-test. On the post-test, while the performance of the participants is better than the pre-test for *kick* and *hit*, *write* and *cut* still remain to be problematic. Despite the high frequency of *write* and *cut* , not all participants have fully mastered the lexical properties of these verbs.

As in the pre-test, we ran paired samples T-test on different verb groups in the post-test GJCT to see if the performance of the experimental group differed on alternating and non-alternating and transitive and intransitive verb groups. Table 28. displays the group statistics for alternating and non-alternating verb group.

Table 28

Experimental Group's Statistics for Alternating and Non-Alternating Verbs in the Post-Test GJCT

	n	Mean*	Std. Deviation
Alternating	20	18.40	1.64
Non-alternating	20	18.95	1.47

*20 sentences for each category (Total 40 sentences)

As seen in the above table, the mean scores for both verb categories are very similar (18.40/20 for alternating verbs; 18.95/20 for non-alternating verbs). Table 29. below displays the t-test results for this verb group.

Table 29

Paired Samples T-test Results for Alternating and Non-Alternating Verbs in the Post-Test GJCT

	t	df	Sig. (2-tailed)
Alternating-Non-alternating	-1.047	19	.508

The t-test score $t_{(19)}$=-1.047 (sig.=.508), p>0.05 shows that there is not a statistically significant difference between alternating and non-alternating verbs. In the pre-test, however, participants had performed better on non-alternating verbs. This implies that the overall increase in the performance of participants also reveals itself in these verb groups.

Table 30. displays the group statistics for transitive and intransitive verb categories.

Table 30

Experimental Group's Statistics for Transitive and Intransitive Verbs in the Post-Test GJCT

	n	Mean*	Std. Deviation
Transitive	20	18.55	1.32
Intransitive	20	18.80	1.40

*20 sentences for each category (Total 40 sentences)

The mean scores obtained from the analysis do not reveal a significant difference between verb categories (18.55/20 for transitive verbs; 18.80/20 for intransitive verbs). The t-test result ($t_{(19)}$=-.620 (sig.=.543), p>0.05 presented in Table 31. also shows that the difference is not statistically significant.

Table 31

Paired Samples T-test Results for Transitive and Intransitive Verbs in the Post-Test GJCT

	t	df	Sig. (2-tailed)
Transitive-Intransitive	-.620	19	.543

To sum up, participant judgments were not significantly different on different verb groups. Comparison with the pre-test results, it is also apparent that participants' performance increased on both groups of verbs. In other words, the overall increase in the performance of the participants reveals itself in different verb groups as well.

4.6. Analysis of the Post-Test PT

Since the Part A of the PT asks the participants to give their preferences between two grammatically correct options, it doesn't let us run a t-test on it. In order to see if the preferences of the participants in both groups differed significantly on the post-test we ran a chi-square test on Part A of the post-test PT as well. Table 32 shows the chi-square results for Part A of the PT:

Table 32

Chi-square results of Part A of the post-test PT

Item #		EG n=20 f	EG n=20 %	CG n=29 f	CG n=29 %	Total n=49 f	Total n=49 %	x^2	df	p
1	lex	8	40.0	12	41.3	20	40.8	.009	1	.923
	per	12	60.0	17	58.6	29	59.2			
3	lex	13	65.0	14	48.2	27	55.1	1.338	1	.247
	per	7	35.0	15	51.7	22	44.9			
4	lex	14	70.0	15	51.7	39	59.2	1.637	1	.201
	per	6	30.0	14	48.2	14	40.8			
6	lex	11	55.0	12	41.3	23	46.9	.882	1	.348
	per	9	45.0	17	58.6	26	53.1			
7	lex	14	70.0	13	44.8	27	55.1	3.032	1	.082
	per	6	30.0	16	55.2	22	44.9			
8	lex	17	85.0	16	55.2	33	67.3	4.789	1	.029
	per	3	15.0	13	44.8	16	32.7			
10	lex	14	70.0	20	69.0	34	69.4	.006	1	.938
	per	6	30.0	9	31.0	15	30.6			
9	lex	12	60.0	9	31.0	21	42.9	4.055	1	.044
	per	8	40.0	20	69.0	28	57.1			
2	lex	15	75.0	24	82.7	39	79.6	-	-	-
	per	5	25.0	5	17.2	10	20.4			
5	lex	12	60.0	26	89.6	38	77.6	-	-	-
	per	8	40.0	3	10.3	11	22.4			

Items 2 and 5 in Part A did not meet the requirements of chi-square test. Items 1, 3, 4, 6, 7 and 10 did not reveal a statistically significant difference ($p>0.05$ for all these items). Items 8 and 9, though, revealed a statistically significant difference ($x^2_{(1)}=4.789$ (sig.=.029) $p<0.05$; $x^2_{(1)}=4.055$ (sig.=.044) $p<0.05$ respectively) whereas in the pre-test, none of the items yielded significant results.

Item 8 in this test is as follows:

a. The blanket warmed the duck.
b. The blanket made the duck warm.

Unlike in the pre-test, experimental and control groups differed significantly in their preferences for this item. While 85% of the participants in the experimental group preferred (a), only 55.2% of the participants in the control group did so. This suggests that after the treatment, experimental group's preference changed for *warm*.

Following is Item 9 from this test:

a. This product won't fade your hair color.
b. This product won't make your hair color fade.

Again, unlike in the pre-test, participants in both groups differed in their preferences for this item. While 60% of the participants in the experimental group preferred (a) over (b), only 31% of the participants in the control group preferred (a). Majority of the control group (69%) preferred *fade* in a periphrastic causative.

Table 33. below displays the preferences of participants in Part A of the post-test PT for the experimental group, in comparison with the pre-test.

Table 33

Preferences of Participants in Part A of the Pre- and Post-Test PT

Verb	**Pre-test n=53**				**Post-test n=20**			
	Lexical		**Periphrastic**		**Lexical**		**Periphrastic**	
	f	*%*	*f*	*f*	*%*	*%*	*f*	*%*
Dry	12	22.6	41	77.4	8	40.0	12	60.0
Open	35	66.0	18	34.0	15	75.0	5	25.0
Freeze	25	47.2	28	52.8	13	65.0	7	35.0
Melt	23	43.4	30	56.6	14	70.0	6	30.0
Burn	39	73.6	14	26.4	12	60.0	8	40.0
Shrink	20	37.7	33	62.3	11	55.0	9	45.0
Soften	28	52.8	25	47.2	14	70.0	6	30.0
Warm	27	50.9	26	49.1	17	85.0	3	15.0
Increase	42	79.2	11	20.8	14	70.0	6	30.0
Fade	24	45.3	29	54.7	12	60.0	8	40.0

Table 33. shows that for all the verbs except *dry*, participants preferred lexical causatives more often than periphrastic causatives. The preferences of participants do not seem to be changed for *dry* in the post-test. In the pre-test, too, *dry* was preferred as a periphrastic causative by most of the participants. This is still in contrast with their GJCT judgments. In both pre- and pos-test GJCT, participants were more successful in judging *dry* in a transitive sentence in which it was used as a lexical causative.

Although *freeze* was judged more correctly in an intransitive sentence in both pre- and post-test GJCT, in the PT, it was preferred as a lexical causative by 65% of the participants in the experimental group in the post-test.

Compared with the pre-test PT, we see that the preferences pertaining to *open* have changed in the post-test. While 66% of the participants preferred it as a lexical causative in the pre-test, 75% of the participants did so in the post-test. Considering that the judgments for the intransitive *open* were also more successful in the post-test GJCT, we can conclude that the treatment given to the experimental group did make a difference in participants' judgments and preferences.

In general, participants' preferred lexical causatives more often they did periphrastic causatives compared to the pre-test PT (see also Table 22). However, *burn* and *increase* differ in this respect. While 60% and 70% of the participants (*burn* and *increase* respectively) preferred the lexical causatives in the post-test, 73.6% and 79.2% of the participants (*burn* and *increase* respectively) in the experimental group had preferred the lexical causatives in the pre-test. If we compare with the post-test GJCT judgments, we can conclude that participants' judgments and preferences pertaining to *burn* and *increase* have changed after the treatment.

To sum up, participants' preferences in Part A of the post-test PT have changed after the treatment. While their preferences in the pre-test could not be generalized, we can conclude that in the post-test participants preferred lexical causatives more often than periphrastic causatives. This finding is in line with Montrul's (1997) study in which her participants preferred lexical causatives over periphrastic causatives.

Table 34. below presents the mean scores of both groups on pre- and post-test Part B of the PT. The mean scores suggest that a statistically significant difference is not to be expected on this test.

Table 34

Group Statistics for Pre-Test and Post-Test Part B of the PT

Groups	PRETEST			POSTTEST		
	N	Mean	Sd.	N	Mean	Sd.
Experimental	20	9.35	1.04	20	9.55	.76
Control	29	8.83	1.04	29	8.93	.96

Table 35

Preferences of Participants in Part B of the Pre- and Post-Test PT

		Pre-test n=53				**Post-test** n=20			
		Correct usage		**Incorrect usage**		**Correct usage**		**Incorrect usage**	
	Verb	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*
Lex.	Cut	52	98.1	1	1.9	20	100.0	0	0.0
	Kick	53	100.0	0	0.0	20	100.0	0	0.0
	Destroy	49	92.5	4	7.5	19	95.0	1	5.0
	Kill	52	98.1	1	1.9	20	100.0	0	0.0
	Write	52	98.1	1	1.9	20	100.0	0	0.0
	Hit	52	98.1	1	1.9	20	100.0	0	0.0
Per.	Cry	49	92.5	4	7.5	18	90.0	2	10.0
	Appear	35	66.0	18	34.0	17	85.0	3	15.0
	Laugh	40	75.5	13	24.5	17	85.0	3	15.0
	Die	46	86.8	7	13.2	20	100.0	0	0.0

Table 35. above displays the distribution of correct and incorrect preferences for non-alternating verbs in Part B of the post-test PT by the experimental group, in comparion to the pre-test.

Like in the pre-test, participants were more successful in their preferences for verbs which carry the causative meaning in their lexical properties. Again similar to the pre-test results, participants preferred the incorrect causative sentence more frequently. The verbs which required the periphrastic causative structure were preferred as lexical

causatives more often than vice versa. What is interesting, though, is that participants were more successful in their judgments in the post-test GJCT for these verbs except *laugh* and *cry* (see Table 24). Preferences for *die* are consistent compared with the post-test GJCT judgments. *appear*, on the other hand, shows a contrast with the post-test GJCT. While participants were more successful in their judgments for *appear*, three participants still preferred it as a lexical causative in the post-test PT. Judgments for *laugh* and *cry* were less correct in transitive sentences (85% for both verbs) than other verbs in this category in the post-test GJCT. Similarly, these verbs were prefered as a lexical causative by 85% and 90% of the participants respectively. This suggests that not all the students in the experimental group changed their intuitions and preferences for *laugh* and *cry*.

In general, we can conclude that participants do not have a problem with verbs carrying the causativity in their lexical properties, but with verbs which are inchoative.

4.7. Analysis of the Post-Test TT

Table 36

Group Statistics for Pre-Test and Post-Test TT

Groups	PRETEST			POSTTEST		
	N	Mean	Sd.	N	Mean	Sd.
Experimental	20	18.70	2.13	20	18.70	2.45
Control	29	18.93	1.25	29	18.97	1.32

Table 36. presents the group statistics for pre- and post-test TT. As seen in the table, the mean scores of both groups are very close in both pre- and post-test TT. This suggests that the instruction given to the experimental group did not affect the performance of the participants on the TT.

Table 37. presents the correct and incorrect translations for inchoative and causative verbs in the post-test TT by the experimental group, in comparison with the pre-test.

Table 37

Distribution of Correct/Incorrect Translations in the Pre- and Post-Test TT

	Verb		Pre-test n=53				Post-test n=20			
			Correct translation		Incorrect translation		Correct translation		Incorrect translation	
			f	%	*f*	%	*f*	%	*f*	%
Inch.	Cry	Inch.	53	100.0	0	0.0	20	100.0	0	0.0
		Caus.	51	96.2	2	3.8	20	100.0	0	0.0
	Appear	Inch.	49	92.5	4	7.5	20	100.0	0	0.0
		Caus.	41	77.4	12	22.6	17	85.0	3	15.0
	Die	Inch.	49	92.5	4	7.5	19	95.0	1	5.0
		Caus.	39	73.6	14	26.4	16	80.0	4	20.0
	Laugh	Inch.	52	98.1	1	1.9	20	100.0	0	0.0
		Caus.	49	92.5	4	7.5	19	95.0	1	5.0
	Total	Inch.	203	95.77	9	4.22	79	98.7	1	1.2
		Caus.	180	84.92	32	15.07	72	90.0	8	10.0
Caus.	Cut	Caus.	52	98.1	1	1.9	19	95.0	1	5.0
		Pass.	52	98.1	1	1.9	18	90.0	2	10.0
	Write	Caus.	53	100.0	0	0.0	20	100.0	0	0.0
		Pass.	51	96.2	2	3.8	18	90.0	2	10.0
	Kick	Caus.	53	100.0	0	0.0	19	95.0	1	5.0
		Pass.	51	96.2	2	3.8	19	95.0	1	5.0
	Destroy	Caus.	52	98.1	1	1.9	19	95.0	1	5.0
		Pass.	50	94.3	3	5.7	18	90.0	2	10.0
	Kill	Caus.	53	100.0	0	0.0	18	90.0	2	10.0
		Pass.	50	94.3	3	5.7	16	80.0	4	20.0
	Hit	Caus.	53	100.0	0	0.0	19	95.0	1	5.0
		Pass.	44	83.0	9	17.0	20	100.0	0	0.0
	Total	Caus.	316	99.36	2	0.63	114	95.0	6	5.0
		Pass.	298	93.68	20	6.31	109	90.8	11	9.1

Similar to the pre-test (see also Table 24), participants had no problem with the verbs *cry* and *laugh*. Compared with the post-test PT, in which participants were less correct on their preferences for *cry* and *laugh* than the other verbs in the same category, we can conclude that the participants who provided incorrect judgments and preferences are still in process of acquiring the lexical properties of these verbs.

The most problematic verbs in the post-test TT were *appear* and *die* in causative. Three and four participants respectively could not construct correct causative

sentences with these verbs. Following are the incorrect translations provided for these verbs:

ST7: This medicine appeared red spots on my face. (*f*=3)
ST8: Smoking can die people. (*f*=4)

As seen in the translations, some of the participants in the experimental group treated these verbs as lexical causatives. In the post-test PT, too, three participants had preferred *appear* as a lexical causative. However, *die* was never preferred as a lexical causative in the post-test PT. This can mean that participants recognize *die* as an inchoative verb when presented in a sentence, but some fail to use it correctly in causative sentences.

hit was the only problematic transitive verb in the pre-test TT. Participants had problems translating *hit* in passive. However, in the post-test TT, all of the participants could translate it correctly.

Another interesting finding from the post-test TT is that while participants were successful in translating *kill* correctly in causative and passive (100.0% and 94.3 correct respectively), participants in the experimental group were less successful in the post-test (90.0% and 80.0% respectively). Following incorrect translations were provided for *kill*:

ST9: Passive: *The man killed*. (*f*=4)
ST10: Causative: *John made the man kill(ed)*. (*f*=2)

The inchoative use of *kill* in the first translation is interesting. Generally, participants had tended to treat sentences with inchoative verbs as passives before the treatment. However, this time four participants did the opposite. They incorrectly used *kill* as an inchoative verb. These participants might have generalized the newly learned structure to verbs that do not alternate in transitivity. The translation for the causative *kill* supports this. Here too, two participants treated *kill* as an inchoative verb and instead of using it as a lexical causative, they used it in a periphrastic causative sentence.

cut, *write* and *destroy* were incorrectly translated in passive sentences by two participants each. Following are the incorrect translations for these verbs:

Turkish sentence	**Translation**
Et kes-il-di. Meat cut-pass-past The meat was cut.	*ST11: The meat cut.* (*f*=2)
Rapor yaz-ıl-dı. Report write-pass-past The report was written.	*ST12: The report written.* (*f*=2)
Bazı ev-ler tahrip ed-il-di. Some house-pl destroy-pass-past Some houses were destroyed.	*ST13: Some houses destroyed.* (*f*=2)

The translations above support our conclusion that some participants tend to generalize the newly learned material to non-alternating verbs. All of these translations reveal that some participants treated these verbs as inchoative verbs.

4.8. Statistical Analysis of the Pre-test, Post-test and Follow-up test GJCT

In order to find out whether the treatment had an effect on the performance of the two groups, we ran a mixed design ANOVA test on our data from the pre-test, post-test and follow-up test. Since four students from the control group were not present at the time of the post-test, we removed four participants randomly from our pre-test too. Table 38. below presents the means for both groups on pre-, post- and follow-up test GJCT:

Table 38

Group Statistics for Pre-Test, Post-Test and Follow-Up Test GJCT

Groups	PRETEST			POSTTEST			FOLLOW-UP		
	N	Mean	Sd.	N	Mean	Sd.	N	Mean	Sd.
Experimental	20	31.60	2.68	20	37.35	2.03	20	37.70	2.06
Control	29	33.24	3.67	29	33.52	2.42	29	33.41	2.30

As seen in Table 38, there is a considerable increase in experimental group's mean score in the post-test but not in control group's. This result is meaningful in that it suggests that the instruction given to the experimental group made a difference on participants' performance. The mean score of experimental group increased slightly in the follow-up test as well while control group's mean score remained the same. This suggests that the effect of the instruction is durable.

In order to find out whether participants in both groups performed significantly different before and after the treatment, we ran a mixed design ANOVA test on our data. The result of the test is presented in Table 39. below:

Table 39

Results of Mixed Design ANOVA Test for the GJCT

Source	Sum of Sq.	df	Mean Sq.	F	p
Between Subjects	607.782	48			
Group	165.553	1	165.553	17.595	.000
Error	442.229	47	9.409		
Within Subjects	1099.324	64.93			
Measure (pre-post-fol)	298.739	1.325	225.447	25.862	.000
Group*Measures	257.678	1.325	194.459	22.307	.000
Error	542.907	62.280	8.717		
Total	1707.106	112.93			

To begin with, there is a statistically significant difference between the total scores obtained from the pre-test, post-test and follow-up test of both groups ($F_{(1, 47)}$ = 17.595 $p<0.00$). This means that being in different groups had an effect on the performances of the participants (group effect). Furthermore, it is also apparent in Table 39. that participants performed differently on the pre-, post- and follow-tests, and this difference is statistically significant ($F_{(1.325, 62.280)}$ = 25.862 $p<0.00$) (measure effect). Lastly, our results reveal that the performance of both groups on the GJCT revealed a statistically significant difference ($F_{(1.325, 62.280)}$ = 22.307, $p<0.000$) on post- and follow-up tests (group and measure effect). Since there was no statistically significant difference between the groups on the pre-test GJCT, this result can be attributed to the effect of the treatment.

4.9. Statistical Analysis of the Pre-test, Post-test and Follow-up PT

In order to find out whether the treatment had an effect on the performance of the two groups on Part B of the PT, we ran a mixed design ANOVA test on our data from the pre-, post- and follow-up tests. Since four students from the control group were not present at the time of the post-test, we removed four participants randomly from our pre-test for this test too.

Table 40. presents the group statistics for pre-, post- and follow-up test Part B of the PT. As is obvious in the table, the mean scores of the participants in both groups slightly increased after the treatment.

Table 40

Group Statistics for Pre-Test, Post-Test And Follow-Up Test Part B of the PT

Groups	PRETEST			POSTTEST			FOLLOW-UP		
	N	Mean	Sd.	N	Mean	Sd.	N	Mean	Sd.
Experimental	20	9.35	1.04	20	9.55	.76	20	9.56	.83
Control	29	8.83	1.04	29	8.93	.96	29	8.92	.96

Table 41

Results of Mixed Design ANOVA Test for Part B of the PT

Source	Sum of Sq.	df	Mean Sq.	F	p
Between Subjects	69.946	48			
Group	12.227	1	12.227	9.956	.003
Error	57.719	47	1.228		
Within Subjects	69.394	65.784			
Measure (pre-post-fol)	.727	1.343	.541	.498	.537
Group*Measures	.074	1.343	.055	.050	.888
Error	68.593	63.098	1.087		
Total	135.73	113.784			

In Table 41, which presents the mixed design ANOVA results, we see that the difference between the correct and incorrect preferences of both groups on all tests is not statistically significant ($F_{(1.343,\ 63.098)} = .050$, $p>0.05$). This means that being in different groups did not have an effect in increasing the scores of the participants on Part B of the post- and follow-up test PT.

4.10. Statistical Analysis of the Pre-test, Post-test and Follow-up TT

Table 42. presents the group statistics for pre-, post-, and follow-up test TT. As seen in the table, the mean scores of both groups are very close in pre-, post- and follow-up test TT.

Table 42

Group Statistics for Pre-Test, Post-Test and Follow-Up Test TT

Groups	PRETEST			POSTTEST			FOLLOW-UP		
	N	Mean	Sd.	N	Mean	Sd.	N	Mean	Sd.
Experimental	20	18.70	2.13	20	18.70	2.45	20	19.15	2.03
Control	29	18.93	1.25	29	18.97	1.32	29	18.94	1.31

A mixed design ANOVA test was run on the TT too in order to see if the performance of the groups differed after the treatment. Table 43 presents the results of this test:

Table 43

Results of Mixed Design ANOVA Test for TT

Source	Sum of Sq.	df	Mean Sq.	F	p
Between Subjects	222	48			
Group	.304	1	.304	.064	.801
Error	221.696	47	4.717		
Within Subjects	201.159	72.858			
Measure (pre-post-fol)	1.485	1.487	.999	.353	.640
Group*Measures	1.730	1.487	1.163	.411	.604
Error	197.944	69.884	2.832		
Total	423.159	120.858			

As seen in the table, there is not a statistically significant difference between the total scores obtained from the pre-, post- and follow-up test of both groups ($F_{(1, 47)}$ = .064 p>0.05) (group effect). Likewise, Table 43 also shows that the performance of both groups on the TT did not reveal a statistically significant difference ($F_{(1.487, 69.884)}$ = .353, p>0.05) (measure effect). This result indicates that being in different groups did not have a different effect on increasing the scores of the participants on the TT. Lastly, the performance of both groups on the TT did not reveal a statistically significant difference

($F_{(1.487,\ 69.884)}$ = .411, p>0.05) on post- and follow-up tests (group and measure effect).This result, evaluated with the GJCT results, is noteworthy. The GJCT, which is a judgment task, revealed a statistically significant difference whereas the TT, which is a production task, did not. Since CR activities aim to make the learners notice the target form and not necessarily produce it correctly in immediate contexts, this result is worth to note.

4.11. Conclusion

This chapter has presented the findings obtained from the GJCT, PT and TT. The first part of the data analysis consisted of the pre-test. We first analyzed the pre-test to see if experimental and control groups differed significantly in their performances at the beginning of the study. Next, we gave a detailed descriptive analysis of the pre-test for both groups. Same procedure was followed for the post-test with a focus on the performance of the experimental group only. Lastly, we gave a detailed description of the statistical analysis conducted at the end of the study with pre-, post-, and follow up tests for each task.

Chapter 5 is devoted to the conclusions derived from the findings.

CHAPTER 5

CONCLUSION

5.0. Introduction

This study looked into the role of L1 and explicit instruction in the acquisition of causative/inchoative transitivity alternations by Turkish speakers of L2 English. We compared the results of our data we obtained before and after the explicit instruction. In this section, we will evaluate our research questions and draw implications for ELT classrooms as well as suggest topics for further research.

5.1. Evaluation of the Research Questions

R.Q. 1: Is there any influence of L1 on the judgments of causative/inchoative transitivity alternations by Turkish native speakers of L2 English?

We tried to answer the first research question looking into the data we obtained from the pre-test GJCT. The purpose of the GJCT was to see whether Turkish speakers could judge grammatical and ungrammatical sentences with causative/inchoative transitivity alternations correctly, and if they fail to do so whether there is an L1 effect. The overall findings suggest that at least some of the errors made by the participants can be traced back to their L1 (see p. 58 for a discussion). The results we obtained from the GJCT lead us to conclude that Turkish participants treat inchoative verbs as passive since they reconstructed inchoative sentences in passive voice for the most part. In general, they tend to reject inchoative sentences since inchoativity in English does not correspond to the morphological marking they are used to in their native language.

R.Q. 2: Is there a role of L1 on the preference of causative forms in English (periphrastic or lexical) by Turkish native speakers of L2 English?

In order to answer our second research question, we looked at the pre-test PT results. The assumption here was that since Turkish requires morphological processes in

causative structures, participants would prefer periphrastic causatives over lexical causatives. Results from Part A of the PT suggest that participants do not particularly favor a specific type of causatives with alternating verbs tested in the study. However, results from Part B of the PT suggest that participants prefer lexical causatives over periphrastic causatives although they would be incorrect for non-alternating verbs with inchoative meaning. This finding is in line with Montrul's (1997) findings but contrasts with other studies in literature in which participants with L1s that have overt causative morphology preferred periphrastic causatives over lexical causatives **(**Juffs, 1996**).**

R.Q. 3: Is there any influence of L1 on the translated production of causative structures in English by Turkish native speakers of L2 English?

Data from the pre-test TT lead us to answer this question positively. The translations of the participants revealed that there is definitely an L1 effect. The common errors in the translations were to treat inchoative verbs as passives or to alternate non-alternating intransitive verbs in transitivity. Typically, the participants tended to avoid inchoative usage, probably due to their lack of knowledge of inchoative verbs. The tendency to use intransitive verbs as transitive might have stemmed from the fact that transitivity is less marked than intransitivity (Montrul, 2000).

R.Q. 4: Does explicit instruction help Turkish learners of L2 English to distinguish between grammatical and ungrammatical sentences involving causative/inchoative transitivity alternations?

The results of our data analysis definitely suggest that explicit instruction does help to distinguish between grammatical and ungrammatical causative/inchoative transitivity alternations (see Table 38 and 39). As the primary premise of CR activities is to help the learners notice the target form, we can conclude that our participants started to recognize the causative/inchoative verbs in the post-test GJCT due to the instruction they were exposed to.

R.Q. 5: Does explicit instruction change the preferences of Turkish learners of L2 English regarding the causative structures?

In the pre-test PT, there was no difference between the preferences of participants regarding the causative structures. In the post-test, there was also no statistically significant difference between the preferences of the experimental and control groups. However, this data should be analyzed cautiously. There were 10 items in the task and the mean scores of the correct answers of the groups were high for both groups even in the pre-test (see Table 40). That is to say, participants were already able to choose between grammatical and ungrammatical causative structures in this test. This result contradicts with the GJCT results in this sense. However, this contrast might be due to the difference between the numbers of items in both tasks.

R.Q. 6: Does explicit instruction help Turkish learners of L2 English to produce grammatical sentences involving causative structures?

Again, there was no statistically significant difference between the performances of both groups in the pre- and post-tests. Experimental group only showed a slight improvement in their translated productions in the follow-up TT but not in the post-test. We can conclude that explicit instruction did not help the learners in their production.

Overall, we can conclude that explicit instruction helped learners recognize grammatical and ungrammatical sentence pairs but it did not help learners produce grammatical sentences involving causative structures. This result is not surprising when compared with Macaro and Masterman's (2006) study in which they found that while explicit instruction leads to gains in some aspects of grammar for some learners, it does not render any improvement in written production in both short and long terms.

R.Q. 7: Is the effect of explicit instruction durable?

The results of the post-test and follow-up test GJCT clearly demonstrate that the effect of explicit instruction is durable. Since there was no difference between the groups' performances in other tasks, we cannot answer this question for them. Evaluated together with Ellis's practice/C-R distinction (1993) and Macaro and Masterman's (2006) findings, we can conclude that while explicit instruction in the form of C-R helps learners become aware of the target form, it does not result in gains in production. Therefore, more research should be conducted to find ways to improve

production.

5.2. Implications for English Language Teaching

This study focused on the role of explicit grammar instruction in ruling out the possible L1 effect in the learner language. Our results demonstrate that while explicit instruction is helpful on recognition tasks, it does not result in gains in production tasks. The question here is, then, how can we make the learners internalize the rules they have learnt and apply them to different situations? Keeping in mind the multi-faceted nature of second language acquisition, the teachers should keep bringing different types of materials and techniques to their classrooms. Not all learners are academically capable of noticing patterns and rules in the target language simply by being explicitly instructed. Therefore, the teacher needs to use a variety of exercises in order to provide all the students a chance to notice the target grammar item.

In addition, corpora studies have shown that the use of corpora in the classroom may aid the learning process. As Bernardini (2004) suggests, corpora might be especially useful in resulting gains in translation exercises. By providing the learners with the errors they make, that is through negative evidence, learners might become aware of their incorrect usages. The application of corpora to the language classroom is called Data-Driven Learning (DDL) and it has recently gained interest among researchers in SLA. Today, DDL is actually seen as a new type of C-R (Hadley, 2002) because the learners seek answers to their questions analyzing a corpus where the input is made visible to the learner.

Although causative/inchoative transitivity alternations in English appear in language textbooks even at the elementary level, they are never taught to students explicitly as no reference is made to them in grammar books either. Therefore, another implication to be drawn from this study concerns the textbook writers. We suggest that textbooks should include tasks in which learner's attention is directed to the different uses of certain verbs, such as transitive and intransitive uses of verbs.

5.3. Suggestions for Further Research

The aim of this study was two-fold. The first part dealt with the role of L1 on L2 acquisition whereas the second part dealt with the role of explicit instruction. We found that L1 plays a role in the acquisition of causative/inchoative transitivity alternations. Further research should be carried out taking different aspects of grammar into focus. Furthermore, we found that explicit instruction leads to gains in comprehension tasks but not in production tasks. Since this could have resulted from the task type, different production tasks could be designed to see if such instruction does in fact have a role in L2 acquisition. Moreover, the present study could be replicated with different C-R tasks to see if the task type had an effect on the results we obtained.

REFERENCES

Bernardini, S. (2004). Corpora in the classroom: An overview and some reflections on future developments. In J. Sinclair (Ed.), *How to use corpora in language teaching* (pp. 15-36). Amsterdam: John Benjamins Publishing.

Bley-Vroman, R., Felix, S. and Ioup, G. I. (1988). The accessibility of Universal Grammar in adult language learning. *Second Language Research*, 4 (1), 1-32.

Bley-Vroman, R. (1998). *Universal grammar in second language acquisition: Can we have our cake and eat it too?* Paper read at the 1998 Second Language Research Forum, University of Hawai'i.

Borer, H. (2004). The Grammar machine. In A. Alexiadou, E. Anagnostopoulou and M. Everaert (Eds.), *The unaccusativity puzzle: Explorations of the syntax-lexicon interface* (pp. 288-331). Oxford: OUP.

Bowles, M. and Montrul, S. (2008). The role of explicit instruction in the L2 acquisition of the a-personal. In J. B. de Garavito and E. Valenzuela (Eds.), *Proceedings of the 10th hispanic linguistics symposium*, (pp. 25-35), Somerville, MA: Cascadilla Proceedings Project.

Burzio, L. (1986). *Italian Syntax: A government and binding approach*. Dordrecht: Foris.

Cabrera, M. (2005). *The acquisition of causative structures in English and Spanish as second languages*. Unpublished doctoral dissertation, University of Southern California, California.

Cabrera, M. and Zubizarreta, M. L. (2005a). Overgeneralization of causatives and transfer in L2 Spanish and English. In David Eddington (Ed.), *Proceedings of the 6th conference on the acquisition of Spanish and Portuguese as first and second languages*, (pp. 15-30), MA: Cascadilla Proceedings Project.

Cabrera, M. and Zubizarreta, M. L. (2005b). Are all L1 grammatical properties simultaneously transferred? Lexical causatives in L2 Spanish and L2 English. In Laurent Dekydtspotter (Ed.), *Proceedings of the 7th Generative Approaches to Second Language Acquisition Conference (GASLA 2004)*, (pp. 24-37), MA: Cascadilla Proceedings Project.

Campillo, P. S. (2003). An analysis of implicit and explicit feedback on grammatical accuracy. *A Journal of English and American Studies*, 27, 209-228.

Carroll, S. E. (2001). *Input and evidence: The raw material of second language acquisition.* Amsterdam: John Benjamins.

Chomsky, N. (1976). *Reflections on language.* London: Temple Smith.

Chomsky, N. (1981). *Lectures on government and binding.* Dordrecht: Foris.

Chomsky, N. (1986). *Barriers.* Cambridge, MA: MIT Press.

Chomsky, N. (1993). A minimalist program for linguistic theory. In K. Hale and S. Keyser (Eds.). *The view from building 20,* (pp. 1-52). Cambridge, MA: MIT Press.

Chomsky, N**.** (1995). *The Minimalist Program*. Cambridge, MA: MIT Press.

Clahsen, H. & Muysken, P. (1986). The availability of universal grammar to adult and child learners: a study of the acquisition of German word order. *Second Language Research,* 2, 93-119.

Cook, V. J. (1993). *Linguistics and second language acquisition*. Basingstoke: Macmillan.

Cook, V. (2001). *Second language learning and language teaching*. London: Arnold.

Cook, V. J. and Newson, M. (2007). *Chomsky's universal grammar (3rd Ed.).* Oxford: Blackwell.

DeKeyser, R. (2003). Implicit and explicit learning. In C. J. Doughty and M. H. Long (Eds.), *The handbook of second language acquisition* (pp. 313-347). Oxford: Blackwell.

Dekydtspotter, L. and Renaud, C. (2009). On the contrastive analysis of features in second language acquisition: uninterpretable gender on past participles in English French processing. *Second Language Research*, 25 (2), 255-267.

Demircan, Ö. (2003). *Türk dilinde çatı*. İstanbul: Papatya Yayıncılık.

Devos, F., Defrancq, B. & Noel, D. (1996). Contrastive verb valency and conceptual structures in the verbal lexicon. *Language Sciences*, 18 (1-2), 319-338.

Dixon, R. M. W. (2004). A typology of causatives: Form, syntax and meaning. In F. Katamba (Ed.), *Morphology: Its relation to syntax* (pp. 332-384). London: Routledge.

Dommergues, R. J. and Lane, H. (1976). On two independent sources of errors in learning the syntax of a second language. *Language Learning,* 26 (1), 111- 123.

Doughty, C. J. (2003). Instructed SLA: Constraints, compensation and, enhancement. In C. J. Doughty and M. H. Long (Eds.), *The handbook of second language acquisition* (pp. 256-310). Malden, MA: Blackwell Publishing.

Duskova, L. (1969). On sources of errors in foreign language. *IRAL,* 4 (11), 11-36.

Eckman, F.R., Elreyes, A. and Iverson, G. K. (2003). Some principles of second language phonology. *Second Language Research*, 19 (3), 169-208.

Egbert, M. and Vöge, M. (2008). Wh- interrogative formats used for questioning and beyond: German warum (why) and wieso (why) and English why. *Discourse Studies*, 10 (1), 17-36.

Ellis, R. (1993). Second language acquisition research: how does it help teachers? An interview with Rod Ellis. *ELT Journal*, 47(1), 3-11.

Ellis, R. (2001). Investigating form-focused instruction. In R. Ellis (Ed.), *Form-Focused Instruction and Second Language Learning,* (pp. 1-46), Oxford: Blackwell.

Ellis, R. (2003). *The study of second language acquisition (10th ed.)*. Oxford: Oxford University Press.

Felix, S. (1988). UG-Generated knowledge in adult second language acquisition. In S. Flynn and W. O'Neil (Eds.), *Linguistic theory in second language acquisition,* (pp. 277-294), Dordrecht: Kluwer.

Flynn, S. (1987). *A Parameter-setting model of L2 acquisition*. Dordrecht: Reidel.

Fotos, S. (1993). Consciousness raising and noticing through focus on form: grammar task performance versus formal instruction. *Applied Linguistics*, 14 (4), 385-407.

Fries, C. (1945). *Teaching and learning English as a Foreign Language.* Ann Arbor: University of Michigan Press.

Göksun, T., Küntay, A. and Naigles, L. (2008). Turkish children use morphosyntactic bootstrapping in interpreting verb meaning. *Journal of Child Language*, 35, 291-323.

Hadley, G. (2002). Sensing the winds of change: An introduction to Data-Driven Learning. *RELC Journal,* 33 (2), 99-124.

Hale, K., and Keyser, S. (2002). *Prolegomenon to a theory of argument structure*. Cambridge, MA: MIT Press.

Haspelmath, M. (1993). More on the typology of inchoative/causative verb alternations. In B. Comrie and M. Polinsky (Eds.), *Causatives and transitivity* (pp. 87-120). Amsterdam: John Benjamins.

Helms-Park, R. (2001). Evidence of lexical transfer in learner syntax: The acquisition of English causatives by speakers of Hindi-Urdu and Vietnamese. *Studies in Second Language Acquisition*, 23, 71-102.

Inagaki, S. (2001). Motion verbs with goal PPs in the L2 acquisition of English and Japanese. *Studies in Second Language Acquisition*, 23, 153-170.

Jackendoff, R. (2002). *Foundations of language: Brain, meaning, grammar, evolution*. Oxford: Oxford University Press.

James, C. (1981). *Contrastive analysis.* England: Longman.

Johnson, J. S. and Newport, E. L. (1991). Critical period effects on universal properties of languages: the status of subjacency in the acquisition of a second language. *Cognition*, 39, 215-58.

Juffs, A. (1996). *Learnability and the lexicon*. Amsterdam: John Benjamins.

Keller, F. and Sorace, A. (2003). Gradient auxiliary selection and impersonal passivization in German: An experimental investigation. *Journal of Linguistics*, 39, 57-108.

Kim, J. Y. (2005). *L2 acquisition of transitivity alternations and of the entailment relations for causatives by Korean speakers of English and English speakers of Korean.* Unpublished doctoral dissertation, University of Hawai'i, Hawai'i.

Lado, R. (1957). *Linguistics Across Cultures.* Ann Arbor: University of Michigan Press.

Lardiere, D. (2009). Some thoughts on the contrastive analysis of features in second language acquisition. *Second Language Research*, 25 (2), 173-227.

Larsen-Freeman, D. and Long, M.H. (1991). *An introduction to second language acquisition research*. London: Longman.

Leow, R. (1998). The effects of amount and type of exposure on adult learners' L2 development in SLA. *The Modern Language Journal*, 82 (1), 49-68.

Levin, B. (1993). *English verb classes and alternations: A preliminary investigation*. Chicago: The University of Chicago Press.

Levin, B. and Rappaport Hovav, M. (1995). *Unaccusativity at the syntax interface*. Massacuhestts: MIT Press.

Lightbown, P. M. and Spada, N. (1990). Focus on form and corrective feedback in communicative language teaching: Effects on second language learning. *Studies in Second Language Acquisition*, 12, 429-448.

Long, M. H. (1983). Does second language instruction make a difference? A review of research. *TESOL Quarterly*, 17 (3), 359-382.

Long, M. H. (1991). Focus on Form: A design feature in language teaching methodology. In K. de Bot, R. Ginsberg, and C. Kramsch (Eds.), *Foreign*

language research in cross-cultural perspective (pp. 39-52). Amsterdam: John Benjamins.

Lyster, R., and Ranta, L. (1997). Corrective feedback and learner uptake: Negotiation of form in communicative classrooms. *Studies in Second Language Acquisition*, 19, 37-66.

Lyster, R. and Mori, H. (2006). Interactional feedback and instructional Counterbalance. *Studies in Second Language Acquisition,* 28, 321-341.

Lyster, R. and Saito, K. (2010). Oral feedback in classroom SLA: A meta-analysis. *Studies in Second Language Acquisition*, 32, 265-302.

Macaro, E. and Masterman, L. (2006). Does intensive explicit grammar instruction make all the difference?. *Language Teaching Research*, 10 (3), 297-327.

Montrul, S. (1997). *Transitivity alternations in second language acquisition: A crosslinguistic study of English, Spanish and Turkish.* Unpublished doctoral dissertation, McGill University, Montreal.

Montrul, S. (1999). Causative errors with unaccusative verbs on L2 Spanish. *Second Language Research*, 15 (2), 191-219.

Montrul, S. (2000). Transitivity alternations in second language acquisition: Toward a modular view of transfer. *Studies in Second Language Acquisition*, 22, 229-273.

Montrul, S. (2001a). The acquisition of causative/inchoative verbs in L2 Turkish. *Language Acquisition*, 9, 1-58.

Montrul, S. (2001b). Causatives and transitivity in L2 English. *Language Learning*, 51 (1), 51-106.

Montrul, S. (2001c). First-language constrained variability in the second-language acquisition of argument-structure changing morphology with causative verbs. *Second Language Research*, 17 (2), 144-194.

Montrul, S. (2001d). Agentive verbs of manner of motion in Spanish and English as second languages. *Studies in Second Language Acquisition*, 23, 171-206.

Niimura, T. and Hayashi, B. (1996). Contrastive analysis of English and Japanese demonstratives from the perspective of L1 and L2 acquisition. *Language Sciences*, 18 (3-4), 811-834.

Norris, J. and Ortega, L. (2000). Effectiveness of L2 instruction: A research synthesis and quantitative meta-analysis. *Language Learning*, 50, 417-528.

Özhan, D. and Zeyrek, D. (2006). *Overpassivization in the IL of Turkish learners of English*. Poster session presented at the international conference of EUROSLA,

Antalya, Turkey.

Özkan, Y. (2005). *The role of Input Enhancement in ELT*. Unpublished doctoral dissertation, Çukurova Üniversitesi Sosyal Bilimler Enstitüsü, Adana.

Perlmutter, D. (1978). Impersonal passives and the unaccusative hypothesis. *Proceedings of the Berkeley Linguistics Society,* 4, 157-189.

Radford, A. (2004). *Minimalist syntax: Exploring the structure of English*. Cambridge: CUP.

Rutherford, W. E. and Sharwood-Smith, M. (1985). Consciousness-raising and Universal Grammar. *Applied Linguistics*, 6 (3), 274-282.

Rutherford, W. E. (1987). *Second language grammar: Learning and teaching*. London: Longman.

Rutherford, W. E. and Sharwood-Smith, M. (1988). *Grammar and the Second Language Teacher: A Book of Readings*. Boston*:* Heinle & Heinle.

Sang-Ki, L. and Huang, H. (2008). Visual input enhancement and grammar learning: A meta-analytic review. *Studies in Second Language Acquisition*, 30, 307-331.

Schachter, J. (1988). Second language acquisition and its relationship to Universal Grammar. *Applied Linguistics,* 9 (3), 219-235.

Schachter, J. (1996). Maturation and the issue of Universal Grammar in second language acquisition, In W. Ritchie and T. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 159–94). San Diego: Academic Press.

Schwartz, B. D. & Sprouse, R. A. (1998). Back to basics in generative second language acquisition research. Retrieved December 15, 2009 from, http://nflrc.hawaii.edu/networks/NW09/schwartz.pdf

Sciarone, A. G. (1970). Contrastive analysis: Possibilities and limitations. *IRAL*, 8 (2), 115-131.

Sharwood-Smith, M. (1981). Consciousness-raising and the second language learner. *Applied Linguistics*, 2, 159-168.

Sharwood-Smith, M. (1993). Input enhancement in instructed SLA. *Studies in Second Language Acquisition*, 15, 165-179.

Sorace, A. (2000). Gradients in auxiliary selection with intransitive verbs. *Language*, 76, 859-890.

Sorace, A. (2004). Gradience at the lexicon-syntax interface: Evidence from auxiliary selections and implications for unaccusativity. In A. Alexiadou, E.

Anagnostopoulou and M. Everaert (Eds.), *The unaccusativity puzzle: Explorations of the syntax-lexicon interface* (pp.243-268). Oxford: OUP.

Spada, N. and Lightbown, P. M. (1999). Instruction, first language influence, and developmental readiness in second language acquisition. *The Modern Language Journal*, 83 (1), 1-22.

Toth, P. (2000). The interaction of instruction and learner-internal factors in the acquisition of L2 morphosyntax. *Studies in Second Language Acquisition*, 22, 169-208.

Towell, R. and Hawkins, R. (1994). *Approaches to second language acquisition.* Clevedon: Multilingual Matters.

Truscott, J. (1998). Noticing in second language acquisition: A critical review. *Second Language Research*, 14 (2), 103-135.

White, L. (1988). Island effects in second language acquisition. In S. Flynn and W. O'Neil (Eds.), *Linguistic theory in second language acquisition* (pp. 144-172). Dordrecht: Kluwer.

White, L. (1989). *Universal grammar and second language acquisition.* Amsterdam: John Benjamins.

White, L., Spada, N., Lightbown, P. M. and Ranta, L. (1991). Input enhancement and L2 question formation. *Applied Linguistics*, 12, 416-432.

White, L. (1992). Subjacency violations and empty categories in L2 acquisition. In H. Goodluck and M. Rochemont (Eds.), *Island constraints* (pp. 445-464). Dordrecht: Kluwer.

White, L. (1996). Universal grammar and second language acquisition: Current trends and new directions. In W. Ritchie and T. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 85-120). San Diego: Academic Press.

White, L. (1998). Universal grammar in second language acquisition: the nature of interlanguage representation. Retrieved December 15, 2009, from, http://nflrc.hawaii.edu/networks/nw09/white.pdf.

White, L. (2000). Second language acquisition: From initial to final state. In J. Archibald (Ed.), *Second language acquisition and linguistic theory* (pp. 130-155). Oxford: Blackwell.

White, L. (2003). *Second language acquisition and universal grammar.* Cambridge: CUP.

Yang, Y. and Lyster, R. (2010). Effects of form-focused practice and feedback on Chinese EFL learners' acquisition of regular and irregular past tense forms. *Studies in Second Language Acquisition*, 32, 235-263.

APPENDICES

APPENDIX A

Grammaticality Judgment / Correction Task

Name:
Class:

Read the sentences below. According to your understanding, mark each sentence as correct or incorrect in terms of grammaticality. If you judge a sentence as 'Incorrect', please write the correct version of the sentence underneath.

Example:

We didn't see to whom she was talking.
(**x**) Correct (_) Incorrect
Corrected version: _____

Do you know where is the post office?
( ) Correct (**x**) Incorrect
Corrected version: *Do you know where the post office is?*

TASK

1. Don't bother drying the dishes.

(_) Correct (_) Incorrect

Corrected version:
_____

2. Our earlier human ancestors appeared in Africa.

(_) Correct (_) Incorrect

Corrected version:
_____

3. The door opened.

(_) Correct (_) Incorrect

Corrected version:
_____

4. My clothes dried in the sun.

(_) Correct (_) Incorrect
Corrected version:

_____

5. Mercury freezes at minus 38.8 degrees Celcius.
(_) Correct (_) Incorrect

Corrected version:

_____

6. The snow melted only in April.

(_) Correct (_) Incorrect

Corrected version:

_____

7. Books won't burn and ideas won't go to jail.

(_) Correct ( ) Incorrect

Corrected version:

_____

8. His joke laughed me.

(_) Correct (_) Incorrect

Corrected version:

_____

9. I can't put this sweater in the dryer or it will shrink.

(_) Correct (_) Incorrect

Corrected version:

_____

10. John Adams once said that grief softens the heart.

(_) Correct (_) Incorrect

Corrected version:

_____

11. The magician appeared the rabbit out of his hat.

(_) Correct (_) Incorrect

Corrected version:

_____

12. The chemicals can burn the eyes and the lungs.

(_) Correct (_) Incorrect

Corrected version:

_____

13. I have to write a report about my visit to Chicago.

(_) Correct (_) Incorrect
Corrected version:

_____

14. Shirley was in a terrible car accident, but luckily didn't die.

(_) Correct (_) Incorrect

Corrected version:

_____

15. Three workers killed in an accident today.

(_) Correct (_) Incorrect

Corrected version:

_____

16. The old man kicked his dog brutally..

(_) Correct (_) Incorrect

Corrected version:

_____

17. The government has cut taxes.

(_) Correct (_) Incorrect

Corrected version:

_____

18. The children opened the door.

(_) Correct (_) Incorrect

Corrected version:

_____

19. The pesticide died all the insects.

(_) Correct (_) Incorrect

Corrected version:

_____

20. When an onion cuts, it releases a gas.

(_) Correct (_) Incorrect

Corrected version:

_____

21. The answers were writing on a sheet of paper.

(_) Correct (_) Incorrect

Corrected version:

_____

22. Smoking killed nearly five million people in 2000.

(_) Correct (_) Incorrect

Corrected version:

_____

23. When I took the ice cubes out of the tray, they froze my fingers.

(_) Correct (_) Incorrect

Corrected version:

_____

24. The baby was crying when her mother came into the room.

(_) Correct (_) Incorrect

Corrected version:

_____

25. She became more confident when the audience laughed at her first joke.

(_) Correct (_) Incorrect

Corrected version:

_____

26. Modern technology is shrinking our world.

(_) Correct (_) Incorrect

Corrected version:

_____

27. Jason kicked terribly in the fight.

(_) Correct (_) Incorrect

Corrected version:

_____

28. The driver of the car hit the young boy.

(_) Correct (_) Incorrect

Corrected version:

_____

29. A player hit during the game.

(_) Correct (_) Incorrect

Corrected version:

_____

30. The sun finally melted the ice.

(_) Correct (_) Incorrect

Corrected version:

_____

31. He softened when the child started to cry.

(_) Correct (_) Incorrect

Corrected version:

_____

32. Smoking cigarettes can destroy your brain cells.

(_) Correct (_) Incorrect

Corrected version:

_____

33. This blanket will warm you.

(_) Correct (_) Incorrect

Corrected version:

_____

34.Political activism in this city has increased.

(_) Correct (_) Incorrect

Corrected version:

_____

35. Versace once said that fashions fade, but style is eternal.

(_) Correct (_) Incorrect

Corrected version:

_____

36. The houses destroyed in the flood.

(_) Correct (_) Incorrect

Corrected version:

_____

37. This movie always cries me.

(_) Correct (_) Incorrect

Corrected version:

_____

38. The weather has been really bad for a while, but nowadays it's warming.

(_) Correct (_) Incorrect

Corrected version:

_____

39. This shampoo faded my hair.

(_) Correct (_) Incorrect

Corrected version:

_____

40. Drugs increase athletes' heart rates and reaction time.

(_) Correct (_) Incorrect

Corrected version:

_____

APPENDIX B

PREFERENCE TASK

Read the sentence pairs and decide which sentence in each pair you would be more likely to say.

PART A

1.
a. The sun dried my clothes.
b. The sun made my clothes dry.

2.
a. The wind opened the door.
b. The wind made the door open.

3.
a. The snow freezes my nose.
b. The snow makes my nose freeze.

4.
a. The sun melted the snow.
b. The sun made the snow melt.

5.
a. The fire burned the wood.
b. The fire made the wood burn.

6.
a. The dryer shrank my sweater.
b. The dryer made my sweater shrink.

7.
a. This shampoo softened my hair.
b. This shampoo made my hair soften.

8.
a. The blanket warmed the duck.
b. The blanket made the duck warm.

9.
a. This product won't fade your hair color.
b. This product won't make your hair color fade.

10.
a. The athlete increased his jump.
b. The athlete made his jump increase.

PART B

11.
a. He cut the meat.
b. He made the meat cut.

12.
a. The clown cried the baby.
b. The clown made the baby cry.

13.
a. He appeared a coin in his hand.
b. He made a coin appear in his hand.

14.
a. The teacher wrote the report.
b. The teacher made the report write.

15.
a. He laughed me a lot.
b. He made me laugh a lot.

16.
a. He kicked the table.
b. He made the table kick.

17.
a. He destroyed the computer.
b. He made the computer destroy.

18.
a. He killed the man.
b. He made the man kill.

19.
a. He died the man.
b. He made the man die.

20.
a. He hit the boy.
b. He made the boy hit.

APPENDIX C

TRANSLATION TASK

Translate the following sentences into English. MAKE SURE you use the verb given in the brackets for each sentence.

Example: Sevgi en sonunda bulduğu evi kiraladı. (rent)
Sevgi finally rented the apartment she found.

1. Öğretmen raporu yazdı. (write)
2. Kumaşı almadan önce ona dokunur. (touch)
3. Adam kızı ağlattı. (cry)
4. En yakın arkadaşı onu sırtından bıçakladı. (stab)
5. Bu ilaç yüzümde kırmızı noktalar çıkardı. (appear)
6. Mehmet çok güldü. (laugh)
7. Metin soğanları, domatesi ve biberi hızlıca doğradı. (chop)
8. Et kesildi. (cut)
9. Adam öldürüldü. (kill)
10. Şakaları beni güldürdü. (laugh)
11. Semih Alp'e para verdi. (give)
12. Rapor yazıldı. (write)
13. Masa tekmelendi. (kick)

14. Bazı evler tahrip edildi. (destroy)

15. Bavulumu dün akşam topladım. (pack)

16. Kadın eti kesti. (cut)

17. John adamı öldürdü. (kill)

18. Araba adama çarptı. (hit)

19. Yüzümde kırmızı noktalar çıktı. (appear)

20. Bu şarabı yıllandırıyorlar. (age)

21. Bizim arabaya çarpıldı. (hit)

22. Adam öldü. (die)

23. Doğum günün için sana kek yaptım. (bake)

24. Çocuk masayı tekmeledi. (kick)

25. Çocuk gece çok ağladı. (cry)

26. Köylüler bazı evleri tahrip etti. (destroy)

27. Sigara insanı öldürür. (die)

APPENDIX D

WORKSHEET I

Aşağıdaki cümlelerdeki hataları inceleyerek cümleleri düzeltin.

1. The prices have raised.
2. The teacher taught.
3. The mother is eating the baby.
4. The man dropped.
5. He fell his book.
6. The mother is feeding.
7. The store rose the prices.
8. My mother learned me to tie my shoelaces.

APPENDIX E

WORKSHEET II

Altı çizili fiillerin hangi yapıda (lexical causative, perisphrastic causative, passive, inchoative) kullanıldığını söyleyin.

1. The department store is closed on Sundays.
2. Two of his ribs were broken.
3. The tubes in the lab were cooled by a special freezer.
4. This medical food is being tried by an Alzheimer's patient.
5. The new Airbus aircraft was flown by a very young pilot.
6. He made us sleep by his boring speech.
7. The teacher made us all try the new equipment in the class.
8. This new cream makes the brown spots disappear.
9. What makes your nose bleed?
10. The janitor closes the building at 10 pm.
11. The AC cooled the room a bit.
12. He can fly a plane.
13. I tried the new version of the software, but I didn't like it.
14. He broke his teeth when he fell on his face.
15. My hand is still bleeding.
16. The kids were sleeping when he came home.
17. The store closes at 9 pm on weekdays.
18. I couldn't call you today because my phone broke.
19. He disappeared in the crowd.
20. Some poultry animals can fly.
21. The weather starts to cool a bit in September.

CURRICULUM VITAE

A. Personal Information

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B. Educational Background

Date	Degree	University	Field
2005-2011	Doctor of Philosophy	Çukurova University, Social Sciences	English Language Teaching
2003-2005	Master of Arts	Çukurova University, Social Sciences	English Language Teaching
1997-2002	Bachelor of Arts	Çukurova University	English Language Teaching

C. Job Experience

Date	Title	Institution
2009 - present	Lecturer	YADYO, Çukurova Uni., Adana
2006 - 2009	Lecturer	YADIM, Çukurova Uni., Adana
2004 - present	Lecturer	English Language Teaching Department, The Faculty of Education, Çukurova Uni., Adana
2004 - 2006	English Teacher	Yeşilevler Endüstri Meslek Lisesi, Adana
2002 - 2004	English Teacher	Cumhuriyet İlköğretim Okulu, Karaisalı / Adana

D. Academic Work

PAPERS PRESENTED

a. International Conferences

1. "To Move or not to Move: Acquisition of L2 English syntactic movement parameter" 17th International Conference on Foreign/Second Language Acquisition, University of Slaski, Poland, May 2005 (Joint Paper)

2. "Acquisition of Causative/Inchoative Transitivity Alternations by Turkish Learners of L2 English" 2009 SLA Graduate Student Symposium 'Second Language Acquisition in the 21st Century', University of Iowa, USA, April 2009

3. "Autonomous Language Learning: Teaching Turkish", Creativity And Innovation In Promoting Multilingualism And Intercultural Dialogue, Iasi, Romania, June 2009 (Joint Paper).

4. "To Alternate or Not to Alternate? L2 Acquisition of English Causative / Inchoative Transitivity Alternations", 15th International Conference on Turkish Linguistics, Szeged, Hungary, August 2010 (Joint Poster).

b. National Conferences

1. "İkinci Dilin Birinci Dile Etkisi: İngilizce ve Türkçe Çoğul Ekinin Kullanımı", 25. Ulusal Dilbilim Kurultayı, Adana, Türkiye, Mayıs 2011 (Ortak Bildiri).

PROJECTS

1. *2007 – 2009 : EU Project, ALL: Autonomous Language Learning (Ref. 229775-CP-1-2006-ES-LINGUA-L2l)*
[http://www.allproject.info/index.php?id=34&L=4]

CONFERENCES ORGANIZED

1. 24-25 April, 2008	Çukurova University, YADİM Adana, Turkey	Stepping over Thresholds:Transitions in English Language Learning and Teaching
2. 5-7 May, 2011	Çukurova University, ELT Department, Adana, Turkey	25. Ulusal Dilbilim Kurultayı

PUBLICATIONS

1. Can, C., Kilimci, A. and Altunkol, E. (2008). Morphosyntactic Issues in Second Language Acquisition. In D. Gabrys-Barker (Ed.), To Move or Not to Move:Acquisition of L2 English Syntactic Movement Parameter (pp.122132). Clevedon: Multilingual Matters.

2. Can C., Şeker, M. and Altunkol, E. (2009). Autonomous Language Learning: Teaching Turkish. *In proceedings of the Conference on Creativity And Innovation In Promoting Multilingualism And Intercultural Dialogue*, S. Colibaba and A. Colibaba (Eds.), Iasi, Romania.

GRANTS

1. August, 2008- May, 2009 Fulbright FLTA Fellowship

THESES

1. Acquisition of English Syntactic Movement by Turkish Adult Learners (Unpublished MA thesis)
2. Acquisition of Causative/Inchoative Transitivity Alternations by Turkish learners of L2 English (Unpublished doctoral dissertation)