교육학석사학위논문

The Role of L1 Transfer in L2 Morphological Errors with Causative Verbs: A Case of L1 Korean-L2 English Learners

제2언어 사동 동사의 형태소 오류에 있어서 모국어 전이의 역할: 한국인 영어 학습자의 사례

2023년 2월

서울대학교 대학원

외국어교육과 영어전공

정 아 영

The Role of L1 Transfer in L2 Morphological Errors with Causative Verbs: A Case of L1 Korean-L2 English Learners

by

A Young Chung

A Thesis Submitted to
the Department of Foreign Language Education
in Partial Fulfillment of the Requirements
for the Degree of Master of Arts in Education

At the
Graduate School of Seoul National University

February 2023

The Role of L1 Transfer in L2 Morphological Errors with Causative Verbs: A Case of L1 Korean-L2 English Learners

제2언어 사동 동사의 형태소 오류에 있어서 모국어 전이의 역할: 한국인 영어 학습자의 사례

지도교수 김 기 택

이 논문을 교육학 석사 학위논문으로 제출함

2023년 2월

서울대학교 대학원

외국어교육과 영어전공

정 아 영

정아영의 석사학위논문을 인준함

2023년 2월

위 원 장 _____ (인)

부위원장 _____ (인)

위 원 _____ (인)

The Role of L1 Transfer in L2 Morphological Errors with Causative Verbs: A Case of L1 Korean-L2 English Learners

APPROVED BY THESIS COMMITTEE:

_____

SUN-YOUNG OH, COMMITTEE CHAIR

_____

MIN-CHANG SUNG

_____

KITAEK KIM

ABSTRACT

The Role of L1 Transfer in L2 Morphological Errors with Causative Verbs:
A Case of L1 Korean-L2 English Learners

A Young Chung
English Major, Dept. of Foreign Language Education
Graduate School of Seoul National University

This thesis examines the case of L1 Korean-L2 English learners to investigate the role of L1 transfer in L2 morphological errors with two classes of causative verbs: physical change of state verbs with agentive subjects (e.g., *break, melt*) and psychological verbs with experiencer objects (e.g., *frighten, bore*).

According to Feature Re-assembly Hypothesis (FRH) by Lardiere (2008, 2009), when mature L2 learners re-map the grammatical features that are already fully assembled in L1 onto L2-specific formal configurations, a significant L1 influence may intervene in the process. Hence, if L1 expresses certain grammatical features with overt morphology while L2 expresses them with zero-morphology, L2 learners will look for the substitute L2-specific morphophonological items to realize the features as is the case in L1. In contrast, if L1 realizes the features with zero-morphology while L2 realizes them with overt morphology, L2 learners will speculate that the features do not receive any morphophonological content in L2 as well as in their L1, thus not mapping them onto overt morphophonological items. As such, FRH postulates that L2 morphological errors may be highly constrained by L1-specific morphological patterns.

These hypotheses were tested with L1 Korean-L2 English learners given that Korean and English greatly differ with respect to how they morphologically express the argument structure alternation of two classes of causative verbs, from transitive to intransitive or vice versa. As for change of state verbs, Korean realizes overt morphology, either causative (e.g., Minho-ka pethe-lul nok-*i*-ess-ta, meaning 'Minho melted butter' / Pethe-ka nok-ass-ta, meaning 'The butter melted') or anticausative (e.g., Minho-ka mwun-ul yel-ess-ta, meaning 'Minho opened the door' / Mwun-i yel-*li*-ess-ta, meaning 'The door opened'). English, on the other hand, covertly realizes the alternation with zero-morphology (e.g., Ben melted the butter / The butter melted). As for psych verbs, both Korean and English feature overt morphology for the alternation, while the direction of morphological marking is the opposite in the two languages. Korean has causative morphology (e.g., Sensayngnim-i Minho-lul cilwuha-*key ha*y-ss-ta, meaning 'The teacher bored Minho' / Minho-ka cilwuhay-ss-ta, meaning 'Minho got bored) whereas English has anticausative morphology (e.g., The teacher bored Emily / Emily got bored).

The study recruited forty-four adult L1 Korean-L2 English learners and eleven English native speakers. As an experimental group, Korean speakers took part in a picture-based acceptability judgment task designed to test the influence of L1 morphological patterns, along with an L1 translation task, an L2 proficiency test, and a language background survey. As a control group, English native speakers completed the same picture-based acceptability judgment task. Mean acceptability scores in the judgment task were calculated and statistically analyzed to identify whether Korean speakers' exhibition of morphological errors with English causative verbs was constrained by their L1 morphological patterns.

The results of the experiment revealed no significant L1 transfer for change of

state verbs. Korean speakers transferred neither the causative nor the anticausative morphological pattern. Rather, overpassivization errors were pervasive with Korean speakers regardless of their L2 English proficiency, which is a unique interlanguage structure commonly observed among L2 English learners with different L1 backgrounds. Such results do not support FRH but suggest that L2 developmental factor overrides the influence of L1 in Korean speakers' morphological errors with English change of state verbs. As for psych verbs, however, the results of the experiment revealed a significant L1 transfer, in particular with lower-level English learners. Their morphological errors were highly constrained by L1-specific morphological patterns, consistent with the predictions formulated by FRH. Such errors, however, were gradually recovered with increasing levels of proficiency in English.

In addition to investigating the role of L1 transfer in L2 morphological errors with causative verbs, the study further examined the relative difficulty of acquiring morphological patterns of change of state verbs and psych verbs. Drawing upon the results that morphological errors with change of state verbs (i.e., overpassivization errors) persisted even with advanced-level learners whereas errors with psych verbs (i.e., L1-constrained errors) disappeared with the increase in L2 proficiency, the study concluded that the relative difficulty of acquisition is greater with change of state verbs in the case of L1 Korean-L2 English learners than with psych verbs.

Keywords: L1 transfer, L2 morphological errors, Argument structure alternation, Change of state verbs, Psych verbs

Student Number: 2021-22955

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1.

INTRODUCTION

The current study investigates the case of L1 Korean-L2 English learners to examine the role of L1 transfer in L2 morphological errors with causative verbs. This chapter introduces the theoretical background that motivates the present study. Section 1.1 introduces the general background of the study, along with the necessity of implementing the current study. Section 1.2 poses research questions, which is followed by Section 1.3 outlining the organization of this thesis.

1.1 Background and Purpose of the Study

Second language learners experience a myriad of difficulties in acquiring the grammar system of a new language. Among the innumerable variables that contribute to difficulties in L2 grammar acquisition, the transfer effect of the learners' first language has been widely attested in a number of studies (see, among many others, Gass & Selinker, 1983, 1992). In particular, the domain of morphology, which has been claimed to be the real bottleneck of L2 acquisition (Slabakova, 2009, 2013), has been closely scrutinized with respect to the role of L1 transfer (Cho & Slabakova, 2014; Lardiere & Schwartz, 1997; Slabakova, 2015), as languages greatly differ in how they morphologically encode the

grammatical features.

This thesis focuses on the morphology that mediates the argument structure alternation (argument-structure-changing morphology, hereafter, following the naming by Montrul, 2001b) of causative verbs. The two classes of causative verbs in this study refer to the physical change of state verbs with agentive subjects (e.g., *break, melt*, change of state verbs, henceforth) and the psychological verbs with experiencer objects (e.g., *frighten, bore*, psych verbs, henceforth). They are grouped as causative verbs on the ground that both denote a causative meaning when used transitively (Levin, 1993; Pesetsky, 1995) as seen in (1a-b).

(1) a. The thief broke the window.

(The thief CAUSED the window to break.)

b. The lion frightened the hunter.

(The lion CAUSED the hunter to be frightened.)

(Montrul, 2001b)

These verbs can be used intransitively as in (2a-b) with the omission of a causer argument.

(2) a. The window broke.

b. The hunter got frightened.

(Montrul, 2001b)

The difference is that while the same verb *broke* is used without any

morpheme affixation in (2a), a morphological change takes place in (2b), and to be specific, periphrastic-*get* is added with the verb in its participle form to suppress the presence of the causer argument.

When the argument structure alternates as such, for instance from transitive constructions to intransitive ones or vice versa, in some cases, no morphological change occurs as revealed in the case of English change of state verbs. In most other cases, however, the alternation is normally mediated through overt morphological marking on verbs as revealed in the case of English psych verbs.

Such morphological patterns of English causative verbs notably differ from Korean, which arouses critical learning problems for L1 Korean-L2 English learners. To briefly state the morphological patterns of Korean, overt morphology, either causative or anticausative, realizes the argument structure alternation of change of state verbs as in (3), unlike zero-morphology in English as in (1a, 2a).

(3) a. Totwuk-i changmwun-ul kkay-ss-ta.
thief-nom window-acc break-past-dec
'The thief broke the window.'
b. Changmwun-i kkay-***ci***-ess-ta.
window-nom break-**ANTICAUS**-past-dec
'The window broke.'

As for psych verbs, Korean realizes overt morphology as well as in English, while the direction of morphological marking is the opposite, with

causative morphology expressed as in (4), unlike anticausative morphology in English as in (1b, 2b).

(4) a. Saca-ka sanyangkkwun-ul twulyep-***key ha***y-ss-ta.
lion-nom hunter-acc frighten-**CAUS**-past-dec
'The lion frightened the hunter.'
b. Sanyangkkwun-i twulyew-ess-ta.
hunter-nom frighten-past-dec
'The hunter got frightened.'

Indeed, languages greatly differ with regard to how they morphologically encode the argument structure alternation. Hence, the transfer effect of L1-specific morphological patterns has garnered tremendous attention in the field of SLA (e.g., locative alternation in Joo, 2003; dative alternation in Whong-Barr & Schwartz, 2002; causative/inchoative alternation in Montrul, 1997, 1999, 2000, 2001a, 2001b).

This thesis is a partial replication study of Montrul (2001b), which examined the role of L1 transfer in L2 morphological errors with causative verbs by conducting a three related cross-linguistic studies of L2 English, Spanish, and Turkish. The hypotheses formulated in the study are as follows, which align with a more recent theory of SLA (i.e., Feature Re-assembly Hypothesis by Lardiere, 2008, 2009) as discussed in her later work, Montrul (2016). If L1 overtly realizes certain grammatical features while L2 covertly realizes them, L2 learners are expected to speculate that L2 also has overt morphology to express the features,

thereby looking for the substitute L2-specific lexical items to map the features. In contrast, if L1 covertly realizes the features while L2 overtly realizes them, L2 learners are expected to assume that the features do not receive any morphological marking in L2 as well, thus not mapping them onto overt lexical items. These hypotheses were largely confirmed, though leaving a few cases of exceptions found in L1 Turkish-L2 English learners, which motivated the implementation of the current study.

The detailed rationales behind the replication of Montrul (2001b) with Korean learners of English are: First, Korean and Turkish bear a close resemblance with regard to how they realize argument-structure-changing morphology with two classes of causative verbs (i.e., change of state verbs and psych verbs). Such similarities between the two languages inspired the current study to see whether the identical results of L1 Turkish-L2 English learners in Montrul (2001b) are replicated in the present study as well. Second, the subsequent studies which attempted to test the abovementioned hypotheses in Montrul (2001b) with Korean learners of English yielded inconclusive results, particularly with change of state verbs (Kim, 2005; Lee, 2009), hence seeking further confirmation. Lastly, the general paucity of research investigating the influence of L1 on L2 morphological errors with psych verbs within the relationship between Korean and English necessitates the replication of Montrul (2001b) as well.

Along with testing the role of L1 transfer, Montrul (2001b) reported an additional finding. Learners in the three respective L2 English, Spanish, and

Turkish studies were revealed to have more complicated learning problems with psych verbs than with change of state verbs. Especially, lower-level learners seemed to have difficulties not only in terms of the morphological shapes of psych verbs when L1 and L2 differ in this aspect but also in terms of the argument structure itself. Montrul (2001b) largely attributed this greater difficulty of psych verbs to the misalignment of the thematic role to the syntactic position. The relative difficulty of acquiring two classes of causative verbs (i.e., change of state verbs and psych verbs) and their morphological patterns in the case of L1 Korean-L2 English learners, however, is to be re-examined in this thesis by referring to a more recent theory of SLA (i.e., Feature Re-assembly Hypothesis by Lardiere, 2008, 2009) on the ground that the relative difficulty of acquisition based on FRH may predict otherwise.

To recapitulate, this thesis primarily aims to explore the role of L1 transfer in L2 morphological errors with two classes of causative verbs (i.e., change of state verbs and psych verbs) by probing the case of L1 Korean-L2 English learners. Along with this, the thesis secondarily aims to identify the relative difficulty of acquiring morphological patterns of change of state verbs and psych verbs in the alternation for L1 Korean-L2 English learners.

1.2 Research Questions

The central question that the present study aims to address is whether and how the different morphological patterns of L1 and L2 account for the morphological errors observed in one's interlanguage development. In order to address the issue, the study first investigates the influence of L1 Korean on L2 morphological errors with English change of state verbs. It then investigates the influence of L1 Korean on L2 morphological errors with English psych verbs. Lastly, the study compares the results of change of state verbs and psych verbs to identify the relative difficulty of acquiring them for L1 Korean-L2 English learners. Summarizing the discussion, this thesis poses the following three research questions:

1. Do L1-specific morphological patterns play a role in L2 morphological errors with change of state verbs in the case of L1 Korean-L2 English learners?

2. Do L1-specific morphological patterns play a role in L2 morphological errors with psych verbs in the case of L1 Korean-L2 English learners?

3. Which learning situation is found to be more difficult for L1 Korean-L2 English learners, acquiring the morphological patterns of change of state verbs or those of psych verbs?

1.3 Organization of the Thesis

This thesis is organized into six chapters. As discussed, Chapter 1 introduced the background and purpose of the study, which motivated three research questions. Chapter 2 reviews the theoretical frameworks upon which the current study is built. Then, linguistic analyses on the two classes of causative verbs (i.e., change of state verbs and psych verbs) follow. Next, L2 acquisition studies on causative verbs and their morphological patterns in the alternation are carefully reviewed with regard to the issue of L1 transfer. After, a thorough comparison is made between Korean and English with respect to how they realize the argument-structure-changing morphology with change of state verbs and psych verbs in order to deduce specific predictions for the current study.

Chapter 3 introduces the methodological design employed for the current study. The profiles of the participants are summarized. Then, task materials and task procedures are described, which include a picture-based acceptability judgment task, an L1 translation task, an L2 proficiency test, and a language background survey. Finally, methods of data analysis are discussed.

Chapter 4 presents the results of the study. Key findings from the statistical analyses of the results are reported. Chapter 5 addresses the three research questions in reference to the key findings. Lastly, Chapter 6 recapitulates the major findings and implications while specifying limitations and making suggestions for future studies.

CHAPTER 2.

LITERATURE REVIEW

This chapter scrutinizes the theoretical and conceptual background for the current study. Section 2.1 introduces the theoretical frameworks upon which the present study is built. Section 2.2 presents linguistic analyses of the verb argument structure and the morphology that mediates the argument structure alternation, with a special focus on two classes of causative verbs (i.e., change of state verbs and psych verbs). In Section 2.3, L2 acquisition studies on these verbs and their morphological patterns in the alternation are closely reviewed, particularly with respect to the role of L1 in L2 morphological errors. Section 2.4 thoroughly compares the two languages, Korean and English, as to how they differ in terms of morphological patterns of these verbs undergoing the argument structure alternation. Drawing upon this comparison, specific predictions for the current study are made. Lastly, Section 2.5 summarizes the research gaps and introduces the current study by restating the research questions.

2.1 Theoretical Background

2.1.1 Full Transfer/Full Access Model

The question of L1 transfer can never be ignored in the field of Second Language Acquisition (SLA) as numerous studies report on clear L1 effects in L2 learner data. Aside from the No Transfer position by Epstein, Flynn, and Martohardjono (1996), the existing frameworks of SLA largely acknowledge the transfer of L1 into L2 initial state, though its range differs from the subset of L1 (i.e., Minimal Trees Hypothesis by Vainikka & Young-Scholten, 1996; Valueless Features Hypothesis by Eubank, 1996) to the entirety of L1 (i.e., Full Transfer/Full Access model by Schwartz & Sprouse, 1996). Since first proposed, FT/FA model continues to be remarkably influential in the formal approaches to SLA and is now considered probably the most coherent explanation of what L2 initial state consists of.

Full Transfer/Full Access model is built upon two assumptions. First, the end state of first language acquisition comprises the initial state of second language acquisition (Full Transfer). Second, when learners fail to assign a representation to the incoming L2 input based on their L1 grammatical properties, some sort of restructuring takes place as learners draw upon options available from UG (Full Access), which ultimately leads to the development of interlanguage. Following this approach, the present study assumes that L2 learners immediately carry over their grammatical representations instantiated by L1 into the starting

point of L2, hence featuring L1-specific properties in their interlanguage grammar including the domain of morphology.

2.1.2 Distributed Morphology

Introduced by Halle and Marantz (1993), Distributed Morphology rejects the earlier Lexicalist approach and maintains that what has been done under the Lexicon is 'distributed' throughout various other components of the grammar. In other words, the central tenet of DM argues for the separation of properties which are otherwise collected in the lexicon. One of the core properties of the theory is *Late Insertion* (Harley & Noyer, 1999), which signifies that the phonological forms, also called Vocabulary Items, are inserted post-syntactically. To briefly state the process of word and sentence formation under the theoretical framework of DM, morphosyntactic features, for instance [+past], undergo syntactic operations and at this time of stage, the features remain abstract without having any morphophonological content. Only after syntactic operations are the phonological expressions of the features inserted, the process of which is labeled *Spell-Out*.

Under this approach where the terminal nodes of the syntactic computations remain phonologically vacuous, mismatches between syntax and morphology may likely take place (Halle & Marantz, 1993). Such mismatches have the following implications in the field of SLA, which is of great relevance to

the current study. Morphological errors committed by L2 learners may not result from the major impairment in the domain of abstract morphosyntactic features (i.e., Representational Deficit accounts by Bley-Vroman, 1990; Hawkins & Chan, 1997). Rather, learners may indeed have full competence with respect to the relevant features but still may experience difficulties in mapping such features onto L2-specific phonological items, possibly due to L1-L2 differences. In other words, the problem of variability found in the use of L2 morphology among learners may be surface morphophonological (Montrul, 2001b).

2.1.3 Feature Re-assembly Hypothesis and the Relative Difficulty in SLA

Slabakova (2009, 2013) claimed that (functional) morphology is the real bottleneck of SLA (i.e., the Bottleneck Hypothesis). Examining the differential difficulties of acquiring different language components, she concluded that what is more difficult for language learners to acquire is functional morphology which encodes phonological, syntactic, and semantic features of the grammar.

Feature Re-assembly Hypothesis proposed by Lardiere (2008, 2009) appropriately emphasizes the difficulty of acquiring L2 functional morphology as well, especially under the condition where L1 and L2 are dissimilar. The underlying assumption of the hypothesis states that grammatical features are bundled or assembled onto grammatical categories in different, language-specific ways. Built upon this assumption, FRH postulates that L2 acquisition involves the

process of re-mapping the grammatical features onto L2-specific formal configurations that may possibly vary from those of L1.

Lardiere (2009) explains that FRH follows and builds upon the central tenets of Full Transfer/Full Access model and Distributed Morphology. Unlike L1 acquisition, adult L2 learners already possess a set of L1 grammatical features that are fully established or assembled onto L1-specific morphophonological items and bring them to L2 learning situations (Hwang & Lardiere, 2013). The challenge is to overcome the L1-L2 differences and to acquire L2-specific formal configurations of grammatical features, in particular, their morphological realizations and distributional conditions. That is, L2 learners must re-adjust the formal features of L1 to those of L2, and the difficulty doubles when the two languages differ, requiring the process of feature re-assembly. When this process fails to succeed, however, the way the grammatical features are morphologically realized in L1 may transfer to L2 learning situations. If this is the case, L2 morphological errors are likely to be present which may be highly constrained by L1-specific morphological patterns. Note that this was the underlying assumption tested and confirmed in Montrul (2001b, 2016).[1]

[1] Montrul (2016) re-analyzed her data obtained from L2 Turkish study in Montrul (2001b) within the perspective of a more recent theory in SLA, Feature Re-assembly Hypothesis by Lardiere (2008, 2009). This is because specific hypotheses made in Montrul (2001b) align with the predictions formulated by FRH. The core hypothesis was that L2 morphological errors would be systematic and even predictable from the way the relevant grammatical features are overtly/non-overtly realized in the learners' L1. More specifically, if L1 overtly expresses the features while L2 covertly expresses them, L2 learners will try to find a substitute L2-specific lexical item to realize the features; if L1

Feature Re-assembly Hypothesis also makes an intriguing prediction on the relative difficulty of various learning situations in the field of SLA. A learning situation that necessitates feature re-assembly due to L1-L2 differences is predicted to be more difficult for L2 learners in comparison to the one that doesn't require feature re-assembly due to L1-L2 similarities.

In an attempt to better predict the learners' behavior and their difficulties in SLA, Slabakova (2009) added another dimension to the difficulty; overt/covert realization of grammatical features. According to her, L2 learners are likely to acquire L2 features more easily when they are encoded explicitly by overt morphemes compared to those that must be inferred from the context. In short, within the framework of FRH, Slabakova claimed that re-assembling features that are overtly realized in L2, for instance through overt morphemes, would be easier to acquire for L2 learners by the virtue of the abundant evidence to rely upon. Summarizing the discussion, she proposed a cline of difficulty in L2 grammatical feature acquisition in terms of two dimensions; 1) feature re-assembly required or not, and 2) overt versus non-overt feature realization. Cho and Slabakova (2014) sub-divided this cline of difficulty designed by Slabakova (2009) and presented it as in Figure 2.1. *Fovert* denotes a grammatical feature that is overtly realized

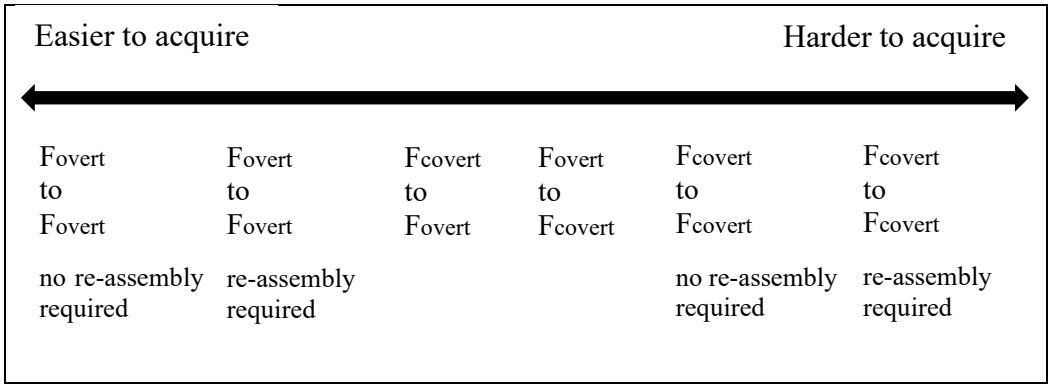
---

covertly expresses the features while L2 overtly expresses them, L2 learners will not map the features onto overt morphophonological items in L2 as they assume zero-morphology in L2 as well as in L1. These hypotheses were confirmed with L2 Turkish learners of diverse L1 backgrounds (i.e., Spanish, English, Japanese) in Montrul (2001b). Montrul (2016) re-addressed this issue of L1 transfer in L2 morphological errors within the perspective of FRH and concluded that the results of Montrul (2001b) well-support FRH.

through overt morphology, whereas *Fcovert* denotes a feature that is covertly realized by zero-morphology.

Figure 2.1

Cline of Difficulty in L2 Grammatical Feature Acquisition (adapted from Cho & Slabakova, 2014)



Although the magnitude of different L2 learning situations varies in many aspects, researchers have endeavored to propose testable predictions on the learner behavior by focusing on cross-linguistic variations found in the domain of morphology (Slabakova, 2009; Cho & Slabakova, 2014). Since then, a growing body of research has tested this cline of difficulty model suggested in Cho and Slabakova (2014) with various linguistic phenomena (e.g., aspect and tense morphology in Slabakova, 2015; floating NPs in Kume & Marsden, 2021). This thesis aims to contribute to this field of research as well by investigating another linguistic phenomenon, causative verbs and the morphology that mediates their

argument structure alternation. By doing so, the purpose of this thesis is to not only examine the influence of L1 on L2 morphological errors but also identify which learning situation is found to be more difficult for L1 Korean-L2 English learners, acquiring the morphological patterns of change of state verbs or those of psych verbs.

2.2 Linguistic Analyses on Causative Verbs

Note again that the two classes of causative verbs in this study refer to the "physical change of state verbs with agentive subjects" (e.g., *break, melt*; change of state verbs, hereafter) and the "psychological verbs with experiencer objects" (e.g., *frighten, bore*; psych verbs, henceforth), following the naming of Montrul (2001b).

2.2.1 Argument Structure and Morphology

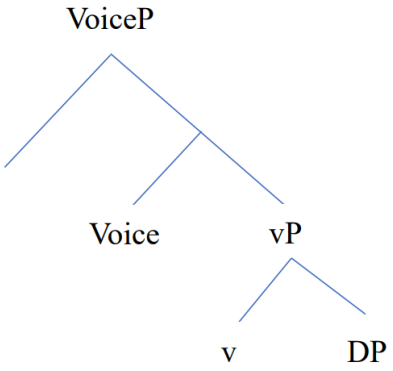
Verb argument structure closely intersects with the domain of morphology. Wood and Myler (2019) precisely capture this close connection between the morphological shape of a verb and its argument structure by explaining that morphemes can add an argument, take the argument away, or even change the thematic nature of the argument. In other words, the morphological form of a verb informs of its argument structure.

The argument structure alternation that is of particular interest in this study is an alternation from transitive (causative) constructions to intransitive (inchoative) ones or vice versa. The relevant verbal morphology that mediates such an alternation is the causative and anticausative morphology. Causative morphology is a valency-increasing morphology, thereby adding an external argument to the verb. This added external argument functions as a causer in transitive sentences. In contrast, anticausative morphology is a valency-decreasing morphology, hence suppressing an external argument in intransitive sentences.

Kratzer (1996) proposed that the head of the Voice phrase introduces an external argument and suggested a syntactic representation of a verb argument structure of causative verbs as in Figure 2.2.

Figure 2.2

A Syntactic Representation of a Verb Argument Structure (adapted from Wood & Myler, 2019; Marantz, 2013)



This syntactic representation can explain the structure of both the transitive and the intransitive variants of the verb undergoing the argument structure alternation. The realization of a causative morphology will add an external argument to the specifier position of VoiceP, thereby realizing a causer argument. This syntactic structure makes a transitive sentence such as *Janet broke the cup*. On the other hand, the realization of an anticausative morphology will take the external argument away, leaving a specifier-less VoiceP or the absence of a VoiceP (Alexiadou & Anagnostopoulou, 2004), hence suppressing the causer argument. This syntactic structure makes an intransitive sentence such as *The cup broke*. Marantz (2013) argued that not only change of state verbs (e.g., *break, melt*) but also psych verbs (e.g., *frighten*, *bore*) may rely on the syntactic representation described in Figure 2.2.

Note that in many languages, there is an overt realization of either causative or anticausative morphology, whereas in some languages, both the causative and anticausative morphology receive no morphophonological content, thereby being realized as zero-morphology, which is the case found with change of state verbs in English (e.g., *Janet broke the cup* / *The cup broke*).

2.2.2 Change of State Verbs

It has been suggested that intransitive verbs do not compose a homogeneous class. Rather, the Unaccusative Hypothesis (Perlmutter, 1978;

Burzio, 1986) argues that they are sub-divided into unaccusative verbs (e.g., *happen, break*) and unergative verbs (e.g., *sleep, dance*). This distinction between unaccusatives and unergatives is established upon the thematic nature of the subjects that the verbs take. Unlike unergative verbs, the subject of which bears an Agent role, unaccusative verbs take a Patient or Theme subject which is believed to be base-generated in the verb-internal object position and later moved to the subject position. A particular set of unaccusative verbs have their transitive counterparts (e.g., *break, melt*), which is one type of causative verbs discussed in this thesis and named change of state verbs, hereafter.

Change of state verbs (e.g., *break, melt*) are known to participate in causative/inchoative alternation (Levin, 1993; Levin & Rappaport Hovav, 1995). These verbs are used either in a transitive or in an intransitive context alternatively.

(5) a. Janet broke the cup. (causative)

b. The cup broke. (inchoative)

(Levin, 1993, p. 29)

The verb *break* is a transitive verb that denotes a causative meaning in (5a), with NP *Janet* being the causer of the breaking action and NP *the cup* being the Theme that undergoes a physical change of state by the breaking action. On the other hand, the same verb is an intransitive verb in (5b) that denotes an inchoative meaning, with a single Theme argument NP *the cup* undergoing a physical change of state. Indeed, (5a) and (5b) differ only with respect to the presence/absence of the causer argument; Causative verbs require an agentive

participant who causes the physical change of state, while inchoative verbs suppress the causer argument so as to present the event as occurring by itself.

When the argument structure alternates as in (5a-b), the alternation is typically mediated by morphological means and languages greatly differ with regard to how they morphologically encode the alternation. Delving into this issue of cross-linguistic variations in morphological marking of causative/inchoative alternation, Haspelmath (1993) distinguished three alternation patterns. First, in the causative alternation pattern, the intransitive variant is basic and the transitive variant is derived, thus morphologically marked. Second, in the anticausative alternation pattern, the direction is the opposite, indicating that the transitive variant is basic and the intransitive variant is derived, thus morphologically marked. Both alternation patterns are found in Korean as revealed in (6) and (7).

(6) Causative alternation pattern

a. Minho-ka pethe-lul nok-***i***-ess-ta. (causative)

Minho-nom butter-acc melt-**CAUS**-past-dec

'Minho melted the butter.'

b. Pethe-ka nok-ass-ta. (inchoative)

butter-nom melt-past-dec

'The butter melted.'

(7) Anticausative alternation pattern

a. Minho-ka mwun-ul yel-ess-ta. (causative)

Minho-nom door-acc open-past-dec

'Minho opened the door.'

b. Mwun-i yel-***li***-ess-ta. (inchoative)

door-nom open-**ANTICAUS**-past-dec

'The door opened.'

(adapted from Kim, 2005)

Examples in (6a-b) illustrate a causative alternation pattern. A causative morphology *-i* is affixed to the verb in a transitive context as shown in (6a), whereas the verb remains morphologically simple in an intransitive context as shown in (6b). On the other hand, examples in (7a-b) illustrate an anticausative alternation pattern. An anticausative morphology *-li* is attached to the verb in an intransitive context as shown in (7b), whereas the verb remains morphologically simple in a transitive context as shown in (7a).

Third, in the non-directed alternation pattern, neither the transitive variant nor the intransitive variant is derived from one another. This alternation pattern is further divided into three sub-patterns, but only one among them, the labile pattern, relates to the present study. This labile pattern is predominant in English where the identical verb without any overt morpheme affixation is used for both the transitive and the intransitive variants (e.g., *Janet broke the cup* / *The cup broke*).[2]

[2] Pinker (1989) made a statement that "rules that alter argument structures count as morphological rules, even if they do not effect an overt morphological change" (p. 122). This signifies that zero-morphology in English has the same effects as overt

2.2.3 Psych Verbs

Levin (1993) categorized four classes of English psychological verbs, the two transitive members (e.g., *fear, frighten*) and the other two intransitive members (e.g., *marvel, appeal*). The transitive members account for the majority of English psych verbs, and they are typically known to take two arguments; Experiencer and Theme (or sometimes labeled as Stimulus, Cause, Object of Emotion, or Target of Emotion).

These two transitive members include psych verbs with Experiencer subjects and those with Experiencer objects as in (8a-b). In (8a), the subject NP *students* is the Experiencer argument while the object NP *exams* is the Theme argument. On the other hand, in (8b), the subject NP *exams* is the Theme argument while the object NP *students* is the Experiencer argument. The latter type is the focus of the current study and is named psych verbs, hereafter.

(8) a. Students fear exams. (with an Experiencer subject)

b. Exams frighten students. (with an Experiencer object)

(White et al., 1999)

It has been argued that psych verbs (with Experiencer objects) raise a misalignment problem as they violate the Thematic Hierarchy in (9) proposed by Jackendoff (1972).

---

causative/anticausative morphology in Korean with regard to mediating the argument structure alternation of change of state verbs.

(9) Agent > Experiencer > Goal, Source, Location > Theme

The thematic hierarchy in (9) establishes a systematic and principled link between the thematic role of an argument and its syntactic position. It asserts that the more prominent Experiencer argument should be located at a higher structural position than the less prominent Theme argument. Psych verbs in (8b) are problematic in this sense, because for these verbs, the less prominent Theme argument, NP *exams*, is located at a higher subject position while the more prominent Experiencer argument, NP *students* is located at a lower object position. This refers to the misalignment problem or the linking problem, peculiar to psych verbs (with Experiencer objects).

Unlike many other languages (e.g., Greek, Romanian) where the psych verbs undergo causative/inchoative alternation (Alexiadou & Iordăchioaia, 2014), English psych verbs do not instantiate the alternation with only a few exceptions (e.g., *worry, gladden*) (Levin, 1993).[3] Rather, in English, the inchoative meaning can be expressed periphrastically with *get (*e.g., *The hunter got frightened / * The*

[3] Levin (1993) argues that in English, only a restricted number of psych verbs are found in transitive/intransitive pairs associated with the causative/inchoative alternation. These include the verbs "*cheer, delight, enthuse, gladden, grieve, madden, obsess, puzzle, sadden, sicken, thrill, tire, weary*, *worry*" (p. 191). For instance, the verb *worry* is used either transitively in (ia) or intransitively in (ib), undergoing the causative/inchoative alternation.

(i) a. The television set worried John.

b. John worried (over the television set).

(Alexiadou & Iordăchioaia, 2014, p. 53)

hunter frightened). Note that the verb *get* conveys an inchoative meaning, in accordance with Haegeman's (1985) analysis (e.g., *His feet got wet*).

2.3 L2 Acquisition of Causative Verbs

Section 2.3 closely reviews the L2 acquisition studies on two classes of causative verbs (i.e., change of state verbs and psych verbs) and their morphological patterns in the argument structure alternation. Studies with conflicting results as to the extent of L1 transfer are introduced. This section also reviews former studies examining the case of Korean learners of English on this issue of L1 morphological transfer.

2.3.1 L2 Acquisition of Change of State Verbs

Argument structure alternation of change of state verbs, known as causative/inchoative alternation, is reported to be challenging to acquire for L2 English learners, because first, it is not so simple to infer the complex semantic constraints on verbs that display the alternation, and second, it is not given much emphasis in language learning classes or in textbooks (Juffs, 1998). In addition to this, cross-linguistic variations in the overt/non-overt realization of the relevant morphology to signal the alternation raise the issue of L1 influence.

2.3.1.1 Studies Arguing for L1 Transfer

In a series of cross-linguistic L2 acquisition studies on English, Spanish, and Turkish, Montrul (1997, 1999, 2000, 2001a, 2001b) identified a significant L1 influence on L2 morphological errors with change of state verbs. Since the current study is anchored on Montrul (2001b), the details of the study are to be explained. Her underlying assumption was that L2 learners' morphological errors are systematic and predictable during their development of interlanguage. In other words, she speculated that the morphological errors found in the argument structure alternation of change of state verbs would be highly constrained by the way the specific morphology is overtly/non-overtly expressed in the learners' individual L1s.

In order to test her hypotheses, Montrul implemented a picture-based acceptability judgment task. The task is comprised of two pictures per verb. One described a transitive event with two participants, a causer doing something to an object, and the other described an intransitive event with a single participant, an object undergoing a spontaneous change of state. For each picture, a pair of sentences were presented to have participants rate the naturalness of each sentence from -3 (completely unnatural) to +3 (completely natural) by judging their meaning and grammatical correctness.

The verb forms in these sentences were manipulated. Since English lacks overt morphological marking, periphrastic-*make* was used for transitive sentences

and periphrastic-*get* for intransitive sentences. For a transitive event, one verb was morphologically simple (e.g., *The thief broke the window*), while the other was morphologically marked (e.g., *The thief made the window break*). The same was for the intransitive event as well, one morphologically simple (e.g., *The window broke*) while the other morphologically marked (e.g., *The window got broken*). This verb manipulation was to see whether L2 learners show preferences for a certain morphological form of the verb over the other, possibly constrained by L1-specific morphological patterns.

Her hypotheses were largely confirmed. For instance, L1 Spanish-L2 English learners had a tendency to inappropriately accept the morphologically marked inchoative (e.g., *The window got broken*), which was influenced by L1 Spanish. Spanish obligatorily marks the inchoative verb using the reflexive clitic *se* (e.g., *La ventana se rompió*). In the same manner, L1 English-L2 Spanish learners had a tendency to incorrectly accept the morphologically simple inchoative (e.g., **La ventana rompió*) which is ungrammatical in Spanish, because their L1 English realizes zero-morphology for the inchoative verb.

The results of L1 Turkish-L2 English learners, which are of particular relevance to the current study, were rather unexpected, revealing no significant L1 transfer effects. Turkish verbs have two distinct alternation patterns as in Korean: causative pattern and anticausative pattern. Therefore, some verbs are morphologically marked on the causative, whereas others are morphologically marked on the inchoative. English, on the other hand, realizes zero-morphology

for both the causative and the inchoative. Unlike what was expected, L1 Turkish-L2 English learners transferred neither their causative morphology nor their anticausative morphology. Indeed, L1 Turkish learners did not treat individual verbs differently, although the verbs employed for the task belonged to different morphological patterns in their L1 Turkish. Therefore, Montrul (2001b) concluded that the influence of L1-specific morphological patterns was far less evident in the Turkish-English group compared to the Spanish-English group. Such unexpected results fueled the follow-up research and motivated the implementation of the present study as well to re-examine the role of L1 transfer with participants of a different language background; namely L1 Korean-L2 English learners.

To recapitulate, despite an exception of L1 Turkish-L2 English learners, Montrul (1997, 1999, 2000, 2001a, 2001b) validated that the learners' first language plays a role in triggering L2 morphological errors with change of state verbs. The role of L1 transfer in this aspect was confirmed in other studies as well (e.g., L1 Chinese-L2 English learners in Juffs, 1996; L1 Spanish-L2 English learners in Toth, 2000).

2.3.1.2 Studies Arguing against L1 Transfer: Overpassivization

Unlike Montrul's (1997, 1999, 2000, 2001a, 2001b) studies which validated L1 transfer in L2 morphological errors with change of state verbs, several studies lie on the opposite camp neutralizing the role of L1 transfer (Zob1,

1989; Yip, 1995; Balcom, 1997; Oshita, 2000; Ju, 2000). Their main arguments claim that there is a unique but common interlanguage structure observed among L2 English learners regardless of their L1 backgrounds; *overpassivization*.

As far as unaccusative verbs are concerned, it was revealed that L2 learners frequently misuse them in passive structures. Zobl (1989) observed that L2 English learners revealed a tendency to produce unaccusative verbs with inappropriate passive morphology in their writing. Since the phenomenon cannot be explained by either positive evidence or L1 transfer and since it is observed even with advanced-level English learners, it has garnered significant attention in the field of SLA.

With regard to the underlying cause of this interlanguage structure, there have been two dominant hypotheses. The first is the transitivization hypothesis (Yip, 1995; Lee, 2010), which attributes overpassivization errors to English learners' misinterpretation of unaccusative verbs as underlyingly transitive verbs. As learners incorrectly treat unaccusative verbs as transitive verbs, they inappropriately transitivize the verb and then apply the passive rule, resulting in overpassivization errors.

The second is the NP-movement marker hypothesis (Balcom, 1997; Oshita, 2000). It claims that after English learners acquire the passive formation rule, they may consider that the passive morphology *be* + *en* indicates the movement of an NP argument from the verb-internal object position to the subject

position. Since the surface subject NP of unaccusative verbs is known to be originated in the verb-internal object position and later moved to the subject position, it has been argued that learners are likely to mark this movement by means of passive morphology.

Adding onto this debate, Ju (2000) highlighted the effects of cognitive factors in this interlanguage phenomenon: the role of conceptualizable agents in the discourse. Ju made a prediction that when the learners could conceptualize the possible agent in the given discourse, they would be more likely to prefer the unaccusative verbs in passive voice than in active voice. Distinguishing external causation from internal causation, she claimed that the rate of overpassivization errors would be greater in the context that describes external causation as learners are more likely to conceptualize the possible agents in such contexts.

(10) a. Heavy trucks put more and more pressure on the bridge. It (broke / was broken) gradually.

b. The wooden bridge was very old. It (broke / was broken) gradually.

(Ju, 2000, p. 96)

(10a) describes an external causation context where the learners could easily conceptualize the causer of the breaking action, *heavy trucks*. On the other hand, (10b) describes an internal causation context where it isn't easy to conceptualize the possible agent of the breaking action. Implementing a forced-choice task, Ju discovered that the choice of verbs in passive voice was greater in

external causation contexts.

2.3.1.3 Studies on the Korean Language

Motivated by a series of research by Montrul (1997, 1999, 2000, 2001a, 2001b), several studies were conducted to probe into the influence of L1 Korean on L2 morphological errors with English change of state verbs (Kim, 2005; Lee, 2009). They reveal rather inconclusive results, though.

Kim (2005) replicated the experimental design of Montrul (2001b) to test whether L2 morphological errors with change of state verbs are constrained by L1 in the case of Korean learners of English. The effect of L1 transfer was not evident with these learners, however, mirroring the results of Turkish speakers in Montrul (2001b). Rather than transferring a particular morphological pattern of Korean, the learners were able to correctly accept zero-morphology for both the causative and the inchoative, which Kim interpreted as a *pattern-based transfer*.[4] The patterns

[4] Kim (2005) distinguished *pattern-based transfer* from *class-based transfer*. She claimed that *class-based transfer* cannot explain the performance of L1 Korean-L2 English learners in that they did not treat individual verb classes (verbs with causative pattern vs. verbs with anticausative pattern) differently although the equivalent translations of these verbs belong to different alternation patterns in Korean. Hence, she concluded that the transfer did not take place at the level of individual verb classes. Rather, she stated that *pattern-based transfer* appropriately explains Korean speakers' accurate acceptance of zero-morphology with both the causative and the inchoative verbs. Verbs of anticausative pattern in Korean (e.g., *yel-ta* 'open', *tat-ta* 'close') are morphologically simple in transitive sentences as in (ia). On the other hand, verbs of causative pattern in Korean (e.g., *nok-ta* 'melt', *el-ta* 'freeze') are morphologically simple in intransitive sentences as in (iib). These two constructions, (ia) and (iib), which are comparable to English zero-morphology constructions, have transferred to English, regardless of the

NP V NP and NP V with zero morphological marking on verbs that are comparable to English zero-morphology constructions were claimed to have been transferred, thus referred to as *pattern-based transfer*.

Lee (2009) employed the identical task design, but with only the verbs, the equivalent translations of which display a causative alternation pattern in Korean where the overt causative morphology attaches to the verb (e.g., melt 'nok-*i*-ta', freeze 'eol-*li*-ta'). If there had been an L1 influence, L1 Korean-L2 English learners should have preferred zero-morphology for the inchoative verb as only the causative verb is morphologically marked in this pattern in Korean. However, in contrast to what was expected, learners preferred the inchoative verbs in *be* +

---

verbs' distinct alternation patterns in L1.

(i) Verbs of anticausative pattern (e.g., *yel-ta* 'open')

a. Minho-ka mwun-ul yel-ess-ta. (transitive – morphologically *simple*)
Minho-nom door-acc open-past-dec
'Minho opened the door.'

b. Mwun-i yel-*li*-ess-ta. (intransitive – morphologically *marked*)
door-nom open-*anticaus*-past-dec
'The door opened.'

(ii) Verbs of causative pattern (e.g., *nok-ta* 'melt')

a. Minho-ka pethe-lul nok-*i*-ess-ta. (transitive – morphologically *marked*)
Minho-nom butter-acc melt-*caus*-past-dec
'Minho melted the butter.'

b. Pethe-ka nok-ass-ta. (intransitive – morphologically *simple*)
butter-nom melt-past-dec
'The butter melted.'

p.p. form than with zero-morphology. Such results invalidate L1 transfer, but support earlier documentation of overpassivization errors (Zobl, 1989; Yip, 1995; Balcom, 1997; Oshita, 2000; Ju, 2000), confirming that L2 morphological errors found with change of state verbs, particularly ones in the intransitive constructions, are not L1-specific, but rather L2-universal and developmental.

Indeed, a number of studies report Korean speakers' overpassivization errors in English and it has been argued that the two following factors are the culprit of these errors, especially with L1 Korean-L2 English learners. The first is the homophony between anticausative morphology and passive morphology in Korean (e.g., *-i*, *-hi*, *-li*, *-ki*) (Hwang, 2006; No & Chung, 2006; Chung, 2014). These studies revealed that when the equivalent translations of verbs in Korean include the anticausative morphology that is identical to passive morphology as is the case in (11a-b), Korean learners were more likely to accept the verbs in passive voice.

(11) a. Mwun-i yel-***li***-ess-ta.
door-nom open-**ANTICAUS**-past-dec
'The door opened.'
b. Mwun-i ku sonyen-eyuyhay yel-***li***-ess-ta.
door-nom the boy-by open-**PASS**-past-dec
'The door was opened by the boy.'

(Hwang, 2006)

Note that (11a) and (11b) differ in terms of the meaning they deliver. (11a) describes an inchoative event occurring spontaneously which excludes the presence of an implied agent, whereas (11b) describes a passive event which implies the presence of an agent, for instance, an NP *the boy*. Despite the meaning difference, however, the identical morpheme *-li* is affixed to the verb in both constructions. This homophony between anticausative and passive morphology was claimed to trigger overpassivization errors among Korean speakers.[5]

The second is the animacy effect (No & Chung, 2006; Chung, 2014; Pae et al., 2014). While English is quite flexible with the use of inanimate subjects in active sentences, subject animacy highly constrains the choice of syntactic structures for Korean speakers. Indeed, the use of inanimate subjects generally deviates from the typical active voice sentences in Korean (e.g., *The pen writes well*). Considering the role of subject animacy for Korean speakers, these studies revealed that Korean learners of English revealed a tendency to accept the verbs in passive voice when inanimate subjects are present.

In summary, the role of L1 transfer in L2 morphological errors with

[5] If the homophony between anticausative and passive morphology is the underlying cause of overpassivization errors among Korean speakers, such errors should be restricted to verbs of anticausative pattern in Korean (e.g., *yel-ta* 'open', *tat-ta* 'close'). This is because verbs of causative pattern in Korean are morphologically simple in intransitive contexts. However, as Lee (2009) demonstrated, Korean speakers were likely to overpassivize even verbs, the equivalent translations of which in Korean display a causative pattern. Furthermore, according to Montrul (2001b), anticausative morphology and passive morphology are homophonous in Turkish as well, but overpassivization errors were not observed with Turkish speakers.

change of state verbs remains controversial not only with learners of different language backgrounds but also with L1 Korean-L2 English learners. Therefore, this thesis aims to re-examine this issue of L1 influence in the domain of morphology that mediates the alternation of change of state verbs by replicating the research design of Montrul (2001b).

2.3.2 L2 Acquisition of Psych Verbs

As discussed above, psych verbs (with Experiencer objects) are problematic in terms of misalignment between the argument's thematic role and its syntactic position. Due to this misalignment problem, psych verbs have been the topic of spirited discussion in the field of SLA. However, a plethora of research focused on identifying the relative difficulty of acquiring EO (Experiencer object) psych verbs and ES (Experiencer subject) psych verbs on the ground that only the former raises the linking problem (White et al., 1999; Chen, 1996). Less is known, however, about the morphological patterns of their argument structure alternation and how L1-L2 differences in this aspect constrain L2 morphological errors.

2.3.2.1 Studies Arguing for L1 Transfer

Montrul (2001b) integrated new findings on the role of L1 transfer in L2 morphological errors with psych verbs with the existing ones with change of state verbs from her previous works (Montrul, 1997, 1999, 2000, 2001a). As for psych

verbs, L1 Turkish-L2 English learners demonstrated a significant influence of L1 morphological patterns on L2 morphological errors. Note that Turkish is a language where the transitive variant is morphologically marked as shown in (12a-b), whereas English is a language where the intransitive variant is morphologically marked as shown in (13a-b).

(12) a. Arslan aucı-yı kork-***ut***-mus. (transitive)

lion hunter-acc fear-**CAUS**-past

'The lion frightened the hunter.'

b. Aucı kork-mus. (intransitive)

hunter frighten-past

'The hunter got frightened.'

(13) a. The lion frightened the hunter. (transitive)

b. The hunter ***got*** frightened. (intransitive)

(Montrul, 2001b, p. 152)

Implementing the same experimental design as change of state verbs, Montrul (2001b) demonstrated that Turkish speakers' morphological errors in English psych verbs were highly constrained by their L1 Turkish causative morphology. Indeed, these learners showed a clear preference toward the morphologically marked form in transitive contexts (e.g., *The lion made the hunter frightened*) and the morphologically simple form in intransitive contexts (e.g., **The hunter frightened*). Such a high acceptance rate of periphrastic-*make* and ungrammatical zero-inchoative was claimed to have been influenced by the

causative morphology in L1 Turkish.

L1 influence in L2 morphological errors with psych verbs is also well-documented in Juffs (1996). He discovered that L1 Chinese-L2 English learners were inclined to produce psych verbs using periphrastic-*make* (e.g., *The broken vase made the man disappointed*) instead of using zero-causative morphology (e.g., *The broken vase disappointed the man*). Juffs attributed this non-target-like production of psych verbs by Chinese speakers to the influence of L1 because Chinese disallows zero-causative while only allowing periphrastic causative constructions with the meaning of causation expressed by a distinct verb *shi*, which highly corresponds to periphrastic-*make* in English.

Arguments against L1 transfer in L2 morphological errors with psych verbs have not been reported yet, however, largely due to the general scarcity of research on this issue.

2.3.2.2 Studies on the Korean Language

As for investigations of psych verbs, studies on L1 Korean-L2 English learners have documented their learning problems in acquiring the peculiar argument structure of these verbs, namely the linking problem between the thematic role and the structural position of the arguments (Son & Kim, 2011; Lee & Kim, 2016). These studies confirm the previous findings that EO psych verbs which raise the misalignment problem are more challenging to acquire compared

to ES psych verbs (White et al., 1999; Chen, 1996).

Few studies have relevance to the issue of L1 transfer in L2 morphological errors with psych verbs in the case of L1 Korean-L2 English learners (Hwang, 2000; Hahn, 2011). Although the purpose of Hwang (2000) was to test MacWhinney's (1987, 1992) competition model, the results of his study offer insightful implications as to the role of L1 transfer. The study reported that Korean learners with a low L2 English proficiency were likely to judge the ungrammatical intransitive psych verbs (e.g., **I surprised at the dog*) as grammatical while judging the grammatical transitive psych verbs (e.g., *The dog surprised me*) or passive psych verbs (e.g., *I was surprised at the dog*) as ungrammatical. Although such findings were analyzed in terms of different cue strengths that Korean speakers used, they can be interpreted in terms of L1 transfer as well. In other words, as psych predicates are morphologically simple in intransitive sentences in Korean as seen in (14), constrained by L1 zero-morphology, these learners were likely to accept the ungrammatical zero-intransitive psych verbs (e.g., **I surprised at the dog*) in L2 English.

(14) Na-nun kay-ey **nolla**-ss-ta.

I-nom dog-at surprise-past-dec.

'I was surprised at the dog.'

(adapted from Hwang, 2000)

Hahn (2011) labeled Korean learners' errors with psych verbs (e.g., **The boy disappointed because he got a bad grade*) as underpassivization errors, analogous to overpassivization errors found with change of state verbs. Though her study was primarily focused on the processability of passive structures, she admitted that there can be pervasive L1 influence in triggering underpassivization errors for L1 Korean speakers. Comparing the relative difficulty of acquiring English change of state verbs and psych verbs, her study reported that Korean speakers were more accurate with overt morphology of psych verbs than covert morphology of change of state verbs in intransitive contexts. Moreover, the accuracy rates increased faster with psych verbs as the learners' L2 proficiency improved. Note that this is in contrast with Montrul's (2001b) findings which reported that psych verbs are found to be more difficult to acquire than change of state verbs owing to their linking problem. To my best knowledge, Hahn (2011) was the only study that addressed and compared the learning problems of change of state verbs and psych verbs for L1 Korean-L2 English learners, though the focus of her study was not precisely on the issue of L1 transfer.

To date, there hasn't been any study with L1 Korean-L2 English learners that investigated the influence of L1-specific morphological patterns on L2 morphological errors with psych verbs, thus leaving the research gap. Hence, this thesis aims to fill the gap by replicating the research design of Montrul (2001b) and examining whether L1 Korean plays a role in L2 morphological errors with English psych verbs.

2.4 Comparison between Korean and English

This section thoroughly compares Korean and English as to how they overtly/non-overtly realize the argument-structure-changing morphology with two classes of causative verbs (i.e., change of state verbs and psych verbs). Based on the comparison between the two languages, specific predictions for the current study are drawn upon.

2.4.1 Change of State Verbs in Korean and in English

The present study follows Haspelmath's (1993) classification of alternation patterns discussed in Section 2.2. According to his analysis, Korean displays all three alternation patterns, and Table 2.1 illustrates these patterns with specific examples of Korean sentences shown in (15)-(17).

Table 2.1

Morphological Patterns of Change of State Verbs in Korean

Alternation Pattern	Verb	Causative	Inchoative
Causative Alternation	melt	nok-***i***-ta	nok-ta
	freeze	el-***li***-ta	el-ta
Anticausative Alternation	open	yel-ta	yel-***li***-ta
	close	tat-ta	tat-***hi***-ta
Non-directed Alternation (labile pattern)	stop	memchwu-ta	memchwu-ta
	move	wumciki-ta	wumciki-ta

(15) Causative alternation pattern

a. Minho-ka pethe-lul nok-***i***-ess-ta. (transitive)

Minho-nom butter-acc melt-**CAUS**-past-dec

'Minho melted the butter.'

b. Pethe-ka nok-ass-ta. (intransitive)

butter-nom melt-past-dec

'The butter melted.'

(16) Anticausative alternation pattern

a. Minho-ka mwun-ul yel-ess-ta. (transitive)

Minho-nom door-acc open-past-dec

‘Minho opened the door.’

b. Mwun-i yel-***li***-ess-ta. (intransitive)

door-nom open-**ANTICAUS**-past-dec

‘The door opened.’

(17) Non-directed alternation pattern (labile pattern)

a. Minho-ka cha-lul memchwu-ess-ta.

Minho-nom car-acc stop-past-dec.

‘Minho stopped the car.’

b. Cha-ka memchwu-ess-ta.

car-nom stop-past-dec.

‘The car stopped.’

Although Korean displays all of the three morphological patterns, verbs of labile pattern are extremely rare and restricted, only found with few verbs (e.g., *stop, move*) (Yeon, 1991). Hence, they are excluded from the present study. Noteworthy to report is the overlap between causative and anticausative morphology in Korean. Causative morphemes refer to *-i*, *-hi*, *-li*, *-ki*, *-wu*, *-kwu*, and *-chwu*, whereas anticausative morphemes refer to *-i*, *-hi*, *-li*, and *-ki*. Hence, *-i*, *-hi*, *-li*, *-ki* are polyfunctional, used as either causative morphology or anticausative morphology.

Unlike the complexity of overt morphological marking in Korean, a single non-directed alternation pattern, more specifically, the labile pattern is predominant in English. English lacks overt morphological marking on both the

causative and the inchoative. Zero-morphology mediates the alternation (e.g., *Janet broke the cup / The cup broke*). That is, the argument structure alternation is covertly realized as for change of state verbs in English.

These cross-linguistic differences raise the following learning problem for L1 Korean-L2 English learners. They must notice that there is no overt morphological form to signal the argument structure alternation of change of state verbs in English. If influenced by their L1 overt morphology, however, these learners are expected to first, assume that there is an overt morpheme to mediate the argument structure alternation in L2 English as well, and second, look for the surrogate L2-specific morphophonological items to mediate the alternation. This may lead them to prefer morphologically marked verb forms (i.e., periphrastic-*make*, periphrastic-*get*) to morphologically simple ones. In addition to this, since different verbs belong to different alternation patterns in Korean (i.e., causative and anticausative patterns), if such different alternation patterns of different verbs transfer as well, learners are expected to prefer marked verb forms in transitive sentences (i.e., periphrastic-*make*) for verbs of causative pattern in Korean while preferring marked verb forms in intransitive sentences (i.e., periphrastic-*get*) for those of anticausative pattern in Korean.

2.4.2 Psych Adjectives in Korean and Psych Verbs in English

Psych predicates in Korean differ from those in English because most of them are indeed adjectives. It has been argued, however, that the grammatical properties of Korean adjectives are highly comparable to those of verbs (Sohn, 2004), hence named adjectival verbs. This is because Korean adjectives and verbs share the major inflectional morphological processes of predicates (e.g., subject honorific, tense/aspect, modal, addressee honorific). Built upon this analysis, the present study makes a direct comparison between psych adjectives in Korean and psych verbs in English.

Psych adjectives in Korean mostly require two arguments (Experiencer and Theme) as in English. However, they can be used with a single Experiencer argument in intransitive sentences when certain conditions are met (S. Kim, 1994; K. Kim, 2003). When they are used in the present tense, only a first-person NP subject makes the sentence grammatical as shown in (18a-b). When they are used in the past tense, however, both the first-person NP and the third-person NP subjects are grammatical as shown in (18c-d). Note that in intransitive sentences, psych predicates are morphologically simple. They are in the basic form without any morpheme affixation.

(18) a. Na-nun mwusep-ta.

I-nom scare-dec.

'I am scared.'

b. *Ku-nun mwusep-ta.

he-nom scare-dec.

'He is scared.'

c. Na-nun mwusew-ess-ta.

I-nom scare-past-dec

'I was scared.'

d. Ku-nun mwusew-ess-ta.

he-nom scare-past-dec

'He was scared.'

(adapted from K. Kim, 2003)

When psych predicates are used in transitive contexts to deliver a causative meaning in Korean, an overt causative morphology *-key ha-* is attached to the predicate as seen in (19), which is a productive means to transitivize a verb in Korean (Nam, 1993; Kim, 2003).

(19) Ku namca-ka ai-lul nolla-**key ha**y-ss-ta.

the man-nom boy-acc surprise-**CAUS**-past-dec.

'The man surprised the boy.'

(adapted from Hwang, 2000)

In short, following the analysis of Haspelmath (1993) and Montrul (2001b), psych predicates in Korean display a causative alternation pattern since

they are in a basic, morphologically simple form when used in intransitive contexts, whereas overt causative morphology, *-key ha-*, is attached when used in transitive contexts.

In contrast, English psych verbs display an opposite anticausative alternation pattern. They are in a basic, morphologically simple form when used in transitive contexts to denote a causative meaning (Levin, 1993; Pesetsky, 1995). When used in intransitive contexts to deliver an inchoative meaning, however, periphrastic-*get* should be attached. Such a verb manipulation is illustrated in (20a-b).

(20) a. The lion frightened the hunter. (transitive)

b. The hunter **got** frightened. (intransitive)

(Montrul, 2001b, p. 151)

These cross-linguistic differences give rise to the following learning problem for L1 Korean-L2 English learners. They must notice that there is overt morphological marking on psych verbs in English to signal their argument structure alternation as in their L1 Korean. At the same time, they must recognize that the direction of the morphological marking is the opposite in English. That is, learners should acquire that zero-causative is grammatical whereas zero-inchoative is ungrammatical, necessitating the attachment of periphrastic-*get*, in contrast to the causative pattern in L1 Korean.

2.4.3 Summary

Table 2.2 summarizes the morphological patterns with change of state verbs in Korean and in English following the analysis of Montrul (2001b). Example sentences are provided in (21)-(23).

Table 2.2

Typology of Morphological Patterns with Change of State Verbs

	Morphological patterns		
	Causative	Anticausative	Non-directed (labile)
Language	Korean	Korean	English
Morphology	+causative -anticausative	-causative +anticausative	-causative -anticausative
Example (transitive) (intransitive)	nok-***i***-ta nok-ta	yel-ta yel-***li***-ta	melt, open melt, open

Note. + meaning overt morphology; - meaning zero morphology

Source. Based on Montrul (2001b)

(21) Change of state verbs with causative pattern in Korean

a. Minho-ka pethe-lul nok-***i***-ess-ta. (transitive)

Minho-nom butter-acc melt-**CAUS**-past-dec

'Minho melted the butter.'

b. Pethe-ka nok-ass-ta. (intransitive)

butter-nom melt-past-dec

'The butter melted.'

(22) Change of state verbs with anticausative pattern in Korean

a. Minho-ka mwun-ul yel-ess-ta. (transitive)

Minho-nom door-acc open-past-dec

'Minho opened the door.'

b. Mwun-i yel-***li***-ess-ta. (intransitive)

door-nom open-**ANTICAUS**-past-dec

'The door opened.'

(23) Change of state verbs in English

a. Ben melted the butter. (transitive)

b. The butter melted. (intransitive)

Drawing upon these cross-linguistic differences and assuming the tenets of Feature Re-assembly Hypothesis, specific predictions can be made with L1 Korean-L2 English learners as follows. Regarding change of state verbs, the equivalent translations of which display causative pattern in Korean, learners would reject zero-causative while accepting periphrastic-*make* for transitive constructions and accept zero-inchoative while rejecting periphrastic-*get* for intransitive constructions. Note that these verbs are morphologically marked in

transitive contexts while morphologically simple in intransitive contexts in Korean. On the other hand, regarding change of state verbs, the equivalent translations of which display anticausative pattern in Korean, learners would accept zero-causative while rejecting periphrastic-*make* for transitive constructions and reject zero-inchoative while accepting periphrastic-*get* for intransitive constructions. Note that these verbs are morphologically simple in transitive contexts while morphologically marked in intransitive contexts in Korean. These are summarized with example sentences in Table 2.3.

Table 2.3

Predictions for Change of State Verbs

Verb type	Context	Example sentence	Prediction
Change of state (causative)	Transitive	Ben melted the butter.	Reject
		Ben made the butter melt.	Accept
	Intransitive	The butter melted.	Accept
		The butter got melted.	Reject
Change of state (anticausative)	Transitive	Tom opened the door.	Accept
		Tom made the door open.	Reject
	Intransitive	The door opened.	Reject
		The door got opened.	Accept

Table 2.4 summarizes the morphological patterns with psych verbs in Korean and in English following the analysis of Montrul (2001b). Example sentences are provided in (24)-(25).

Table 2.4

Typology of Morphological Patterns with Psych Verbs

	Morphological patterns	
	Causative	Anticausative
Language	Korean	English
Morphology	+causative -anticausative	-causative +anticausative
Example (transitive) (intransitive)	cilwuha-***key ha***-ta cilwuha-ta	bore ***get*** bored

Note. + meaning overt morphology; - meaning zero morphology

Source. Based on Montrul (2001b)

(24) Psych adjectives in Korean

a. Sensayngnim-i Minho-lul cilwuha-***key ha***y-ss-ta. (transitive)

teacher-nom Minho-acc bore-**CAUS**-past-dec.

'The teacher bored Minho.'

b. Minho-ka cilwuhay-ss-ta. (intransitive)

Minho-nom bore-past-dec.

'Minho got bored.'

(25) Psych verbs in English

a. The teacher bored Emily. (transitive)

b. Emily got bored. (intransitive)

Drawing upon these cross-linguistic differences and assuming the tenets of Feature Re-assembly Hypothesis, specific predictions can be made with L1 Korean-L2 English learners as follows. If L1 morphological pattern transfers, learners would reject zero-causative while accepting periphrastic-*make* for transitive constructions and accept zero-inchoative while rejecting periphrastic-*get* for intransitive constructions. Note that psych predicates are morphologically marked in transitive contexts and morphologically simple in intransitive contexts in Korean. These are summarized with example sentences in Table 2.5.

Table 2.5

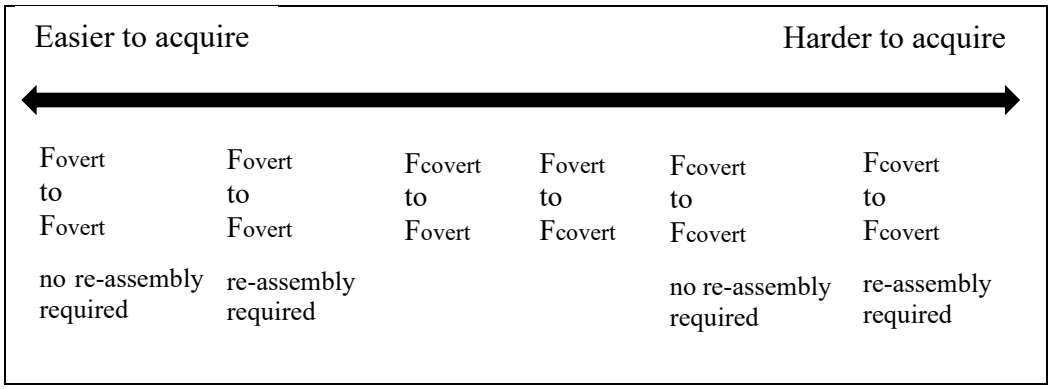
Predictions for Psych Verbs

Verb type	Context	Example sentence	Prediction
Psych	Transitive	The teacher bored Emily.	Reject
		The teacher made Emily bored.	Accept
	Intransitive	*Emily bored.	Accept
		Emily got bored.	Reject

Adding onto investigating the role of L1 transfer in L2 morphological errors with causative verbs, this thesis aims to identify the relative difficulty of acquiring morphological patterns of change of state verbs and psych verbs for L1 Korean-L2 English learners. A detailed prediction is to be made in reference to the cline of difficulty model by Cho and Slabakova (2014), as discussed in Section 2.1.3.

Figure 2.1

Cline of Difficulty in L2 Grammatical Feature Acquisition (adapted from Cho & Slabakova, 2014)



Note. *Fovert* stands for a grammatical feature that is overtly realized while *Fcovert* stands for the feature that is covertly realized with zero-morphology.

Based on this model, acquiring morphological patterns of change of state verbs is predicted to be more difficult than acquiring those of psych verbs for L1 Korean-L2 English learners. Note that, for Korean speakers, acquiring the morphological patterns of English change of state verbs falls under the category of '*Fovert* to *Fcovert*' in this model. This is on the ground that Korean realizes overt morphology, either causative or anticausative, for the argument structure alternation whereas English features zero-morphology. Meanwhile, acquiring the morphological patterns of English psych verbs falls under the category of '*Fovert* to *Fovert with feature re-assembly required'*. This is on the ground that both Korean and English realize overt morphology for the alternation while the direction of morphological marking is the opposite, thereby necessitating feature re-assembly.

Such a prediction is in contrast to Montrul's (2001b) findings but in line with Hahn's (2011) findings.

2.5 The Present Study

While closely reviewing the previous studies, there were the following research gaps to be filled. First and foremost, to my best knowledge, there was no study that investigated the role of L1 transfer in L2 morphological errors with two classes of causative verbs (i.e., change of state verbs and psych verbs) in the case of L1 Korean-L2 English learners. Second, as to change of state verbs, studies yielded mixed results on the influence of L1, as some report of significant L1 transfer while others argue for non-L1-specific, but L2-universal and developmental difficulties. Moreover, studies with L1 Korean-L2 English learners revealed inconclusive results as well, seeking further clarification on the issue. Third, with regard to psych verbs, less is known about the role of L1 transfer in L2 morphological errors, particularly for L1 Korean-L2 English learners. Lastly, Cho and Slabakova's (2014) cline of difficulty model has not yet been tested in the domain of morphology that alters the verb argument structure, thereby waiting for further confirmation.

In order to bridge the aforementioned research gaps, this thesis partially replicates Montrul (2001b) and investigates the role of L1 transfer in L2 morphological errors with two classes of causative verbs by probing into the case

of L1 Korean-L2 English learners. The experimental design of Montrul (2001b) was kept intact as closely as possible. There were minor adaptations though, in the selection of verbs used in the study so as to fit the context of the Korean language. Since the pictures used in the original study were not available, they were newly created as well. A critical difference of the current study is that it investigates whether L1-constrained morphological errors, if found any, are recovered with the increase in L2 English proficiency. In order to do so, the current study divides the groups of Korean speakers based on their L2 English proficiency, which is to be later discussed in Chapter 3.

To summarize, the present study primarily investigates whether L1 plays a role in L2 morphological errors with two classes of causative verbs (i.e., change of state verbs and psych verbs) by examining the case of L1 Korean-L2 English learners, and secondarily identifies the relative difficulty of acquiring morphological patterns of change of state verbs and psych verbs for L1 Korean-L2 English learners. Three research questions that guide this thesis can be restated as follows:

1. Do L1-specific morphological patterns play a role in L2 morphological errors with change of state verbs in the case of L1 Korean-L2 English learners?

2. Do L1-specific morphological patterns play a role in L2 morphological errors with psych verbs in the case of L1 Korean-L2

English learners?

3. Which learning situation is found to be more difficult for L1 Korean-L2 English learners, acquiring the morphological patterns of change of state verbs or those of psych verbs?

CHAPTER 3.

METHODOLOGY

This chapter illustrates the methodological design employed for the current study. Section 3.1 provides the information about the participants. The profiles of the experimental group are summarized. Section 3.2 introduces the task materials which include a picture-based acceptability judgment task, an L1 translation task, an L2 proficiency test, and a language background survey. Section 3.3 presents how these four tasks proceed. Lastly, Section 3.4 explains how the collected data are organized and statistically analyzed.

3.1 Participants

A total of 55 adults participated in the current study. As a control group, 11 English native speakers were recruited. They self-identified themselves as English native speakers whose first language is English. As an experimental group, 44 L1 Korean-L2 English learners including 21 males and 23 females were recruited. All the participants were Korean native speakers whose first language is Korean. They have learned English as a foreign language. Information about the experimental group including their L2 English proficiency and their language background was collected through the implementation of a c-test and a language

background survey (See Section 3.2.3 and 3.2.4 for detail).

Table 3.1 summarizes the profiles of the experimental group. The experimental group was divided into three sub-groups (i.e., low-intermediate, intermediate, advanced) based on their scores obtained in the c-test.[6] The cutoff score for the advanced level was 27 based on Lee (2016) and that for the

[6] In order to ensure that each group clearly differs from one another in terms of L2 English proficiency, the participants were recruited from three different pools as below.

i) College students who received a grade of 4 or 5 in CSAT(College Scholastic Ability Test) English, 2022

These students were enrolled in universities located in Gyeonggi, Gangwon, Daegu, Busan, and Jeju. They were all freshmen with majors unrelated to English. Although grades in CSAT English cannot be directly compared with levels in the CEFR (Common European Framework of Reference for Languages), their grades in CSAT and scores obtained in the c-test of this study imply that they are low-intermediate English learners with possibly A2 level in the CEFR.

ii) Students at Seoul National University taking a course named *English Foundations*

These students were all enrolled in a course named *English Foundations* in the fall semester of 2022 at SNU. Note that every freshman at SNU mandatorily takes TEPS (Test of English Proficiency developed by Seoul National University) before entering the school and based on their TEPS scores, they take English elective courses. *English Foundations* is a course designed for students whose TEPS scores are under 297. The students' scores on TEPS were largely equivalent to B1 level in the CEFR.

iii) Graduate students at the department of Foreign Language Education (English major), Seoul National University, and those who have equivalent level of proficiency in English

Admission to the graduate school of SNU for the dept. of Foreign Language Education (English major) requires a minimum score of 453 on TEPS. Others who were not recruited from the dept. of Foreign Language Education reported their scores on either TEPS, TOEIC, or TOEFL prior to research participation and their English proficiency was comparable to that of graduate students at SNU. Their scores fall under C1 level in the CEFR.

intermediate level was 11. This was where natural breaks occurred in the participants' scores of the c-test. The groupings based on this significantly differed from each other.

Table 3.1

Profiles of the Experimental Group

		Low-intermediate (*n*=18)	Intermediate (*n*=12)	Advanced (*n*=14)
C-test Scores	Mean	6.28	16.17	32.36
	SD	1.93	6.22	3.10
	Range	3-10	11-26	27-36
Age	Mean	18.88	21.66	26.92
	SD	0.67	4.99	5.16
	Range	18-20	18-35	18-34
Age of Acquisition	Mean	7.66	8.58	6.06
	SD	1.49	2.50	2.33
	Range	6-10	5-12	2-11

3.2 Task Materials

The current study replicated the experimental design of Montrul (2001b) with a few minor adaptations. This was to first, ensure the reliability of the research design and second, to directly compare the results with Montrul (2001b).

3.2.1 Picture-based Acceptability Judgment Task

In order to see whether L1-specific morphological patterns bias L2 learners' preferences for certain morphological shapes of the verbs, a picture-based acceptability judgment task was conducted. The task was comprised of pictures and the following pairs of sentences to have participants judge the naturalness of the given sentences to depict the picture (refer to Appendix 1 for a list of experimental sentences). The verbs and sentences for the task were mainly taken from Montrul (1997, 2001b) with minor adaptions based on Kim (2005) so as to fit the context of Korean and English. Table 3.2 displays change of state verbs and psych verbs used in the acceptability judgment task. Note that change of state verbs in this study are further divided into the ones with causative pattern and the others with anticausative pattern, unlike Montrul (2001b). This division is on the basis of L1 Korean morphological patterns. Its purpose is to examine whether Korean speakers treat these verbs differently given that they belong to two distinctive morphological patterns in their L1.

Table 3.2

Verbs Used in the Picture-based Acceptability Judgment Task

Verb Type	Individual Verbs
Change of state (causative)	melt, freeze, burn, dry
Change of state (anticausative)	break, open, close, shake
Psych	amuse, annoy, bore, disappoint, frighten, surprise

For each verb, there were two pictures presented. One picture depicted the verb in a transitive context. There were two participants, an agent doing something to an object (in the case of change of state verbs), or to a person (in the case of psych verbs). The other picture depicted the verb in an intransitive context. There was a single participant, an object (in the case of change of state verbs), or a person (in the case of psych verbs) undergoing a physical or psychological change of state. Participants viewed a total of 59 pictures including 3 practice items and 56 test items. Only 28 items among them were relevant to the results of the present study. The rest 28 were filler items.

Each picture was a presented with a pair of sentences. Pictures depicting transitive events were accompanied by transitive sentences and those depicting intransitive events were accompanied by intransitive sentences. The verb form was manipulated in the pairs of sentences. Since English does not have overt

morphemes for the causative or the inchoative, the following two periphrastic verbs were used for morphological manipulation. For the transitive sentences, the periphrastic-*make* was used to deliver the causative meaning, while for the intransitive sentences, the periphrastic-*get* was used to deliver the inchoative meaning. This followed the design of Montrul (2001b). The purpose of such verb manipulation was to test whether L2 learners show preferences for a certain morphological form of the verb over the other, possibly constrained by L1-specific morphological patterns. Although both periphrastic-*make* and periphrastic-*get* may be grammatical, they are rather semantically inappropriate given the context illustrated by the picture.[7]

Participants rated the acceptability of each sentence to describe the given picture by looking into both their meaning and their grammatical correctness. Then, they marked their judgment on a scale from 1 (completely unnatural) to 6 (completely natural). Although Montrul (2001b) adopted a scale with a range from -3 (completely unnatural) to +3 (completely natural), the use of negative values was pointed out as a methodological limitation along with the option of a zero score (White, 2003; Ionin & Zyzik, 2014). Particularly, the zero option was argued to possibly confuse the participants' judgments as it can denote either the scale of

[7] There is a semantical difference between zero-causative and *make*-causative. The former describes an event of direct causation while the latter describes an event of indirect causation. Likewise, zero-inchoative and *get*-inchoative have a difference in meaning. The former excludes the presence of an implied agent, thus describing a situation occurring spontaneously while the latter has an implication for the presence of an agent.

acceptability or the scale of certainty. Therefore, the current study adopted a scale with an even number of only positive values, adding a separate *don't know* response. The samples of the experimental items with change of state verbs and psych verbs are presented in Figures 3.1 and 3.2.

Figure 3.1

Sample of Pictures and Sentences with Change of State Verbs

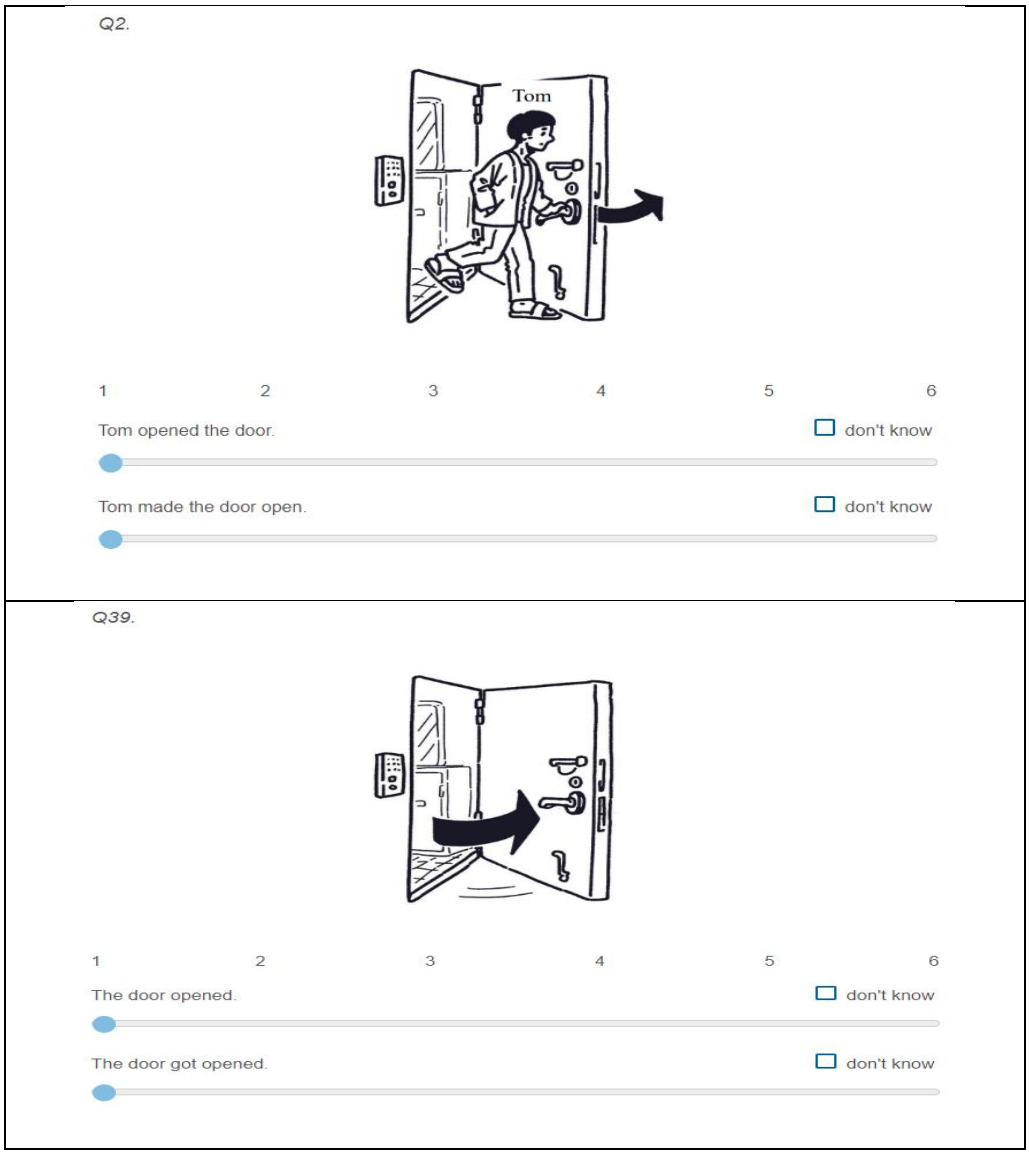


Figure 3.1 shows a representative sample of the experimental items of change of state verbs with *open*. As indicated, the pair of sentences presented with each picture may be both grammatical in English, but only one is semantically appropriate while the other is semantically inappropriate given the context illustrated by the picture. For instance, in a transitive context, zero-causative (e.g., *Tom opened the door*) is semantically appropriate as the picture describes an event of direct causation, whereas periphrastic-*make* (e.g., *Tom made the door open*) is semantically inappropriate as it describes an event of indirect causation. Likewise, in an intransitive context, zero-inchoative is semantically appropriate as it excludes the presence of an implied agent, whereas periphrastic-*get* is semantically inappropriate as it suggests the presence of an implied agent. Note that the picture describes a spontaneously occurring event by presenting only a single Theme argument undergoing a change of state while excluding the presence of an implied causer. Hence, only the zero-inchoative is semantically appropriate.

Figure 3.2

Sample of Pictures and Sentences with Psych Verbs

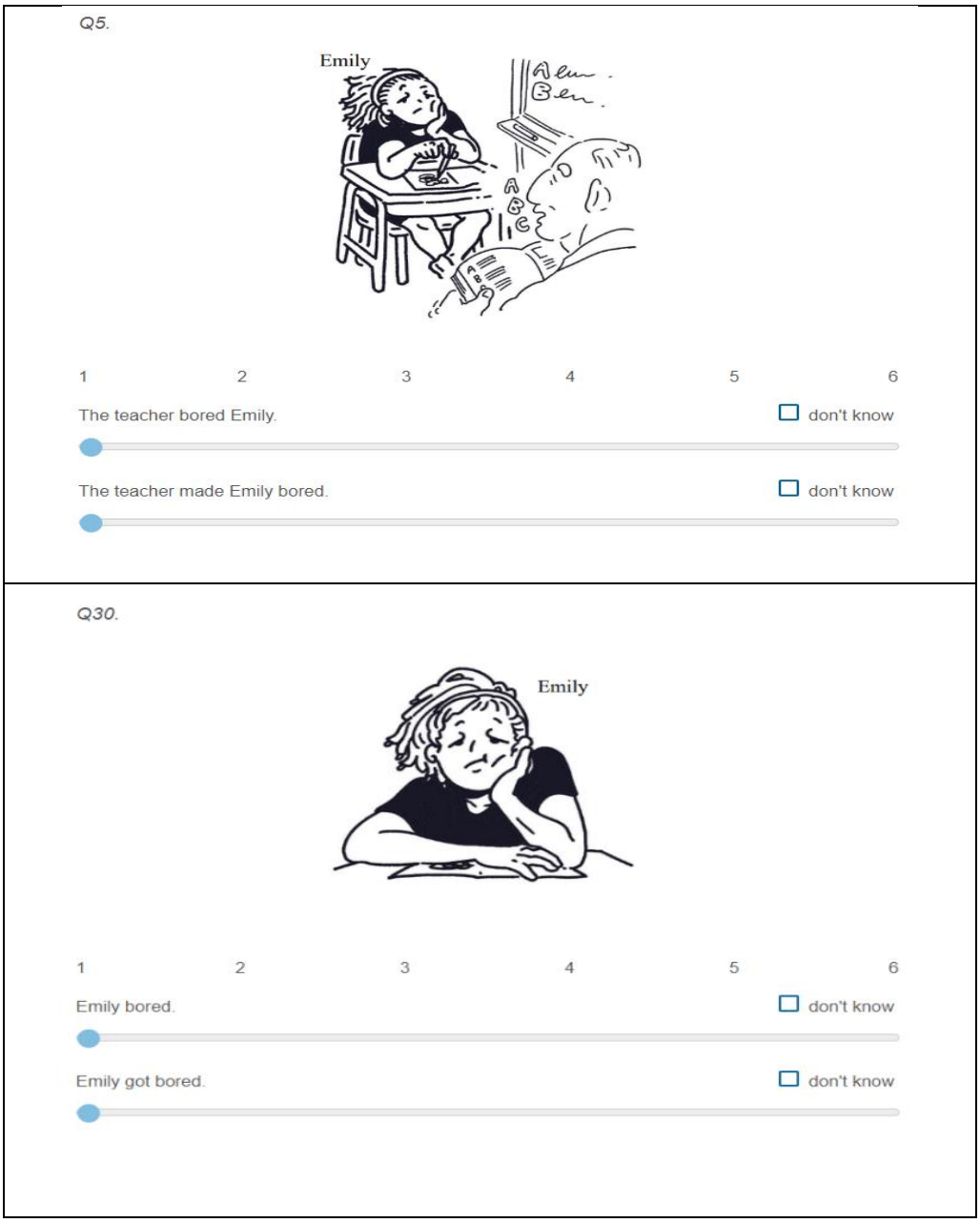


Figure 3.2 shows a representative sample of the experimental items of psych verbs with *bore*. In a transitive context, both sentences may be grammatical while zero-causative is more semantically appropriate than periphrastic-*make*.[8] On the other hand, in an intransitive context, only the periphrastic-*get* is grammatical, while the zero-inchoative psych verbs are ungrammatical in English.

3.2.2 L1 Translation Task

Montrul (2001b) arranged a vocabulary translation task and asked the participants to translate the target verbs in infinitive forms into their first language. The rationale behind this task was to ensure that the participants know the meaning of individual verbs so that they could judge the grammaticality of verb forms in given contexts. This was based on the assumption that if participants are unaware of the basic meaning of the verbs, they might not know their syntactic behaviors as well.

The current study, however, asked the participants to translate not the verbs but the sentences used in the study into their first language, Korean. After completing the picture-based acceptability judgment task, they were asked to

[8] The degree of semantical inappropriateness of periphrastic-*make* with psych verbs in the given context may be less than that with change of state verbs when considering that Montrul (2001b) have stated in her study that periphrastic-*make* constructions are a paraphrase of zero-causative psych verbs. English native speakers' acceptance rate of periphrastic-*make* was also greater with psych verbs than with change of state verbs in Montrul (2001b).

translate the sentences containing the target verbs. Filler sentences were excluded from this translation task. The point of this entire sentence translation task was to not only ascertain that participants are aware of the meaning of the verbs and constructions used in the study but also to identify whether the L1-specific morphological patterns are present in participants' L1 translations and whether they have influenced the participants' judgment of the sentences.

3.2.3 L2 Proficiency Test

To assess the individual participants' L2 English proficiency level, a c-test adapted from the one used in Schulz (2006) was administered. The c-test included two short English texts with 20 items each, making a total of 40 items (See Appendix 2). These texts contained gaps where half of some words were deleted. Participants were asked to complete the missing words in reference to the entire meaning of the context. Each word was given 1 point if correct. Spelling did not matter, but a point was deducted for any other errors. Depending on their c-test scores, the experimental group was further divided into three sub-groups: low-intermediate (n=18), intermediate (n=12), and advanced (n=14). Note that the c-test was rather difficult; therefore, a seemingly low score does not directly translate into a low proficiency level in English (Schulz, 2006). To confirm that the three sub-experimental groups differ from one another in terms of their L2 English proficiency, their mean scores on the c-test were submitted to a one-way ANOVA.

The results suggested that there were statistical differences between groups ($F(2,41) = 179.4$, $p < .001$). Indeed, three sub-groups significantly differed from one another, revealing statistical differences between the L2 low-intermediate and L2 intermediate group (Tukey, $p < .001$), between the L2 intermediate and L2 advanced group (Tukey, $p < .001$), and between the L2 low-intermediate and L2 advanced group (Tukey, $p < .001$) as well.

3.2.4 Language Background Survey

A brief language background survey was conducted to inquire about individual participants' background information and their language learning experiences. The survey included a total of 11 questions asking about their age, gender, country of birth, first language, experience of living abroad, foreign languages available, age of acquisition, and current exposure to English (See Appendix 3).

3.3 Task Procedures

All four tasks including the picture-based acceptability judgment task, the L1 translation task, the L2 proficiency test, and the language background survey were administered online by using the following platforms: Qualtrics, Google Docs, and Google Survey. The experimental group took part in all four tasks, and

it took about an hour to complete them. Individual links for four different tasks were provided in an order, and participants were required to strictly follow the order of the four tasks. The control group only completed the picture-based acceptability judgment task, and it took less than 20 minutes to finish. Participants were paid for research participation.

3.4 Data Analysis

The results of the picture-based acceptability judgment task were statistically analyzed using R (R Core Team, 2022). Before the analysis, data obtained by certain participants were excluded because their results of L1 translation task revealed that they incorrectly translated either the meaning of the verbs or the constructions used in the current study.[9] *don't know* responses were also excluded from the statistical analysis.[10]

To figure out the general acceptability of the sentences with different morphological conditions of verbs across different groups, the mean acceptability scores of each group in each morphology condition for each verb type were

[9] Incorrect translations of verbs or constructions were excluded from the data analysis and they are:

i) verbs: *amuse* by 1 participant, *shake* by 1 participant, *melt*, *frighten* by 1 participant

ii) constructions: periphrastic-*make* by 1 participant, periphrastic-*get* by 1 participant.

[10] *don't know* responses were excluded from the data analysis as well and they are: *amuse*, *frighten* by 1 participant, *annoy*, *amuse*, *shake* by 1 participant.

calculated first. These mean scores were then submitted to a three-way mixed ANOVA with repeated measures with group (control vs. L2 low-intermediate vs. L2 intermediate vs. L2 advanced) as a between-subjects factor and verb type (change of state with causative pattern vs. change of state with anticausative pattern vs. psych) and morphology (zero-Transitive, marked-Transitive, zero-Intransitive, marked-Intransitive) as within-subjects factors. Next, for each verb type, the mean scores were submitted to a two-way mixed ANOVA with group as a between-subjects factor and morphology as a within-subjects factor. Afterward, for each morphology condition, the mean scores were submitted to a one-way ANOVA with group as a between-subjects factor. Lastly, a Tukey's HSD test was implemented as a post hoc analysis to compare the results of each group. The significance level α was set at .05 for every statistical analysis.

CHAPTER 4.

RESULTS

This chapter reports the results of the experiments. The results of the picture-based acceptability judgment task are statistically analyzed in Section 4.1. Then, Section 4.2 and 4.3 presents the mean acceptability scores on different morphological conditions (i.e., zero vs. marked) for each verb type (i.e., change of state with causative pattern, change of state with anticausative pattern, psych) in transitive and intransitive contexts by English native speakers and L1 Korean-L2 English learners in order to see whether L1 influence biases L2 learners' preferences for certain morphological conditions. Section 4.2 presents the group results of change of state verbs and Section 4.3 presents the group results of psych verbs. Lastly, Section 4.4 compares the results of these two classes of causative verbs in order to identify the relative difficulty of acquiring them.

4.1 Results of the Picture-based Acceptability Judgment Task

Results of a three-way mixed ANOVA with repeated measures revealed a main effect for verb type ($F(2,98) = 23.269$, $p < .001$), and for morphology ($F(3,147) = 33.934$, $p < .001$), but only a marginal effect for group ($F(3,49) = 2.618$, $p = .061$). Every possible interaction (i.e., verb type by group, morphology

by group, verb type by morphology by group) were significant at the .05 level. Table 4.1 outlines the results.

Table 4.1

Results of a Three-way Mixed ANOVA with Repeated Measures

Effect	*DFn*	*DFd*	*F*	*p*
Group	3	49	2.618	.061
Verb type	2	98	23.269	< .001
Morph	3	147	33.934	< .001
Group * Verb type	6	98	2.645	.020
Group * Morph	9	147	11.681	< .001
Verb type * Morph	6	294	39.554	< .001
Group * Verb type * Morph	18	294	11.067	< .001

Note. Morph is an abbreviation of Morphology.

Since the three-way interaction was found to be significant, a two-way mixed ANOVA was conducted for each verb type (i.e., change of state with causative pattern vs. change of state with anticausative pattern vs. psych) with group as a between-subjects factor and morphology as a within-subjects factor. The results demonstrated that for each verb type, there was a significant interaction effect of verb with morphology (See Appendix 4 for the full results). Hence, in order to further examine whether there are significant differences between groups

for each morphology condition in each verb type, a one-way ANOVA was implemented with group as a between-subjects factor (See Appendix 5 for the full results). Lastly, a Tukey post-hoc test was administered to explore how the individual groups differed from one another. The results of a one-way ANOVA and post-hoc analysis are explained in detail for each verb type in the following sections.

4.2 Group Results of Change of State Verbs

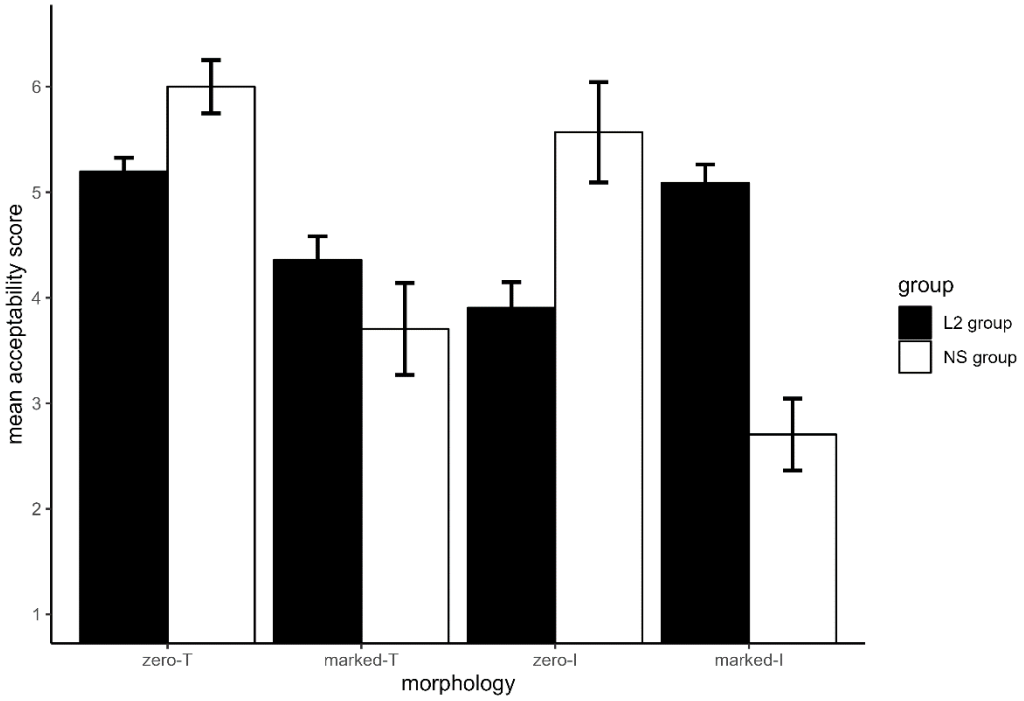
The first research question investigates whether L1 Korean plays a role in L2 morphological errors with English change of state verbs. The present study sub-divided change of state verbs into two types according to which alternation patterns they belong to in their equivalent translations in Korean. Change of state verbs with causative pattern include *melt*, *freeze*, *burn*, and *dry*, while those with anticausative pattern include *break*, *open*, *close*, and *shake*.

4.2.1 Change of State Verbs with Causative Pattern

Figure 4.1 illustrates the mean acceptability scores of the L2 group (L1 Korean-L2 English learners) and the NS group (English native speakers) on each morphology condition for change of state verbs with causative pattern.

Figure 4.1

Mean Acceptability Scores on Change of State Verbs with Causative Pattern (L2 group vs. NS group)



Notes. 1) Error bars represent standard errors.

2) Acceptability scores refer to the following.

1=completely unnatural, 2=unnatural, 3=somewhat unnatural, 4=somewhat natural, 5=natural, 6=completely natural

3) Each morphology condition refers to the following.

zero-T=zero-Transitive (e.g., *Ben melted the butter*)

marked-T=marked-Transitive (e.g., *Ben made the butter melt*)

zero-I=zero-Intransitive (e.g., *The butter melted*)

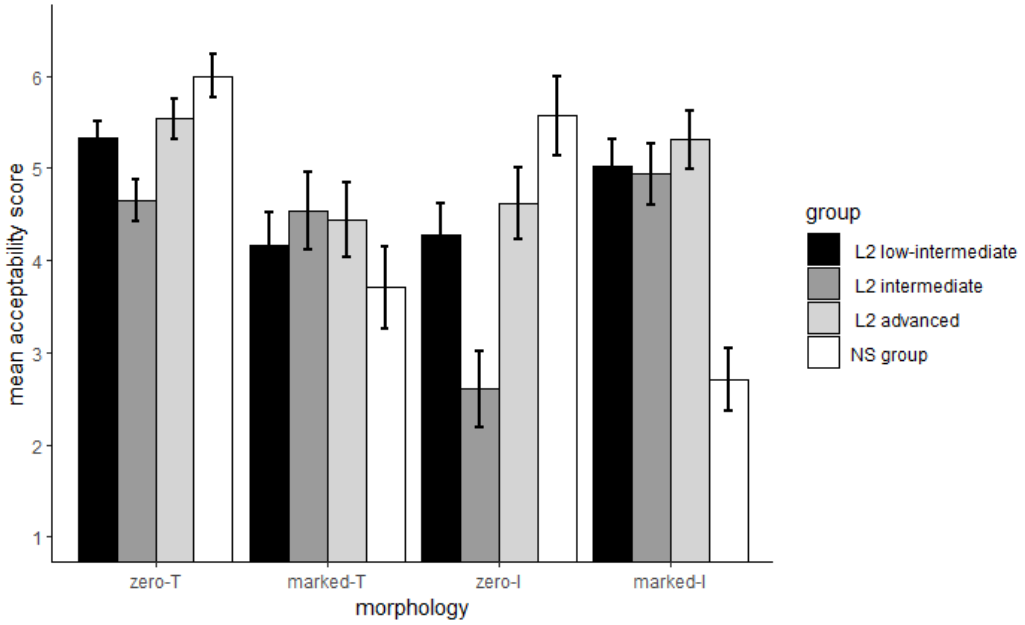
marked-I=marked-Intransitive (e.g., *The butter got melted*)

The L2 group seemed to differ from the NS group with respect to zero-Transitive (e.g., *Ben melted the butter*) (p = .006) but did not differ with regard to marked-Transitive (e.g., *Ben made the butter melt*) (p = .197). In general, the L2 group revealed a tendency to correctly judge zero-Transitive more natural and acceptable than marked-Transitive, behaving alike with English native speakers. However, the L2 group was significantly different from the NS group with respect to zero-Intransitive (e.g., *The butter melted*) (p = .003) and marked-Intransitive (e.g., *The butter got melted*) (p < .001). Indeed, the L2 group's preferences were opposite to those of the NS group; they incorrectly judged marked-Intransitive more natural and acceptable than zero-Intransitive.

In order to explore whether these patterns of preferences are equally present in the L2 group of three different levels of L2 proficiency (i.e., low-intermediate, intermediate, advanced), the current study further compared the results of the NS group with those of the L2 group sub-divided by L2 English proficiency. Figure 4.2 summarizes the mean acceptability scores of each group on each morphology condition for change of state verbs with causative pattern (See Appendix 6 for the means and standard deviations).

Figure 4.2

Mean Acceptability Scores on Change of State Verbs with Causative Pattern (L2 group divided by L2 proficiency vs. NS group)



Note. The same notes as in Figure 4.1

The results of zero-Transitive (e.g., *Ben melted the butter*) demonstrated that there were significant differences between groups ($F(3,51) = 6.152$, $p = .001$). This was due to a relatively lower acceptance rate of zero-causative by the L2 intermediate group which was revealed to be statistically different from the NS group (Tukey, $p = .001$) and from the L2 advanced group (Tukey, $p = .021$). The other two L2 groups (i.e., low-intermediate and advanced) seemed to have had little difficulty in accepting zero-causative morphology. No significant difference between groups was discovered in the results of marked-Transitive (e.g., *Ben made*

the butter melt) ($F(3,50) = 0.713$, $p = .549$). Summing up the results of zero-Transitive and marked-Transitive, Korean speakers were accurate in general in accepting the semantically appropriate zero-causative morphology in transitive contexts, regardless of their L2 English proficiency.

As for zero-Intransitive (e.g., *The butter melted*), the results showed statistical differences between groups ($F(3,50) = 9.090$, $p < .001$). This was mainly due to a significantly lower acceptance of the correct zero-inchoative by the L2 intermediate group. Indeed, the L2 intermediate group was statistically different from the NS (Tukey, $p < .001$), from the L2 advanced (Tukey, $p = .004$), and from the L2 low-intermediate group (Tukey, $p = .013$) as well. The acceptance rate of zero-inchoative by the L2 low-intermediate group was also marginally different from the NS group (Tukey, $p = .083$). Such results reveal that lower-level English learners were unlikely to accept the grammatical and semantically appropriate zero-inchoative morphology, although its acceptance rate became more target-like in the L2 advanced group. A conspicuously lower acceptance rate of the target-like zero-inchoative by the L2 intermediate group ($M = 2.60$) compared to the L2 low-intermediate ($M = 4.28$) and the L2 advanced group ($M = 4.62$) implicates a typical pattern of U-shaped development.

The results of marked-Intransitive (e.g., *The butter got melted*) revealed statistical differences between groups ($F(3,51) = 13.327$, $p < .001$). Every L2 group, regardless of their L2 English proficiency, was significantly different from the NS group (i.e., L2 low-intermediate: Tukey, $p < .001$; L2 intermediate: Tukey,

$p < .001$; L2 advanced: Tukey, $p < .001$). There were no significant differences within the L2 group. Although English native speakers were likely to correctly reject the semantically inappropriate *get*-inchoative ($M = 2.70$) despite its grammaticality, L1 Korean-L2 English learners were very likely to incorrectly accept *get*-inchoative in spite of its semantical inappropriateness given the context provided the picture.[11] Summing up the results of zero-Intransitive and marked-Intransitive, Korean speakers were rather inaccurate in accepting the semantically appropriate zero-inchoative morphology in intransitive contexts, comparing the mean acceptability scores of zero-inchoative ($M = 3.90$) and *get*-inchoative ($M = 5.09$) in the L2 group.

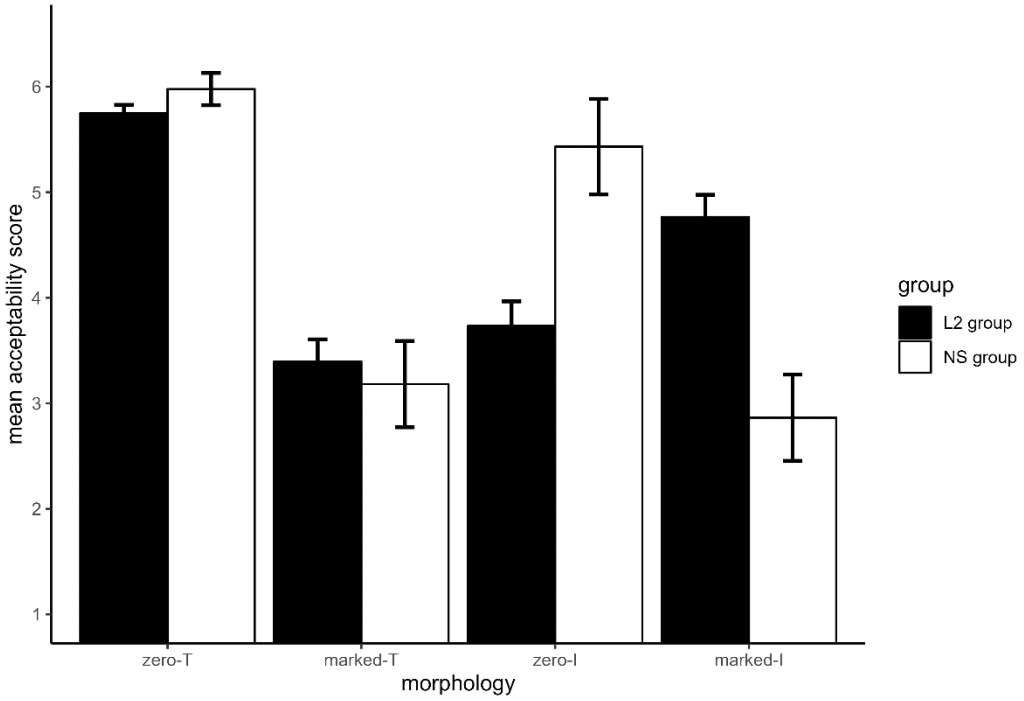
4.2.2 Change of State Verbs with Anticausative Pattern

Figure 4.3 illustrates the mean acceptability scores between the L2 group (L1 Korean-L2 English learners) and the NS group (English native speakers) on each morphology condition for change of state verbs with anticausative pattern.

[11] The pictures used in the acceptability judgment task describe a single participant undergoing a change of state so as to depict a context of an event occurring spontaneously while suppressing the presence of an implied agent. Therefore, only zero-inchoative is semantically appropriate whereas *get*-inchoative is semantically inappropriate since the latter implies the presence of an implied agent.

Figure 4.3

Mean Acceptability Scores on Change of State Verbs with Anticausative Pattern (L2 group vs. NS group)



Notes. 1) Error bars represent standard errors.

2) Acceptability scores refer to the following.

1=completely unnatural, 2=unnatural, 3=somewhat unnatural, 4=somewhat natural, 5=natural, 6=completely natural

3) Each morphology condition refers to the following.

zero-T=zero-Transitive (e.g., *Tom opened the door*)

marked-T=marked-Transitive (e.g., *Tom made the door open*)

zero-I=zero-Intransitive (e.g., *The door opened*)

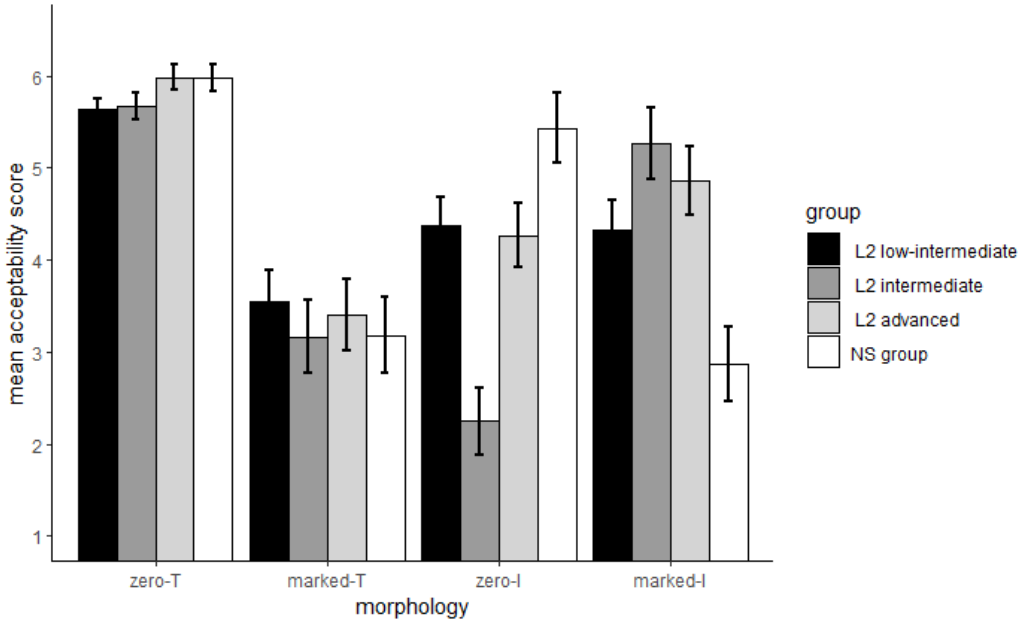
marked-I=marked-Intransitive (e.g., *The door got opened*)

The L2 group was not statistically different from the NS group with respect to zero-Transitive (e.g., *Tom opened the door*) (p = .164) and marked-Transitive (e.g., *Tom made the door open*) (p = .682). In general, the L2 group revealed a tendency to correctly judge zero-Transitive more natural and acceptable than marked-Transitive, behaving alike with English native speakers. However, the L2 group significantly differed from the NS group with regard to zero-Intransitive (e.g., *The door opened*) (p = .001) and marked-Intransitive (e.g., *The door got opened*) (p < .001). Indeed, the L2 group's preferences were opposite to those of the NS group; they incorrectly judged marked-Intransitive more natural and acceptable than zero-Intransitive.

In order to explore whether these patterns of preferences are equally present in the L2 group of three different levels of L2 proficiency (i.e., low-intermediate, intermediate, advanced), the current study further compared the results of the NS group with those of the L2 group sub-divided by L2 English proficiency. Figure 4.4 summarizes the mean acceptability scores of each group on each morphology condition for change of state verbs with anticausative pattern (See Appendix 6 for the means and standard deviations).

Figure 4.4

Mean Acceptability Scores on Change of State Verbs with Anticausative Pattern (L2 group divided by L2 proficiency vs. NS group)



Note. The same notes as in Figure 4.3

The results of zero-Transitive (e.g., *Tom opened the door*) revealed that there were only marginal differences between groups ($F(3,51) = 2.520$, $p = .068$). In a similar vein, there were no statistical differences observed between groups ($F(3,50) = 0.251$, $p = .860$) in the results of marked-Transitive (e.g., *Tom made the door open*). As was the case in change of state verbs with causative pattern, Korean speakers, regardless of their L2 English proficiency, were generally accurate in accepting the semantically appropriate zero-causative morphology in transitive contexts, demonstrating a target-like preference.

As for zero-Intransitive (e.g., *The door opened*), the results demonstrated statistical differences between groups ($F(3,50) = 13.208$, $p < .001$). This was largely due to a significantly lower acceptance of zero-inchoative by the L2 intermediate group. Indeed, the L2 intermediate group was statistically different from the NS (Tukey, $p < .001$), from the L2 advanced (Tukey, $p = .001$), and from the L2 low-intermediate group (Tukey, $p < .001$) as well. Such results revealed that the L2 intermediate group was particularly inaccurate in accepting the grammatical and semantically appropriate zero-inchoative morphology. A conspicuously lower acceptance of the target-like zero-inchoative by the L2 intermediate group ($M = 2.25$) compared to the L2 low-intermediate ($M = 4.37$) and the L2 advanced group ($M = 4.27$) implicates a typical pattern of U-shaped development, echoing the results of change of state verbs with causative pattern.

The results of marked-Intransitive (e.g., *The door got opened*) revealed significant differences between groups ($F(3,51) = 7.447$, $p < .001$). Indeed, every L2 group, regardless of their L2 English proficiency, was statistically different from the NS group (i.e., L2 low-intermediate: Tukey, $p = .041$; L2 intermediate: Tukey, $p < .001$; L2 advanced: Tukey, $p = .002$). There were no significant differences within the L2 group. Although English native speakers were likely to correctly reject the semantically inappropriate *get*-inchoative ($M = 2.86$) despite its grammaticality, L1 Korean-L2 English learners were highly likely to incorrectly accept *get*-inchoative in spite of its semantical inappropriateness given the context provided the picture. Summing up the results of zero-Intransitive and

marked-Intransitive, Korean speakers displayed a tendency to inaccurately accept the semantically inappropriate *get*-inchoative more (M = 4.77) than the semantically appropriate zero-inchoative (M = 3.73) in intransitive contexts.

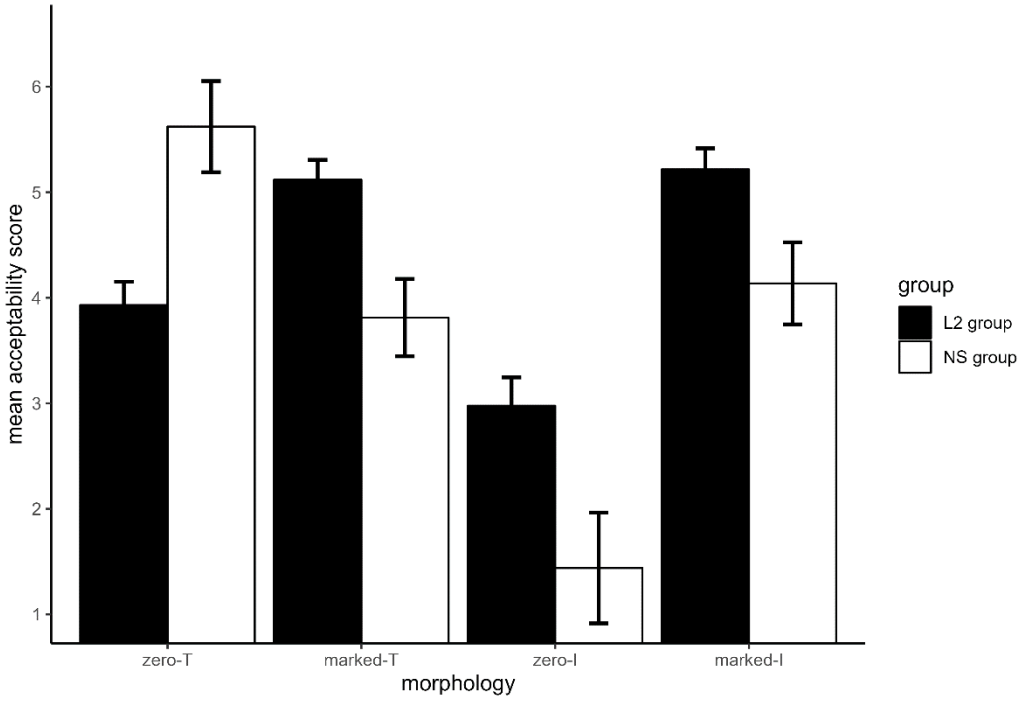
Overall, the results of change of state verbs with causative pattern and anticausative pattern were highly alike, although the equivalent translations of these verbs in Korean require an opposite direction of morphological marking on verbs. Indeed, Korean speakers correctly accepted zero-causative in transitive contexts while incorrectly accepting *get*-inchoative in intransitive contexts for both types of change of state verbs. Such consistent preferences by Korean speakers cannot be attributed to L1 morphological transfer, which is to be later discussed in Chapter 5.

4.3 Group Results of Psych Verbs

The second research question investigates whether L1 Korean plays a role in L2 morphological errors with English psych verbs. Psych verbs used in the current study include *amuse, annoy*, *bore*, *disappoint*, *frighten*, and *surprise*. Figure 4.5 illustrates the mean acceptability scores between the L2 group (L1 Korean-L2 English learners) and the NS group (English native speakers) on each morphology condition for psych verbs.

Figure 4.5

Mean Acceptability Scores on Psych Verbs (L2 group vs. NS group)



Notes. 1) Error bars represent standard errors.

2) Acceptability scores refer to the following.

1=completely unnatural, 2=unnatural, 3=somewhat unnatural,

4=somewhat natural, 5=natural, 6=completely natural

3) Each morphology condition refers to the following.

zero-T=zero-Transitive (e.g., *The teacher bored Emily*)

marked-T=marked-Transitive (e.g., *The teacher made Emily bored*)

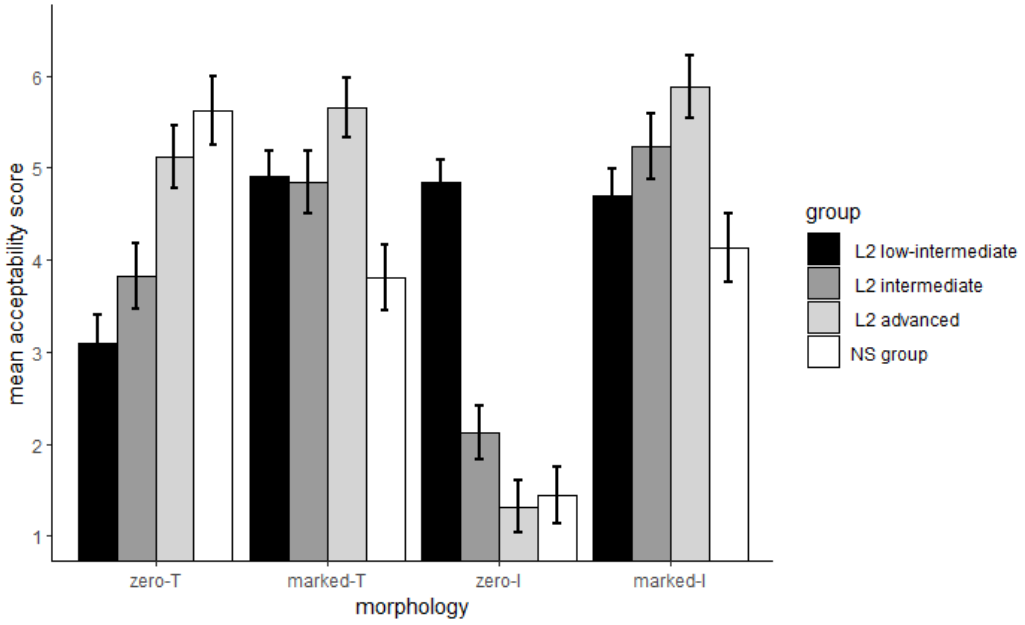
zero-I=zero-Intransitive (e.g., **Emily bored*)

marked-I=marked-Intransitive (e.g., *Emily got bored*)

The L2 group seemed to differ from the NS group in every condition: zero-Transitive (e.g., *The teacher bored Emily*) (p = .001), marked-Transitive (e.g., *The teacher made Emily bored*) (p = .002), zero-Intransitive (e.g., **Emily bored*) (p = .010), and marked-Intransitive (e.g., *Emily got bored*) (p = .018). In order to explore whether every L2 group with different levels of proficiency in English is statistically different from the NS group, the present study further compared the NS group with the L2 group divided by L2 English proficiency. Figure 4.6 summarizes the mean acceptability scores of each group on each morphology condition for psych verbs (See Appendix 6 for the means and standard deviations).

Figure 4.6

Mean Acceptability Scores on Psych Verbs (L2 group divided by L2 proficiency vs. NS group)



Note. The same notes as in Figure 4.5

The results of zero-Transitive (e.g., *The teacher bored Emily*) revealed statistical differences between groups ($F(3,51) = 13.457$, $p < .001$), which was primarily due to a significantly lower acceptance of zero-causative by the L2 low-intermediate and the L2 intermediate group. Indeed, the L2 low-intermediate group was significantly different from the NS (Tukey, $p < .001$) and from the L2 advanced group (Tukey, $p < .001$). Likewise, the L2 intermediate group was significantly different from the NS (Tukey, $p = .005$) and the L2 advanced group (Tukey, $p = .032$). These results show that the lower-level L2 groups (i.e., low-intermediate and intermediate) failed to accept the correct zero-causative morphology with English psych verbs. Meanwhile, the L2 advanced group was highly homogenous to the NS group (Tukey, $p = .803$), indicating that as their English proficiency enhanced, they were likely to correctly accept zero-causative morphology and demonstrate a target-like preference.

The results of marked-Transitive (e.g., *The teacher made Emily bored*) demonstrated statistical differences between groups ($F(3,50) = 5.116$, $p = .004$), but the significant difference was only found with the L2 advanced and the NS group (Tukey, $p = .002$). Although the L2 advanced group was more likely to accept periphrastic-*make* compared to the NS group, such a preference is not to be considered entirely non-target-like given that the degree of semantical inappropriateness of *make*-causative with psych verbs is less than that with change of state verbs as discussed in Section 3.2.1. Summing up the results of zero-Transitive and marked-Transitive, Korean speakers with lower-level proficiency

in English revealed a tendency to reject the grammatical and semantically appropriate zero-causative morphology in transitive contexts. Such a tendency, however, became target-like with the increasing level of L2 proficiency.

As for the results of zero-Intransitive (e.g., **Emily bored*), there were statistical differences between groups ($F(3,50) = 40.385$, $p < .001$). This was mainly due to a significantly higher acceptance rate of the ungrammatical zero-inchoative by the L2 low-intermediate group. Indeed, the L2 low-intermediate group was significantly different from the NS (Tukey, $p < .001$), the L2 intermediate (Tukey, $p < .001$), and the L2 advanced group (Tukey, $p < .001$). They were noticeably inaccurate in rejecting the ungrammatical zero-inchoative morphology. However, such non-target-like preferences were recovered with the increase in L2 proficiency given that the L2 intermediate and L2 advanced groups correctly rejected the ungrammatical zero-inchoative psych verbs.

The results of marked-Intransitive (e.g., *Emily got bored*) revealed statistical differences between groups ($F(3,51) = 5.064$, $p = .004$). Indeed, the L2 advanced group was significantly different from the NS (Tukey, $p = .004$) and marginally different from the L2 low-intermediate group (Tukey, $p = .026$). Note, however, that this is mainly due to the relatively lower acceptance rate of the grammatically correct periphrastic-*get* by the NS group ($M = 4.14$), which was rather unexpected. In fact, implementing the identical experimental design, English native speakers' preferences converged on the grammatically correct periphrastic-*get* in Montrul (2001b). However, there is a possibility that English

native speakers may have considered psych verbs in '*be* + *p.p.*' form (e.g., *Emily was bored*) more natural and acceptable than those in '*get* + *p.p.*' form (e.g., *Emily got bored*) in the context illustrated by the picture, thereby marking a relatively lower score on *get*-inchoative than expected in spite of its grammaticality. Nevertheless, the mean acceptability scores of periphrastic-*get* in both the NS group (M = 4.14) and the L2 group (M =5.22) fall under the category of grammaticalness, above the score 4; thus, the study concludes that the L2 group well-acquired the overt morphological marking on psych verbs in intransitive contexts. Summing up the results of zero-Intransitive and marked-Intransitive, Korean speakers with lower-level of proficiency in English revealed a tendency to accept the ungrammatical zero-inchoative, which seemed to have been recovered in the L2 intermediate and the L2 advanced groups.

4.4 Comparison between the Results of Change of State Verbs and Psych Verbs

The third research question examines the relative difficulty of acquiring the morphological patterns of change of state verbs and psych verbs in the argument structure alternation for L1 Korean-L2 English learners. It has been predicted that acquiring English change of state verbs and the relevant morphology would be more challenging for Korean speakers according to Cho and Slabakova's (2014) cline of difficulty model. In order to test the prediction, this section makes

a direct comparison between the results of change of state verbs and those of psych verbs illustrated in previous sections. Table 4.2 summarizes this with their mean acceptability scores across different groups on each morphology condition.

Table 4.2

Comparison between Change of State Verbs and Psych Verbs with Mean Acceptability Scores

	Change of state				Psych			
	L2low	L2 int	L2adv	NS	L2low	L2 int	L2adv	NS
zero-T	5.48	5.16	5.76	5.99	3.10	3.82	5.12	5.62
marked-T	3.86	3.85	3.92	3.44	4.90	4.85	5.65	3.81
zero-I	4.33	2.43	4.44	5.50	4.85	2.12	1.32	1.44
marked-I	4.68	5.10	5.09	2.78	4.69	5.24	5.88	4.14

Notes. 1) L2 low=L2 low-intermediate group, L2 int=L2 intermediate group, L2 adv=L2 advanced group, NS=English native speakers.

2) For change of state verbs,
zero-T=zero-Transitive (e.g., *Ben melted the butter*)
marked-T=marked-Transitive (e.g., *Ben made the butter melt*)
zero-I=zero-Intransitive (e.g., *The butter melted*)
marked-I=marked-Intransitive (e.g., *The butter got melted*)

3) For psych verbs,
zero-T=zero-Transitive (e.g., *The teacher bored Emily*)
marked-T=marked-Transitive (e.g., *The teacher made Emily bored*)
zero-I=zero-Intransitive (e.g., **Emily bored*)
marked-I=marked-Intransitive (e.g., *Emily got bored*)

As to change of state verbs, L1 Korean-L2 English learners were generally accurate with causative forms, demonstrating target-like preferences. However, they had substantial difficulties with inchoative forms. Although they were likely to accept the target-like zero-inchoative as their L2 proficiency increased, it was revealed that every L2 group, regardless of their L2 proficiency, could not reject the non-target-like periphrastic-*get*. Indeed, the acceptance rate of non-target-like *get*-inchoative was higher than that of target-like zero-inchoative in every L2 group. This implies that the learning problem of change of state verbs and their morphological patterns in the alternation remained unresolved despite the native-like L2 proficiency, indicating a fossilization of non-target-like periphrastic-*get*.

As to psych verbs, morphological errors appeared mainly among the lower-level L2 groups. They were likely to demonstrate non-target-like preferences, rejecting zero-causative in transitive contexts while accepting zero-inchoative in intransitive contexts. However, these non-target-like performances were gradually replaced by target-like ones as L2 proficiency increased. Indeed, the L2 advanced and the NS group were largely homogeneous as the L2 advanced group was very accurate in accepting the grammatical zero-causative psych verbs while rejecting the ungrammatical zero-inchoative psych verbs.

In short, Korean speakers recovered from morphological errors and displayed native-like preferences with regard to psych verbs as their L2 English proficiency increased. However, morphological errors concerning change of state verbs, especially a high preference for *get*-inchoative in intransitive contexts,

continued to be problematic in spite of native-like L2 proficiency. Hence, the comparison between the results of two classes of causative verbs suggests that the relative difficulty of acquiring the morphological patterns of change of state verbs may be greater than acquiring those of psych verbs for L1 Korean-L2 English learners.

CHAPTER 5.

DISCUSSION

The central question that the present study aimed to address was whether and how the different morphological patterns of L1 and L2 account for the morphological errors observed in one's interlanguage development. Assuming the tenets of Feature Re-assembly Hypothesis (FRH) by Lardiere (2008, 2009), it was hypothesized that L2 morphological errors concerning the argument structure alternation of two classes of causative verbs (i.e., change of state verbs and psych verbs) would be highly constrained by the way in which the relevant morphology (i.e., causative and anticausative morphology) is overtly/non-overtly realized in the learners' first language. Chapter 5 addresses this issue by referring to the results of the current study. To answer the first research question, Section 5.1 discusses the results of change of state verbs in light of the extent to which L1 plays a role in L2 morphological errors. Next, to answer the second research question, Section 5.2 discusses the results of psych verbs in light of the extent to which L1 plays a role in L2 morphological errors. Lastly, Section 5.3 examines the relative difficulty of acquiring the morphological patterns of change of state verbs and psych verbs for L1 Korean-L2 English learners, to answer the third research question.

5.1 The Role of L1 Transfer in L2 Morphological Errors with Change of State Verbs

The first research question was whether L1-specific morphological patterns play a role in L2 morphological errors with change of state verbs in the case of L1 Korean-L2 English learners. Note that Korean and English greatly vary with regard to how they overtly/non-overtly realize the argument-structure-changing morphology with change of state verbs. Korean overtly marks the alternation of change of state verbs with either causative or anticausative morphology, whereas English covertly realizes the relevant features with zero-morphology.

Assuming the tenets of Feature Re-assembly Hypothesis (FRH), it was expected that if L1 overtly realizes certain grammatical features while L2 covertly realizes them, L2 learners would try to look for the substitute L2-specific morphophonological items to express the features as is the case in L1. Thus, L1 Korean-L2 English learners were expected to prefer morphologically marked verb forms (e.g., periphrastic-*make*, periphrastic-*get*) to morphologically simple ones, constrained by the overt causative/anticausative morphology in their L1. In addition to this, given that Korean displays two distinct alternation patterns depending on verbs, the learners were predicted to prefer periphrastic-*make* (e.g., *Ben made the butter melt*) and zero-inchoative (e.g., *The butter melted*) for verbs whose equivalent translations in Korean have causative morphology. In the same

manner, they were predicted to prefer zero-causative (e.g., *Tom opened the door*) and periphrastic-*get* (e.g., *The door got opened*) for verbs whose equivalent translations in Korean have anticausative morphology.

These predictions were not met, however. The results were rather unexpected in light of the hypotheses formulated above. L1 Korean-L2 English learners, whose native language exhibits both causative and anticausative morphology, did not transfer neither the causative nor the anticausative pattern. Although FRH predicts the opposite preferences for different morphological conditions in transitive and intransitive contexts with regard to change of state verbs with causative and anticausative pattern, Korean speakers showed rather comparable preferences in these two types of change of state verbs. They correctly accepted zero-causative in transitive contexts, but incorrectly rejected zero-inchoative while accepting the semantically inappropriate periphrastic-*get* in intransitive contexts. In other words, they were generally accurate with zero-causative morphology whereas inaccurate with zero-inchoative morphology in L2 English, irrespective of L1-specific morphological patterns. Hence, the findings do not align with FRH which assumes the full transfer of L1.

Indeed, the results of the current study replicate those of L1 Turkish-L2 English learners in Montrul (2001b). Note that Korean and Turkish are highly analogous with respect to the realization of argument-structure-changing morphology with change of state verbs. Both Korean speakers of the present study and Turkish speakers in Montrul (2001b) did not transfer any particular

morphological pattern, and they both did not treat individual verbs differently based on two distinctive alternation patterns in their respective L1s.

Summarizing the results of change of state verbs, the present study concludes that the influence of L1-specific morphological patterns is less evident in L2 morphological errors with change of state verbs in the case of L1 Korean-L2 English learners. Instead of L1 influence, however, the general preferences for periphrastic-*get* over zero-inchoative in intransitive contexts by Korean speakers indicate that they are subject to L2-universal and developmental interlanguage structure; *overpassivization*. Irrespective of L1-specific morphological patterns and their L2 proficiency, Korean speakers were highly likely to accept the semantically inappropriate periphrastic-*get* in intransitive contexts. These preferences were very dissimilar to those of English native speakers whose preferences converged on the semantically appropriate zero-inchoative. Such a high acceptance rate of periphrastic-*get* by Korean speakers was discovered across different proficiency levels in English, even with advanced-level English learners. Given that overpassivization is a common interlanguage error observed with L2 English learners of various L1 backgrounds as numerous studies document, such morphological errors cannot be attributed to L1 transfer, suggesting that the L2-developmental factor operates on triggering morphological errors with change of state verbs in the case of L1 Korean-L2 English learners.

As to the reason why L1 influence has been less evident unlike what is expected, the present study proposes the following explanations. First, given that

L1 Korean has two different morphological patterns (i.e., causative and anticausative) as discussed in Section 2.4.1, Korean speakers could not have selected a particular alternation pattern to transfer to English.[12] Indeed, Turkish speakers in Montrul (2001b) did not transfer any particular morphological pattern as well and their L1 also had two distinct alternation patterns. Unlike Korean or Turkish speakers, Spanish speakers in Montrul (2001b), whose native language predominantly has a single anticausative alternation pattern, revealed a significant L1 influence in their morphological errors with English change of state verbs. Drawing upon these cases, it can be concluded that L1 morphological transfer is far more obvious when L1 has a single predominant morphological pattern to transfer to L2 grammar acquisition, but less obvious when there are different options in L1 to choose and to transfer to L2 learning situations. Second, multiple factors interact to trigger overpassivization errors among L2 English learners as discussed in Section 2.3.1.3: transitivization hypothesis (Yip, 1995), NP-movement marker hypothesis (Zobl, 1989; Balcom, 1997; Oshita, 2000), conceptualizable agent in the discourse (Ju, 2000), and subject animacy effect (No & Chung, 2006; Pae et al., 2014; Chung, 2014) especially for Korean speakers. The interaction of these factors may have outweighed the influence of L1, thereby resulting in L2 developmental overpassivization errors among L1 Korean-L2

[12] There is also a possibility that Korean speakers have transferred the labile pattern, the zero-morphology for both the transitive and intransitive variants, to English, though it is found with a very restricted number of verbs in Korean as discussed in Section 2.4.1.

English learners.

In summary, as for change of state verbs, despite the apparent cross-linguistic variations in the realization of the relevant morphology in Korean and in English, L1 transfer effects did not seem to play a crucial role for Korean speakers. They were in general accurate with causative forms but inaccurate with inchoative forms, unaffected by the two distinct morphological patterns in their L1. Regarding the inchoative forms, overpassivization errors (e.g., *The butter got melted*) were pervasive and the problem seemed to be persistent even with the increase in L2 proficiency. Such findings are in line with previous studies' documentation of overpassivization errors which were reported to be commonly observed by L2 English learners of diverse L1 backgrounds. In conclusion, the results of change of state verbs suggest that the L2 developmental factor overrides the influence of L1 in L2 morphological errors with change of state verbs in the case of L1 Korean-L2 English learners.

5.2 The Role of L1 Transfer in L2 Morphological Errors with Psych Verbs

The second research question to be addressed is whether L1-specific morphological patterns play a role in L2 morphological errors with psych verbs in the case of L1 Korean-L2 English learners. Korean and English both realize overt morphological marking on psych verbs when they undergo argument structure

alternation, for example, from transitive to intransitive, or vice versa. However, the direction of the morphological marking is the opposite in the two languages, which was expected to trigger learning problems. Note that Korean requires causative morphology (e.g., *-key ha-*) while English requires anticausative morphology (e.g., periphrastic-*get*) for the argument structure change of psych verbs.

Assuming the tenets of Feature Re-assembly Hypothesis (FRH), L1 Korean-L2 English learners' morphological errors with psych verbs were expected to be constrained by the opposite direction of morphological marking in the two languages. If influenced by L1 Korean causative morphology, they were expected to accept periphrastic-*make* (e.g., *The teacher made Emily bored*) while rejecting zero-causative (e.g., *The teacher bored Emily*) in transitive contexts. In intransitive contexts, on the other hand, they were expected to accept the ungrammatical zero-inchoative (e.g., **Emily bored*) while rejecting the grammatical periphrastic-*get* (e.g., *Emily got bored*).

These predictions were largely confirmed, in particular with lower-level learners, thereby supporting FRH. Indeed, Korean speakers with a low-intermediate and intermediate level of English proficiency rejected zero-causative morphology and preferred periphrastic-*make* in transitive contexts. This was mainly due to L1 morphological transfer since Korean disallows zero-causative morphology but necessarily requires the attachment of overt causative morpheme *-key ha-* to the predicate in order to deliver causative meaning. Given that *-key ha-*

in Korean is highly analogous to periphrastic-*make* in English, the transfer of L1 causative morphology clearly explicates why lower-level English learners preferred periphrastic-*make* over zero-causative. The results of Korean speakers in this study replicate those of Turkish speakers in Montrul (2001b) because Turkish speakers with low-intermediate proficiency in English also preferred periphrastic-*make* while rejecting zero-causative, constrained by their L1 Turkish causative morphology. Such non-target-like preferences by Korean speakers, however, were gradually recovered with the increase in L2 English proficiency. Although the acceptance rate of the correct zero-causative marginally increased with intermediate-level, advanced learners accurately accepted zero-causative morphology, demonstrating a target-like behavior.

A significant L1 morphological transfer was observed in intransitive contexts as well. Note that while zero-inchoative is grammatical in Korean, English disallows zero-inchoative but necessarily requires overt morphology (i.e., periphrastic-*get*). Constrained by their L1 morphological patterns, Korean speakers with low-intermediate level of proficiency in English were highly likely to accept the ungrammatical zero-inchoative (e.g., **Emily bored*). These results of Korean speakers in the study also mirror those of Turkish speakers in Montrul (2001b) because Turkish speakers with low-intermediate proficiency in English preferred the ungrammatical zero-inchoative while rejecting periphrastic-*get*, affected by their L1 morphological patterns. Note, however, that the acceptance rate of the ungrammatical zero-inchoative sharply decreased with the increase in

L2 proficiency as intermediate and advanced-level learners accurately rejected zero-inchoative and accepted *get*-inchoative, demonstrating a target-like behavior.

An additional finding to discuss is an equally high acceptance rate of periphrastic-*get* in the L2 low-intermediate group. If constrained by L1 Korean causative morphology, since Korean psych predicates are morphologically simple in intransitive contexts, they were expected to prefer zero-inchoative while rejecting periphrastic-*get* at the same time. In fact, however, they judged periphrastic-*get* fairly grammatical as well, which seemed to be counter-evidence to the argument for L1 morphological transfer. In Korean, however, a particular set of psych predicates allows the attachment of inchoative morphology *-e ci-*. Thus, while it is true that zero-inchoative is grammatically correct in Korean, with some psych predicates, the attachment of overt inchoative morphology is grammatically correct at the same time as shown in (26a-b).[13]

---

[13] Not all of the psych predicates but only a particular set of them allows the attachment of inchoative morphology *-e ci-* in Korean. Unlike the predicate *cilwuha-ta* in (26) which is grammatical with *-e ci-*, the predicate *nolla-ta* meaning 'to be surprised', which was also used in the judgment task of the current study, is rather unnatural and unacceptable with *-e ci-*.

i) a. Minho-ka nolla-ss-ta.
Minho-nom surprise-past-dec
'Minho got surprised.'

b. ?Minho-ka nolla-*(e) ci*-ess-ta.
Minho-nom surprise-INCHO-past-dec
'Minho got surprised.'

(26) a. Minho-ka cilwuhay-ss-ta.

Minho-nom bore-past-dec

'Minho got bored.'

b. Minho-ka cilwuhay-***(e) ci***-ess-ta.

Minho-nom bore-**INCHO-**past-dec

'Minho got bored.'

The grammaticality of the attachment of overt inchoative morphology *-e ci-* with some psych predicates in Korean explains why the low-intermediate level English learners accepted both zero-inchoative and periphrastic-*get* in intransitive contexts. Indeed, their simultaneous preferences for both the ungrammatical zero-inchoative and the grammatical periphrastic-*get* can be the result of L1 morphological transfer. As their English proficiency increased, however, Korean speakers accurately rejected the ungrammatical zero-inchoative while accepting the grammatical periphrastic-*get*, overcoming the influence of L1-specific morphological patterns.

To recapitulate, in contrast to a less obvious L1 influence found with change of state verbs, as for psych verbs, L1-specific morphological patterns highly constrained L2 morphological errors in the case of L1 Korean-L2 English learners, particularly those with lower-level of English proficiency. Such findings fully confirm the predictions formulated by FRH.

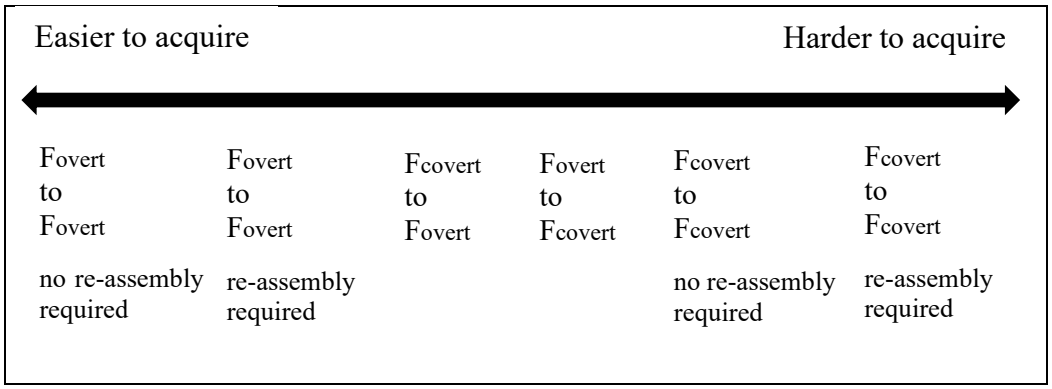
5.3 The Relative Difficulty of Acquiring Two Classes of Causative Verbs

While the primary purpose of the thesis was to document the role of L1 transfer in L2 morphological errors with two classes of causative verbs in light of Feature Re-assembly Hypothesis, the current study aimed to additionally examine the relative difficulty of acquiring these causative verbs for L1 Korean-L2 English learners. Note, however, that this discussion of the relative difficulty in the present study is purely restricted to the domain of morphology given that the acquisition of these verbs and the relevant morphology may not be so simplistic, with multiple factors other than morphology coming into play.

Building upon FRH, Cho and Slabakova (2014) proposed a cline of difficulty in SLA as outlined in Section 2.1.3.

Figure 2.1

Cline of Difficulty in L2 Grammatical Feature Acquisition (adapted from Cho & Slabakova, 2014)



Note. *Fovert* stands for a grammatical feature that is overtly realized while *Fcovert* stands for the feature that is covertly realized with zero-morphology.

Applying this model of cline of difficulty, L2 acquisition of argument-structure-changing morphology with change of state verbs falls under the category of '*Fovert* to *Fcovert*' for L1 Korean-L2 English learners. Note that Korean necessarily requires overt morphology, either causative or anticausative, to mediate the alternation of argument structure, whereas English covertly realizes the alternation by means of zero-morphology. On the other hand, L2 acquisition of argument-structure-changing morphology with psych verbs falls under the category of '*Fovert* to *Fovert with feature re-assembly required*'. This is because the direction of morphological marking is the opposite in Korean and in English, though both languages overtly mark the alternation of psych predicates.

Hence, according to this model, acquiring morphological patterns of change of state verbs was predicted to be more difficult for Korean speakers than acquiring those of psych verbs. The results of the current study largely confirmed this prediction. As for psych verbs, a significant L1 transfer was observed with lower-level learners, resulting in the first-language-constrained morphological errors. However, such errors were gradually recovered as L2 proficiency increased. In contrast, as for change of state verbs, although the learners were quite accurate with causative forms, overpassivization errors regarding the inchoative forms continued to be present despite the increase in L2 proficiency, indicating that even advanced-level learners could not overcome the problem. This suggests that a non-target-like preference for *get*-inchoative has been fossilized among L1 Korean-L2 English learners. Summing up the results of change of state verbs and psych verbs, the current study concludes that the relative difficulty of acquiring morphological patterns of change of state verbs is greater for L1 Korean-L2 English learners than those of psych verbs, given that the morphological difficulties lasted longer with change of state verbs. This confirms the model proposed by Cho and Slabakova (2014).

Such results are in contrast with Montrul (2001b)'s findings, however. She reported that particularly with lower-level L2 learners, acquiring psych verbs was revealed to be more challenging than acquiring change of state verbs. She attributed this greater difficulty of psych verbs to their inherent misalignment problem. Note that these verbs violate the Thematic Hierarchy as already

discussed in 2.2.3, which triggers complicated learning problems for language learners. Rather, the results of the current study are in line with Hahn's (2011) findings. Note that Hahn (2011) reported Korean speakers' greater difficulties with change of state verbs than with psych verbs in intransitive contexts. In fact, L1 Korean-L2 English learners continued to overpassivize change of state verbs, in spite of the improvement in L2 proficiency. Hence, the results of the current study mirror those of Hahn's (2011) findings on the ground that the difficulties with change of state verbs and the relevant morphology continued to persist even with advanced-level learners whereas the difficulties with psych verbs derived from L1 influence sharply decreased as learners' L2 proficiency increased. In short, the fossilization of the non-target-like periphrastic-*get* seemed to cause greater difficulties in acquisition of change of state verbs for L1 Korean-L2 English learners.

CHAPTER 6.

CONCLUSION

This final chapter draws conclusions of this thesis by recapitulating the key findings and providing suggestions for future studies. Section 6.1 discusses the major findings of the study and their implications in the field of SLA. Then, Section 6.2 reports the limitations of the study while making suggestions for further research.

6.1 Major Findings and Implications

The primary goal of the current study was to examine whether L2 morphological errors with causative verbs by Korean learners of English are predictable and systematic in their interlanguage grammar. Assuming the tenets of Feature Re-assembly Hypothesis (FRH) by Lardiere (2008, 2009), it was hypothesized that learners' L2 morphological errors are constrained by the way their first language overtly/non-overtly realizes the morphology that alters the argument structure of change of state verbs and psych verbs.

In order to see whether L1-specific morphological patterns play a role, preferences for certain morphological forms by L1 Korean-L2 English learners

were investigated by manipulating the morphological shape of the verbs. As for change of state verbs, a significant L1 influence was not observed. Although Korean overtly marks the alternation of change of state verbs with either causative or anticausative morphology, Korean learners of English transferred neither the causative nor the anticausative pattern. These results were not consistent with the hypotheses formulated by FRH which assumes full transfer of L1. Instead of demonstrating the influence of L1, they were noticeably inaccurate with inchoative structures compared to causative ones. Indeed, regardless of their L2 English proficiency, Korean speakers incorrectly preferred the semantically inappropriate periphrastic-*get* in intransitive contexts, and such preferences were constant even with advanced-level learners. Their high acceptance rates of non-target-like periphrastic-*get* suggested that L1 Korean-L2 English learners were subject to the L2-universal and developmental interlanguage phenomenon; *overpassivization*. Hence, the results confirmed the previous studies' documentation of overpassivization errors that are commonly observed among L2 English learners with diverse L1 backgrounds, which even near-native English learners find hard to overcome. Summarizing the discussion, the current study concluded that the L2 developmental factor overrides the influence of L1 in triggering L2 morphological errors with change of state verbs for L1 Korean-L2 English learners.

As for psych verbs, L1 influence was found to be far more evident, especially with lower-level English learners. Constrained by L1-specific

morphological patterns, these learners exhibited non-target-like preferences, rejecting the grammatical zero-causative while accepting the ungrammatical zero-inchoative. This was argued to be largely due to L1 morphological transfer given that Korean requires overt causative morphology for psych predicates in transitive contexts whereas they remain morphologically simple in intransitive contexts. These results fully confirmed the hypotheses formulated by FRH which assumes full transfer of L1. With increasing levels of L2 English proficiency, however, Korean speakers gradually overcame the interference of their first language and acquired target-like morphological patterns of English psych verbs. To conclude, the results of psych verbs largely validated the role of L1 transfer in L2 morphological errors, thereby supporting FRH.

Last but not least, this thesis identified the relative difficulty of acquiring morphological patterns of change of state verbs and psych verbs in the argument structure alternation for L1 Korean-L2 English learners. The prediction was made in reference to Cho and Slabakova's (2014) cline of difficulty model. According to the model, L2 acquisition of argument-structure-changing morphology with change of state verbs was predicted to be more challenging for L1 Korean-L2 English learners than that with psych verbs. This prediction was largely confirmed as the results revealed that Korean speakers had more difficulties with the zero-morphology that mediates the alternation of English change of state verbs. Such difficulties persisted even with advanced-level learners. In other words, overpassivization errors with change of state verbs remained unresolved despite

native-like proficiency in English, indicating a fossilization of this non-target-like form among Korean speakers. In contrast, L1-constrained morphological errors with psych verbs were temporarily observed with lower-level learners of English and recovered with the increase in L2 proficiency. Thus, comparing the results of change of state verbs and psych verbs, the present study concluded that the relative difficulty of acquisition is greater with change of state verbs than with psych verbs in the case of L1 Korean-L2 English learners, thereby confirming the prediction formulated by the cline of difficulty model proposed in Cho and Slabakova (2014).

Overall, the current study has its merits in conducting a partial replication study of Montrul (2001b) and identifying the role of L1 transfer in L2 morphological errors with two classes of causative verbs (i.e., change of state verbs and psych verbs), which has not yet been exhaustively examined with L1 Korean-L2 English learners.

6.2 Limitations and Suggestions

Although this thesis provides important insights as to the role of L1 transfer in L2 morphological errors with causative verbs by examining the case of L1 Korean-L2 English learners, it is not without limitations. First, given that Montrul (2001b) conducted three related cross-linguistic acquisition studies of L2 English, Spanish, and Turkish with learners of different L1 backgrounds, the current study is only a partial replication study of Montrul (2001b). Therefore, in

order for future studies to thoroughly test the robustness of the results in Montrul (2001b), they are encouraged to recruit participants with more diverse language backgrounds and to implement a bi-directional experimental design.

Second, the current study designed a picture-based acceptability judgment task to provide the participants with contexts by means of pictures. The purpose of using pictures was to ascertain that participants fully understand the context of the sentences being used since lower-level English learners could have difficulties in grasping the context if explained in English. Nevertheless, there is a possibility that the pictures may not have fully delivered the intended meaning. For instance, the pictures used for depicting intransitive contexts included a single participant, an object or a person, undergoing a physical or psychological change of state spontaneously without the presence of an implied agent. However, a single picture may not have been enough to convey this intended meaning, thereby possibly misguiding the participants.

Third, although the present study identified that the L2-universal and developmental factor overrides the influence of L1 in L2 morphological errors with change of state verbs, which was claimed to have triggered overpassivization errors among Korean speakers, the study has not addressed the underlying cause of this interlanguage phenomenon. Since a consensus has not been reached as to the ultimate cause of overpassivization, future studies unveiling this will enrich the understanding of what precisely triggers difficulties in L1 Korean-L2 English learners' acquisition of change of state verbs.

Fourth, the verbs used in the current study have not been strictly controlled in terms of their frequency. This is because the present study primarily focused on replicating the experimental design of Montrul (2001b), thus taking most of the verbs from the study with only minor adaptations so as to fit the context of the Korean language. However, frequency effects may have played a role in triggering morphological errors among L2 learners. Therefore, future studies should be more rigorous in controlling the effect of frequency when examining the influence of L1 on L2 morphological errors with causative verbs. Lastly, a larger sample size of participants is desirable in order to complement a rather smaller sample size of the current study.

REFERENCES

김건희. (2003). 심리 형용사 연구. *언어학, 37*, 47−70.

김세중. (1994). 국어 심리술어의 어휘의미구조. 서울대학교 언어학과 박사학위논문.

남지순. (1993). 한국어 형용사 구문의 통사적 분류를 위하여 – 심리 형용사 구문. *어학연구, 29*(1), 75−105.

Alexiadou, A., & Anagnostopoulou, E. (2004). Voice morphology in the causative-inchoative alternation: Evidence for a non-unified structural analysis of unaccusatives. In A. Alexiadou, E. Anagnostopoulou & M. Everaert (Eds.), *The unaccusativity puzzle: Explorations of the syntax-lexicon interface* (pp. 115-136). Oxford University Press.

Alexiadou, A., & Iordăchioaia, G. (2014). The psych causative alternation. *Lingua*, *148*, 53-79.

Balcom, P. (1997). Why is this happened? Passive morphology and unaccusativity. *Second Language Research, 13*, 1-9.

Bley-Vroman, R. (1990). The logical problem of foreign language learning. *Linguistic Analysis*, *20*, 3-49.

Burzio, L. (1986). *Italian syntax: a government and binding approach*. Reidel.

Chen, D. (1996). *L2 acquisition of English psych predicates by French and Chinese native speakers*. Unpublished doctoral dissertation, McGill University, Montreal.

Cho, J., & Slabakova, R. (2014). Interpreting definiteness in a second language without articles: The case of L2 Russian. *Second Language Research*, *30*(2), 159-190.

Chung, T. (2014). Multiple factors in the L2 acquisition of English unaccusative verbs. *International Review of Applied Linguistics in Language Teaching*, *52*(1), 59-87.

Epstein, S., Flynn, S., & Martohardjono, G. (1996). Second language acquisition: theoretical and experimental issues in contemporary research. *Brain and Behavioral Sciences, 19*, 677–758.

Eubank, L. (1996). Negation in early German-English interlanguage: More valueless features in the L2 initial state. *Second Language Research*, *12*(1),

73-106.

Gass, S. & Selinker, L. (1983). *Language transfer in language learning: Issues in second language research*. Newbury House.

Gass, S. & Selinker, L. (1992). *Language transfer in language learning: Revised edition*. John Benjamins.

Haegeman, L. (1985). The Get passive and Burzio's generalization. *Lingua, 66*, 53–67.

Hahn, H. (2011). Korean EFL learners' underpassivization and overpassivization: Psych verbs and unaccusatives. *Foreign Language Education Research, 14*, 54-76.

Halle, M. & Marantz, A. (1993). Distributed morphology. In K. Hale & S.J. Keyser (Eds.), *The view from building 20: Essays in linguistics in honor of Sylvain Bromberger* (pp. 111-176). MIT Press.

Harley, H., & Noyer, R. (1999). Distributed morphology. *Glot International*, *4*(4), 3-9.

Haspelmath, M. (1993). More on the typology of inchoative/causative verb alternations. In B. Comrie & M. Polinsky (Eds.), *Causatives and transitivity* (pp. 87-12). John Benjamins.

Hawkins, R., & Chan, C. Y. H. (1997). The partial availability of Universal Grammar in second language acquisition: The 'failed functional features hypothesis'. *Second Language Research*, *13*(3), 187-226.

Hwang, J. B. (2000). Competition model and Korean learners' acquisition of English psych verbs. *English Teaching, 55*(2), 37-57.

Hwang, J. B. (2006). Why do Korean EFL learners overpassivize English unaccusative verbs?. *English Language Teaching, 18*(1), 195–221.

Hwang, S. H., & Lardiere, D. (2013). Plural-marking in L2 Korean: A feature-based approach. *Second Language Research*, *29*(1), 57-86.

Ionin, T., & Zyzik, E. (2014). Judgment and interpretation tasks in second language research. *Annual Review of Applied Linguistics*, *34*, 37-64.

Jackendoff, R. S. (1972). *Semantic interpretation in generative grammar*. MIT Press.

Joo, H. R. (2003). Second language learnability and the acquisition of the argument structure of English locative verbs by Korean speakers. *Second Language Research*, *19*(4), 305-328.

Ju, M. K. (2000). Overpassivization errors by second language learners: The effect of conceptualizable agents in discourse. *Studies in Second Language Acquisition*, *22*(1), 85-111.

Juffs, A. (1996). Semantics-syntax correspondences in second language acquisition. *Second Language Research*, *12*(2), 177-221.

Juffs, A. (1998). Some effects of first language argument structure and morphosyntax on second language sentence processing. *Second Language Research*, *14*(4), 406-424.

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 at Manoa.

Kratzer, A. (1996). Severing the external argument from its verb. In J. Rooryck & L. Zaring (Eds.), *Phrase structure and the lexicon* (pp. 109-137). Kluwer.

Kume, K., & Marsden, H. (2021). L2 acquisition of definiteness in Japanese floating numeral quantifiers: Can overt L1 morphology help?. *Linguistic Approaches to Bilingualism*. Advance online publication. https://doi.org/10.1075/lab.20110.kum

Lardiere, D., & Schwartz, B. D. (1997). Feature-marking in the L2 development of deverbal compounds. *Journal of Linguistics*, *33*(2), 327-353.

Lardiere, D. (2008). Feature-assembly in second language acquisition. In J. Liceras, H. Zobl, & H. Goodluck (Eds.), *The role of formal features in second language acquisition* (pp. 106-140). Lawrence Erlbaum.

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

Lee, J. H. (2009). L1 morphological transfer as a source of errors with unaccusative verbs?: Two L2 studies on English and Korean. *Korean Journal of Applied Linguistics, 25*, 301-327.

Lee, J. H. (2010). Overpassivization and overcausativization: Was it happened because someone happened it?. *Korean Journal of English Language and*

Linguistics, *10*(2), 389-410.

Lee, O. S. (2016). Testing the role of expectation in L2 processing of English RCs. *Korean Journal of Linguistics, 41*(3), 501-519.

Lee, S. Y. & Kim, S. Y. (2016). A study on Korean EFL learners' acquisition of English psych verbs: Differences between comprehension task and production tasks. *English Language and Linguistics, 22*(3), 253-272.

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

Levin, B. & Rappaport Hovav, M. (1995). *Unaccusativity at the syntax semantics interface*. MIT Press.

MacWhinney, B. (1987). Applying the competition model to bilingualism. *Applied Psycholinguistics, 8*, 315-327.

MacWhinney, B. (1992). Transfer and competition in second language learning. In R. J. Harris (Ed.), *Cognitive processing in bilinguals* (pp. 371-390). Elsevier.

Marantz, A. (2013). Verbal argument structure: Events and participants. *Lingua*, *130*, 152-168.

Montrul, S. A. (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 in L2 Spanish. *Second Language Research, 15*, 191-219.

Montrul, S. (2000). Transitivity alternations in second language acquisition: Toward a modular view of transfer. *Studies in Second Language Acquisition, 22*, 229-274.

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

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

Montrul, S. (2016). The causative/inchoative morphology in L2 Turkish under the Feature Reassembly Approach. In A. Gürel (Ed.), *Second language*

acquisition of Turkish (pp. 107-133). John Benjamins Publishing Company.

No, G., & Chung, T. (2006). Multiple effects and the learnability of English unaccusatives. *English Teaching*, *61*(1), 19-39.

Oshita, H. (2000). What is happened may not be what appears to be happening: A corpus study of 'passive' unaccusatives in L2 English. *Second Language Research*, *16*(4), 293-324.

Pae, H. K., Schanding, B., Kwon, Y. J., & Lee, Y. W. (2014). Animacy effect and language specificity: Judgment of unaccusative verbs by Korean learners of English as a foreign language. *Journal of Psycholinguistic Research*, *43*(2), 187-207.

Pesetsky, D. (1995). *Zero syntax. Experiencers and cascades*. MIT Press.

Perlmutter, D. (1978). Impersonal passives and the unaccusative hypothesis. *Proceedings of the Fourth Annual Meeting of the Berkeley Linguistic Society*. Berkeley, CA: Berkeley Linguistic Society, University of California, 157–189.

Pinker, S. (1989). *Learnability and cognition: the acquisition of argument structure*. MIT Press.

Schulz, B. (2006). *Wh-scope marking in English interlanguage grammars: Transfer and processing effects on the second language acquisition of complex wh-questions*. Unpublished doctoral dissertation, University of Hawai'i at Manoa.

Schwartz, B. D., & Sprouse, R. A. (1996). L2 cognitive states and the full transfer/full access model. *Second Language Research*, *12*(1), 40-72.

Slabakova, R. (2009). Features or parameters: which one makes second language acquisition easier, and more interesting to study?. *Second Language Research*, *25*(2), 313-324.

Slabakova, R. (2013). What is easy and what is hard to acquire in a second language: A generative perspective. In M. García Mayo, M. J. Gutiérrez Mangado & M. Martínez-Adrián (Eds.), *Contemporary approaches to second language acquisition* (pp. 5-28). John Benjamins.

Slabakova, R. (2015). Acquiring temporal meanings without tense morphology: The case of L2 Mandarin Chinese. *The Modern Language Journal*, *99*(2), 283-307.

Sohn, H. (2004). The adjectival class in Korean. In R. M. W. Dixon & Alexandra Y. Aikhenvald (Eds.), *Adjectival classes: A cross-linguistic typology* (pp. 223-241). Oxford University Press.

Son, H. D. & Kim, H. S. (2011). A study on the acquisition of English causative psych verbs by Koreans. *Journal of the Korea English Education Society, 10*(3), 139-162.

Toth, P. D. (2000). The interaction of instruction and learner-internal factors in the acquisition of L2 morphosyntax. *Studies in Second Language Acquisition*, *22*(2), 169-208.

Vainikka, A., & Young-Scholten, M. (1996). Gradual development of L2 phrase structure. *Second Language Research*, *12*(1), 7-39.

White, L. (2003). *Second language acquisition and universal grammar*. Cambridge University Press.

White, L., Brown, C., Bruhn-Garavito, J., Chen, D. Hirakawa, M. & Montrul, S. (1999). Psych verbs in second language acquisition. In E. Klein & G. Martohardjono (Eds.), *The development of second language grammars: A generative approach* (pp. 173-199). John Benjamins.

Whong-Barr, M., & Schwartz, B. D. (2002). Morphological and syntactic transfer in child L2 acquisition of the English dative alternation. *Studies in Second Language Acquisition*, *24*(4), 579-616.

Wood, J., & Myler, N. (2019). Argument Structure and Morphology. *Oxford Research Encyclopedia of Linguistics.* Retrieved from https://doi.org/10.1093/acrefore/9780199384655.013.605

Yeon, J. H. (1991). The Korean causative-passive correlation revisited. *Language Research, 27*, 73–58.

Yip, V. (1995). *Interlanguage and learnability*. John Benjamins.

Zobl, H. (1989). Canonical typological structure and ergativity in English L2 acquisition. In S. Gass & J. Schachter (Eds.), *Linguistic perspectives on second language acquisition* (pp. 203-221). Cambridge University Press.

Software

R Core Team (2022). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL https://www.R-project.org/.

APPENDICES

Appendix 1. Experimental Sentences for the Picture-based Acceptability Judgment Task

<Change of state verbs with causative pattern: *melt, freeze, burn, dry*>

1a) Ben melted the butter.

1b) Ben made the butter melt.

1c) The butter melted.

1d) The butter got melted.

2a) Elsa froze the water.

2b) Elsa made the water freeze.

2c) The water froze.

2d) The water got frozen.

3a) Peter burned the letter.

3b) Peter made the letter burn.

3c) The letter burned.

3d) The letter got burned.

4a) Mary dried her hair.

4b) Mary made her hair dry.

4c) Mary's hair dried.

4d) Mary's hair got dried.

<Change of state verbs with anticausative pattern: *break, open, close, shake*>

5a) James broke the glass.

5b) James made the glass break.

5c) The glass broke.

5d) The glass got broken.

6a) Tom opened the door.

6b) Tom made the door open.

6c) The door opened.

6d) The door got opened.

7a) Lisa closed the window.

7b) Lisa made the window close.

7c) The window closed.

7d) The window got closed.

8a) Sophie shook the tree.

8b) Sophie made the tree shake.

8c) The tree shook.

8d) The tree got shaken.

<Psych verbs: *amuse, annoy, bore, disappoint, frighten, surprise*>

9a) The magician amused Sarah.

9b) The magician made Sarah amused.

9c) Sarah amused.

9d) Sarah got amused.

10a) The baby annoyed John.

10b) The baby made John annoyed.

10c) John annoyed.

10d) John got annoyed.

11a) The teacher bored Emily.

11b) The teacher made Emily bored.

11c) Emily bored.

11d) Emily got bored.

12a) The band disappointed David.

12b) The band made David disappointed.

12c) David disappointed.

12d) David got disappointed.

13a) The doctor frightened Amy.

13b) The doctor made Amy frightened.

13c) Amy frightened.

13d) Amy got frightened.

14a) The thief surprised Kevin.

14b) The thief made Kevin surprised.

14c) Kevin surprised.

14d) Kevin got surprised.

Appendix 2. L2 Proficiency Test: C-Test

여러분은 짧은 영어 제시문 두 개를 읽게 됩니다. 제시문에는 단어의 일부가 삭제된 빈칸이 있습니다. **문맥상 흐름에 맞는 단어를 유추하여 빈칸을 채워 주십시오. 각 문항번호는 한 단어만을 나타냅니다**. 아래의 예시를 참고하십시오.

도저히 유추하기 어려운 경우에만 빈칸으로 남겨두시고, 최대한 빈칸을 완성해주세요. 단, 사전 등의 외부 자료는 절대 참고하지 말아주세요.

예시) The boy stepped on a (1)pi ece of ice. He fell (2)do wn but he didn't hurt himself.

참여자 번호를 기재해주세요. _____

제시문 1

We all live with other people's expectations of us. These are a (1)refle_____ of (2)th_____ trying to (3)under_____ us; (4)th_____ are (5)predic_____ of (6)wh_____ they (7)th_____ we will think, (8)d_____ and feel. (9)Gene_____ we (10)acc_____ the (11)sta_____ quo, but these (12)expec_____ can be (13)ha_____ to (14)han_____ when they (15)co_____ from our (16)fami_____ and can be (17)diff_____ to (18)ign_____, especially (19)wh_____ they come from our (20)par_____ .

제시문 2

The decision to remove soft drinks from elementary and junior high school vending machines is a step in the right direction to helping children make better choices when it comes to what they eat and drink. Childhood (1)obe_____ has (2)bec_____ a (3)ser_____ problem in (4)th_____ country (5)a_____ children (6)cons_____more sugar-based (7)fo_____ and (8)sp_____ less (9)ti_____ getting the (10)nece_____ exercise. Many (11)par_____ have (12)quest_____ schools' (13)deci_____ to (14)al____ _____ vending machines which (15)disp_____ candy and (16)so_____ drinks. Many schools, (17)tho_____ , have (18)co_____ to (19)re_____ on the (20)mo_____ these machines generate through agreements with the companies which makes soft drinks and junk food.

Appendix 3. Language Background Survey

여러분의 언어 배경을 알아보기 위한 설문입니다. 문항을 잘 읽고 답하여 주십시오. 해당 설문을 통해 얻어지는 개인정보는 철저하게 보안 유지됨을 알려드립니다.

참여자 번호를 기재해주세요. _____

1. 나이: 만 __세 (_____년생)
2. 성별: 남 / 여
3. 태어난 국가: ____
4. 당신이 아이일 때 어머니가 사용했던 언어는 무엇입니까?: ____
5. 당신이 아이일 때 아버지가 사용했던 언어는 무엇입니까?: ____
6. 당신이 일상생활에서 가장 편하게 사용하는 언어는 무엇입니까?: ____
7. 당신은 외국에서 살아본 경험이 있습니까?

   □ 예(국가명:_____) □ 아니오

   7-1. 언제부터 거주하기 시작했나요?: 만 __세

   7-2. 얼마나 거주했나요?: ___년 ___개월
8. 당신이 알고 있는 외국어를 모두 적어주세요. 또한, 알고 있는 외국어에 대한 수준을 10점 척도에서 체크해주 세요. (0=전혀 모른다, 10=완벽히 안다).

   (예: 영어8, 일본어5, 중국어3) _____
9. 당신은 영어를 언제 처음 배우기 시작했나요?: ____
10. 당신은 영어를 어디서 처음 배우기 시작했나요?: ____
11. 당신은 현재 일주일에 평균적으로 몇 시간 동안 영어에 노출되고 있나요?

    (5시간 이상인 경우, 기타에 체크하시고 몇 시간인지 적어주세요.)

    □ 1시간 미만

    □ 1시간~1시간59분

    □ 2시간~2시간59분

    □ 3시간~3시간59분

    □ 4시간~4시간59분

    □ 기타 (__시간)

Appendix 4. Results of a Two-way Mixed ANOVA

Verb type	Effect	*DFn*	*DFd*	*F*	*p*
Change of state (causative)	Group	3	49	2.377	.081
	Morph	3	147	12.175	<.001
	Group * Morph	9	147	9.257	<.001
Change of state (anticausative)	Group	3	49	1.528	.219
	Morph	3	147	44.120	<.001
	Group * Morph	9	147	8.327	<.001
Psych	Group	3	49	4.523	.007
	Morph	3	147	50.908	<.001
	Group * Morph	9	147	16.087	<.001

Note. Morph is an abbreviation of Morphology.

Appendix 5. Results of a One-way ANOVA

Morph	Verb type	Effect	*DFn*	*DFd*	*F*	*p*
zero-T	Caus	Group	3	51	6.152	.001
marked-T	Caus	Group	3	50	0.713	.549
zero-I	Caus	Group	3	50	9.090	<.001
marked-I	Caus	Group	3	51	13.327	<.001
zero-T	Anticaus	Group	3	51	2.520	.068
marked-T	Anticaus	Group	3	50	0.251	.860
zero-I	Anticaus	Group	3	50	13.208	<.001
marked-I	Anticaus	Group	3	51	7.447	<.001
zero-T	Psych	Group	3	51	13.457	<.001
marked-T	Psych	Group	3	50	5.116	.004
zero-I	Psych	Group	3	50	40.385	<.001
marked-I	Psych	Group	3	51	5.064	.004

Notes. 1) Morph is an abbreviation of Morphology.

2) Caus = Change of state verbs with causative pattern

Anticaus = Change of state verbs with anticausative pattern

3) zero-T=zero-Transitive

marked-T=marked-Transitive

zero-I=zero-Intransitive

marked-I=marked-Intransitive

Appendix 6. Means and Standard Deviations for Change of State Verbs and Psych Verbs

<Change of state verbs with causative pattern>

	zero-T	marked-T	zero-I	marked-I
L2 low-intermediate	5.32	4.17	4.28	5.03
(*n*=18)	(0.81)	(1.51)	(1.45)	(1.18)
L2 intermediate	4.65	4.54	2.60	4.94
(*n*=12)	(0.79)	(1.47)	(1.41)	(1.14)
L2 advanced	5.54	4.44	4.62	5.31
(*n*=14)	(0.82)	(1.52)	(1.47)	(1.19)
NS group	6.00	3.70	5.57	2.70
(*n*=11)	(0.79)	(1.47)	(1.41)	(1.14)

Note. Numbers in parentheses represent standard deviations.

<Change of state verbs with anticausative pattern>

	zero-T	marked-T	zero-I	marked-I
L2 low-intermediate	5.63	3.55	4.37	4.33
(*n*=18)	(0.51)	(1.42)	(1.30)	(1.37)
L2 intermediate	5.67	3.17	2.25	5.27
(*n*=12)	(0.50)	(1.38)	(1.26)	(1.34)
L2 advanced	5.98	3.40	4.27	4.87
(*n*=14)	(0.51)	(1.43)	(1.31)	(1.39)
NS group	5.98	3.18	5.43	2.86
(*n*=11)	(0.50)	(1.38)	(1.26)	(1.34)

Note. Numbers in parentheses represent standard deviations.

<Psych verbs>

	zero-T	marked-T	zero-I	marked-I
L2 low-intermediate	3.10	4.90	4.85	4.69
(*n*=18)	(1.27)	(1.23)	(1.04)	(1.27)
L2 intermediate	3.82	4.85	2.12	5.24
(*n*=12)	(1.23)	(1.19)	(1.02)	(1.23)
L2 advanced	5.12	5.65	1.32	5.88
(*n*=14)	(1.28)	(1.24)	(1.05)	(1.28)
NS group	5.62	3.81	1.44	4.14
(*n*=11)	(1.23)	(1.19)	(1.02)	(1.23)

Note. Numbers in parentheses represent standard deviations.

국 문 초 록

본 연구는 한국인 영어 학습자의 사례를 통해 제2언어 사동 동사의 형태소 오류에 있어 모국어 전이의 역할을 탐구한다. 본 연구에서 사용된 두 부류의 사동 동사는 동작주 주어를 가진 상태변화 동사 (*break, melt*)와 경험주 목적어를 가진 심리 동사 (*frighten, bore*)를 일컫는다.

자질 재조합 가설에 따르면, 성인 제2언어 학습자는 이미 문법 자질의 조합이 완료된 모국어를 가지고 있기 때문에 목표어에 맞게 문법 자질을 재조합하고 형태를 선택하는 과정을 거치게 되며 이 과정에서 모국어의 전이 효과가 개입할 수 있다. 이에 따라, 모국어에서는 특정 자질이 형태소와 결합하여 외현적으로 실현되는 반면 목표어에서는 형태소와의 결합 없이 내현적으로 실현될 때, 제2언어 학습자는 모국어의 영향을 받아 목표어에서도 해당 자질을 결합할 수 있는 형태소를 찾으려 시도할 것이다. 반대로 모국어에서는 특정 자질이 내현적으로 실현되는 반면 목표어에서는 외현적으로 실현될 때, 제2언어 학습자는 모국어의 영향을 받아 목표어에서도 해당 자질을 형태소와 결합하지 않고 내현적으로 실현하려 할 것이다. 이처럼 자질 재조합 가설은 모국어의 형태소 실현 양상이 제2언어 형태소 오류에 큰 영향을 미칠 것으로 가정한다.

본 연구는 위 가설을 한국인 영어 학습자를 대상으로 검증하고자 했는데, 그 이유는 두 부류의 사동 동사가 타동사 구문에서 자동사 구문으로 혹은 그 반대로 논항구조 교체를 보일 때, 이를 실현하는 형태소의 양상이 한국어와 영어에서 크게 다르기 때문이다. 상태변화 동사의 경우, 한국어는 사동성 혹은 반사동성 형태소라는 외현적 형태소를 실현한다. 한편, 영어는 관련 논항구조 교체가 영 형태소를 통해 내현적으로 실현된다. 심리 동사의 경우, 한국어와 영어 모두 논항구조 교체를 매개하는 외현적 형태소가 있으나 그 실현의 방향성이 반대이다. 한국어는 사동성 형태소를 보이는 반면 영어는 반사동성 형태소를 보인다.

가설 검증을 위해 본 연구는 44명의 성인 한국인 영어 학습자와 11명의 영어 원어민 화자를 모집하였다. 실험 집단으로서 한국인 영어 학습자는 모국어 형태소의 영향을 알아보기 위한 그림 기반 수용성 판단 과제와 이에 더불어 모국어 번역 과제, 제2언어 능숙도 검사, 언어 배경 조사 설문에 참여했다. 비교 집단으로서 영어 원어민 화자는 실험 집단과 동일한 그림 기반 수용성 판단 과제를 수행했다. 이후

실험 집단과 비교 집단의 수용성 판단 과제에서의 평균 수용성 점수를 산출하고 통계적으로 분석하여 한국인 영어 학습자가 보이는 형태소 오류가 모국어인 한국어의 영향으로부터 기인한 것인지 알아보았다.

분석 결과 상태변화 동사의 경우, 유의미한 모국어의 전이 효과가 발견되지 않았다. 한국인 영어 학습자는 모국어인 한국어에 존재하는 사동성 혹은 반사동성 형태소를 전이시키지 않은 것으로 나타났다. 오히려, 서로 다른 모국어 배경을 가진 영어 제2언어 학습자에게서 공통적으로 관찰되는 과수동화 오류가 한국인 영어 학습자에게서도 영어 능숙도와 상관없이 발견되었다. 이러한 결과는 모국어 전이 효과를 가정한 자질 재조합 가설을 지지하지는 않으며, 오히려 한국인 학습자의 영어 상태변화 동사 관련 형태소 오류에서는 제2언어 발달 요인이 모국어의 영향을 능가함을 시사한다. 하지만, 심리 동사의 경우, 특히 영어 능숙도가 낮은 한국인 학습자에게서 유의미한 모국어의 전이 효과가 발견되었다. 해당 학습자가 보인 영어 심리 동사 관련 형태소 오류는 모국어인 한국어에 존재하는 형태소 실현 양상으로부터 기인한 것으로 나타났다. 이는 자질 재조합 가설을 뒷받침하는 근거가 된다. 한편, 모국어의 영향으로부터 기인한 심리 동사 관련 형태소 오류는 제2언어 능숙도가 향상됨에 따라 점차 해소되는 양상을 보였다.

제2언어 사동 동사의 형태소 오류에 있어 모국어 전이의 역할을 탐구하는 것에 더해 본 연구는 한국인 영어 학습자에게 상태변화 동사와 심리 동사 중 어떤 동사의 형태소 양상을 습득하는 것이 더 어려운지 함께 알아보았다. 상태변화 동사 관련 형태소 오류인 과수동화 오류는 제2언어 능숙도의 향상에도 해결되지 않은 반면, 모국어의 영향으로부터 기인한 심리 동사 관련 형태소 오류는 제2언어 능숙도의 향상과 함께 해소되었다는 점으로 미루어 보아, 본 연구는 한국인 영어 학습자에게는 심리 동사보다 상태변화 동사의 습득이 더 어렵다는 점을 함께 밝혔다.

주요어: 모국어 전이, 제2언어 형태소 오류, 논항구조 교체, 상태변화 동사, 심리 동사

학번: 2021-22955