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A Case Study of Korean EFL Learners' Interlanguage in Verb Morphology*

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Choe, Mun-Hong. (2022). A case study of Korean EFL learners' interlanguage in verb morphology. *The Linguistic Association of Korea Journal, 30*(1), 133-155. This study investigated a Korean child's interim knowledge and use of English verb inflections in the context where acquisition is based mostly on written input with limited opportunities for oral production and interaction. The emergence and development of the child's interlanguage were closely examined by analyzing the occurrences and frequency changes of (non-)finite verb forms and their appropriateness in context. Data were collected for about a year from the child's uninstructed spontaneous compositions and analyzed across four time periods. Error classification systems were developed to classify accurate, inaccurate, and formally accurate but functionally inappropriate forms. Overall, the findings indicate that errors in the child's developing language are restricted to only a few types which are also observed in English L1 acquisition, and that the child's L1 does not mediate her acquisition of L2 morphosyntactic features to a significant degree. These seem to imply that child acquisition of L2 grammaticality is driven by sufficient input even when it lacks the qualities of social scaffolding and interactive communication.

Key Words: language acquisition, EFL, verb inflections, inflectional morphology, grammar acquisition

1. Introduction

In contrast to the common perception of first language (L1) acquisition, learning a

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foreign language (L2) is in practice a continuing process of expanding and elaborating the associations of lexical, grammatical, and pragmatic meanings with words and word combinations. Since the beginning of scientific research on language acquisition several decades ago, learner language, especially those aspects that are deviant from the standard form of the language (often referred to as 'errors'), has been given a great deal of attention in both the domains of morphosyntax and pragmatics. In particular, the syntactic features and forms that are realized in inflectional morphology are considered to be the core of grammatical competence that is uniquely linguistic (i.e., not cultural), which cannot be attained fully after a biologically determined sensitive period for development.

Error analysis, which was originally proposed by Corder (1967) and subsequently developed by James (2013) and Richards (2014) among others, argued that errors be viewed as idiolectal forms of natural language and therefore be analyzed independently of the effects of L1. This descriptive approach purported to document learner language without any theory-driven prejudgments and evaluations. The characteristic process and impairment that language learners show in the acquisition of inflectional morphology has since been of considerable debate (e.g., Fathman, 1975; Pica, 1983; Lakshmanan & Selinker, 2001), and the most delicate and problematic task these studies faced was to identify the types of errors. Since the nature and gravity of errors are defined by the specific typology in use, the internal validity and generalizability of an analysis rely on it for the most part.

In point of fact, there is no universally applicable criterion for classification, so researchers usually have to develop their own tools (Dulay & Burt, 1973, 1974; Dulay, Burt, & Krashen, 1982; James, 2013). Dulay, Burt, and Krashen (1982) was perhaps the earliest attempt to classify language learners' errors in a systematic way. They tried to analyze errors in respect of four dimensions: linguistic levels (phonology, lexis, grammar, text, etc.), linguistic units (morpheme, word, clause, etc.), grammatical categories (verb, noun, adjective, adverb, preposition, etc.), and grammatical systems (tense, voice, transitivity, etc.). For types of deviance in surface form, they used five broad categories: omission, addition, misformation, misordering, and blends. The most recent version was that of James (2013), who proposed an extended taxonomy that divided error types into five levels: substance, lexis, grammar, text, and discourse. He also suggested that the methodological paradigm for the analysis of learner language should move from error analysis to transfer analysis via which the interplay of L1 and L2 in the emergence of an interlanguage can be investigated more thoroughly.

The present study investigated a Korean child's acquisition of English verb inflections

in a typical EFL context where acquisition is based chiefly on non-interactive input and limited output practice. The child's written compositions were collected for 12 months from 10;3 to 11;3. The occurrences of target-like and non-target-like forms were examined in their totality. Each verb form was taken into account and coded with regards to two dimensions, accuracy in form and adequacy in use. From a comprehensive survey of the strengths and shortcomings of previous error typologies, two error coding schemes were developed for target-like forms and non-target-like forms, respectively.

The primary goal of this study is to compile and analyze the accurate and inaccurate forms in English verb inflections produced by child EFL learners in order to identify the systematic characteristics of their interlanguage, as compared to English L1 (or ESL) children whose language development is based on communicative interaction with other speakers. Secondarily, this study is also a preliminary attempt to gain practical insights into the challenges that researchers of learner language face when classifying the forms and sources of its idiosyncrasies. This will in due course address which features of learner language can be considered systematic, and correlatively which resists being classified into any categorical type.

2. Literature Review

2.1. Analysis of Learner Language

Scientific methodology in the study of language acquisition arose in the 1950s, when Chomskyan linguistics directed its focus to language learners' internal competence and universal development. The realm of research has since continued to expand along with the advancements in theory, practice, and methodology, but the most contentious issues have remained unchanged — the interplay of the first language and culture with the innate faculty of acquisition in individual learners' construction of L2 knowledge. The contrastive analysis hypothesis is known as the first theoretic approach to L1 effects on L2 acquisition, which attributes the emergence and degree of difficulty that learners may experience to the similarities and differences between L1 and L2. According to this view, errors occur mostly from the interference of L1 during L2 processing. By the early 1970s, this hypothesis had been discarded as its predictions turned out invalid and it could not account for creative aspects of learner language that are not associated with either L1 or

L2, giving way to an alternative approach to the analysis and interpretation of learner language in the 1970s, Error Analysis (EA).

The classic work of Corder (1967, 1981) paved the way for intensive research into learner language. In particular, longitudinal observations of children's developing language became popular. Their central argument was that instruction and input frequency did not influence language development to any significant degree (see Semren, 2017 for a summary). The pioneering studies of Dulay and Burt (1973, 1974) and Brown (1973) supported that there exists a biologically determined developmental sequence of closed-system items. In the 1980s, however, quantitative data drawn from controlled settings such as elicitation and judgement tasks were favored over qualitative data, in part due to greater practical constraints on the latter (Lakshmanan & Selinker, 2001). Many consider Krashen's (1982) Monitor Model the culmination of inquiry into L2 acquisition with a focus on the innate faculty.

It did not take long for researchers to turn back to qualitative observations to explore the representation and dynamism of learners' interim language. Most noteworthy are Schmidt (1983) and Ellis (1992), who demonstrated methodological and interpretive models for the case study of learner language. Since then, the field has sought to develop a coherent eclecticism in methodology. Although the study of language learners' deviant forms and uses has been remarkably enhanced by advancements in corpus and computational linguistics (McEnery, Xiao, & Tono, 2006), the sequential aspects of acquisition can only be properly investigated through natural data collected for a sufficient stretch of time.

In the meantime, there were sporadic attempts to explore the characteristics of Korean L1 learners' deviant uses of English grammatical morphemes. Overpassivization with stative and unaccusative verbs (Hwang, 1999), over- and under-use of *be* (Hahn, 2001, 2009), and overgeneralization of regular and irregular morphology (Lee, 2016) have received most attention. The most recent study was Kim (2017), who compared children and adults in respect of performance errors in the third person singular agreement V-*s*. Since these studies confined their analyses to a few specific features of grammar, they did not proceed so far as to consider the systematicity or developmental interconnectedness of grammatical elements.

In addition, the studies of learner language in the Korean EFL context were distinguished from those in ESL contexts in their purpose and methodological orientation. In EFL contexts, four language skills are usually taught in an integrated way and learning

is mainly based on input comprehension with limited opportunities for genuine interactive conversations. The vast majority of studies were thus carried out in the classroom, paying attention to error types and frequencies in written language. With the surge of multimedia materials, additive bilingual programs, and English immersion institutes, there is now a growing learner population who develop oral-aural skills primarily before literacy skills. As a result, learner language produced in non-instructional settings has attracted increasing attention (e.g., Lee, 2014). On the other hand, contemporary research on learner language in ESL contexts is especially concerned with child acquisition of close-system items in comparison with adult learners, under the assumptions of the interlanguage hypothesis and the debate about UG (non-)accessibility (e.g., Blom, Paradis, & Duncan, 2008; Unsworth, 2008). Moreover, simultaneous bi-/multilingualism and culturalism have become a major area of research, aside from strictly sequential and instructed L2 acquisition (e.g., Chondrogianni & Marinis, 2012; Paradis, 2005, 2010).

Learner proficiency is another important factor that constrains the goal and extent of research in ESL and EFL contexts. The great majority of studies concerning learner language in EFL contexts were conducted with young adults, for it is this group of learners who can produce sufficient amounts of data for analysis. Students in primary and secondary schools were the second most studied groups. These studies were conducted mostly in the form of practitioners' action research for piloting purposes (e.g., Song, 2013). Child learners did not receive much attention. Concomitantly, studies in EFL contexts prefer cross-sectional designs to longitudinal ones for all learner groups. Longitudinal case studies are exceptionally rare, disallowing any valid deduction as to the developmental aspects of grammar acquisition. Almost all longitudinal studies on Korean learners of English were conducted in English immersion settings.

If accuracy is defined as the rate of error-free forms, it cannot properly assess the learner's actual competence (Unsworth, 2008). As James (2013) points out, learner language is elusive to define. It cannot easily be demarcated into either accurate or inaccurate territories, so any effort to classify them is by no means a stable task, leaving aside the fact that it continues to fluctuate over time. One conventional taxonomy was that of Dulay, Burt, and Krashen (1982), who classified deviant forms in learner language into four systemic-functional categories and five types for surface anomalies: addition, omission, misordering, misformation, and blends. The recent taxonomy proposed by James (2013) similarly assumes the multifaceted nature of learner language, arguing that it be described at the levels of lexis, grammar, and discourse, along with its deviation further

classified into substance or text dimensions. He further proposes that L1 transfer analysis, namely, comparison between the learner's L1 and interlanguage features, should be an integral part of research into learner language, unlike the traditional method of error analysis which focused solely on the peculiarities of learner language with reference to the standard forms of the target language. According to him, analysis of learner language essentially demands an explanation of the triangular relationships among the learner's L1, L2, and current interlanguage.

2.2. Issues in the Acquisition of English Verb Inflections

Verb inflections are seen as the developmental landmarks that manifest language learners' competence in the comprehension and production of syntactically well-formed sentences. For this reason, they have been of considerable debate from various perspectives. The following review is mainly focused on three areas of research: tense and aspect, subject-operator concord, and auxiliaries (see Haznedar and Gavruseva (2008) for a comprehensive review of literature in the acquisition of verbal morphology, case morphology, determiners, word order choices, and coreferences).

One principal component of verb-related morphology is tense-aspect inflections. The grammatical concepts and forms associated with time are notoriously difficult for L2 learners to master. Many learners in effect fail to interiorize the knowledge and intuitions about tense and aspect uses despite years of exposure. Previous studies converge to the point that language learners' ability to use tense-aspect inflections develop gradually, not in the manner of setting the system at one fell swoop. Another widely reported phenomenon is that inflected forms are acquired and produced before the learner's comprehension of the meanings and functions that those forms carry. This is also related to the fact that children acquire irregular inflections prior to regular ones (Semren, 2017).

L2 learners' ability to discern and use tense-aspect inflections has been explored in both form and meaning-oriented ways. While the latter are interested in the meanings understood or intended by language learners, the former seek to connect the developmental sequence of tense-aspect inflections with lexically inherent meanings and discourse contexts. For example, Bardovi-Harlig (1992a) investigated the developing tense-aspect system of adult ESL learners at six different levels of proficiency. Data collected from cloze tests and composition tasks indicated that the learners' use of tense-aspect inflections were formally accurate but semantically inappropriate in many

cases. She argued that the learners linked the lexical aspect of a verb with the possibility (and likelihood) of its being used with progressive or perfect aspect in the given discourse context. This hypothesis assumes that learners' early acquisition of tense-aspect inflections is sensitive to the meanings of verbs such as stative versus dynamic, telic versus atelic, and durative versus punctual. In her follow-up study, Bardovi-Harlig (1995) tried to extend the observation to discourse level, where the influence of narrative type on the realization of tense-aspect inflections in learner language was examined. When asked to retell a film in spoken and written narrative modes, participants (adult ESL learners) used tense-aspect inflections differentially according to narrative demands. This implies that the acquisition order of tense-aspect inflections has something to do with the learner's awareness of textual features.

In the area of child L2 acquisition, Gavruseva (2004) made a similar claim that the lexical aspects of verbs such as dynamicity, telicity, and punctuality play a crucial role in language learners' development of ability to use finite and nonfinite inflections. She investigated nonfinite forms in early L2 English of five sequential bilinguals with the assumption that the apparently tenseless forms occur because of underspecified aspectual heads at the beginning of language development. According to her, English does not have perfective and imperfective morphemes, so it resorts to lexically inherent or compositional aspects. In particular, a verb's telicity sense defines its aspectual type and its likelihood to be realized in finite or nonfinite form in learner language. This is one possible account of the phenomenon that verbs with stative and punctual senses are more likely to be used in finite form than nonpunctual verbs in early grammar. Haznedar (2007) tested this hypothesis with data from a Turkish-speaking learner of L2 English. He found that past-tense inflections occur almost always with punctual verbs in the child's language. However, he further commented that the child's use of primary verbs as operators and expletive subjects does not support the assumption of defective tense-aspect projections. Moreover, in contrast to the predictions of the aspect hypothesis, the occurrence rate of nonfinite punctual verbs turned out to be higher than that of nonfinite activity verbs.

In form-oriented approaches, Klein (1995) made an important contribution by observing the development of tense-aspect inflections of Italian and Punjabi English learners. He periodically recorded the learners' film retelling, personal narratives, and genuine conversations for three years. Drawing on these data, he concluded that although there was measurable variation in the amount and richness of input, L1 influence was limited, and that the learners' acquisition of finite and nonfinite forms of verbs was not

significantly different. With regards to individual differences (i.e., not all learners strive to be more target-like), he claimed that communicative efficiency and one's social need to conform to the environment through imitation are two major factors that bring about such differences. That form is often acquired before function can only be seen as language learners' desire to sound like the environment, not as their propensity to make their language more functional.

In addition to time-related morphology, the subject-operator concord has been another central topic concerning the initial and subsequent phases of language learners' grammatical competence. Ionin and Wexler (2002), for example, investigated Russian-speaking ESL learners' ellipsis of inflections. They found that the learners rarely produced incorrect verb inflections in their speech and that they produced suppletive forms at a higher rate than affixated ones. The learners also tended to overuse *be* without a following progressive participle and were more sensitive to the inflections of *be* than to those of lexical verbs. These observations led them to claim that functional categories such as TP and AgrP are fully projected in the initial grammar of the learners even though they may not be explicitly realized on the surface. According to them, the AgrP is present in the learners' grammatical knowledge but it is realized in a non-target-like way by certain forms of *be*. They conclude that language learners associate the subject-operator concord with the movement of a verb head to the head of AgrP and so they use inflected forms of *be* before they learn the affix-hopping morphology later.

One prevalent aspect of development among L2 learners of English is that they often use a form of *be* in contexts where it is not grammatically licensed. By contrast, when they produce inflected lexical verbs, they do so mostly appropriately. Hawkins (2007) interpret these as evidence for innate knowledge of grammar such that the behavior cannot result from stochastic input-based learning. He proposed that the phenomena in question occur because learners first use interpretable features and context-sensitive concurrence information to create lexical elements. Only later do they become able to use uninterpretable features and featural content under syntactic nodes. This hypothesis was tested by means of a sentence completion task that disrupted concurrence patterns and an experimental task to determine whether beginning-level learners conceive the form V-*s* as a clue for number agreement. This account sets forth the possibility that vocabulary items in learner language, especially at the initial stage of development, may be qualitatively different from the input of the target language.

Another recalcitrant problem that many English learners face is the distinction

between lexical and auxiliary verbs. It has been reported that they tend to produce copula *be* at a far higher rate than auxiliary *be* and insert a form of *be* where affixated forms (V-*ed* and V-*s*) are used in adult grammar. They also substitute *be* + V_{base} for *be* + V-*ing* or V-*ed* participle frequently. As mentioned earlier, a typical argument under the assumptions of UG is that language learners' early grammar is structurally identical with that of adult speakers with superficial differences lying in morphological realizations. Those differences are thought to arise due to an underspecification of functional features and categories (Hawkins & Casillas, 2008).

The acquisition of morphosyntactic differences between lexical and auxiliary verbs in English has been relatively less attended than other verb-related inflections. Previous studies dealt with it only in part of a larger domain of acquisition. Ionin (2008), for example, investigated V-*ing* and V_{base} forms that were used with progressive meanings by Russian-speaking learners of English. She hypothesized that child English learners are guided by the Principle of Uniqueness so that they confine the use of V-*ing* forms within progressive contexts while confining V_{root} forms to non-progressive contexts. This hypothesis, which implies that tense and aspect morphology develop independently of each other, further embraces three logical derivatives. First, if language learners start using V-*ing* forms, they will consistently use them for a progressive aspect. Second, the learners will not distinguish between *be* + V-*ing* forms and S + V-*ing* without *be* in respect of their aspectual meaning. Third, once they learn the progressive meaning of V-*ing* forms, they will not use V_{base} forms for the same meaning context. She collected speech samples including V-*ing* forms, particularly focusing on the concomitant use of auxiliary *be* and the meaning intended by the forms. The hypotheses were largely supported in that if learners acquired the V-*ing* form, they used it consistently with progressive meaning and that the V-*ing* form without a preceding *be* was not unlike *be* + V-*ing* forms in its meaning. The use of the bare V_{base} form was restricted to non-progressive contexts. In addition, children occasionally produced a finite form of *be* followed by a V_{base} such as *He is want to V*. These observations led her to conclude that there is no systemic relation between the acquisition of tense, aspect, and auxiliary verbs.

Verb inflections serve as a barometer of development in morphosyntactic competence and sensitivity to grammatical accuracy and thus constitute an important area of research concerning learner internal and external factors in L2 acquisition. Language learners' sensitivity to word forms in different syntactic contexts tends to decrease rapidly as a function of age. This the-earlier-the-better tendency was empirically verified by Jia and

Fuse (2007), who investigated the acquisition of verb inflections and auxiliaries by Chinese L1 children and adolescents. Their variation in performance was partly attributable to age of onset, with early beginners usually achieving more accuracy than late beginners. Importantly, however, this age effect arose only for V-*s* and V-*ed* morphemes. For the other inflections, there was no significant inter-learner variability, which suggests that environmental factors, rather than biological ones, may play a crucial role in the acquisition of inflectional morphology. The same view was advocated by Paradis (2010), in which L2 learners' developing knowledge and application of verb inflections were investigated. Specifically, she addressed whether L1 and L2 learners' accurate production of verb inflections is influenced not only by age and input quantity but by morphological complexity and task type. Drawing on the data from various assessment procedures, she concluded that all the factors of interest significantly influence the extent to which L2 learners can approach the norms of L1 speakers.

As for the subject-verb concord, which has been a central topic in the inquiry into initial (and subsequent) states of an internal grammar, learners normally produce copular and highly frequent thematic verbs earlier and more regularly than auxiliary verbs, and they produce suppletive forms before they are able to apply regular affixal inflections. Once they start using V-*ed* and V-*s* forms, they use them mostly in appropriate contexts. They may also produce interlanguage forms such as *be* + V_{base}. The factors involved in these deviant forms can be sought from both UG- and usage-based perspectives. One prevalent argument in the former is that language learners' early grammar is identical in its structural properties to that of native speakers while only lexical realizations can vary because their morphological knowledge has yet to be specified.

Most learners in EFL contexts rely on non-interactive language input with scarce opportunities for output practice and negotiation of meaning. This fact makes it imperative to consider the functional, as well as formal, adequacy of a target structure alongside its frequency change as a function of time when measuring their development in grammatical accuracy. It is therefore important to develop a practical system for error classification whereby detailed comparisons between individual learners or learner groups are made in a consistent way.

3. Methodology

3.1. The Learner

The conceptual framework and practice of language teaching in Korea has been shaped by government-initiated curricular reforms. It was not until the early 1990s that audiolingualism and the grammar-translation method gave way to the communicative language teaching as the conceptual and methodological foundation for ELT at primary and secondary schools. Despite this curricular shift and the consequential expansion of meaning- and interaction-based pedagogics in both public and private sectors, most students are still learning English as a school subject on which their academic ability is measured. Likewise, their learning environment has not been fundamentally changed, where structured input and instruction play the major role.

This study had observed a child learner of English from age 10:3 to 11:3. She had been exposed to English input since five. She had received it mainly through picture books and readers for child English learners. The kinds and amounts of input were almost entirely controlled by her care-takers. There was a considerable difference in quantity between spoken and written input, with the latter being far greater than the former. She had never received form-focused instruction before. For the most part, the learner's acquisition of L1 and L2 was sequential. Although her L1 and L2 reading skills developed in parallel, she acquired the grapheme-phoneme correspondences of the Korean alphabet earlier than English. The child learner's diaries and intermittent writing samples were collected. They were written without support from others. She did not use bilingual dictionaries or other translation aids when writing. A total of 112 compositions were subject to analysis.

3.2. Data Analysis

The initial approach to error classification followed the taxonomy of James (2013). The first dimension consisted of two verb categories: conjugation and function verbs (lexical and auxiliary verbs in the present study). The second dimension had four aspects: concord (agreement), tense, state (nonfinite verb forms), and form (aspect/voice).

Table 1. Error Taxonomy (adapted from James, 2013)

Linguistic Category / Surface Structure Modification	1st Level: Substance	1st Level: Text: Grammar	1st Level: Text: Lexis	1st Level: Discourse	2nd Rank: Clause-Phrase-Word-Morpheme / Class: Noun, Verb, Adjective, Adverb, Preposition, Conjunction, etc.	3rd System (Tense, Number, Voice, Countability, Transitivity, etc.)
Omission						
Over-inclusion						
Mis-selection						
Mis-order						
Blend						

In this approach, global errors are taken into account before local ones. Errors are categorized with regards to all three aspects of language, form, meaning, and use. Therefore, the multidimensional aspects of an error cannot be considered in a systematic way, as analysis depends on which aspect is to be given priority over the others. Since errors are identified mainly on the basis of deviance in use, it is not suitable for the assessment of L2 learners' grammatical knowledge and its change over time. Moreover, because no specifications are made about the contrasts between target-like and deviant forms, the complex nature of an error is likely to be overly simplified.

Table 2. An Error Classification System

Type	Concord: Context Concord	Concord: 3SV-*s*	Concord: Plural Verb+*s* / Infinitive+*s* / Past Verb+*s*	Tense: Past	Tense: Present	Tense: Modality	State: Addition	State: Omission	State: Replacement	State: Order	State: Orthography	State: Repetition	Form: Progressive *-ing*	Form: Passive *-ed*
Copula *be*														
Regular V														
Irregular V														
Auxiliary														

Type	Concord			Tense			State						Form	
	Context Concord	3SV-*s*	Plural Verb+*s* Infinitive+*s* Past Verb+*s*	Past	Present	Modality	Addition	Omission	Replacement	Order	Orthography	Repetition	Progressive *-ing*	Passive *-ed*
Progressive (*be* + *-ing*)														
Passive (*be/get -ed*)														
Perfect (*have -ed*)														
to inf														
bare inf														
Gerund														

Unfortunately, the system in Table 2 is extremely complicated, combining primary (finite) and secondary verb forms. Even if this system is theoretically valid, assessing a learner's developmental knowledge using it may not be as plausible as it seems. It is worth noting that error classification, regardless of the researcher's theoretical positions, requires the form and meaning dimensions to be considered separately.

The present analysis employed an inductive approach. First, the occurrences of target-like and non-target-like form were identified and then a classification system was developed to sort out their types. The goal was to classify in detail all the interlanguage verb forms produced by the subject learner, either accurate or inaccurate. As mentioned earlier, James (2013) proposes that the complex nature of an error be taken into consideration. An error and the context in which it occurs cannot be analyzed separately.

The primary focus of this study was on the learner's use of auxiliaries and verb inflections. For the target-like forms, verbs were divided into finite and nonfinite forms. Finite forms included the instances of subject-auxiliary or subject-verb concord in person and number. The person- and number-inflected forms were counted with the tense/aspect in use. In the case of nonfinite forms, the mood of the clausal context was considered. Those of indicative mood included the aspect/voice inflected or infinitive forms of lexical and auxiliary verbs.

Table 3. A Typology of Verb Inflection Errors

Verb Form		Finite Forms: Tense & (S-AUX)/(S-V) Agreement								Non-Finite Forms								
		Present				Past				AUX2/V2				AUX3/V3			V4	
		1P Sg	2P Sg	3P Sg	Pl	1P Sg	2P Sg	3P Sg	Pl	Prog	Perf	Pass	Inf	Prog	Perf	Pass	Prog	Pass
Primary & Auxiliary	*be*																	
	do																	
	have																	
	modals																	
Lexical	reg																	
	irreg																	

Each occurrence of finite and nonfinite inflection was counted with the former being further specified by tense and agreement features and the latter by positions in the verb complex.

Meanwhile, unlike target-like forms, when classifying errors, it is necessary to divide the coding structure into two dimensions, form and use. For example, "He stick the blade with book" is marked as an error in subject-verb concord in its formal aspect and also marked as a misuse of tense. Importantly, inaccurate forms cannot be analyzed in a purely deductive way because a range of individual difference factors typically play a crucial role in the formation of L2 learners' interlanguage.

Table 4. The Final Classification System for Inaccurate Forms

S + Finite AUX1/V1 + (AUX2/V2) + (V3)															
Mis-agreement				Mis-inflection					Omission		Addition		Aux-V Mismatch	Word Order Errors
1P Sg	2P Sg	3P Sg	Pl	V_{root}	*-s*	*-ed*	*-ing*	*-en*	Finite V	Non-finite V	Finite V	Non-finite V		

Errors in form were classified into seven categories: misagreement, misinflection, omission, addition, orthography, AUX-V mismatch, and word order errors. Since no instances of V4 were found, it did not figure in the current system.

Concord errors are those related to verb forms in syntactic agreement with the phi features of the subject. There were a few types of inflection error, which were categorized

according to their surface realizations. All the non-target-like cases of tense/aspect-inflected, V-*s*, and V_{root} form fell in thies category. Omission errors indicate the absence of finite or nonfinite verbs in obligatory contexts. On the contrary, addition errors refer to the occurrence of a verb in an ungrammatical position. Orthographic errors are those related to the spellings of verbs and their inflected forms. The AUX-V mismatch errors refer to those cases where an auxiliary verb is not followed by its complement verb form (e.g., *have* + V-ing). Word order errors indicate such errors as *I did slowly my homework*, where the adverb *slowly* is positioned between a transitive verb and its complement. Lastly, some cases were hard to classify into one specific category. Those uncertain cases were labeled indeterminates.

Finally, errors in context were analyzed with regards to tense/aspect, voice, mood/modality, and reference (person and number). A verb form may be grammatically correct even though it does not convey the intended meaning in the usage context. In this respect, tense errors include those cases where the present form is used for the context requiring the past form, or vice versa. Likewise, aspect errors occur when the progressive and perfective forms are employed in a non-target-like way. Voice errors include overpassivization errors and those where active form is used in passive context. Mood/modality errors are those where indicative mood or factual statements are used in non-indicative or subjunctive contexts. In fact, there was no occurrence of polar intentions expressed by modal statements. Errors in reference indicate misused anaphora, pronouns, and referring expressions in the given context, particularly susceptible to the number feature. Here again, some errors were indeterminate in nature. In this way, all the accurate and inaccurate verb forms produced by the subject learner could be successfully compiled and cataloged.

4. Results and Discussion

A total of 2,088 T-units were collected. The average length of writing was 113 words and the mean number of finite verbs per composition was 20.76. The child's development in fluency was estimated by counting the number of words and T-units during four three-month periods. As seen in Table 5, the length of writing and the frequency of finite verbs increased as time went on.

Table 5. Fluency Measures by Period

Time	Average Number of Words	Average T-Units
Period 1 (2020.6-8)	119	27
Period 2 (2020.9-11)	128	29
Period 3 (2020.12-2021.2)	147	34
Period 4 (2021.3-5)	212	41

The frequencies of target-like forms with respect to each verb type are presented below in Table 6. The copula/auxiliary *be* was used most frequently in both finite and non-finite forms. Auxiliary *do* was used rarely in its finite form but used quite frequently in its root form at V2 position. Auxiliary *have* did not emerge in the present data. Among lexical verbs, irregular verbs were produced more often than regular verbs. In S-Aux/V agreement, the third person singular subject accounted for about 50% of the total, and approximately three out of four sentences were composed in present tense form.

Table 6. Frequencies of Target-like Forms

Verb Type		Finite Forms: (S-AUX)/(S-V) Agreement								Non-Finite Forms								
		Present				Past				AUX2/V2				AUX3/V3			V4	
		1st Sg	2nd Sg	3rd Sg	Pl	1st Sg	2nd Sg	3rd Sg	Pl	V-ing	V-en Perf	V-en Pass	V_{root}	V-ing	V-en Perf	V-en Pass	V-ing	V-en Pass
Aux	*be*	33	3	388	142	3	1	87	4	27	·	101	·	·	·	·	·	·
	do	22	2	7	22	4	·	3	2	·	·	·	77	·	·	·	·	·
	have	3	2	1	5	1	·	2	1	·	2	·	·	·	·	·	·	·
	modals	28	7	41	50	3	·	6	3	·	·	·	139	·	·	6	·	·
Lex	regular	76	4	43	61	7	3	59	37	·	·	·	·	·	·	·	·	·
	irregular	140	8	69	102	9	7	71	26	·	·	3	·	·	·	·	·	·
Total		302	26	549	382	27	11	228	73	27	2	104	216	·	·	6	·	·
		1259				339				349				12			·	

The standard assumption is that regular occurrences of inaccurate forms would likely indicate the presence of learning difficulty, whereas non-occurrence of errors implies a fast or once-for-all learning. It is also noteworthy that highly frequent forms, such as present tense and third person singular subjects accompanying *is*, may be the signs of overgeneralization or simplification, while infrequent verb forms may indicate the learner's undergeneralization and conservative learning (e.g., auxiliary *have*). Furthermore, the non-occurrence (absence)

of a form implies acquisition delay or avoidance (e.g., progressive and perfective aspects, passive morphology). The second person singular subject was never used in past tense sentences. This is because the data were from written compositions, not from spoken conversations. Among non-finite forms, passive morphology was more frequently produced than progressives (V-*ing*). The perfect was produced only twice. The learner used modal auxiliary verbs quite often and did so accurately.

According to the frequency results for inaccurate forms, subject-verb agreement errors accounted for the greatest proportion (52%), followed by inflection errors. The other categories show the patterns of: misagreement > misinflection > addition > omission > aux-v mismatch. The learner appeared to struggle with lexical verbs in subject-verb agreement, especially when the subject is a third-person singular. The number-inflected form of *be* manifested learning difficulty with plural subjects, particularly in the contexts of coordinated subjects, irregular plurals, and sentences beginning with existential *there*. It seemed that the learner was cognizant of the grammatical features of person and number. There was only one occurrence of inaccurate form in subject-verb agreement of the first- and second-person singular subjects. Most often among the instances of inflection errors were those in which verbs were suffixed by *-ed* and *-ing* where bare infinitive forms were required. This can be seen as cases of overgeneralization.

Table 7. Frequencies of Inaccurate Forms

Error Type Subtype		S + Finite AUX1/V1 + (AUX2/V2) + (V3)													
		Mis-agreement				Omission		Addition		Mis-inflection					AUX-V Mismatch
		1P Sg	2P Sg	3P Sg	Plural	Finite V	Nonfinite V	Finite V	Nonfinite V	V-ed	V-s	V-root	V-ing	V-en	
Aux	*be*	·	·	8	34	32	1	27	2	·	·	1	·	·	7
	do	1	·	15	5	2	2	5	1	7	·	·	7	·	1
	have	·	·	·	1	·	·	1	1	1	·	·	2	·	1
	modals	·	·	·	·	·	8	3	24	8	7	·	6	·	1
Lex	regular	1	·	76	3	1	·	·	·	3	2	·	23	·	·
	irregular	2	·	141	8	5	·	3	·	1	3	·	14	·	·
Total		4	·	240	51	40	11	39	28	20	12	1	52	·	10

The suffix *-s* was also used erroneously, yet quite systematically in several ways. The finite form of *be* was sometimes added redundantly or omitted. There was only one case

in which the nonfinite form of *be* was redundantly used with its own finite form. Moreover, *be* appeared redundantly quite often with modal auxiliaries. Aside from the copular/auxiliary *be*, the learner almost never overused or underused other lexical and auxiliary verbs. In coordinate sentences, though, *do* and *can* were used repeatedly with no ellipsis. In each error type, the largest number was associated with finite forms. This is consistent with the observation of Leech (2004) that finite verbs are the most troublesome element for L2 learners.

The learner did not produce agreement-inflected forms of modal auxiliary verbs. She appeared to be aware that modal auxiliaries have the same forms regardless of the subject's person and number features. However, the accuracy rate of using them with other verbs was around 80%. The learner used *be* correctly in its person- and number-agreed form at the rate of 94%. The analysis of accuracy rates supported Bardovi-Harlig's (2000) observation that overt morpheme acquisition tends to develop earlier than function acquisition. Nevertheless, the learner's acquisition rate and sequence of regular and irregular verbs was not consistent with the findings from ESL children. It seemed that the learner had acquired regular inflectional morphology earlier than irregular forms. In addition, the learner's ability to use the *-s* ending with regular verbs and irregular inflections with auxiliary verbs did not exhibit any significant difference.

Table 8. Target-like Uses and Errors in S-V Agreement over Time (%)

Frequency of S-V Agreement	*BE*		*Do*		Modals		Regular		Irregular	
	Well-formed	Error	Well-formed	Error	Well-formed	Error	Well-formed	Error	Well-formed	Error
Period 1	156(91)	15(9)	21(75)	7(25)	52(95)	3(5)	58(72)	23(28)	133(84)	24(16)
Period 2	183(93)	13(7)	25(81)	6(19)	57(92)	5(8)	91(76)	29(24)	142(86)	23(14)
Period 3	185(95)	9(5)	23(73)	8(27)	63(96)	3(4)	73(78)	21(22)	115(86)	18(14)
Period 4	192(94)	11(6)	27(90)	3(10)	46(96)	2(4)	89(84)	16(16)	146(88)	19(12)
Total	716(93)	48(7)	96(79)	24(21)	218(95)	13(5)	311(78)	89(22)	536(86)	84(14)

Auxiliary *do* and modal auxiliaries did not have enough tokens to examine their developmental aspects. Finally, it is also noteworthy that *be* and regular verbs showed a pattern of gradual development. With regards to errors in use, it was most notable that the learner used present-tense forms often in past-tense contexts. This is consistent with the findings from English L1 children.

When the distributions of target-like forms and errors of each verb type (and its associate morphemes) are viewed in terms of co-occurrence and non-occurrence patterns, the (in-)accurate instances of subject-verb agreement, copula and auxiliary verbs, and tense-aspect conjugations can produce an account of the relationship between frequency and accuracy in use. The inflected copula was the most frequent and extensively distributed verb form, and other content verbs in present tense form were produced equally frequently regardless of their regularity in conjugation. A large number of errors were found in the use of copula *be* in past tense and subject-verb agreement. A close examination of frequent errors confirmed the observation of Unsworth (2008) regarding frequency effects on accuracy, Nevertheless, the overuse and omission of *be* suggested a similar route of development from that of the natural order hypothesis. Thus, one implication of the study is that child L2 development does not manifest so complex an interplay between L1-L2 grammatical concepts and linguistic forms as seen in adult L2 acquisition.

5. Conclusion

The present study investigated a Korean L1 child's acquisition of English grammar in the context where learning is based on input for the most part with limited output and interaction opportunities. The emergence and accuracy development of her interlanguage were closely examined by analyzing the frequency changes of verb forms and their appropriateness in the usage context.

According to the frequency results for inaccurate forms, subject-verb concord errors accounted for the largest proportion, followed by inflection errors. The learner seemed to be conscious of the grammatical features of person and number. There was no occurrence of inaccurate form in subject-verb concord when the subject is a first- or second-person singular. Most often among the instances of inflection errors were those in which verbs were suffixed by *-ed* and *-ing* where root forms were required. The suffix *-s* was also used erroneously, yet quite systematically when the subject is a third-person singular. The finite form of *be* was sometimes omitted or added redundantly. There were few cases in which the nonfinite form of *be* was redundantly used together with its finite form. Moreover, *be* appeared redundantly quite often with modal auxiliaries. Aside from *be*, the learner almost never overused or underused other lexical and auxiliary verbs. She never

produced agreement-inflected modal auxiliaries. The use of *do* as an operator and modal auxiliaries did not have enough tokens to examine their developmental characteristics. Moreover, *be* and regular verbs showed a pattern of gradual development. As for errors in use, the learner often used present-tense forms in past-tense contexts, which is consistent with the earlier findings.

Therefore, it seems safe to say that errors in the child's interlanguage are restricted to only a few types which are also observed in English L1 acquisition, and that there is no considerable effect of L1 on her L2 acquisition process and outcome. These findings lend support to the position that child L2 acquisition of grammaticality is driven by input to a sufficient degree.

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