

A Literature Review: Recent Studies on Subject-verb Agreement in Second Language Acquisition

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The acquisition of agreement has been discussed for a long time in second language research. Second language learners (L2ers) often fail to produce inflected verb form. In this article, I will focus on subject-verb number agreement research in the two journals that are among the most historical journals in second language acquisition, *Second Language Research* and *Studies in Second Language Acquisition*. I will present the studies published in 2000 to 2020 in order to review the recent studies on various topics relevant to subject-verb agreement.

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1. Introduction

The acquisition of agreement has been discussed for a long time in second language research. Second language learners (L2ers) often fail to produce inflected verb form. In this article, I will focus on subject-verb number agreement research in the two journals that are among the most historical journals in second language acquisition, *Second Language Research* and *Studies in Second Language Acquisition*. I will present the studies published in 2000 to 2020 in order to review the recent studies on various topics relevant to subject-verb agreement. The rest of this article is as follows: in chapter 2, the study based on Processability Theory are mainly presented, in chapter 3, studies on verb placement and subject-verb agreement, in chapter 4 studies

on property and structure of subject noun that affects production and processing subject-verb agreement, in chapter 5 a study on agreement in third language acquisition, in chapter 6, a study that have an implication for learning subject-verb agreement and a brief conclusion in chapter 7.

2. Theories of Second Language Acquisition

A. Processability Theory

PT proposed by Piens (1998, 2005) is one of the L2 development theories. In PT, L2 development of grammar is divided into 6 stages (Table 1). In this theory, subject-verb agreement appears at stage 5, where learners can properly process the exchange of grammatical information between phrases.

Buly and Housen (2015) investigated whether we investigated whether L2 learners of English systematically acquire the English grammatical phenomena such as genitive -'s and plural -s which are predicted to be processable from Stage 2 before cases of agreement between subject and verb (including copula verb), which are predicted to emerge later in the L2 grammar acquisition process. The learners' receptive knowledge was tested by a picture selection task. The results of the experiment were compatible with PT.

Dyson (2009) conducted a longitudinal study of L2 development by collecting oral production data for nine

Table 1. Developmental stages in English

Stage	Processing procedure	Example
1	word/lemma	single words; formulae (<i>How are you?</i>)
2	category procedure	SVO word order (<i>*he live here</i>) past -ed (<i>she play-ed, *he go-ed</i>) plural -s (<i>cats</i>) possessive -'s (<i>Pat's cat</i>)
3	phrasal procedure	plural agreement (<i>two cats</i>)
4	VP-procedure	tense agreement (<i>I have seen you</i>)
5	S-procedure	subject-verb agreement (<i>he eats</i>)
6	subordinate-clause procedure	'cancel inversion' (<i>I wonder where he is</i>)

(from Pienemann, 2005)

months via six sessions of communication tasks and interviews. One of their subjects seemed to have reached at stage 5 in her final session because she produced auxiliary *does* with 3rd person singular subject, but *does* only appeared in interrogative sentences. The auxiliary *does* was not present in declarative clauses, for instance as a negative auxiliary. As discussed in the article, one possible explanation for the data is that properties of Universal Grammar (UG) are incorporated incrementally into the developing L2 grammar.

B. Generative Grammar

As Generative Grammar has developed, the number of SLA research based on UG has increased. Parodi (2000) also suggests that L2 learners can access an option offered by UG. The focus of the study was the relationship between finiteness and verb placement, which is argued to be. I will look closer at the study in the next Chapter.

3. Verb placement and subject-verb agreement

Parodi (2000) and Schimke and Dimroth (2017) examine the relationship between subject-verb agreement and verb placement. The target language in both studies was German, in which nonfinite verbs such as infinitives and past participles occur in sentence-final position, which is finite lexical and auxiliary verbs appear in the second position of the sentence (V2 position). Thus, L2 German learners have to learn to inflect the matrix verb and place it to V2 position. Moreover, in negative sentences in German, a finite lexical verb and an auxiliary one appears to the left of

negation and nonfinite verbs, such as a past participle appears to the right of negation.

Parodi (2000) analyzed the longitudinal data of three subjects from the corpus. In the data, the negation occurs post-verbally when the verb shows targetlike subject-verb agreement. Schimke and Dimroth (2017) also found that the learners with a low rate of correct subject-verb agreement produce light verbs (modals, copula be and possessive have) more often to the left than to the right of negation, and lexical verbs more often to the right than to the left of negation.

According to these studies, the acquisition of syntactic features, such as number and person features, taking part in subject-verb agreement have to do with the acquisition of a functional feature on functional categories that determines verb placement. It can be said that certain features and categories are clustered in UG and parameter setting might be an explanation for the sequential acquisition.

4. Property/structure of subject noun phrases

The property or structure of subject noun phrases (NP) is rather important factor that affects production and processing of L2 subject-verb agreement.

A. Attraction

Attraction has been examined in the context of L2 processing of agreement. When there is a mismatch between the grammatical number of the head noun, *author (s)* in (1), and the local noun in a subject noun phrase, *speech* in (1), speakers are more likely to make subject-verb errors. This phenomenon is called attraction.

- (1) a. The author of the speech ... Singular-Singular (SS)
 b. The author of the speeches ... Singular-Plural (SP)
 c. The authors of the speeches ... Plural-Plural (PP)
 d. The authors of the speech ... Plural-Singular (PS)
 (from Jegerski, 2016)

Jackson, Mormer & Brehm (2018) conducted a sentence completion task with Swedish and Chinese L2 English speakers to investigate how L1 morphosyntax and L2 proficiency influence L2 English subject-verb agreement production. Jegerski (2016) used a self-paced reading task to investigate the sensitivity of L2 German learners to number attraction. Native English speakers learning Spanish were the subjects of this study.

These studies on L2 processing of attraction suggest the nonnatives can acquire nativelike online sensitivity to subject-verb number agreement.

B. Subject noun marked by a quantifier

Whether or not L2 learners can make use of quantifiers as cue to number agreement processing was examined by Armstrong, Bulkes and Tanner (2018). They investigated Mandarin speakers' sensitivity and processing of number agreement in English by using event-related potentials (EPR). The participants read a sentence which appeared on a screen word by word. Meanwhile their brain reaction were recorded. In the EPR study, subject-verb agreement violations elicited robust P600 effects in the participants. L1 English participants were more sensitive to agreement

violations when a quantifier was present in the subject NP, whereas the Mandarin-English bilingual participants showed greater sensitivity to ungrammatical sentences when the quantifier was absent.

5. Third language research

Subject-verb agreement research is also conducted in third language (L3) acquisition. Production data by learners of English as L3 are shown in Mayo and Olaizola (2011). The object of their study was four morphemes: copula and auxiliary *be* (suppletive inflection) and third person singular *-s* and past tense *-ed* (affixal inflection). They hypothesized that 1) the L3 English of the bilingual learners would not be impaired either locally or totally and would make more omission errors (e.g. *he eat*) than commission errors (e.g. *they eats*), 2) suppletive inflection would appear earlier than affixal inflection and would be produced with higher frequency. The participants in the study were Basque-Spanish bilinguals and they were asked to narrate a picture story in English in the experiments. At The experiment Time 1 was conducted when the participants were at the third year of compulsory secondary education and Time 2 was three years after Time 1. The results showed that the rate of omission of affixal inflection (3rd singular *-s* and past tense *-ed*) is higher than suppletive inflection (auxiliary and copula *be*).

The authors concluded that L3 English learners in the study omitted inflectional morphemes due to not the deficit

Table 2. Example stimuli

Grammaticality	Quantification	Example sentence
Grammatical	Quantified	Most cookies <u>taste</u> best when dipped in milk.
Ungrammatical	Quantified	Most cookies <u>tastes</u> best when dipped in milk.
Grammatical	Unquantified	The cookies <u>taste</u> best when dipped in milk.
Ungrammatical	Unquantified	The cookies <u>tastes</u> best when dipped in milk.

(from Armstrong, Bulkes and Tanner, 2018)

Table 3. Number of omission at Time 1 and Time 2 (percentage in brackets)

	Time 1	Time 2
3 rd singular <i>-s</i>	300/417 (72%)	55/354 (16%)
Past tense <i>-ed</i>	23/53 (43%)	75/177 (42%)
Be auxiliary	13/208 (6%)	3/87 (3%)
Be copula	2/220 (1%)	1/208 (0%)
All inflection	338/898 (38%)	134/826 (16%)

of syntactic features in their interlanguage but the mapping problem because their L1/L2, Basque and Spanish, have rich agreement system and syntactic person and number features. This study supports the hypothesis that L2 learners have nativelike syntax but have difficulty in their performance. However, what will reduce such problem in apply correct morpheme to abstract syntactic feature in interlanguage is yet to be examined.

6. Learnability of inflection

Godfroid and Uggen (2013) investigate the relation between attention to irregular verbs of L2 German and learning of them. Inflection of irregular verbs in German has stem-vowel change besides affixal inflection. In the study the authors measured learners' productive knowledge of stem-changing verbs. Both the pretest and posttest required the participants to write down a sentence using the action verb that was depicted in a picture. After the pretest, the participant's eye-movement was recorded while they were asked to read sentences including regular verbs or stem-changing verbs for meaning. In each trial, a pair of sentences were appeared on a computer screen. One of the sentences starts with 1st singular pronoun and the other with 2nd or 3rd singular pronoun. As a result, the longer the participants pay attention to or compare the features of stem-changing verbs, the better they learn them.

This result implies that explicit instruction and awareness of formal feature of verbs enhance the learning of inflection which is relatively difficult to L2 learners.

7. Conclusion

As I have reviewed the recent studies around L2 subject-verb agreement, even though all the studies concern agreement, theories they are based on, their objectives, methods, and target phenomena are quite different. As the limitation of the number of the studies reviewed in this article and the variability of the topics addressed here have made it difficult to give an integrated explanation for L2 subject-verb agreement, the further research in each area is required.

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