Feature Parallelism of English VP-Ellipsis in L2 Grammar

Sayaka Koyama

1. Introduction

Previous studies have reported that second language (L2) learners of English whose first language (L1) lacks VP-ellipsis accurately judge syntactic properties of VP-ellipsis in English, rejecting the sentence where an object alone is elided, such as *Tom sent Jill a letter, and Mary sent ___ too*. However, they failed to accept sentences involving an elided uninterpretable perfective feature [PERF] on *-en*, such as *Tom sent Jill a letter, and Mary has ___ too* (e.g., Hawkins, 2012). This is compatible with the Interpretability Hypothesis (Tsimpli & Dimitrakopoulou, 2007), according to which L2 learners have difficulty acquiring uninterpretable features. The present study investigates whether Japanese learners of English (JLEs) behave similarly to L2 learners in previous studies (i.e., Arabic and Chinese L1 speakers) and examines their interlanguage grammar for English VP-ellipsis.

VP-ellipsis is a linguistic phenomenon in which a verb phrase is elided under identity. For instance, the situation described in (1a) can be described as in (1b).

(1)   a.   John will watch a soccer game, and Mary will [VP watch a soccer game] too.
        b.   John will watch a soccer game, and Mary will ___ too.

In (1b), the verb phrase in the second conjunct, *watch a soccer game*, is elided, leaving the modal auxiliary *will* stranded. Importantly, what undergoes ellipsis must be a maximal projection, in this case, the whole VP.

The same properties are observed in sentences with an aspectual auxiliary, as illustrated in the examples in (2) and (3): When sentences involve the aspectual auxiliaries *has* or *was*, the VP in the second conjunct can be elided under identity. VP-ellipsis results in the stranding of the auxiliary, in this case, *has* and *was*.

(2)   a.   John has finished work, and Mary has [VP finished work] too.
        b.   John has finished work, and Mary has ___ too.

(3)   a.   John was painting wall, and Mary was [VP painting a wall] too.
        b.   John was painting wall, and Mary was ___ too.

When a sentence does not have any auxiliary, another important restriction on VP-ellipsis emerges: VP-ellipsis must co-occur with a stranded auxiliary. In (4b) a dummy *do* is inserted in order to meet this requirement. Moreover, the object NP alone cannot be elided in English, as shown in (4c).

(4)   a.   John bought a watch, and Mary [VP bought a watch] too.
        b.   John bought a watch, and Mary did ___ too.
        c. *John bought a watch, and Mary bought ___ too.

A VP can be elided even if it is not identical to its antecedent unless the Principle of Recoverability in (5) is violated.

(5)   Principle of Recoverability (Rouveret, 2012: 900)
        An elided constituent cannot contain any non-recoverable interpretable feature.

Consider the contrast in (6) in light of this principle. In (6a), the stranded auxiliary *has* carries the interpretable [PERF] feature, and *-en* in the elided material has its uninterpretable counterpart. According to (5), the deletion of *-en* is of no problem because it does not contain a non-recoverable interpretable feature. On the other hand, (6b) is infelicitous because the elided material contains *–ing* which has the interpretable [PROG] feature, thereby violating the principle in question.

(6)   a.   John washed the dishes, and Mary has [~~-en [uPERF]~~] too.[1]
        b.   #John painted a wall, and Mary was [~~-ing [PROG]~~] too.

Let us see the ellipsis phenomenon in Japanese. (7) is a full-fledged sentence.

(7)   Taro-wa tokei-o   ka-i,   Hanako-mo   tokei-o   ka-tta.
        Taro-$_{TOP}$ watch-$_{ACC}$ buy-$_{PAST}$, Hanako-too   watch-$_{ACC}$ buy-$_{PAST}$
        'Taro bought a watch, and Hanako bought a watch too.'

Ellipsis can apply to (7), but its distribution is different from that in English. Unlike English, Japanese does not allow VP-ellipsis as shown in (7a). On the other hand, in (7b), an object (i.e., argument) alone can be elided, leaving its V. This phenomenon is called *argument ellipsis* (Oku, 1998, Saito, 2004; 2007).[2]

(8)   a.   *Taro-wa   tokei-o   ka-i,   Hanako-mo   [$_{VP}$ ~~tokei-o ka~~]-tta.
                Taro-$_{TOP}$ watch-$_{ACC}$ buy-$_{PAST}$, Hanako-too   ~~watch-$_{ACC}$ buy~~-$_{PAST}$
                'Taro bought a watch, and Hanako did too.'
        b.   Taro-wa   tokei-o   ka-i,   Hanako-mo   [$_{NP}$ ~~tokei-o~~]   ka-tta.
                Taro-$_{TOP}$ watch-$_{ACC}$ buy-$_{PAST}$, Hanako-too   ~~watch~~-$_{ACC}$ buy-$_{PAST}$
                'Taro bought a watch, and Hanako bought too.'

In order to examine whether JLEs successfully delearn argument ellipsis and exhibit native-like behavior, I have carried out the acceptability judgment experiment as described below.

2. Previous Studies

Hawkins (2012) investigated L2 learners' knowledge concerning VP ellipsis in order to assess their syntactic knowledge and, in particular, their knowledge of the Principle of Recoverability on VP-ellipsis in English. Participants included 19 native speakers of Arabic, 20 native speakers of Mandarin Chinese, and 10 native speakers of English. He administered a written sentence completion judgment task. Some of the test sentences used in his study are shown in Table 1. Types 2–4 are examples of grammatical VP-ellipsis. By contrast, Type 5 is infelicitous due to the violation of the Principle of Recoverability. Moreover, Type 6 is ungrammatical because argument ellipsis is not possible in English.

---

[1]   *u* stands for uninterpretable.
[2]   Due to space limitation, I do not discuss the reasons for these differences in detail: Whether argument/VP-ellipsis is allowed in a language depends on the presence or absence of an uninterpretable feature on a certain head. See Saito (2007) for detailed discussion.

Table 1. *Examples of the test items in Hawkins (2012)*

Type		Example
1. control	(*n*=9)	Jack wrote Jill a letter. Mary wrote Jill a letter too.
2. simple past … simple past	(*n*=3)	Jack wrote Jill a letter. Mary did ___ too.
3. simple past … pres perf	(*n*=3)	Jack wrote Jill a letter. Mary has ___ too.
4. simple past … fut/modal	(*n*=3)	Jack wrote Jill a letter. Mary will ___ too.
5. simple past … past prog	(*n*=3)	#Jack wrote Jill a letter. Mary was ___ too
6. simple past … stranded V	(*n*=3)	*Jack wrote Jill a letter. Mary wrote ___ too.

Results showed that learners whose L1 lacks VP-ellipsis (i.e., both Arabic- and Chinese-speakers) were sensitive to syntactic constraints on VP-ellipsis (Types 2 and 6). Thus, there was no L1 influence. However, they failed to accept Types 3, where uninterpretable features are elided. Recall that the elided material in Type 3 is recoverable because what undergoes ellipsis is an uninterpretable feature. Hawkins argues that this supports the Interpretability Hypothesis (Tsimpli & Dimitrakopoulou, 2007), according to which L2 learners have difficulty acquiring uninterpretable features.

These results were consistent with Al-Thubaiti (2009). She investigated whether Arabic learners of English accurately judge the sentences as shown in (9) and (10), including two learners groups (i.e., child starters and teen starters), by conducting an acceptability judgment task.

(9)   Progressive *be* stranding (8 items)
      a.   Strict Identity (4 items)
          e.g., John is watching TV, but Mary isn't yet.
      b.   Partial Identity (4 items)
          e.g., *Heather visits her mother, but Mary isn't yet.

(10)   Perfect *have* stranding (8 items)
      a.   Strict Identity (4 items)
          e.g., Claire has bought a new house, Mary hasn't yet.
      b.   Partial Identity (4 items)
          e.g., John plays football, but Tom hasn't recently.

(Al-Thubaiti, 2009: 196)

The results showed that L2 learners failed to accept the sentence type in (10b) regardless of their starting age of studying English. Al-Thubaiti (2009), as well as Hawkins (2012), indicates that these results are compatible with the Interpretability Hypothesis (Tsimpli & Dimitrakopoulou, 2007).

3. Present Study

In the present study, I investigate L2 learners' knowledge of VP-ellipsis as Hawkins (2012), focusing on learners whose native language is Japanese, by using the types of sentences in Table 2 below. Note that I also include the types where the stranded auxiliary and the auxiliary in the first clause are identical (i.e., Types B, C, and D).

Based on the results in previous studies, we can make following predictions: First, with regard to the elided domain, Hawkins's (2012) participants with L1s lacking VP-ellipsis accurately accepted *Jack wrote Jill a letter. Mary did ___ too* (Type A in Table 2), and rejected **Jack wrote Jill a letter. Mary wrote ___ too* (Type A'). Therefore, we predict that JLEs will be sensitive to the correct domain of ellipsis. Specifically, if JLEs know that the domain that can be elided in English is VP, they will accurately judge sentences regardless of stranded auxiliaries before VPs. That is, we predict that they will accept Types A, B, B', C, C', and D. Second, if the Interpretability Hypothesis is correct, JLEs will fail to accept sentences in which the elided VP is recoverable when an uninterpretable feature is involved (Type C'), while they will accurately reject the sentences where an interpretable feature is incorrectly elided, which leads to infelicity (Type D').

Table 2. *Examples of test items in present study*

	Type		Example
	control	(*n*=36)	John bought a watch, and Mary bought a watch too.
A	simple past…simple past	(*n*=4)	John bought a watch, and Mary did ___ too.
A'	simple past... stranded V	(*n*=4)	*John bought a watch, and Mary bought __ too.
B	fut modal...fut modal	(*n*=4)	John will watch a soccer game, and Mary will ___ too.
B'	simple past...fut modal	(*n*=4)	John watched a soccer game, and Mary will ___ too.
C	pres perf...pres perf	(*n*=4)	John has finished work, and Mary has ___ too.
C'	simple past...pres perf	(*n*=4)	John finished work, and Mary has ___ too.
D	past prog...past prog	(*n*=4)	John was painting a wall, and Mary was ___ too.
D'	simple past...past prog	(*n*=4)	#John painted a wall, and Mary was ___ too.

Twelve native-speaker controls and 14 Japanese-speaking learners of English participated in the present study. An acceptability judgment task was administered in which participants were asked to judge whether sentences following a short context were acceptable or not by circling one of four numbers on a scale from 1 (unacceptable) to 4 (acceptable). There were 32 target items together with 28 control and 36 filler sentences in a semi-randomized order.

Results showed that native speakers of English responded as expected, accepting grammatical and felicitous VP-ellipsis, but rejecting ungrammatical VP-ellipsis (Type A) and infelicitous VP-ellipsis (Type D'). A one-way ANOVA shows that there is a significant main effect for sentence type ($F_{(7, 88)}$=45.83, $p<.01$). A post-hoc Tukey test shows that there are significant differences between Types A and A', and between Types D and D'. Figure 1 presents the mean ratings among native-speaker controls for each type.
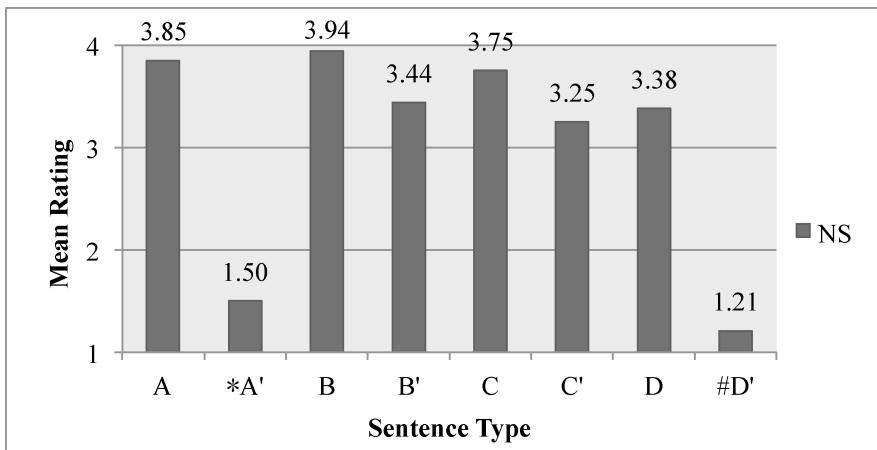
Figure 1. *Mean ratings among native-speaker controls in each type*

Let us now turn to Figure 2 which presents the mean ratings among JLEs for each sentence type. They accurately accepted sentences where features of an elided VP and its antecedent are identical (i.e., Types A, B, C, and D), and also accepted argument ellipsis (Type A'). On the other hand, JLEs failed to accept Types B' and C'. Note that JLE's acceptance of A' and their rejection of B' and C' are clearly non-native-like behavior. A one-way ANOVA shows that there is a significant main effect for sentence type ($F_{(7,104)}$=18.87, $p=.01$). A post-hoc Tukey test shows that there are significant differences between Types B and B', Types C and C', and Types D and D'.
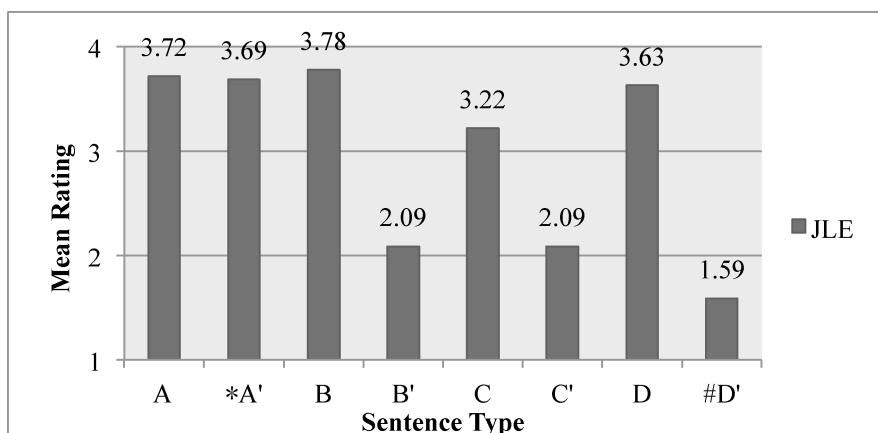
Figure 2. *Mean ratings among JLEs in each type*

4. Discussion and Conclusion

The first prediction, i.e., JLEs will accept Type A and reject Type A', was not supported by the results obtained because JLEs failed to reject Type A' (argument ellipsis). This is clearly different from Hawkins's (2012) results and his claim that L2 learners whose L1 lacks VP-ellipsis are sensitive to the syntactic constraint. In fact, the acceptance of argument ellipsis may be independent of VP-ellipsis. I suggest that JLEs' results reflect their L1 knowledge where argument ellipsis is allowed (see (8c) and discussion there) no matter whether VP-ellipsis is allowed or not. Furthermore, JLEs' responses were different by sentence type: they accurately accepted Types B, C, and D, but failed to accept Types B' and C'. I will discuss reasons for this just below.

The second prediction, i.e., JLEs will fail to accept Type C' but will correctly reject Type D', was supported. Previous studies' suggestion implies that L2 learners reject Type C' because they cannot acquire an uninterpretable perfective feature that is elided as shown in (11).

(11)   John washed the dishes, and Mary has [~~-en~~ [~~uPERF~~]] too.   (=(6a))

The Interpretability Hypothesis successfully accounts for Arabic and Chinese learners' behavior, but fails to explain JLEs' results. In addition to the fact that JLEs wrongly rejected sentences containing an elided uninterpretable perfective feature (i.e., Type C'), they also rejected other types whose elided material does not contain an uninterpretable feature (i.e., Types B' and D').

(12) a.   Tom watched$_{[PAST]}$ a soccer game, and Mary will$_{[PRES]}$ _____ too.   (Type B')
      b.   Tom finished$_{[PAST]}$ work, and Mary has [~~-en~~ [~~uPERF~~]] too.   (Type C')
      c. #Tom painted$_{[PAST]}$ a wall, and Mary was [~~-ing~~ [PROG]] too.   (Type D')

Furthermore, the JLEs accepted sentences where the feature of a stranded auxiliary and its antecedent are identical as shown in (13).

(13) a.   John will$_{[PRES]}$ watch a soccer game, and Mary will$_{[PRES]}$ _____ too.   (Type B)
      b.   John has$_{[PERF]}$ finished work, and Mary has $_{[PERF]}$ _____ too.   (Type C)
      c.   John was$_{[PAST]}$ painting a wall, and Mary was$_{[PAST]}$ _____ too.   (Type D)

They consistently rejected sentences where such feature parallelism is absent (i.e., Types B', C' and D'). Thus, the Interpretability Hypothesis supported by Hawkins (2012) and Al-Thubaiti (2009) is not adequate to account for the results obtained.

Based on these observations, I propose a grammatical constraint: *Feature Parallelism*. Reconsider (12). As we have already seen, previous studies pay attention only to the features in the elided part.

Turning our attention to the stranded part, it turns out that our participants consistently rejected sentences where a mismatch in features is found between the stranded auxiliary and the antecedent, as given below.[3]

(14) a.   Tom watched$_{[PAST]}$ a soccer game, and Mary will$_{[PRES]}$ _____ too.   (Type B')
     b.   Tom finished$_{[PAST]}$ work, and Mary has$_{[PERF]}$ _____ too.   (Type C')

Besides, as we discussed just above, sentences they accepted respect Feature Parallelism between the stranded auxiliary and the antecedent. It is important to note here that what is parallel is not the form of the stranded auxiliary but its features, as the learners accepted Type A sentences.

(15) John bought$_{[PAST]}$ a watch, and Mary did$_{[PAST]}$ _____ too.   (Type A)

Thus, it appears that L2ers judge acceptability of ellipsis is based on the presence or absence of parallelism of features, and the uninterpretable features in the elided material does not play an important role in doing so.

　　The present study aimed to investigate L2 learners' knowledge of VP-ellipsis in English. Results suggest that even though JLEs know that the possible domain for ellipsis is VP, VP-ellipsis and argument ellipsis co-exist in the JLEs' interlanguage (i.e., they accurately accepted Types A, B, C, and D, but failed to reject Type A'). L2 learners create their own rule that allows VP-ellipsis in the course of L2 acquisition. I suggest that their knowledge of VP-ellipsis relies crucially on the presence or absence of Feature Parallelism, rather than on the interpretable or uninterpretable feature distinction proposed by Hawkins (2012) and Al-Thubaiti (2009).

References

Al-Thubaiti, Kholoud. (2009). The Acquisition of Uninterpretable Features: The Case of vP Ellipsis. In Melissa Bowles, Tania Ionin, Silvina Montrul, & Annie Tremblay (eds.), *Proceedings of the 10th Generative Approaches to Second Language Acquisition Conference (GASLA 2009)*. Cascadilla Proceedings Project Somerville, MA.

Hawkins, Roger. (2012). Knowledge of English verb phrase ellipsis by speakers of Arabic and Chinese. *Linguistic Approaches to Bilingualism 2*, 404-438.

Oku, Satoshi. (1998). A Theory of Selection and Reconstruction in the Minimalist Perspective. PhD Dissertation. University of Connecticut, Storrs, CT.

Rouveret, Alain. (2012). VP ellipsis, phrases and the syntax of morphology. *Natural Language and Linguistic Theory 30*, 897-963.

Saito, Mamoru. (2004). Ellipsis and pronominal reference in Japanese clefts. *Studies in Modern Grammar 36*, 1-44.

Saito, Mamoru. (2007). Notes on East Asian argument ellipsis. *Language Research 43*, 203-227.

Tsimpli, Ianthi Maria, & Dimitrakopoulou, Maria. (2007). The interpretability hypothesis: Evidence from *wh*-interrogatives in second language acquisition. *Second Language Research 23*, 215-342.

---

[3] Apparently, (12c), which our participants correctly rejected, respects Feature Parallelism, meaning that our hypothesis might wrongly predict that it is acceptable. However, the sentence is ruled out for a different reason: it violates Principle of Recoverability.

Proceedings of the 13th Generative Approaches to Second Language Acquisition Conference (GASLA 2015)

edited by David Stringer, Jordan Garrett, Becky Halloran, and Sabrina Mossman

Web access and citation information

This entire proceedings can also be viewed on the web at www.lingref.com. Each paper has a unique document # which can be added to citations to facilitate access. The document # should not replace the full citation.

This paper can be cited as:

Koyama, Sayaka. 2016. Feature Parallelism of English VP-Ellipsis in L2 Grammar. In *Proceedings of the 13th Generative Approaches to Second Language Acquisition Conference (GASLA 2015)*, ed. David Stringer et al., 95-100. Somerville, MA: Cascadilla Proceedings Project. www.lingref.com, document #3278.