

Resolution of Ellipsis in Stacked VPs

Wooseung Lee (Konkuk University)
Myung-Kwan Park (Dongguk University)

Lee, Wooseung and Myung-Kwan Park. 2019. Resolution of Ellipsis in Stacked VPs. *Korean Journal of English Language and Linguistics* 19-3, 309–324. This paper investigates previously noted but not satisfactorily explained data, in which an elided VP is embedded within another elided VP. Specifically, the first VP can get a sloppy reading, for which the preceding sentence does not offer an appropriate antecedent directly. As for this elliptical construction, Tomioka (2008) assumes that VP Ellipsis is an instance of PF deletion, based on Merchant (2001). He further proposes the identity condition for E-marked constituents. We, however, show that the issue here is not directly related to ‘E-feature’ since the relevant examples do not necessarily bear ‘E-feature’. Rather, the sloppy reading concerns itself with *pro*-usages of VP (*pro* here representing a VP that is to undergo ellipsis/substitution after meeting the identity condition on it), regardless of whether the VP is realized as ‘null’ or ‘do so’. We thus seek a theoretically sound analysis, which is partly similar to Tomioka (2008) in that it resorts to the course of derivation for an account of ellipsis, but crucially differs from Tomioka (2008) in that it takes *pro*-usages of VP rather than E-feature into serious consideration in the account of sloppy readings available to elliptical VPs. The proposed analysis further implies that not only inflectional features but lexical features (in some limited contexts) can be ignored in the computation of identity for VP ellipsis.

Keywords: VP ellipsis, *pro*-form, LF structure, PF deletion, LF copying, strict/sloppy reading, *pro*-usages, lexical features, inflectional features

1. Introduction

Ellipsis phenomena, either argument or predicate/predicator, have been given a lot of discussion in the linguistic literature. Two mainstreams of ellipsis resolution are the *pro*-form and the LF structure analysis. The *pro*-form analysis postulates a null pronominal element for the missing constituent (Bach and Partee 1980, Hardt 1993, 1999, Klein 1986, Rooth 1981), while the LF structure analysis posits a full-fledged structure for the unpronounced constituent at LF.¹ The LF structure approach presents

¹Other than these, Lobeck (1995) and Goldberg (2005) are two representative syntactic

two sorts of account for the elliptical parts: PF-Deletion and LF Copying. These two are similar in that both posit a structure at LF, but crucially differ in the following respects. In the PF-deletion analysis, a missing constituent has fully represented structure in the whole course of derivation, which will be deleted at PF but remain intact at LF (cf. Chomsky and Lasnik 1993, Fox 2000). In the LF copying analysis, however, the missing material is taken literally as the structural absence from the start of the derivation, but copied from its antecedent at LF (Fiengo and May 1994). For instance, in (1) the missing VP can be represented as a pronominal element or a full-fledged structure with no phonetic features at all.

(1) When John had to cook, he didn't want to [VP \emptyset].

With this backdrop, this paper concerns itself with a less studied example in elliptical constructions as in (2), in which an elided VP is embedded within another elided VP as in (2B).² Specifically, the missing VP in (2B) can get a sloppy reading 'want to clean', for which the preceding sentence does not offer an appropriate antecedent directly:

(2) A: When John had to cook, he didn't want to \emptyset .

B: When he had to clean, he didn't \emptyset either. (Schwarz 2000: Chapter 4, (35))

Let us take the elliptical parts in (2) into consideration, recovering the lexical contents of the unpronounced part as in (3):

(3) A: When John had to cook, he didn't want to cook.

B: When he had to clean, he didn't want to clean, either.

Here, the second VP Ellipsis runs into a problem. Specifically, to obtain the sloppy interpretation, the elided VP should be [_{VP} want to clean], which the preceding

analyses for cross-linguistic VP ellipsis constructions. The former argues that VP ellipsis is licensed by strong agreement in I/T and represented by an empty, non-arbitrary *pro* head-governed by an X specified for strong agreement. The latter proposal is in favor of an analysis involving PF Deletion of the VP out of which the main verb has raised.

² Verbs other than 'want' or 'intend' are conjectured to occur in the relevant constructions so long as they take *to*-infinitival VP complement.

utterance does not offer. A similar example is given below in (4), where the elided VP is understood as ‘want me to kiss you’.

- (4) I’ll help you if you want me to \emptyset . I will kiss you even if you don’t \emptyset .
(Hardt 1999: (17))

With the missing contents retrieved, the sentence stands as in (5):

- (5) I’ll help you if you want me to help you. I will kiss you even if you don’t want me to kiss you.

Again, the second VP Ellipsis runs into a problem. Specifically, to obtain the sloppy interpretation, the elided VP should be [_{VP} want me to kiss you], which the preceding utterance does not offer.

What is interesting is that the sloppy interpretation is not available when the preceding utterance does not involve ellipsis as in (6). The missing VP is only understood as ‘want to cook’:

- (6) A: When John had to cook, he didn’t want to cook.
B: When he had to clean, he didn’t, either. (Schwarz 2000: (37))

The only difference between (2) and (6) is that the embedded VP is elided in (2A) while it is overtly realized in (6A). This however yields a non-trivial interpretive difference such that the former allows a sloppy reading while the latter does not. Crucially, despite these interpretive differences between (2) and (6), however, they have an identical LF representation. This example thus has been taken as one of the most convincing empirical evidence that undermines LF structure analysis and supports pro-form approach (Schwarz 2000, Hardt 1999).

The organization of this paper is as follows. Section 2 briefly reviews a representative pro-form analysis and then points out problems with this analysis. Then, an alternative proposal (Tomioka 2008) is introduced and given a critical review with regard to ‘E-feature’. Section 3 is the main section of this paper, in which we propose a derivational ellipsis by resorting to *pro*-usages of VP rather than E-feature. Section 4 concludes.

2. Previous Proposals

This section introduces two representative previous proposals on the above-mentioned interesting example involving two layers of VP ellipsis. Section 2.1 introduces a critical review of Schwarz (2000), originally discussed by Tomioka (2008), on a kind of pro-form analysis of VP ellipsis (cf. Lobeck 2005). This is a hybrid approach in that it takes the elided VP as a pro-form while maintaining a full structure in the unpronounced VP site.

2.1 Schwarz (2000): VP Ellipsis as Silent Bound Variable (Discussed in Tomioka 2008)

Given that example (2) severely undermines the LF structure analysis, Schwarz (2000) proposes a pro-form analysis of the relevant example. That is, the cases yielding sloppy interpretations are argued to have to be represented as silent VP pronouns, which can be bound by an overt VP that undergoes LF fronting. Specifically, under the sloppy interpretation, the sentence has the following LF as in (7):

- (7) A. [_{VP} cook]₃ [When John had to t₃, he didn't want to \emptyset_3]
 B. [_{VP} clean]₄ [When he had to t₄, he didn't ~~want to~~ \emptyset_4], either.

(7B) reveals a mix of the pro-form and the LF structure approaches, in which the embedded null VP is represented as a bound variable and the larger VP 'want to VP' has a syntactic structure. The two VPs, *want to* \emptyset_3 and *want to* \emptyset_4 , can be considered LF identical in a theory where the LF identity condition requires the identity of the lexical items and the structure without considering indexical differences between an elided VP and its antecedent (Rooth 1992; Romero 1998, a.o.).

This analysis, however, faces non-trivial problems. The first challenge is concerned with LF VP raising. This analysis crucially assumes that the antecedent of the elided part can raise high enough to c-command the bound variable in the ellipsis site. This raising, however, seems to ignore clause-boundedness on QR. In the LF (7), for instance, the overt VP must raise out of a tensed clause. In addition, this movement violates an island constraint since it is out of an adjunct CP. The second problem is also related to VP raising in the proposed analysis. It is not counterintuitive that a VP can undergo fronting overtly in English, as in (8).

(8) Mark always said he would move to LA, and [move to LA]₁, he finally did t₁.

According to Johnson (2001), VP Ellipsis is an instance of VP topicalization where the topic VP becomes unpronounced. However, if we extend this analysis to other elliptical constructions like NP Ellipsis within VP Ellipsis, we would have to posit LF movement that has been unattested. Let us take a look at sentence (9), which allows a sloppy reading in the elliptical site. Specifically, the elided VP is ‘insult a few burglars’ containing another elided constituent ‘burglars’. Given the extension of Johnson’s (2001) proposal above, XP Ellipsis is proposed to be an instance of XP topicalization where the topic XP becomes unpronounced. We then have to postulate an unattested movement, i.e., an NP ‘burglars’ movement out of a DP ‘a few burglars’ in order to account for a sloppy reading as in (9).³

(9) NP Ellipsis within VP Ellipsis

Everyone who arrested some murderers insulted a few, and everyone who arrested some burglars did \emptyset , too. (\emptyset = insult a few (of the) burglars)

(adapted from Elbourne 2001: (109))

The third challenge concerns itself with a *wh*-trace within a bound variable that should be posited in the proposed system. Consider example (10) involving a VP ellipsis. These examples allow sloppy readings as phrased in the parentheses. These instances of sloppy VP can bear a *wh*-trace although the sloppy VP as a bound variable is predicted not to host it.

(10) a. Why are you so upset with Fred?

He bought the books (Op₁) that he was supposed to \emptyset , right?

(\emptyset = [_{VP} buy t₁])

b. Yeah, but then, (?) he READ the books (Op₁) that he WASN'T \emptyset .

(\emptyset = supposed to [_{VP} read t₁])

As is well-known, no *pro*-verbs or *pro*-nouns are known to carry *wh*-traces within them. Both (a–b) examples of (11) are unacceptable since the *pro*-forms ‘*do so*’ and

³ NP movement out of a DP is not allowed in English topicalization as in (i).

(i) * Student_i John does not remember his t_i.

'ones' are supposed to contain a trace as represented below:

- (11) a. We know which countries Kim visited.
 *The question is which countries she didn't do so. (= visit t)
 b. Tell me which models you took good pictures of
 and *which models you took ugly ones. (= pictures of t)

Taken together, in order to incorporate all these challenges, we cannot but posit a novel type of null pro-forms solely assumed for ellipsis.

2.2 Tomioka (2008): LF Identity 'step-by-step'

Given the problems pointed out in 2.1, Tomioka (2008) assumes that VP ellipsis is an instance of PF deletion along with Chomsky and Lasnik (1993), Merchant (2001), and many others. Deletion is licensed by E-feature according to the instruction at PF component, based on Merchant's (2001) E-marking:

- (12) E-feature marking:
 a. Some heads select XPs marked for an E-feature.
 b. All E-marked constituents are unpronounced.

Here, E-features are placed on elided constituents. If an XP is selected by an E-marking head, the XP must bear an E-feature and consequently undergo deletion. This proposal slightly diverges from Merchant (2001) in that it places an E-feature on the head and what undergoes deletion is the complement of the E-marked head.⁴ Presented in (13) is the identity condition for E-marked constituents:

- (13) Identity condition for ellipsis:
 An E-marked constituent α must have an antecedent β such that
 a. The E-marking of α is identical to that of β , AND
 b. α and β are LF identical up to indices and structural content of any E-marked constituents that are properly contained by α or β . (That is, the lexical items of the constituent that is properly contained by α or β do not count.)

⁴This slight revision is just for convenience' sake, given that E-features are more easily assumed to be placed on the elided materials.

The condition on properly contained E-marking is added in (b) so that the lexical content of the ‘embedded’ elided VP does not matter for the consideration of the identity condition on the larger VP ellipsis. Let us now revisit the LF of the example under discussion and see how this newly proposed system works:

(14) LF structure of (2) under the sloppy reading:

A: When he had to cook, he₁ didn’t want PRO₁ to [_{VPE} cook]

B: When he had to clean, he₁ didn’t [_{VPE} want [_{CP} [_{IP} PRO₁ to [_{VPE} clean]]]]

For each instance of E-marking, the condition in (13) must be fulfilled:

(15) a. [_{VPE} cook]

✓ due to the presence of ‘when he had to [_{VP} cook]’

b. [_{VPE} clean]

✓ due to the presence of ‘when he had to [_{VP} clean]’

c. [_{VPE} want [_{CP} [_{IP} PRO₁ to [_{VPE} clean]]]]

✓ due to the presence of ‘he didn’t [_{VP} want PRO₁ to [_{VPE} cook]]’

(15a) and (15b) are uncomplicated. (15c) is licensed by the newly-added condition. The VP in (14A) has the structurally identical E-marking, and everything but the material within the embedded E-marking is identical to the elided VP. Thus, the condition is satisfied. We can also correctly predict that example (16) fails to meet the condition. As discussed in section 1, example (16), which has an overtly-realized embedded VP ‘cook’ within the larger VP ‘want to cook’, does not allow a sloppy reading.

(16) (= Example (6) reintroduced)

A: When John had to cook, he didn’t want to cook.

B: When he had to clean, he didn’t, either. (Schwarz 2000: (37))

(17) LF structure of (16) under the sloppy reading:

A: When he had to cook, he₁ didn’t want PRO₁ to [_{VP} cook]

B: When he had to clean, he₁ didn’t [_{VPE} want [_{CP} [_{IP} PRO₁ to [_{VPE} clean]]]]

Now, let us see if each instance of E-marking satisfies condition (13):

- (18) a. [_{VPE} clean]]
 ✓ because of the presence of ‘when he had to [_{VP} clean]’
 b. [_{VPE} want [_{CP} [_{IP} PRO₁ to [_{VPE} clean]]]]
 * because there is no VP of the form ‘[_{VP} want PRO₁ to [_{VPE}]]’

Since the VP in (16A) does not contain an E-marked constituent in the parallel spot, (18b) is ruled out, hence no sloppy reading. Then, an outstanding question is if the identity condition in (13) can license the strict reading of (19). Indeed it does.

- (19) A: When John had to cook, he didn’t want to cook.
 B: When he had to clean, he didn’t, either. (Schwarz 2000: (37))

Condition (13) successfully licenses the strict reading of (19) with no embedded E-marking:

- (20) LF structure of (19) under the strict reading:
 A. When he had to cook, he₁ didn’t want PRO₁ to [_{VP} cook]
 B. When he had to clean, he₁ didn’t [_{VPE} want [_{CP} [_{IP} PRO₁ to [_{VP} cook]]]]

As in (21), in the absence of E-feature, the VP in A is the same as the VP in B, hence the strict reading only.

- (21) [_{VPE} want [_{CP} [_{IP} PRO₁ to [_{VP} cook]]]]
 ✓ because the VP in A’s utterance is LF equivalent to the VP in B

Although the proposed feature-based analysis works, it has difficulty accounting for the following newly-introduced set of examples (22–23).⁵

- (22) A. When John had to cook, he didn’t [_{VP} want to [_{VP} do so]].
 B. When he had to clean, he didn’t [_{VP} ∅], either.

⁵ The pro-form ‘do so’ replaces predicates that contain a verb that describes an action that someone does. It does not replace predicates that express states that hold, or situations that someone may be in (like *knowing*) (Larson 2009). Given this observation, ‘intend’ rather than ‘want’ is used for a substitution test with the pro-form ‘do so’. This set of examples was originally constructed by the authors, and then consulted with native speakers of English for grammatical judgment.

(23) A. When John had to cook, he didn't [_{VP} intend to [_{VP} ∅]].

B. When he had to clean, he didn't [_{VP} do so], either.

Notably, (22B) has a larger null VP containing a small VP replacement 'do so' while (23B) has a larger VP replacement 'do so' containing a small null VP. Nonetheless, utterance B of (22–23) allows sloppy reading 'he didn't want to clean' and 'he didn't intend to clean', respectively. Then, the issue here does not seem to be directly related to 'E-feature' since the relevant examples do not necessarily bear 'E-feature' as in (22–23). Rather, the sloppy reading concerns itself with pro-usages of VP, irrespective of whether the VP is realized as 'null' or the pro-form 'do so'.

3. A Proposal: Meeting Identity in VP Ellipsis Derivationally

Given that previous proposals face either theoretical or empirical problems, we attempt to offer an alternative analysis for the construction per se, which is partly similar to Tomioka (2008) in that it resorts to the course of derivation for an account of ellipsis but crucially differs from Tomioka (2008) in that it takes pro-usages of VP rather than E-feature into serious consideration in the account of sloppy readings observed in the elliptical VPs.⁶ The main idea of our proposal is that the sloppy reading obtained in our concerned construction is well accounted for by resorting to pro-usages of VP that occurs in the course of derivation. Let us consider above example (2) under the sloppy reading again:⁷

(24) (= Example (2) reintroduced)

A: When John had to [_{VP2} cook], he didn't [_{VP1(i)} want to [_{VP2} **cook**]].

B: When he had to [_{VP3} clean], he didn't [_{VP1(ii)} ~~want to~~ [_{VP3} ~~clean~~]], either.

Presented below is a sketchy derivation on how ellipsis is licensed in (24), allowing a sloppy interpretation:

⁶The use of pro in this section is starkly different from its use in the *pro* analysis for ellipsis. The former entity represents an elided VP or *do so*. (cf. Lobeck 1995) Thus, it is used as a full-fledged VP structure that is to undergo VP ellipsis or substitution derived after meeting identity on it.

⁷Shading is used to indicate the embedded elided VPs only.

- [1] In A, VP₂ is realized as zero under identity with the preceding VP₂ ‘cook’.
 [2] In B, VP₃ is realized as zero under identity with the preceding VP₃ ‘clean’.
 [3] Then, VP_{1(ii)} in B is realized as zero under identity with the preceding VP_{1(i)} in A.

Whether a VP constituent meets “identity” for ellipsis is checked out in three separate steps in the course of derivation and, consequently, sloppy reading in B is well-explained. What is crucial here is that, although VP_{1(i)} and VP_{1(ii)} contain nonidentical VPs, i.e., [VP₂ ∅] and [VP₃ ∅], they are subject to “ellipsis under sloppy identity” observed in a variety of elliptical constructions.⁸ That is, the lexical information or features of the elided small VP do not count in the computation of identity for VP ellipsis. A similar account applies to the derivation of (22–23) above.

(25) (= Example (22) reintroduced)

- A: When John had to [VP₂ cook], he didn’t [VP_{1(i)} want to [VP₂ do so]].
 B: When he had to [VP₃ clean], he didn’t [VP_{1(ii)} ~~want to [VP₃ clean]~~], either.

The following three steps represent how ellipsis is licensed in (25), yielding a sloppy reading:

- [1] In A, VP₂ is realized as ‘do so’ under identity with the preceding VP₂ ‘cook’.
 [2] In B, VP₃ is realized as zero under identity with the preceding VP₃ ‘clean’.
 [3] Given that both ‘do so’ and ‘null’ are pro-usages of VPs, they are taken as being non-distinct in the computation of identity for VP ellipsis. VP_{1(ii)} in B is thus realized as zero under identity with the preceding VP_{1(i)} in A, accounting for sloppy interpretation in (25B).

Let us now consider (26):

⁸ One representative example derived from “ellipsis under sloppy identity” is drawn from right node raising in English as follows (See Park (2006)):

- (i) ?[Mary bought ~~any/some books about linguistics~~], but [John didn't buy any books about linguistics].

In this example, the elided portion in the first conjunct involves the so-called *some/any* alternation, which points to the issue in point. The former meets identity in ellipsis, though it is sloppily identical to its antecedent in terms of inflectional features.

(26) (= Example (23) reintroduced)

A: When John had to [_{VP2} cook], he didn't [_{VP1(i)} intend to [_{VP2} **cook**]].

B: When he had to [_{VP3} clean], he didn't [_{VP1(ii)} do so [_{VP3} **clean**]], either.

Note that utterance B is understood as 'he did not intend to clean'. This sloppy reading obtains through the following steps:

- [1] In A, VP2 is realized as zero under identity with the preceding VP2 'cook'.
- [2] In B, VP3 is realized as zero under identity with the preceding VP3 'clean'.
- [3] Then, VP1(ii) in B is realized as 'do so' under identity with the preceding VP1(i) in A, yielding a relevant sloppy reading.

The proposed analysis can be further extended to Korean constructions involving pro-VP *kulehkey hata* 'do so' or *kulehta* 'be so' in the larger or the embedded VP position as in (27).⁹

- (27) A: *nay-ka Cheli-lul manna-ya ha-l ttay,*
 I-nom Cheli-acc meet-have.to-when
na-nun kulel (= kulehkay ha-l = Cheli-lul manna-l)
 I-top of.doing.so (so do-rel Cheli-acc meet-rel)
kipwun-i ani-ess-ta.
 mood-be not-pst-decl
 'When I had to meet Cheli, I was not in the mood of doing so (= meeting Cheli).'
- B: *nay-ka Cheli-lul towu-a ya ha-l ttay,*
 I-nom Cheli-acc help-have.to-when
na-to kuleh-ci anh-ass-ta. (= towu-l kipwun-i ani-ess-ta.)
 I-also be.so-not-pst-decl (= help-rel mood-not.be-pst-decl)
 'When I had to help Cheli, I wasn't so (= in the mood of helping Cheli), either.'

⁹ Unlike in English, VPs in Korean cannot be realized as zero. Rather, they should be realized as an overt form such as *kulehkey hata* 'do so' or *kulehta* 'be so'. As for example (27), however, one of the reviewers judge utterance B to be unacceptable.

As shown in (28), the sloppy reading involved in this example can be accounted for in a similar fashion to the English above.¹⁰

- (28) A: nay-ka [_{VP2} Cheli-lul manna]-ya ha-l ttay,
 na-nun [_{VP1(i)} [_{VP2} kulel] kipwun-i] ani-ess-ta.
 ‘When I had to meet Cheli, I was not in the mood of doing so
 (= meeting Cheli).’
- B: nay-ka [_{VP3} Cheli-lul towu]-ya ha-l ttay,
 na-to [_{VP1(ii)} kuleh [_{VP3} ∅]]-ci anh-ass-ta.
 ‘When I had to help Cheli, I wasn’t so (= in the mood of helping Cheli),
 either.’

The sloppy reading obtains through the following derivational steps.

- [1] In A, VP₂ is realized as ‘*kulehkey ha-ta* (=do so)’ under identity with the preceding VP₂ ‘Cheli-lul manna-ta’.
- [2] In B, VP₃ is realized as zero under identity with the preceding VP₃ ‘Cheli-lul top-ta’.
- [3] Given that both ‘*kulehkey ha-ta* (=do so)’ and ‘null’ are pro-usages of VPs, they are taken as being identical in the computation of identity for VP ellipsis. VP_{1(ii)} in B is thus realized as ‘*kuleh-ta* (=be so)’ under identity with the preceding VP_{1(i)} in A. In this example, a pro-form ‘*kuleh-ta*’ is used for VPs with state denotation ‘-hal kipwun-ita (= be in the mood of-)’ since null realization of VPs are rarely attested in Korean.

Notice that this analysis predicts that example (29) does not allow a sloppy interpretation.

¹⁰ *kulehkey hata* ‘do so’ is used as a pro-form for a predicate denoting dynamic aspects while *kulehta* ‘be so’ is used as a pro-form for a predicate denoting static aspects (cf. Vendler’s four classification of lexical aspects). In the relevant examples above, since predicates such as ‘meet Cheli’ and ‘help Cheli’ belong to dynamic activities, they are replaced by *kulehkey hata* ‘do so’. On the other hand, since predicates such as ‘be in the mood’ belongs to states, they are replaced by *kulehta* ‘be so’.

- (29) A: nay-ka Cheli-lul manna-ya ha-l ttay,
 I-nom Cheli-acc meet-have.to-when
 na-nun manna-l kipwun-i ani-ess-ta.
 I-top meet-rel mood-be not-pst-decl
 ‘When I had to meet Cheli, I was not in the mood of meeting him.’
- B: nay-ka Cheli-lul tow-a ya ha-l ttay,
 I-nom Cheli-acc help-have.to-when
 na-to kuleh-ci anh-ass-ta.
 I-also be.so-not-pst-decl
 ‘When I had to help Cheli, I wasn’t so (= in the mood of meeting Cheli),
 either.’

Although it sounds awkward, the strict reading is the only interpretation allowed in (29). Consider how the strict reading is available in (30).

- (30) LF of (29)
- A: nay-ka [_{VP2} Cheli-lul manna]-ya ha-l ttay,
 na-nun [_{VP1(i)} [_{VP2} manna-l] kipwun-i] ani-ess-ta.
- B: nay-ka [_{VP3} Cheli-lul towu]-a ya ha-l ttay,
 na-to [_{VP1(ii)} [_{VP3} manna-l] kipwun-i] ani-ess-ta.

- [1] In A, VP₂ is overtly realized despite identity with the preceding VP₂ ‘*Cheli-lul manna-ta*’.
- [2] In B, VP_{1(ii)} can be realized as ‘*kuleh-ci*’ because the VP in A’s utterance is LF equivalent, predicting the strict reading.

Let us now turn to why the sloppy reading is not available in (31).

- (31) A: nay-ka [_{VP2} Cheli-lul manna]-ya ha-l ttay,
 na-nun [_{VP1(i)} [_{VP2} manna-l] kipwun-i] ani-ess-ta.
 ‘When I had to meet Cheli, I was not in the mood of meeting him.’
- B: nay-ka [_{VP3} Cheli-lul towu]-aya ha-l ttay,
 na-to [_{VP1(ii)} kuleh [_{VP3} ∅]]-ci anh-ass-ta.
 ‘When I had to help Cheli, I wasn’t so (= in the mood of meeting him),
 either.’

Consider LF of (31) under the (presumable) sloppy reading:

- (32) A: nay-ka [_{VP2} Cheli-lul manna]-ya ha-l ttay,
 na-nun [_{VP1(i)} [_{VP2} manna-l] kipwun-i] ani-ess-ta.
 B: nay-ka [_{VP3} Cheli-lul towu]-eya ha-l ttay,
 na-to [_{VP1(ii)} [_{VP3} towul] kipwun-i] ani-ess-ta.

- [1] In A, VP₂ is overtly realized despite identity with the preceding VP₂ ‘Cheli-lul manna-ta’.
 [2] In B, VP_{1(ii)} cannot be realized as ‘kuleh-ci’ because there is no VP of the form [_{VP1(ii)} [_{VP2} towul] kipwun-i] throughout the whole discourse.

4. Conclusion and Implications

In this brief paper, we have discussed how VP ellipsis containing an embedded null VP yields a sloppy interpretation. Based on Tomioka (2008), we offered a derivational account of the sloppy reading by presenting how ellipsis yields a relevant interpretation in the course of derivation. The proposed analysis implies that not only inflectional features but lexical features (in some limited contexts) can be ignored in the computation of identity in VP ellipsis constructions. Significantly, two pro-usages of VP, i.e., null (unpronounced VP) or *do so*, count as the same when embedded within a larger VP and are utilized to account for the relevant reading, unlike in Tomioka’s proposal that solely an E-feature is resorted to in the account of the sloppy reading. Theoretical explanations of semantic recovery and implementation thereof remain to be further explored in our future studies.

References

- Bach, E and H. P. Barbara 1980. Anaphora and semantic structure. In J. Kreiman and E. O. Almerindo, eds., *Papers from the Parasession on Pronouns and Anaphora*, 1–28. Chicago, IL: University of Chicago.
 Chomsky, N and H. Lasnik. 1993. Principles and parameter theory. In A. von Stechow,

- W. Sternefeld and T. Vennemann, eds. *Syntax: An International Handbook of Contemporary Research*, 506–569. Berlin: de Gruyter.
- Elbourne, P. 2001. E-type anaphora as NP deletion. *Natural Language Semantics* 9, 241–288.
- Fiengo, R and R. May. 1994. *Indices and Identity*. Cambridge, MA: MIT Press.
- Fox, D. 2000. *Economy and Semantic Interpretation*. Cambridge, MA: MIT Press.
- Goldberg, L. 2005. *Verb-stranding VP Ellipsis: A Cross-linguistic Study*. Doctoral dissertation, McGill University.
- Hardt, D. 1993. *Verb Phrase Ellipsis: Form, Meaning and Processing*. Doctoral dissertation, University of Pennsylvania.
- Hardt, D. 1999. Dynamic interpretation of verb phrase ellipsis. *Linguistics and Philosophy* 22, 185–219.
- Johnson, K. 2001. What VP ellipsis can do, and what it can't, but not why. In M. Baltin and C. Collins, eds., *The Handbook of Contemporary Syntactic Theory*, 439–479. Oxford: Blackwell.
- Klein, E. 1986. VP ellipsis in DR theory. In J. Groenendijk, D. de Jongh and M. Stokhof, eds., *Studies in DRT and the Theory of Generalized Quantifiers*, 161–187. Dordrecht: Foris.
- Larson, R. 2009. *Grammar as Science*. Cambridge, MA: MIT Press.
- Lobeck, A. 1995. *Ellipsis: Functional Heads, Licensing and Identification*. New York: Oxford University Press.
- Merchant, J. 2001. *The syntax of Silence: Sluicing, Islands, and the Theory of Ellipsis*. Oxford: Oxford University Press.
- Park, M-K. 2006. Morphological/inflectional strict vs. sloppy identity in RNR constructions: Towards a midway coordination analysis. *Studies in Generative Grammar* 16-1, 175–191.
- Romero, M. 1998. *Focus and Reconstruction Effects in wh-phrases*. Doctoral Dissertation, University of Massachusetts, Amherst.
- Rooth, Mats E. 1981. A comparison of three theories of verb phrase ellipsis. In W. Chao and D. Wheeler, eds., *University of Massachusetts Occasional Papers in Linguistics*, 212–244. GLSA.
- Rooth, Mats E. 1992a. Ellipsis redundancy and reduction redundancy. In S. Berman and A. Hestvik, eds., *Proceedings of the Stuttgart Ellipsis Workshop*, Stuttgart.
- Schwarz, B. 2000. *Topics in Ellipsis*. Doctoral Dissertation, University of Massachusetts, Amherst.

- Tomioka, S. 2008. A step-by-step guide to ellipsis resolution. In K. Johnson, ed., *Topics in Ellipsis*, 210–228, Cambridge: Cambridge University Press.
- Vendler, Z. 1957. Verbs and times. *Philosophical Review* 56, 143–160. Reprinted, 1967 in *Linguistics in Philosophy*, 97–121. Ithaca: Cornell University Press.

Examples in: English
Applicable Languages: English
Applicable Level: Tertiary

Wooseung Lee
Professor, Department of English Education
Konkuk University
120 Neungdong-ro, Gwangjin-gu,
Seoul 05029, Korea
E-mail: wlee6@konkuk.ac.kr

Myung-Kwan Park
Professor, Department of English
Dongguk University
30, 1-gil, Phil-dong-ro, Jung-gu,
Seoul 04620, Korea
E-mail: parkmk@dgu.edu

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