

WORKING PAPERS

IN

LINGUISTICS

The notes and articles in this series are progress reports on work being carried on by students and faculty in the Department. Because these papers are not finished products, readers are asked not to cite from them without noting their preliminary nature. The authors welcome any comments and suggestions that readers might offer.

Volume 49(1)
2018
(June)

DEPARTMENT OF LINGUISTICS
UNIVERSITY OF HAWAII AT MĀNOA
HONOLULU 96822

An Equal Opportunity/Affirmative Action Institution

DEPARTMENT OF LINGUISTICS FACULTY
2018

Victoria B. Anderson
Andrea Berez-Kroeker (Graduate Chair)
Robert A. Blust
Lyle Campbell (Adjunct)
Kenneth W. Cook (Adjunct)
Kamil Deen (Chair)
Patricia J. Donegan (Adjunct)
Katie K. Drager
Emanuel J. Drechsel (Adjunct)
Michael L. Forman (Emeritus)
Gary Holton
Roderick A. Jacobs (Emeritus)
Bradley McDonnell
William O'Grady
Yuko Otsuka (Adjunct)
Ann Marie Peters (Emeritus)
Kenneth L. Rehg (Adjunct)
Lawrence A. Reid (Emeritus)
Amy J. Schafer
Albert J. Schütz, (Emeritus, Editor)
Rory Turnbull
James Woodward Jr. (Adjunct)
Changyong Yang (Adjunct)

A REVISED ANALYSIS OF THE TENSE-ASPECT MARKERS IN JEJUEO, AN ENDANGERED LANGUAGE OF KOREA¹

SEJUNG YANG

Jejueo pedagogical materials reflect previous misanalyses of the language's verbal morphology. The current study proposes a new analysis of this morphology, noting that the traditional one was strongly influenced by syllable structure. I also discuss a revised system of tense and aspect that consists of three types of grammatical markers – perfective (*-eos* and *-eon*), continuative (*-eoms*), and non-past (*-(eu)neun*, and *-eun*), whose distribution is based on a new view of morpheme segmentation.

1. INTRODUCTION. In recent years, Jejueo (ISO 639-3 *jje*), the language of Korea's Jeju Island, has received a great deal of attention from the public and from individuals, leading to the emergence of a revitalization movement. As part of this effort, the Jeju Special Self-Governing Provincial Office of Education and the Jeju Research Institute have made all publicly funded instructional materials available online free of charge through their websites (Jeju Special Self-Governing Provincial Office of Education, n.d.; Jeju Studies Archives, n.d.). Moreover, Jejueo programs for adults and children have been created with the help of various organizations, such as the Jejueo Preservation Society and the Jeju Research Institute.

While the accessibility and affordability of the Jejueo pedagogical materials and programs have been improved, there has been a lack of discussion on the quality of those materials. One particularly important question has to do with whether written texts reflect the correct segmentation of the tense-aspect morphemes that are crucial for learning Jejueo.

I will argue that researchers have systematically misidentified verbal suffixes under the influence of a shallow, syllable-based version of the Hangeul orthography. Unfortunately, these misanalyses are being used in Jejueo pedagogical materials and publications, creating difficulties for both students and teachers. One aim of this study is to identify these mistakes and propose a new analysis for the tense-aspect system of Jejueo.

I begin with a critical overview of the influential but problematic work of Pyung-hyo Hyun (1976). I then put forward a reanalysis of his proposed morpheme boundaries, resulting in an alternative set of tense-aspect markers. I will conclude with general remarks suggesting ways to incorporate the new findings into the creation of materials for Jejueo revitalization.

2. PREVIOUS STUDIES. Since 1913, Jejueo has been quite extensively documented, unlike many other endangered languages. Dong-Ho Ko (2014) reported that as of 2014, about 500 linguistic studies on Jejueo have been published, including MA theses, PhD dissertations, journal articles, books, and dictionaries. Many of these studies drew on the pioneering work of Hyun (1976), whose analysis of Jejueo word structure has been widely accepted.

2.1 PYUNG-HYO HYUN (1976). The first PhD dissertation on Jejueo verbal morphology was completed in 1976 by Hyun, a native of Jeju Island. In addition, Hyun published various journal articles and a Jejueo-Korean bilingual dictionary (1962), leading many other linguists to work on the language. His publications remain the most cited works to this day, and his devotion to Jejueo and his academic achievements led him to become the first president of Jeju National University, in 1982. While his remarkable achievements have been a source of inspiration, his early analyses of tense-aspect markers were often accepted without question or scrutiny.

¹ I would like to thank Professors William O'Grady, Robert Blust, Gary Holton, and Changyong Yang for their invaluable assistance. The author is responsible for any remaining errors.

Hyun (1976) claims that the Jejueo aspectual system includes the imperfective suffix *-eom* (-엄); the perfective suffixes *-eos* (-엇) and *-eon* (-언), the imperfective continuative suffix *-eomsi* (-엄시), and the perfective continuative suffix *-eosi* (-어시).²

(1) Imperfective marker: -eom (-엄)

Meog-eom-jeo. (먹엄저)

eat-IMPV-SE

‘(Someone) is eating.’

(Hyun 1976:116)

(2) Perfective marker 1: -eos (-엇)

Cheolsu-n geu cheg da ig-eos-jeo. (철순 그 책 다 익엇저)

Cheolsu-NOM that book all read-PFV-SE

‘Cheolsu read all that book’

(Hyun 1976: 27)

(3) Perfective marker 2: -eon (-언)

Neu-n bab meog-eon-da? (는 밥 먹언다?)

2.SG-NOM meal eat-PFV-SE

‘Did you eat a meal?’

(Hyun 1976: 29)

(4) Imperfective continuative: -eomsi (-엄시)

Meog-eomsi-nya? (먹엄시냐?)

eat-IPFV.COP-SE

‘(Is someone) eating?’

(based on Hyun 1976:124)

(5) Perfective continuative marker: -eosi (-어시)

Neu-ne-deol bab meog-eosi-nya? (느네덜 밥 먹어시냐?)

2.SG-PL-PL³ meal eat-PFV.COP-SE

‘Did you guys eat?’

(Hyun 1976:17)

While Hyun’s proposed perfective markers have stood the test of time, the other tense and aspectual markers that he posited appear to reflect misanalyses, as I will show in the next section.

2.2 PROBLEMS WITH THE PREVIOUS ANALYSES BY PYUNG-HYO HYUN (1976)

2.2.1 MIS-SEGMENTATION OF SIMPLE VERBAL SUFFIXES: THE NON-PAST MARKER -(EU)NEUN AND SENTENCE ENDERS. A first problem with Hyun’s analysis involves the status of the non-past marker -(eu)neun (-(-으)는) and sentence enders that begin with a vowel or palatal glide such as -i (-이) and -ya (-야).⁴ As can be seen in (6) and (7), the existence of the suffix -(eu)neun (-(-으)는) is clear-cut when the accompanying sentence ender begins with a consonant, as in the case of -ga (-가) or -go (-고) (Hyun 1976:119).

² Since Hyun’s (1976) original work does not provide interlinear morpheme-by-morpheme glossing, I glossed all the sample sentences based on his explanations. According to Hyun, *-eom* (엄) and *-eos* (엇) are imperfective and perfective markers, respectively. In addition, he argued that the combination of these markers with the copular *si-* (시) resulted in *-eomsi* (-엄시) and *-eosi* (어시), which convey imperfective continuative and perfective continuative meanings, respectively. Although his entire discussion was written in Korean, he used English terms for those aspectual markers in his abstract (Hyun 1976:145).

³ Jejueo allows double plural markers with subject pronouns.

⁴ Sentence enders in Jejueo are utterance-final morphemes that simultaneously indicate that sentence types (e.g., declarative, interrogatives, imperatives, propositives, and exclamatory), speech levels that reflect the social distance between speakers and listeners (e.g., polite, deferential, intimate, and familiar), and evidentiality based on the speaker’s direct observation or inference.

(6) *Mansu jiseul meog-neun-ga?* (만수 지슬 먹는가?)

Mansu potato eat-INDIC-SE

‘Does Mansu eat potatoes?’

(7) *Mansu-n musigeo meog-neun-go?* (만순 무시거 먹는고?)

Mansu- TOP what eat-INDIC-SE

‘What does Mansu eat?’

However, a serious problem arises in the following examples, where Hyun posits the existence of an indicative mood marker *-(eu)neu* (-(-으)느), which he takes to be an allomorph of *-(eu)neun* (-(-으)는) and which appears with the supposed sentence ender *-nya* (-냐).

(8) *Neu jiseul meog-neu-nya?* (느 지슬 먹느냐?)

2.SG potato eat-INDIC-SE

‘Do you eat potatoes?’

To see the problem here, we first need to consider the simple past-tense, illustrated in (9), where the verb stem *meog-* (먹-) ‘eat’ is followed by the perfective suffix *-eon* (-언).

(9) *Mansu jiseul meog-eon.* (만수 지슬 먹언)

Mansu potato eat-PFV

‘Mansu ate a potato.’

Given that the perfective suffix is *-eon* (-언), the interrogative suffix in the following sentence has to be *-ya* (-야).

(10) *Mansu jiseul meog-eon-ya?* (만수 지슬 먹언야?)

Mansu potato eat-PFV-SE

‘Did Mansu eat potatoes?’

This fact leads us to question Hyun’s proposed segmentation of the verb in (8): into *-(eu)neu* (-(-으)느), and *-nya* (-냐). We can dispense with the form *-(eu)neu* (-(-으)느), in favor of the analysis below, in which the interrogative marker is *-ya* (-야), as in (10).

(11) *Neu jiseul meog-neun-ya?* (느 지슬 먹느냐?)

2.SG potato eat-NPST-SE

‘Do you eat potatoes?’

Now, instead of having four suffixal forms (*-(eu)neun*, *-(eu)neu*, *-nya*, and *-ya*), we have just two: the non-past marker *-(eu)neun* (-(-으)는) and the interrogative sentence ender *-ya* (-야).

Based on this new analysis, other tense-aspectual markers can be identified. For example, the perfective marker *-eos* (-엇) can be extracted from the simple past-tense pattern in (12), thanks to the fact that the verb stem *meog-* (먹-) ‘eat’ and the interrogative suffix *-ya* (-야) have already been identified.

(12) *Neu jiseul meog-eos-ya?* (느 지슬 먹엇야?)

2.SG potato eat-PFV-SE

‘Did you eat a potato?’

Now consider the somewhat more complex past-continuative pattern. Since there is independent evidence that *-eon* (-언) is a perfective marker and *-ya* (-야) is an interrogative suffix, as we have already seen, we can infer that *-eoms* (-엿) is the continuative marker in sentences such as the following.

⁵ Hyun’s original examples omit the initial *-eu-* (-으) from the non-past marker *-euneun* (-으는) as it is optional.

- (13) *Mansu jiseul meog-eoms-eon-ya?* (만수 지슬 먹었어냐?)
 Mansu potato eat-CONT-PFV-SE
 ‘Was Mansu eating a potato?’

The final *s* of the continuative marker *-eoms* (-었) was mis-identified in Hyun’s analysis as the initial consonant of a following morpheme.

- (14) **Meog-eom.seo.* (먹엄서) ‘(Someone) was eating.’

This mis-segmentation can be independently refuted with the help of simple declarative patterns, such as (15), in which the sentence ender *-eo* (-어) can easily be discerned.

- (15) *Meog-eo.* (먹어) ‘(Someone) eats.’

In a continuative form, we find that same sentence ender, leaving *-eoms* (-었) as the obvious continuative marker.

- (16) *Meog-eoms-eo.* (먹었어) ‘(Someone) is eating.’

A parallel pattern involving a simple past tense pattern can be seen in (17), where the suffix *-eos* (-엇) fills the position occupied by *-eoms* (-었) in our previous example.

- (17) *Meog-eos-eo.* (먹엇어) ‘(Someone) ate.’

At this point, we have identified the following six morphemes.

- neun* (-는): non-past (NPST)
- eos* (-엇): perfective (PFV)
- eon* (-연): perfective (PFV)
- eoms* (-었): continuative (CONT)
- ya* (-야): interrogative sentence ender (SE)
- eo* (-어): declarative sentence ender (SE)

By comparison, Hyun’s inventory appears as follows.

- neu* (-느) and -*neun* (-는): indicative mood markers (INDIC)
- eos* (-엇): perfective (PFV)
- eon* (-연): perfective (PFV)
- eomsi* (-엄시): imperfective Continuative (IPFV.COP)
- eosi* (-어시): perfective Continuative (PFV.COP)
- nya* (-냐): interrogative sentence ender (SE)

Additional difficulties with Hyun’s segmentation arise when we consider more complicated tense and aspect patterns. The next section discusses this issue.

2.2.2 MIS-IDENTIFICATION OF THE COMPLEX VERBAL SUFFIXES, -EOMSI AND -EOSI. A fundamental problem with Hyun’s segmentation is related to his postulation of the imperfective continuative marker, *-eomsi* (-엄시) in (18) and the perfective continuative marker *-eosi* (-어시) in (19), both of which Hyun analyzes as containing the copula morpheme *-si* (-시) (Hyun 1976:36).

- (18) *Mansu musigeo meog-eomsi-nya?* (만수 무시거 먹엄시냐?)
 Mansu what eat-IPFV.COP-SE
 ‘What is Mansu eating?’

- (19) *Mansu musigeo meog-eosi-nya?* (만수 무시거 먹어시냐?)
 Mansu what eat-PFV.COP-SE
 ‘What did Mansu eat?’

Although Jejeuo does in fact have a copula verb whose root is *si-* (시-), Hyun’s segmentation is fundamentally mistaken, since there is no copula in the pattern he is considering. Justification for this alternative analysis begins with the segmentation of the examples below. We know from the previous section that *-ya* (-야) is the interrogative suffix in both sentences and that *-eoms* (-엿) is the continuative marker. The challenge is to classify *-in* (-인), which lies between these two morphemes.

(20) *Mansu musigeo moeg-eoms-in-ya?* (만수 무시거 먹엿인야?)
 Mansu what eat-X-X-SE
 ‘What is Mansu eating?’

(21) *Mansu musigeo meog-eos-in-ya?* (만수 무시거 먹엇인야?)
 Mansu what eat-X-X-SE
 ‘What did Mansu eat?’

The key clue comes from simple non-past sentence patterns, such as example (22), in which *-eun* (-은) denotes a habitual non-past event or state.

(22) *Mansu jiseul meog-eun-da.* (만수 지슬 먹은다)
 Mansu potato eat-NPST-SE
 ‘Mansu eats potatoes.’

Crucially, as the next example (23) shows, *-eun* (-은) has the allomorph *-in* (-인) after a stem that ends in *s*.

(23) *Mansu jal us-in-da.* (만수 잘 웃인다)
 Mansu well smile-NPST-SE
 ‘Mansu smiles easily.’

This alternation is common at morpheme boundaries in Jejeuo (Yang et al. 2018). As can be seen in (24) and (25), the suffix *-eumin* (-으민) becomes *-imin* (-이민) and *-eula* (-으라) becomes *-ila* (-이라) after *s*.

(24) *Meog-eumin* (먹으민) ‘if (someone) eats’ → *Us-imin* (웃이민) ‘if (one) smiles’
 (25) *Meog-eula*. (먹으라) ‘eat!’ → *Jus-ila*. (웃이라) ‘pick up!’

Consequently, it can be assumed with confidence that the *-in* (-인) in (20) and (21) above is an allomorphic variant of the non-past tense marker *-eun* (-은) that occurs in (22). This leads to the segmentation illustrated below.

(26) *Mansu musigeo moeg-eoms-in-ya?* (만수 무시거 먹엿인야?)
 Mansu what eat-CONT-NPST-SE
 ‘What is Mansu eating?’

(27) *Mansu musigeo meog-eos-in-ya?* (만수 무시거 먹엇인야?)
 Mansu what eat-PFV-NPST-SE
 ‘What did Mansu eat?’

This new segmentation reveals a parallel with the past continuative interrogative pattern discussed earlier. The difference between the two patterns reflects the choice of tense-aspect markers: we find *-in* (-인), the allomorph of *-eun* (-은), for the non-past and *-eon* (-연) for the perfective. As can be seen in (28) and (29), they both appear in the second-to-last slot in the verb’s morphological template.

(28) *Mansu musigeo moeg-eoms-in-ya?*
 Mansu what eat-CONT-NPST-SE
 (만수 무시거 먹엿인야?)
 ‘What is Mansu eating?’

(29) *Mansu musigeo moeg-eoms-eon-ya?*
 Mansu what eat-CONT-PFV-SE
 (만수 무시거 먹엿연야?)
 ‘What was Mansu eating?’

Another compelling fact further supports this alternative analysis. As Hyun admitted (1976:43), he could not provide a clear explanation for why *i* (ㅇ) is missing from the proposed copula *si-* (시-) when it is followed by verbal suffixes such as the honorific marker *-u* (-우) in patterns such as the following.

Hyun’s analysis	Actual pronunciation	Expected pronunciation (for Hyun)
(30) <i>Meog-eomsi-u-da.</i> eat-IPFV.COP-AH-SE ‘(Someone) is eating.’	pronounced <i>meogeom.su.da</i> (먹엄수다)	not <i>meogeom.syu.da</i> (먹엄슈다)
(31) <i>Meog-eomsi-eola.</i> eat-IPFV.COP-SE ‘(I saw someone) eating.’	pronounced <i>meogeom.seo.la</i> (먹엄서라)	not <i>meog-eom.syeo.la</i> (먹엄셔라)
(32) <i>Meog-eosi-eola</i> eat-PFV.COP-SE ‘(I noticed someone) ate’	pronounced <i>meogeo.seo.la</i> (먹어서라)	not <i>meogeo.syeo.la</i> (먹어셔라)

Phonologically, we would expect the *i* of *si-* (시-) to become *y* when followed by a vowel in Jejueo, as this happens elsewhere in the language.

(33) *i* becomes *y* when followed by a vowel (adapted from Jae-Whan Ko 2011, 1: 97- 98).

verb stem with <i>i</i>		suffix		<i>i</i> becomes <i>y</i>
<i>gawji-</i> (긔지-) take	+	<i>-eong</i> (-영) CON	→	<i>gawjyeong</i> (긔정) ‘take and’
<i>gawli-</i> (골리-) choose	+	<i>-ams-jeo</i> (-았저) CONT-SE	→	<i>gawlyamsjeo</i> (골랏저) ‘(Someone) is choosing.’
<i>mawli-</i> (몰리-) dry	+	<i>-u-la</i> (-우라) CAUS-SE	→	<i>mawlyula</i> (몰류라) ‘Make dry!’
<i>nawli-</i> (놀리-) fly	+	<i>-u-la</i> (-우라) CAUS-SE	→	<i>nawlyula</i> (놀류라) ‘Make fly!’

But this is not what happens in the aspectual patterns we are considering. The reason becomes apparent once we recognize that there is no copula in these forms: the *s* is part of the continuative morpheme and the *i*, when it occurs, is part of the non-past suffix *-in* (-인).

2.3 CAUSES OF THE MIS-IDENTIFICATION OF VERBAL SUFFIXES. A major cause of the mis-segmentation that occurs in Hyun’s work and was subsequently adopted by others lies in the failure to recognize the effect of a simple and ubiquitous re-syllabification process. In both Jejueo and Korean (and, arguably, in all languages), a VCV string of sounds is syllabified as follows, with the medial consonant pronounced in the syllable headed by the following vowel.

(34) ...VCV... → V.CV

Thus *meog-eon-ya* (먹언야?) ‘Did (someone) eat?’ is pronounced as if it were *meog.eo.nya* (먹어냐?), just as *an other* is pronounced as if it were *a nother* in English. In both cases, the postvocalic *-n* is pronounced as the initial consonant of the following syllable. Because of a tendency for morphemes in Jejueo (and Korean) to be syllables, the output of the re-syllabification process has led to the mis-segmentation of word structure and the misidentification of morphemes.

An additional cause of confusion with respect to the segmentation of Jejueo verbal morphology involves the influence of Korean. As O’Grady, Yang, and Yang (2018) point out, for example, the fact that modern Korean has an interrogative suffix *-ni* (니) has encouraged linguists to assume that Jejueo has a similar suffix—resulting in the very mis-segmentation that we have been discussing.

(35) *Mansu-neun Mueos-eul meog-ni?* (만수는 무엇을 먹니?)
 Mansu-NOM what-ACC eat-SE
 ‘What does Mansu eat?’ [Korean]

(36) *Mansu Musigeo meog-neu-ni?* (만수 무시거 먹느니?)
 Mansu what eat-INDIC-SE
 ‘What does Mansu eat?’ [Jejeuo, based on Hyun’s segmentation]

In fact, as we have seen, the Jejeuo interrogative suffix is *-i* (-이), not *-ni* (-니).

(37) *Mansu musigeo meog-neun-i?* (만수 무시거 먹는이?)
 Mansu what eat-NPST-SE
 ‘What does Mansu eat?’ [Jejeuo, based on a revised segmentation]

3. A REVISED ANALYSIS OF THE JEJUEO TENSE-ASPECT SYSTEM. Although Hyun’s attempt to identify the tense and aspectual system in Jejeuo inspired many Jejeuo linguists, the shortcomings caused by mis-segmentation are obvious. Once these mistakes are corrected, along the lines we have suggested, it is possible to identify a simple set of verbal suffixes, and to describe their function in a relatively straightforward manner.

3.1 TENSE-ASPECT MARKERS. As observed by Ho-Min Sohn (1999:362), “tense and aspect interact closely with each other in their realization in syntactic and morphological forms.” Jejeuo speakers describe actions/events/state in relation to the flow of time, but it is not always clear whether and how to distinguish between tense and aspect in the language, especially since perfectivity and past-ness are highly correlated. For that reason, I will not attempt to distinguish the two notions here; instead, I will treat traditional aspectual notions (e.g., perfectivity versus continuity) and traditional tense contrasts (past versus non-past) as part of a single coordinated system.

Jejeuo employs three types of tense-aspect markers: perfective, non-past, and continuative. As we have seen (§ 2.2), tense-aspect markers include the perfective markers *-eos* (-엇) and *-eon* (-언), the non-past markers *-eun* (-은) and *-(eu)neun* (-는), and the continuative suffix *-eoms* (-엿).

(38) Perfective aspect marker *-eos* (-엇) PFV
Dawgsegi meog-eos-jeo. (독세기 먹엇저.)
 egg eat-PFV-SE
 ‘(Someone) ate an egg’

(39) Perfective aspect marker *-eon* (-언) PFV
Neu dawgsegi meog-eon-da? (느 독세기 먹언다?)
 2.SG egg eat-PFV-SE
 ‘Did you eat an egg?’

(40) Non-past marker *-eun* (-은) NPST
Halmang dawgsegi meog-eun-da. (할망 독세기 먹은다)
 grandmother egg eat-NPST-SE
 ‘Grandmother eats eggs.’

(41) Non-past marker *-(eu)neun* (-은) NPST
Mansu dawgsegi meog-neun-ga? (만수 독세기 먹는가?)
 Mansu egg eat-NPST-SE
 ‘Does Mansu eat eggs?’

- (42) Continuative aspect marker -eoms (-엿) CONT
Mansu dawgsegi meog-eoms-jeo. (만수 독세기 먹었저)
 Mansu egg eat-CONT-SE
 ‘Mansu is eating an egg.’

In the absence of any tense-aspect inflection or sentence enders that denote evidential meaning, the verb is assumed to denote a non-past event.⁶

- (43) Non-past marker \emptyset NPST
Halmang dawgsegi meog- \emptyset -ju. (할망 독세기 먹주)
 grandmother egg eat- \emptyset -SE
 ‘Grandmother eats eggs.’

I will now briefly describe the principal function of each marker.

3.2 PERFECTIVE MARKERS: -EOS AND -EON. Two verbal suffixes in Jejueo, *-eos* (-엇) and *-eon* (-연), appear to function as markers of perfectivity in that they routinely present a complete event as a whole located in the past.

3.2.1 ALLOMORPHIC VARIATION. Both *-eos* (-엇) and *-eon* (-연) show allomorphic variation conditioned by vowels in the preceding syllable. The perfective marker *-eos* (-엇) appears after *eo*, *i*, *u* (어, 이, 우), and *eu* (으) in a verb stem.⁷ Also, *-eos* (-엇) has three other variants: *-as* (-앗) after *a*, *o*, *aw* (아, 오, .), and *yaw* (으) in a verb stem; *-s* (-스) after a stem ending in *a* (아); *-s* (-스) or *-yeos* (-엿) after a stem ending in *e* (에) or *ae* (애); a verb *haw-* (ㅎ-) attracts *-yeos* (-엿).

- (44) Default form, -eos (-엇)
Jiseul meog-eos-eo. (지슬 먹엇어)
 potato eat -PFV-SE
 ‘(Someone) ate potatoes.’

- (45) -as (-앗) after a, o, aw, and yaw
Banong chawj-as-eo. (바농 좃앗어)
 needle find -PFV-SE
 ‘(Someone) found the needle.’

- (46) -s (-스) after a
Mikkang ta-s-eo. (미깡 탸어)
 tangerine pick-PFV-SE
 ‘(Someone) picked tangerines.’

- (47) -s (-스) or -yeos (-엿) after e, or ae
Geomjil me-s(yeos)-eo. (검질멧/매엿어)
 weed pull-PFV-SE
 ‘(Someone) pulled weeds.’

- (48) -yeos (-엿) after haw- (ㅎ-) ‘do’
Sawdab haw-yeos-eo. (스답ㅎ엿어)
 laundry do-PFV-SE
 ‘(Someone) did the laundry.’

The same allomorphic variation applies to the perfective marker *-eon* (-연): *-eon* (-연) appears after *eo*, *i*, *u* (어, 이, 우), and *eu* (으) in a verb stem; *-an* (-안) after *a*, *o*, *aw* (아, 오, 으), and *yaw* (으) in a verb stem; *-n* (-ㄴ) after a stem ending in *a*; *-n* (-ㄴ) or *-yeon* (-연) after a stem ending in *e* (에) or *ae* (애); a verb *haw-* (ㅎ-) attracts *-yeon* (-연).

⁶ Jejueo expresses evidentiality with a list of sentence enders such as *-eola* (-어라), as in the following example.

Mansu dawgsegi meog-eola. (만수 독세기 먹어라)
 Mansu egg eat-SE
 ‘(I saw) Mansu eating an egg.’

⁷ According to Yang et al. (2018), a certain group of verbs shows idiosyncratic vowel harmony. For example, if a verb stem ends in *eu* (으) or *u* (우) followed by the consonant *l* (ㄹ), *-as* (-앗) is preferred.

- (49) Default form, -eon (-언)
Jiseul meog-eon. (지슬 먹언)
 potato eat-PFV
 ‘(Someone) ate the potato.’
- (50) -an (-안) after a, o, eu, aw, and yaw
banong chawj-an. (바농 좃안)
 needle find-PFV
 ‘(Someone) found the needle.’
- (51) -n (-ㄴ) after a
Gawchi ta-n. (갸치 탄)
 chili pick-PFV
 ‘(Someone) picked chilis.’
- (52) -n (-ㄴ) or -yeon (-연) after e or ae
Geomjil me-n (yeon). (검질 멘/메연)
 weed pull-PFV
 ‘(Someone) pulled weeds.’
- (53) -yeon (-연) after haw- (ㅎ-) ‘do’
Sawdab haw-yeon. (스답ㅎ연)
 laundry do-PFV
 ‘(Someone) did the laundry.’

3.2.2 VARIATION IN INTERPRETATION. Notice that although the most frequent interpretation of the two verbal suffixes is a perfective meaning, there are occasions in which they are used for events that involve the results of past actions or the changing states of subjects.⁸ The ambiguity of the semantic function of *-eos* and *-eon* seems to reflect the lexical semantics of different types of verbs. For example, when used in a simple declarative clause on a verb that denotes an action that can have a clear endpoint, a perfective marker signals a completed action in the past.

- (54) *Mikkang ta-s-jeo.* (미깡 탃저)
 tangerine pick-PFV-SE
 ‘(Someone) picked tangerines.’
- (55) *Mikkang ta-n.* (미깡 탄)
 tangerine pick-PFV
 ‘(Someone) picked tangerines.’

However, when the suffix *-eos* or *-eon* occurs on a verb that denotes an action with present consequences, a present-time perfect interpretation is allowed, as is a punctual interpretation, with the help of a time adverbial such as ‘yesterday’.

- (56) *Mansu jug-eos-jeo.* (만수 죽엇저)
 Mansu die-PFV-SE
 ‘Mansu died (yesterday)/
 Mansu is dead.’
- (57) *Mansu jug-eon.* (만수 죽언)
 Mansu die-PFV
 ‘Mansu died (yesterday)/
 Mansu is dead.’
- (58) *Mansu gelhon he-s-jeo.* (만수 겔혼 헛저)
 Mansu marriage do-PFV-SE
 ‘Mansu got married (yesterday)./
 Mansu is married.’
- (59) *Mansu gelhon he-n.* (만수 겔혼 헨)
 Mansu marriage do-PFV
 ‘Mansu got married./
 Mansu is married.’

[based on Yang et al. 2018]

Similarly, when *-eos* and *-eon* are used with descriptive verbs that denote temporary properties, either a present-time or past-time interpretation is possible. For example, (60) and (61) both give a present-time interpretation of a state that began in the past. This looks somewhat like a perfect of result, but the addition of temporal adverbials such as ‘yesterday’ often facilitates a past interpretation, which locates the given state of ‘being warm’ at a time in the past rather than in the current moment.

⁸ Note that there has been an ongoing debate on whether *-eos* and *-eon* are Perfective (Hyun 1976; S.-Y. Moon 2008: 5) or Perfect (J.-H. Kim 2014:289; J.-W. Ko 2011, vol. 2:11; Y.-J. Ko 2008), and it requires an in-depth discussion of Perfective vs. Perfect in Jejuo in the future.

(60) *Gudeul daws-as-jeo.* (구들 뜻앗저)
 room warm-PFV-SE
 ‘The room is warm.’/
 ‘The room was warm (yesterday).’

(61) *Gudeul daws-an.* (구들 뜻안)
 room warm-PFV
 ‘The room is warm.’/
 ‘The room was warm (yesterday).’

(62) *Mul jip-eos-jeo.* (물 짚엇저)
 water warm-PFV-SE
 ‘The sea is deep’/
 ‘The sea was deep (yesterday).’

(63) *Mul jip-eon.* (물 짚엇)
 water warm-PFV
 ‘The sea is deep’/
 ‘The sea was deep (yesterday).’

3.2.3 DISTINCTION BETWEEN –EOS AND –EON. A major difference between *-eos* (-엇) and *-eon* (-언) is that while the perfective marker, *-eos* (-엇) always requires a sentence ender, *-eon* (-언) does not.

(64) *Jiseul meog-eos-eo.* (지슬 먹엇어)
 potato eat -PFV-SE
 ‘(Someone) ate the potato.’

(65) **Jiseul meog-eos.* (지슬 먹엇)
 potato eat -PFV
 ‘(Someone) ate the potato.’

(66) *Jiseul meog-eon.* (지슬 먹언)
 potato eat -PFV
 ‘(Someone) ate the potato.’

(67) **Jiseul meog-eon-eo.* (지슬 먹언어)
 potato eat -PFV-SE
 ‘(Someone) ate the potato.’

A second important difference is that *-eos* and *-eon* attract different sentence enders, as summarized in tables 1 and 2.

TABLE 1. Distribution of *-eos* (-엇)

Verb stem	<i>-eos</i> (-엇)	Permitted sentence enders	Sentence type
		<i>-eo</i> (-어), <i>-ji</i> (-지), <i>-na</i> (-나)	declarative, interrogative
		<i>-eume</i> (-으메), <i>-jeo</i> (저), <i>-ju</i> (-주), <i>-ne</i> (-네), <i>-eogo</i> (-어고), <i>-de</i> (-테), <i>-guna</i> (구나), <i>-eola</i> (-어라)	declarative

TABLE 2. Distribution of *-eon* (-언)

Verb stem	<i>-eon</i> (-언)	Permitted Sentence enders	Sentence type
		\emptyset	declarative, interrogative
	<i>-ge</i> (-게), <i>-ye</i> (-예)	declarative	
	<i>-ga/gwa</i> (가/과), <i>-i</i> (-이), <i>-go</i> (-고), <i>-di</i> (-디), <i>-dia</i> (-디아), <i>-ya</i> (-야)	interrogative	

A third difference between the two perfective markers is that, unlike *-eon*, *-eos* can be used in a subordinate or if clause to express hypothetical events in the future.

(68) *Jiseul meog-eos-imim joh-k-yeo.* (지슬 먹엇이민 좋켜)
 potato eat-PFV-CON good-PROSP-SE
 ‘It would be nice if I ate a potato.’

(69) **Jiseul moeg-eon-imin joh-k-yeo.* (지슬 먹언이민 좋켜)
 potato eat-PFV-CON good-PROSP-SE
 ‘It would be nice if I ate a potato.’

3.3 NON-PAST MARKERS: -(EU)NEUN, -EUN AND \emptyset . The non-past can be signaled by either of two suffixes — *(eu)neun* (-은/는) and *-eun* (-은), as in (70-71), or by the absence of any suffix, as in (72).

(70) -(eu)neun (-_(으)는): default form before -ye (-_(에))

Jiseul meog-(eu)neun-ye. (지슬 먹(으)는예)
 potato eat-NPST-SE
 ‘(Someone) eats potatoes.’

(71) -eun (-_(은)): default form before -da (-_(다))

Jiseul meog-eun-da. (지슬 먹은다)
 potato eat-NPST-SE
 ‘(Someone) eats potatoes.’

(72) ∅ before -ju (-_(주))

Jiseul meog-∅-ju. (지슬 먹주)
 potato eat-NPST-SE
 ‘(Someone) eats potatoes.’

The non-past marker *-euneun* (-_(은)) has three other allomorphic variations: *-ineun* (-_(이)는) after a stem that ends in *s, j, ch*; *-uneun* (-_(우)는) after labial consonants; and *-neun* (-_(는)) after a stem that ends in a vowel or *l* (ㄹ). However, *-neun* (-_(는)) is also acceptable in all these environments.⁹

(73) Default form, -(eu)neun (-_(으)는)

Na gwegi meog-(eu)neun-ye.
 1.SG meat eat-NPST-SE
 (나 꿩기 먹(으)는예)
 ‘I eat meat.’

(74) -(i)neun (-_(이)는) after *s, j, ch*

Na-ga jal chawj-(i)neun-ye.
 1.SG-NOM well find-NPST-SE
 (나가 잘 좇(이)는예)
 ‘I find (it) well.’

(75) -(u)neun (-_(우)는) after labial consonants

Mansu gingi jab-(u)neun-ye.
 Mansu crab catch-NPST-SE
 (만수 갱이 잡(우)는예)
 ‘Mansu catches crabs.’

(76) -neun (-_(는)) after a vowel or *l*¹⁰

Na badang-ui ga-neun-ye.
 1.SG sea-DIR go-NPST-SE
 (나 바당의 가는예)
 ‘I go to the sea.’

The same allomorphic variation applies to *-eun* (-_(은)): *-eun* (-_(은)), which is realized as *-in* (-_(인)) after a stem that ends in *s, j, ch* (ㅅ, ㅈ, ㅊ), as *-un* (-_(운)) after labial consonants, and as *-n* (-_(ㄴ)) after a stem that ends in a vowel or *l* (ㄹ).

(77) Default form, -eun (-_(은))

Na gwegi meog-eun-da.
 1.SG meat eat-NPST-SE
 (나 꿩기 먹은다)
 ‘I eat meat.’

(78) -in (-_(인)) after *s, j, ch*

Na-ga jal chawj-in-da.
 1.SG-NOM well find-NPST-SE
 (나가 잘 좇인다)
 ‘I find (it) well.’

⁹ Since the initial vowel segments of all allomorphs of *-euneun* (-_(은)) are optional, I will mark them in parentheses, as in *-(eu)neun* (-_(으)는), *-(i)neun* (-_(이)는), and *-(u)neun* (-_(우)는).

¹⁰ When a verb root ends in *l* (ㄹ), the *l* (ㄹ) drops first before *-neun* (-_(는)) attaches to the verb stem. For example, *l* (ㄹ) from the verb root *gawl-* (꺾-) ‘grind’ drops and then the non-past maker *-neun* (-_(는)) appears, as in *kong gaw-neun-ye* (콩 꺾는예) ‘(Someone) grinds beans.’

(79) -un (-운) after labial consonants

Mansu gingi jab-un-da.
 Mansu crab catch-NPST-SE
 (만수 갱이 잡는다)
 ‘Mansu catches crabs.’

(80) -n (-ㄴ) after a vowel or l (ㄹ)¹¹

Na badang-ui ga-n-da.
 1.SG sea-DIR go-NPST-SE
 (나 바당의 간다)
 ‘I go to the sea.’

The choice of *-neun* (-는) versus *-eun* (-은) is determined by the sentence ender, as summarized in table 3.

TABLE 3. Distribution of *-(eu)neun* (-은/는), *-eun* (-은) and \emptyset

Verb stem	Non-past marker	Possible sentence enders	Sentence type
	<i>-eun</i> (-은)	<i>-da</i> (-다)	
<i>-neun</i> (-는)	\emptyset	<i>-ye</i> (-예)	declarative
		<i>-ya</i> (-야), <i>-i</i> (-이), <i>-go</i> (-고), <i>-ga</i> (-가)	interrogative
\emptyset	\emptyset	<i>-na</i> (-나), <i>-ju</i> (-주)	declarative

3.4 CONTINUATIVE MARKER: -EOMS. The continuative marker *-eoms* (-엿) marks an ongoing event. Unless accompanied by a perfective marker, a verb with the suffix *-eoms* (-엿) has a non-past interpretation.

(81) *Joban meog-eoms-jeo.* (조반 먹었저)
 breakfast eat-CONT-SE
 ‘(Someone) is eating breakfast.’

When *-eoms* (-엿) appears on a descriptive verb, it adds an inchoative element to the verb’s meaning, as in (82). Also, when accompanied by time adverbials such as *nuil* ‘tomorrow’, a future interpretation occurs as in (83).

(82) *Daws-ams-jeo.* (돏았저)
 warm-CONT-SE
 ‘(It is) becoming warm’

(83) *Nuil Seoweol ga-ms-jeo.* (닐 서월 갔저)
 tomorrow Seoul go-CONT-SE
 ‘(Someone) is going to Seoul tomorrow.’

The continuative marker has several allomorphs: *-eoms* (-엿) appears after *eo*, *i*, *u* (어, 이, 우), and *eu* (으) in a verb stem; *-ams* (-앓) after *a*, *o*, *aw* (아, 오, 으), and *yaw* (으) in a verb stem; *-ms* (-ㅁㅍㅅ) after a stem ending in *a* (아); *-ms* (-ㅁㅍㅅ) or *-yeoms* (-엿) after a stem ending in *e* (에) or *ae* (애); a verb *haw-* (ㅎ-) attracts *-yeoms* (-엿).

(84) Default form, -eoms (-엿)
Dawgsegi meog-eoms-eo.
 egg eat-CONT-SE
 (독세기 먹었어)
 ‘(Someone) is eating eggs.’

(85) -ams (-앓) after a, o, eu, aw, and yaw
Gawse chawj-ams-eo.
 scissors search -CONT-SE
 (긔세 훗았어)
 ‘(Someone) is looking for scissors.’

¹¹ The same phonological rule applies here. For example, *l* from *gawl-* (꺠-) ‘grind’ drops and then the non-past maker *-n* (-ㄴ) appears, as in *Kong gaw-n-da* (꺠 꺠다) ‘(Someone) grinds beans.’

(86) *-ms* (ㅁㅅ) after *a*

Jang-ui ga-ms-eo. (장의 갔어)
 market-DIR go-CONT-SE
 ‘(Someone) is going to the market.’

(87) *-ms* (ㅁㅅ) or *-yeoms* (엷) after *e* or *ae*

Geomjil me-ms-eo. (검질 뽑/떼엷어)
 weed pull-CONT-SE
 ‘(Someone) is pulling weeds.’

(88) *-yeoms* (엷) after *haw-* (ㅎ-) ‘do’

Sawdab haw-yeoms-eo. (스답ㅎ엷어)
 laundry do-CONT-SE
 ‘(Someone) is doing the laundry.’

In addition, *-eoms* (-엷) has an allomorph *-eom* (-엸),¹² whose use is triggered by the choice of sentence ender, as summarized in table 4. As can be seen there, *-eom* (-엸) appears only with interrogative sentence enders.

TABLE 4. Distribution of *-eoms* (-엷), and *-eom* (-엸)

Verb stem	Continuative marker	Possible sentence enders	Sentence type
	<i>-eoms</i> (엷)	<i>-eo</i> (-어), <i>-jeo</i> (-저), <i>-ju</i> (-주), <i>-ji</i> (-지), <i>-da</i> (-다), <i>-ne</i> (-네)	declarative
		<i>-eogo</i> (-어고), <i>-eola</i> (-어라), <i>-eumen</i> (-으멘), <i>-de</i> (-데)	
		<i>-na</i> (-나), <i>-ya</i> (-야), <i>-go</i> (-고), <i>-i</i> (-이)	interrogative
		<i>-guna</i> (-구나)	exclamatory
	<i>-ge</i> (-게)	propositive	
	<i>-eom</i> (엸)	<i>-ga</i> (-가), <i>-dia</i> (-디아), <i>-di</i> (-디)	interrogative

3.5 COMBINATIONS OF TENSE-ASPECT MARKERS. An important feature of the Jejeuo tense-aspectual system is that temporal markers can appear in sequences, creating different semantic effects. The template in table 5 below summarizes the various possibilities.

TABLE 5. Jejeuo verbal template

Verb stem	Causative, Passive marker	Tense-Aspect marker 1	Tense-Aspect marker 2	Modality	Honorific marker	Sentence Ender	Emphatic marker

3.5.1 COMBINATION 1: *-EOMS* + *-EOS*. The combination of the continuative suffix *-eoms* (-엷) with the perfective suffix *-eos* (-엇) yields a past progressive interpretation.

(89) *Joban meog-eoms-eos-ju.* (조반 먹엷엇주)
 breakfast eat-CONT-PFV-SE
 ‘(Someone) was (in the middle of) eating breakfast.’

3.5.2 COMBINATION 2: *-EOMS* + *-EON*. A similar interpretation arises when the continuative marker *-eoms* (-엷) occurs with the perfective marker *-eon* (-엔). (This combination is possible only with a third-person subject.)

¹² The same allomorphic variation applies to the continuative marker *-eom* (-엸): *-eom* (-엸) appears after *eo*, *i*, *u* (어, 이, 우), and *eu* (으) in a verb stem; *-am* (-암) after *a*, *o*, *aw* (아, 오, 으), and *yaw* (으) in a verb stem; *-m* (-ㅁ) after a stem ending in *a* (아); *-m* (-ㅁ) or *-yeom* (-염) after a stem ending in *e* (에) or *ae* (애); a verb *haw-* (ㅎ-) attracts *-yeom* (-염).

- (90) *Abang badang-deole ga-ms-eon-ya?* (아방 바당더레 갔었냐?)
 father sea-DIR go- CONT-PFV-SE
 ‘(Did you see) father going toward the sea?’

3.5.3 COMBINATION 3: -EOMS + -EUN. The use of *-eoms* with the non-past suffix *-eun* (-은) gives a present progressive interpretation. (Because *-eun* (-은) follows a suffix ending in *s*, it has the allomorph *-in* (-인) in this pattern.)

- (91) *Eomeong joban meog-eoms-in-ye.* (어명 조반 먹었인에)
 mother breakfast eat-CONT-NPST-SE
 ‘Mother is eating breakfast.’

4. CONCLUSION. The study has identified and discussed the semantic function of three types of tense-aspect markers in Jejeuo—the perfective, the non-past, and the continuative, which can occur in different combinations to yield additional semantic effects.

The main cause of the misidentification of tense-aspect markers in earlier studies of Jejeuo lies in the mis-segmentation of morpheme boundaries under the influence of a re-syllabification phenomenon, compounded by the influence of superficially similar Korean verbal morphology. Unfortunately, as mentioned at the outset, these mis-segmentations are reflected in various pedagogical materials that are distributed for use in schools on Jeju Island.

Language planning for endangered languages has to deal with a varied set of issues, including writing a grammar and developing an orthography (Nakayama and Rice 2014; Page 2013). As Ferguson (1968) and Fasold (1984) argue, it is important that language planning and orthography development go hand in hand, as literacy skills among community members can empower them to create high-quality written materials and reverse the process of language shift.

However, before written materials can be produced, especially in the case of a morphophonemic orthography such as Hangeul, it is essential to identify the language’s grammatical morphemes in an accurate way—something that linguists have so far failed to do for Jejeuo. It is time to revise and adjust the current orthography based on the linguistic analysis of tense-aspectual morphemes that we have outlined here.

ABBREVIATIONS

1	first person	DIR	directional	PL	plural
2	second person	HAB	habitual	PROSP	prospective
AH	addressee honorific	INDIC	indicative	SE	sentence ender
CAUS	causative	IPFV	imperfective	SG	singular
CON	connective	NOM	nominative	TOP	topic
CONT	continuative	NPST	non-past		
COP	copula	PFV	perfective		

JEJUEO ROMANIZATION AND IPA SYMBOLS

The Jejeuo Romanization adopted the system developed by the National Institute of the Korean Language.

1. Consonant phonemes

		Bilabial		Alveolar		Palatal		Velar		Glottal	
		IPA	ROM	IPA	ROM	IPA	ROM	IPA	ROM	IPA	ROM
Stop	plain	p	b	t	d	c	j	k	g		
	tense	p*	pp	t*	tt	c*	jj	k*	kk		
	aspirated	p ^h	p	t ^h	t	c ^h	ch	k ^h	k		

Fricative	plain			s	<i>s</i>					h	<i>h</i>
	tense			s*	<i>ss</i>						
Nasal		m	<i>m</i>	n	<i>n</i>			ŋ	<i>ng</i>		
Liquid				l	<i>l</i>						

2. Vowel Phonemes

	Front		Central		Back	
	IPA	ROM	IPA	ROM	IPA	ROM
High	i	<i>i</i>	ɨ	<i>eu</i>	u	<i>u</i>
Mid	e	<i>e</i>	ə	<i>eo</i>	o	<i>o</i>
Low	æ	<i>ae</i>	a	<i>a</i>	ɔ	<i>aw</i>

REFERENCES

- Fasold, Ralph. 1984. *The sociolinguistics of society*. Oxford: Basil Blackwell.
- Ferguson, Charles. 1968. Language development. In *Language problems of developing nations*, ed. by Joshua A. Fishman, Charles Ferguson, and Jyotirindra Das Gupta, 27–36. New York: Wiley.
- Hyun, Pyung-hyo. 1962. *Jejudo bangeon yeongu: je 1 jib jalyo-pyeon* [A study of Cheju Island dialect: volume 1 data]. Jeongyeon-sa.
- Hyun, Pyung-hyo. 1976. *Jejueo bangeon-ui jeongdongsa eomi yeongu* [A study of finite verbal endings in the Cheju Island dialect]. Seoul: Asia Culture Press.
- Jeju Special Self-Governing Provincial Office of Education. n.d. Janghag madang, Jejueo salang [Love of Jejueo]. Retrieved from http://www.jje.go.kr/board/list.jje?boardId=BBS_0000329&menuCd=DOM_000000204005001000&contentsSid=1443&cpath=, Accessed on 17 February 2018.
- Jeju Studies Archives. n.d. Jejuhag olle, *Jejuhag chongseo* [A collection of Jeju studies]. Retrieved from <http://www.jst.re.kr/contents/index.php?mid=0301&job=list&seq=159&gubun=7&seq=159>, Accessed on 17 February 2018.
- Kim, Chang-Jib. 2014. Jejueo-ro ihae-haneun jeontong munwha [Understanding traditional culture through Jejueo], *Jejueo-ui Ihae-wa Pyohyeon* [Understanding Jejueo and its expressions], ed. by D.-H. Ko, J.-H. Kim, C.-J. Kim, S.-D. Moon, J.-S. Moon, S.-J. Song, C.-M. Oh, S.-C. Jung, H.-W. Jung, and S.-S. Heo, 294–317. Jeju: Jejueo Bojeonwhoe.
- Kim, Jee-hong. 2014. *Jeju bangeon-ui tongsa gisul-gwa seolmyeong* [Explanation and description of syntax of Jeju dialect]. Seoul: Gyeongjin chulpan.
- Ko, Dong-Ho. 2014. Jeju bangeon yeongu gaegwan [Overview of Jeju dialect studies]. In *Jejubangeon yeongu-ui eoje-wa naeil* [Yesterday and tomorrow of Jeju dialect studies], ed. by Dong-Ho Ko, Seungchul Jeong, Sang-Jo Song, Yeong-Jin Ko, Jee-Hong Kim, Chang-myeong Oh, and Soon-Deok Moon, 1–28. Jeju: Jeju Development Institute.
- Ko, Jae-Whan. 2011. *Jejueo gaeron* [Introduction to Jejueo]. Vol.2. Seoul: Bogosa.
- Ko, Yeong-Jin. 2008. Jejudo bangeon-ui hyeongtaelong-jeog sang beomju-ui chegyeowha-leul wi-hayeo [For the study of the morphological aspect system in Cheju dialect]. *Hangeul* 280:101–28.
- Moon, Suk-Yong. 1998. Jejueo bangeon-ui sisang hyeongtae-e daehan yeongu [A study of the tense-aspect morphemes in Cheju dialect]. Seoul National University MA thesis.
- Nakayama, Toshihide, and Keren Rice. 2014. The art and practice of grammar writing. *Language Documentation & Conservation Special Publication* 8.
- O’Grady, William; Changyong Yang; and Sejung Yang. 2018. Integrating analysis and pedagogy in the revitalization of Jejueo. Paper presented at the 25th Japanese/Korean Linguistics Conference, Honolulu (October 13, 2018).
- Page, Christina Joy. 2013. A new orthography in an unfamiliar script: A case study in participatory engagement strategies. *Journal of Multilingual and Multicultural Development* 34 (5):459–74.
- Sohn, Ho-Min. 1999. *The Korean language*. Cambridge: Cambridge University Press.
- Yang, Changyong; William O’Grady; and Sejung Yang. 2018. Jejueo grammar. Unpublished MS. Honolulu: University of Hawai‘i Press.

sejung@hawaii.edu