The Status of Onglides in the Kyongsang Dialect of Korean*

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1. Introduction

The status of onglides ([w] and [y]) in the syllable structure in Standard Korean (henceforth SK) has been controversial in recent works. Whether a glide is part of the syllable onset or forms the first part of a rising diphthong with the following vowel in the syllable structure has not been conclusive. Some researchers claim that the glide is part of the nucleus (Kim 1986, Sohn 1987, Kim and Kim 1991, Tak 1997) while others claim that the glide is part of the onset in SK (Lee 1982, Ahn 1985, Gim 1987, Lee 1993). If the glide is considered part of the syllable nucleus, the structure of a CGV syllable would be either as in (1a) in which both glide and the vowel are linked to a single mora or as in (1b) in which the glide and the vowel are each linked to their own mora. If the glide is considered part of the syllable onset, the structure of a CGV syllable could be represented as in (2) in which the glide is directly linked to syllable structure node (C=consónant, G=glide, V=vowel, μ=mora, σ=syllable).

(1) Nucleus analysis of glides

a. a ~C G v

b. a C ~G V ~V

I wish to thank Stuart Davis and two anonymous reviewers for their helpful comments and criticisms of this paper. I alone am responsible for any error.

1. The syllable structure in (1) and (2) reflect the representation proposed by McCarthy and Prince (1986) and by Hayes (1989) in which the mora is considered a constituent expressing syllable weight.
Researchers agree, however, that the glides are part of the syllable onset in the Kyongsang Dialect (henceforth KD) of Korean and adopt the syllable structure in (2) for KD. Their claims are based on the glide deletion phenomenon in KD. The glide does not appear after an onset consonant in KD while it is possible in SK as shown in (3).

(3)  

<table>
<thead>
<tr>
<th>SK</th>
<th>KD</th>
</tr>
</thead>
<tbody>
<tr>
<td>kwʌnse</td>
<td>kʌnse</td>
</tr>
<tr>
<td>kwʌŋ</td>
<td>ʌŋ</td>
</tr>
<tr>
<td>pʰyo</td>
<td>pʰo</td>
</tr>
<tr>
<td>kyʌŋce</td>
<td>keŋce³</td>
</tr>
</tbody>
</table>

Working on the assumption that the SK forms in (3) reflect the underlying representations of the KD forms, researchers have claimed that the underlying glide is deleted in KD, and that this deletion is triggered by a constraint or rule which does not allow more than one onset consonant in a syllable in this dialect. This glide deletion is taken as a key piece of evidence that supports the onset analysis of glides in KD. Researchers have assumed that the preceding onset consonant triggers the deletion of another consonant (glide) in the onset.

In this paper, it will be shown from a few dialect-internal phonological phenomena in KD that contrary to the previous claims, the glide must be considered as part of the syllable nucleus. The phonological phenomena that support the nucleus analysis of KD glides include /ŋ/-deletion, l/r alternation, and glide deletion. Under the nucleus

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2. This syllable structure is adopted from Lee (1993), in which the onset analysis of glides is argued for.

3. /yŋ/ in SK changes to /e/ in KD. This is briefly discussed in 2.3.
analysis, it will be shown that the glides in KD are underlyingly
represented as being comoraic with the following vowel and that the
underlying glides are realized only when there is no preceding
consonant in the onset. Otherwise it will simply delete.

The organization of the paper is as follows. In section 2, I examine the
status of onglides in KD based on a few phonological phenomena. The
evidence strongly suggests that glides are part of the syllable nucleus in
KD. In section 3, I show how glides are represented underlyingly and
how they are realized on the surface. In section 4, I examine glide
formation at a morpheme boundary in SK and KD and show that glide
formation occurs only when there is no preceding consonant in the
onset. It will be shown that my analysis supports the nucleus analysis of
glides in KD. Section 5 concludes the paper.

2. The Nucleus Analysis of KD Glides

In this section, I provide three pieces of evidence that support the
nucleus analysis of KD glides.

2.1. /l/-deletion

As the first piece of evidence that manifests the nuclear view of KD
glides, I examine /l/-deletion which occurs only in KD. The velar nasal
/l/ deletes either morpheme-internally or across the morpheme
boundary when it is followed by a vowel, while it does not when it is
followed by a consonant.

As shown in the examples in (4), an underlying /l/ surfaces when it is
followed by a consonant either morpheme-internally or across the morpheme
boundary. (The examples involving /l/ are drawn from Chung (1982)).

(4)  | UR     | PR        |        |
     | /k'øŋci/ | [k'øŋci] | ‘tail’  |
     | /paŋsak/ | [paŋsøk] | ‘a cushion’ |
     | /kaŋ + to/ | [kaŋto] | ‘even the river’ |
     | /t'au +c=aləm/ | [t'æŋc=aləm] | ‘like land’ |
The example in (5) show that /u/ deletes when it is followed by a vowel. The first three examples represent morpheme-internal deletion, and the last two examples show the deletion across the morpheme boundary.4

(5)  | UR | PR |
-----|----|----|
/talp'e/j/ | [talp'e] | 'snail' |
/kej/u/ | [keu] | 'incident' |
/saap/ | [saap] | 'business' |
/pa+n+i/ | [pei] | 'room + nom.' |
/t'a+n+e/ | [t'a] | 'land + on' |

The data in (4) and (5) clearly show that /u/ deletes before a vowel but not before a consonant. We may restate this phenomenon in terms of syllable structure; /u/ deletes when it is followed by an empty onset, but it does not when the following onset position is occupied by a consonant. To put it more simply, /u/ deletes before a nucleus.

I now examine a crucial piece of evidence that provides support for the nucleus analysis of glides in KD. Since /u/ deletes before a nucleus, we should examine what happens when the underlying coda /u/ is followed by a glide-initial syllable. It is predicted that if /u/-deletion occurs in this environment, the glide is considered part of the nucleus. If /u/-deletion does not occur, the glide is treated as part of the onset, not triggering the deletion of the velar nasal. Consider the data in (6).

(6)  | yo+nwa+n/ | [yowa+n] | 'king of sea' |
/to+nya+n/ | [toya+n] | 'east' |
/ci+nyak/ | [ciyak] | 'imprisonment' |
/to+n+ya+n/ | [toya+n] | 'interpretation' |

The data in (6) clearly show that /u/-deletion occurs before a glide.7

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4. Although it is not indicated in phonetic representation, the neighboring vowels become nasalized after /u/-deletion.
5. The stem vowel change from /a/ to [e] reflects an application of umlaut.
6. The sequence of /ae/ after the deletion of the velar nasal is realized as [aa).
7. /u/-deletion across a morpheme boundary before the glide is not shown in the data since virtually no Korean suffix starts with a glide. One that does /wa/ 'with' is always
This /γ/-deletion supports the argument that the glides in KD are considered part of the nucleus. If the glides were part of the onset, there would be no reason for /γ/ to delete because as shown in (4) the velar nasal does not delete before a consonant.

2.2. 1/r alternation

In this subsection, I discuss the 1/r alternation, with a brief review of earlier works (Kim and Kim 1991, Lee 1993) that deal with the 1/r alternation in the analysis of glides in SK. The point in the 1/r alternation is that the underlying /l/ becomes [r] in the syllable onset in Korean. When a coda /l/ is followed by a syllable that starts with a glide, it also changes to [r] in SK. Based on this, Kim and Kim (1991) argue that the glide is part of the nucleus because if the glide were an onset, it would force the /l/ to remain in the coda and it would be realized as [l]. But if the glide is part of the nucleus, the /l/ resyllabifies as an onset and thus surfaces as [r]. On the other hand, Lee (1993) argues that since both a consonant and a glide can occur in the onset in SK, the underlying coda /l/ would still be syllabified as an onset of the following syllable and thus would be realized as [r].

They agree, however, that the glide is part of the onset in KD based in part on the 1/r alternation. Consider the data in (7) from Lee (1993) and Kim and Kim (1991) that illustrate the 1/r alternation when the glides are involved.

(7) 1/r alternation in SK and KD

<table>
<thead>
<tr>
<th>SK</th>
<th>KD</th>
</tr>
</thead>
<tbody>
<tr>
<td>/il.yo.ill/</td>
<td>[iryoil]</td>
</tr>
<tr>
<td>/sə.l.yok/</td>
<td>[səryok]</td>
</tr>
<tr>
<td>/kil.wəl/</td>
<td>[kirwəl]</td>
</tr>
<tr>
<td>/mil.wəl/</td>
<td>[mirwəl]</td>
</tr>
</tbody>
</table>

In order to account for the surface forms in KD, Lee contends that the liquid will be syllabified as a coda consonant as shown in the following example in (8).

preceded by a vowel-final syllable.

\[
\begin{array}{c}
\sigma & \sigma & \sigma \\
\mu & \mu & \mu \\
i & l & y & o & i & l \\
\end{array}
\]

According to Lee, the liquid in the first syllable cannot become the onset of the second syllable because of the Single Onset Consonant Constraint that he argues holds in KD. Thus, the underlying coda /l/ will always be syllabified as the coda because the second syllable is already filled with an onset. As a result, /l/ will be realized as [l] in surface representation in KD.

I show that this argument can be weakened when we reconsider the surface forms in (9) in KD. Crucially, the KD forms in (7) do not reflect the actual pronunciation of KD speakers. They are pronounced as in (9).

(9)

<table>
<thead>
<tr>
<th>UR</th>
<th>KD PR</th>
</tr>
</thead>
<tbody>
<tr>
<td>/il.yoil/</td>
<td>*[ilyoil]  [iroid] or [illyoil]  ‘Sunday’</td>
</tr>
<tr>
<td>/səl.yok/</td>
<td>*[səlyok]  [sərok] or [səlyok]  ‘vindication’</td>
</tr>
<tr>
<td>/kil.wal/</td>
<td>*[kilwal]  [kirəl]  ‘writing’</td>
</tr>
<tr>
<td>/mil.wal/</td>
<td>*[milwal]  [mirəl]  ‘honeymoon’</td>
</tr>
</tbody>
</table>

First, I consider the last two examples that contain [w] in the second syllable. When the syllable-initial [w] is preceded by a coda /l/, the sequence of /lw/ is never realized in surface forms in KD. Instead, the glide [w] deletes and the /l/ is realized as [r] being the onset of the second syllable. Thus, the asterisked forms cannot be the correct output forms produced by KD speakers. This indicates that the coda /l/ can be syllabified as the onset of the second syllable. This suggests that the glide is part of the nucleus in KD under the assumption that only one consonant is allowed in the onset in KD.

Now I consider the first two forms in (9) that have two different surface forms in KD. One does not contain the glide and the underlying coda /l/ is realized as [r], like in the last two examples. The other surface form contains the coda /l/ in the first syllable, but the /l/ is a
geminate so that it functions as the onset of the second syllable, too. When this form occurs, the [y] remains after the onset /I/. It means that the glide is not deleted after another consonant, contrary to the previous claim that the glide is always deletes after an onset.

I discuss why the geminate /Il/ occurs in one of the surface forms. Take the first word for ‘Sunday’ in (9). It is a compound of /il/ (‘sun’) and /yoil/ (‘day’). When the second word in a compound starts with the [y] or /i/, a phenomenon termed /n/-insertion takes place in Korean. Han (1994a,b) show in her analysis of Korean compounds that /n/-insertion occurs both in SK and KD. Examples of /n/-insertion in (10) are cited from Han (1994b).

(10) /n/-insertion in Korean

<table>
<thead>
<tr>
<th>SK</th>
<th>KD</th>
</tr>
</thead>
<tbody>
<tr>
<td>[puəknil] ‘kitchen work’</td>
<td>[puəknil] ‘kitchen work’</td>
</tr>
<tr>
<td>[honnibul] ‘blanket’</td>
<td>[honnibul] ‘blanket’</td>
</tr>
<tr>
<td>[mæŋCəŋyam] ‘appendicitis’</td>
<td>[mæŋCəŋyam] ‘appendicitis’</td>
</tr>
<tr>
<td>[tənyam] ‘oversocks’</td>
<td>[tənyam] ‘oversocks’</td>
</tr>
</tbody>
</table>

Both SK speakers and KD speakers will insert /n/ at the beginning of the second of a compound and pronounce it accordingly. However, SK and KD differs in /n/-insertion in the examples in (11) that involve glide, which are also cited from Han (1994b).

(11) /n/-insertion in Korean

<table>
<thead>
<tr>
<th>SK</th>
<th>KD</th>
</tr>
</thead>
<tbody>
<tr>
<td>[minyo] ‘folk song’</td>
<td>[minnyo] ‘folk song’</td>
</tr>
<tr>
<td>[wənyu] ‘crude oil’</td>
<td>[wənyu] ‘crude oil’</td>
</tr>
<tr>
<td>[iryoil] ‘Sunday’</td>
<td>[iryoil] ‘Sunday’</td>
</tr>
</tbody>
</table>

While /n/ is not inserted in SK, it is inserted in KD. As we have seen in the the first two items of data in (9), reproduced in (12), the /n/-insertion takes place optionally in KD.

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8. After /n/-insertion, the coda consonants in the first words are nasalized before the following /n/. Nasalization of the obstruent stops before a nasal consonant reflects a general phonological rule in Korean.

9. I do not provide a detailed review of her work regarding the different prosodic domains for the /n/-insertion since it is not crucially relevant to the analysis of glides in KD.
I argue that the two different surface forms are reflections of what underlying forms are posited by KD speakers. That is, KD speakers who pronounce the word for 'Sunday' with geminate /ll/ take the word as a compound. According to the compounding rule, they will insert /n/ before [y]. The inserted alveolar nasal /n/ then will assimilate to the preceding /l/ according to a regular phonological rule /n/-lateralization in Korean. In this way, the geminate /ll/ will be produced in the surface forms. The forms with the geminate are highly suggestive of the nucleus analysis because one would not expect an onset cluster to consist of two highly sonorous consonants given sonority distance considerations and the fact that onset clusters are not otherwise observed in KD.\(^{10}\)

The other correct forms in (12) do not contain the glide, and the underlying /l/ is realized as [r] in surface representation. This is possible under the assumption that KD speakers regard the words as noncompounds instead of derived compounds. Under this assumption, the underlying coda /l/ is syllabified as the onset of the second syllable. This is possible only when we assume that the glide is underlyingly part of the syllable nucleus. If it were considered part of the syllable onset, it would not be possible to syllabify the /l/ as the onset since it goes against the Single Onset Consonant Constraint.\(^{11}\)

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10. One question that could arise from the geminate variant is why the glide [y] can surface after an onset, which runs counter to the general constraint in KD that bars a glide after a consonant. The appearance of the [y] after a geminate can be attributed to the representation of geminates in the syllable structure and to the Linking Constraint (Hayes 1986). If we assume that a glide deletes after a consonant that is singly-linked to the onset, the glide after a geminate escapes the deletion due to the Linking Constraint since it is doubly-linked.

11. If we take the onset analysis of glides, we have to assume that /l/ is syllabified to the following onset even when the onset is occupied by a glide, and then /l/ will trigger glide deletion in KD. A problem that arises in this analysis is that we have to allow the highly marked onset cluster only to trigger the deletion of a glide. It is much simpler to assume that glides are part of nucleus and that /l/ can freely be linked to the onset position without creating a disfavored onset cluster.
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The l/r alternation data strongly suggest that the glide should be considered part of the nucleus in KD, contrary to the claims made in other previous works.

2.3. Glide deletion

In this subsection, I reexamine the glide deletion phenomenon that occurs in KD. Traditionally, in KD phonology, glide deletion refers to a phenomenon in which a glide deletes after an onset consonant, assuming that CCV sequences are present underlyingly as in SK. It has been claimed previously that this glide deletion phenomenon supports the view that glides are part of the syllable onset in KD.

In SK, a glide can be preceded by another consonant in a syllable. However, in KD, a glide does not appear after another consonant within a syllable. The corresponding KD words have the glide deleted.

Consider the data in (13) that involve glide deletion, with the assumption that the SK forms reflect the underlying representation (a common assumption in discussion of KD).

(13)  
<table>
<thead>
<tr>
<th>SK</th>
<th>KD</th>
</tr>
</thead>
<tbody>
<tr>
<td>kyuc'ik</td>
<td>kuc'ik</td>
</tr>
<tr>
<td>kwisin</td>
<td>kisin</td>
</tr>
<tr>
<td>kwemul</td>
<td>kemul</td>
</tr>
</tbody>
</table>

In analyzing glide deletion in KD, Lee (1993) contends that the preceding consonant is the trigger for the deletion of glides under the assumption that only one onset consonant is allowed in KD. He shows that without the preceding consonant in the onset, glide deletion does not occur as shown in (14).

(14)  
<table>
<thead>
<tr>
<th>SK</th>
<th>KD</th>
</tr>
</thead>
<tbody>
<tr>
<td>kyoca</td>
<td>keca</td>
</tr>
<tr>
<td>yeaca</td>
<td>yeaca (*eca)</td>
</tr>
</tbody>
</table>

12. There is one clear exception to this claim. The interrogative suffix 'kyo' in KD shows the surface glide after a consonant. There is no explanation as to why this form only survives the general glide deletion phenomenon.
It is thus concluded by Lee that glides in KD are part of the syllable onset and they are deleted after another consonant in KD.

When we consider examples that involve the [w], however, we see that this claim seems to be too strong. As shown in (15), [w] deletion occurs even though there is no preceding consonant in the syllable in KD. If the [w] is considered part of the onset, we would not expect the deletion of the glide since there is no preceding consonant that would trigger the deletion and the deletion would make the syllable more marked.

\[
\begin{array}{ll}
(15) & SK \quad KD \\
\text{wis} & \text{is} \quad \text{"hypocrisy"} \\
\text{walgi} & \text{algi} \quad \text{"wage"} \\
\text{wekuk} & \text{ekuk} \quad \text{"foreign country"}
\end{array}
\]

Thus, the examples involving the [y] in (14) do not tell everything about the status of glides. When we consider the data in (15) along with those in (14), we can contend that the glide deletion phenomenon does not exclusively favor the onset analysis. Rather, the data in (15) suggest that the glide is part of the nucleus under the assumption that glide deletion takes place as a way of avoiding surface diphthong in KD. This assumption will be discussed in section 3 below.

Another set of examples in (16) that is related to glide deletion also supports the nuclear analysis of glides.

\[
\begin{array}{ll}
(16) & SK \quad KD \\
\text{pyang} & \text{pe} \quad \text{"letter"} \\
\text{pyeo} & \text{peo} \quad \text{"bottle"} \\
\text{pyeo} & \text{peo} / \text{pio} \quad \text{"illness"} \\
\text{kyoe} & \text{ke} \quad \text{"economy"} \\
\text{yo} & \text{yo} (\text{"eca}) \quad \text{"woman"}
\end{array}
\]

The data show that /yo/ in SK changes to either /e/ or /i/ in KD when it is preceded by an onset consonant, while the change is not observed when it is not preceded by a consonant within a syllable, as shown in the last example. When we attempt to account for this change, it is more reasonable to assume that there is a featural change
between segments within a nucleus than to assume that an onset segment and a nucleus segment undergo a featural change.

Even when we accepted the latter assumption, it would be difficult to explain the KD form $piD$. Unlike the other forms in which /ya/ becomes /e/, the vowel /a/ is deleted completely in this form while the glide /y/ survives and surfaces as /i/. Unless we assume that the glide is part of nucleus underlyingly in KD, we have to face the odd phenomenon where an onset consonant turns into a vowel, deleting the existing vowel.

So far, I have shown based on KD internal data that unlike the previous claim, the glides in KD are part of the syllable nucleus. My analysis is based on /iy/-deletion, l/r alternation, and glide deletion data. In the next section, I show how the KD glides are underlyingly represented and when the glides delete and when they do not.

3. The Underlying Representation of Glides

In this section, I show how glides are represented underlyingly. I follow the fairly standard view of Sohn (1987), Lee (1993) and others that glides are represented the same as vowels underlyingly in Korean.13 Two representations are possible in the syllable structure that takes the mora as a constituent as shown in (17).

(17) Two possible underlying representations of glides

```
a. \begin{array}{c}
\sigma \\
\mu \\
(C) \quad G \quad V
\end{array}

b. \begin{array}{c}
\sigma \\
\mu \\
\mu \\
(C) \quad G \quad V
\end{array}
```

13. It is widely accepted that the glide is underlyingly represented as a vowel (Steriade 1984, Levin 1985, Waksler 1990). The difference between a glide and a vowel is how they are represented in syllable structure. In moraic theory (McCarthy and Prince 1986 and Hayes 1989), the glide is linked directly to the syllable node while the vowel is linked to a mora.

14. I use G as a cover symbol for /i/ and the round vowels that would surface as [y] and [w], respectively.
In (17a), the glide shares a mora with the following vowel. From this underlying structure, the glide deletion will not change syllable weight. If the glide were connected to a separate mora as shown in (17b), the deletion of the glide would leave its mora to be connected by the following vowel. This would create a long vowel. The data that show glide deletion in KD demonstrate that the deletion does not create a long vowel. Some of the earlier examples are given again in (18).

(18) SK  KD
kwemul  kemul\textsuperscript{15}  'monster'
kwisin  kisin   'ghost'
ilyoil  iroil   'Sunday'
salyok  sarok   'vindication'

The glide simply deletes after an onset consonant without changing the length of the following vowel. The structure in (17a) can account for the glide deletion in a less complicated manner. Thus, I adopt the structure of (17a) in which the glide is comoraic with the following vowel in underlying representation.

Now I discuss when underlying vowels can appear as glides and when they do not surface. I assume that there is a constraint in KD that does not allow a surface diphthong, which I will term 'No Diphthong Constraint'. I posit that this constraint forces the underlying diphthongs to undergo phonological processes so that they can appear as monophthongs. One way of avoiding the diphthongal structure is to link the initial vowel to the syllable node. I assume following Davis and Hammond (1995) that [y] and [w] in KD are realized from underlying /i/ and the round vowel by a rule that delinks their association to a mora, and they then link directly to a syllable node. Davis and Hammond refer to their rule as the /i/-to-[y] rule based on American English. I reformulate it more generally as the onglide-to-onset rule as in (19).

\textsuperscript{15} In some parts of the Kyongsang region (especially northern Kyongsang region), the first vowels in this word and 'kisin' are pronounced long. However, the surface long vowel is not a reflection of the vowel lengthening due to glide deletion. The vowels are underlyingly long in the regions and the long vowel simply surfaces long regardless of glide deletion.
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(19) Onglide-to-onset rule in KD

\[
\begin{array}{c}
\sigma \\
\mu \\
G \quad V
\end{array}
\]

The rule states that G becomes delinked from its association to the underlying mora and links directly to a syllable node. By this rule, the underlying G is realized as the onset glide. This rule should be considered as a way of avoiding a diphthong in surface representation when there is no preceding consonant.

When there is an onset consonant, the glide do not surface. It has been traditionally assumed that a glide deletes after another consonant within a syllable. This implies that a rule such as in (19) applies to derive a glide and then the glide would delete. I assume, however, that G in (19) does not become a glide at all. This is based on the general constraint in KD that does not allow more than one consonant in the onset, which I will call 'Onset Cluster Constraint'. If this constraint is in force, it would be redundant to derive a glide after a consonant since it would delete eventually. Instead, I assume that it simply deletes after an onset consonant. This deletion rule is depicted in (20).

(20) Onglide deletion rule in KD

\[
\begin{array}{c}
\sigma \\
\mu \\
C \quad G \quad V
\end{array}
\]

Note that the rule accounts for the exceptionality of the second variant in (12); since (12) involves a geminate or linked C (to the preceding syllable) then (20) would not apply to those forms because of the Linking Constraint. A consequence of this analysis is that KD does not have tautosyllabic CG sequences underlyingly nor on the surface in the
onset. Moreover, while underlying diphthongs do occur as in (19), they do not surface as such. One way of avoiding the diphthongs is to link the onglide vowels to the syllable node, changing them into onset glides. This is possible only when there is no preceding consonant in the syllable as in (19). The other way of avoiding the diphthong is to delete the onglide vowel when there is a preceding consonant as in (20). Both processes change the underlying diphthongs into monophthongs in surface representation.

4. Discussion on Glide Deletion After Glide Formation

In this section I examine glide deletion that takes place after a phenomenon called glide formation at a morpheme boundary in SK and KD and discuss whether the analysis proposed for SK data (which is commonly assumed for KD data as well) is applicable to KD data.

It has been claimed in section 3 that the glide in KD is underlingly represented as a vowel. The vowels that could become a glide are /i/ and the round vowels (/o/ and /u/). It has been shown that one of these vowels become a glide when it is comoraic with a following vowel and when it is not preceded by a preceding consonant in the onset.

In SK, we observe glide formation that occurs when one of the glide-forming vowels is followed by either /o/ or /a/ at a morpheme boundary. In this environment, the first vowel can become a glide. This process is graphically shown in (21), which demonstrates the [y] glide formation.

(21) SK glide formation in Lee (1993)

When the condition for glide formation is met, the candidate for the
glide will be delinked from its mora and will be linked directly to the syllable node. The mora that is delinked from its dependent features will be linked by the following vowel. This creates a long vowel. Examples of this process are provided in (22), drawn from Han (1990).

(22) Examples of glide formation at a morpheme boundary in SK

\[
\begin{align*}
    ki + \varepsilon & \rightarrow ky_{\varepsilon} & \text{to crawl'} \\
    po + a & \rightarrow pwa & \text{to see'} \\
    cu + \varepsilon & \rightarrow cw_{\varepsilon} & \text{to give'}
\end{align*}
\]

In the same environment, however, we observe quite different output forms in KD as we see in (23).

(23) KD examples\(^{16}\)

\[
\begin{align*}
    ki + \varepsilon & \rightarrow kii & \text{to crawl'} \\
    po + a & \rightarrow paa & \text{to see'} \\
    cu + \varepsilon & \rightarrow coo & \text{to give'}
\end{align*}
\]

If the glide formation rule proposed for SK in (21) applied in KD, the correct output forms would not be generated. If it did, the output forms in SK as in (22) would be generated first and then the glide deletion rule which deletes a glide after another consonant in KD would also apply. After the application of these rules, the final results would be as in (24).

(24) Expected results after glide formation and deletion rules in KD

\[
\begin{align*}
    \text{UR} & \quad ki + \varepsilon & \text{po + a} & \text{cu + \varepsilon} \\
    \text{Glide formation} & \quad ky_{\varepsilon} & \text{pwa} & \text{cw}_{\varepsilon} \\
    \text{Glide deletion} & \quad k_{\varepsilon} & \text{paa} & \text{c}_{\varepsilon} \\
    \text{PR} & \quad *[k_{\varepsilon}] & [paa] & *[c_{\varepsilon}]
\end{align*}
\]

Only one output in the forms in (24) is correct while the two other forms are incorrect. If we assume that a glide can be formed during

\(^{16}\) I do not provide an analysis as to how the surface forms are derived from the underlying forms. I leave this to a future work.
derivation even when there is an onset consonant and the glide is to be deleted in KD, we would not be able to account for the two incorrect output forms in (24). This supports my claim that the underlying vowels (that can become glides) do not become glides at all when there is a preceding onset consonant. This obviates the need to put the glide deletion rule after glide formation since the glide formation does not take place in the first place. The result also seriously weakens the previous claim that a consonant triggers the deletion of a following glide in the onset in KD.

Now consider the data in (25) which show cases of glide formation at a morpheme boundary when the stem vowel is not preceded by an onset consonant in KD.

(25) Glide formation at a morpheme boundary in KD

\[
\begin{align*}
&\text{o + a} & \text{[wa]} & \text{‘to come’} \\
&\text{sau + a} & \text{[sawa]} & \text{‘to fight’} \\
&\text{i + o} & \text{[yo]} & \text{‘to put things on a head’}
\end{align*}
\]

Unlike the examples in (23), the examples in (25) clearly show that when there is no preceding onset consonant, glide formation does take place as expected by the onglide-to-onset rule proposed in (19). As shown in the derivation in (26), the stem vowels /i/ and the round vowels (/o/ and /u/) become glides since it is not preceded by a consonant in the onset.

(26) Glide formation wa sau + a i + o

Glide deletion N/A N/A N/A

PR [wa] [sawa] [yo]

Thus, it could be said that glide formation and glide deletion in KD are not ordered rules. Rather, they are in complementary distribution: that is, when an onset consonant is present, glide formation will not occur and vice versa.

So far in this section, I have shown that the glide formation and glide deletion phenomena at a morpheme boundary in KD can be accounted
for by the proposal in (19) and (20) in section 3, which supports the claim that the glides are part of the nucleus in the syllable structure. I have also shown that the previous claim regarding KD glides that a preceding consonant triggers the deletion of a glide in the onset is not correct when KD internal data are closely examined.

5. Conclusion

The status of onglides in the syllable structure differs in languages. In some languages, onglides are part of the syllable onset while in other languages they are considered part of a diphthong. In SK, there have been controversies over the status of onglides whether they are part of the onset or of the nucleus. In this paper, it is argued that onglides are part of the syllable nucleus in KD. This goes against previous works in which KD glides are considered part of the syllable onset. The three pieces of evidence that were taken in KD (/w/-deletion, /r/ alternation and glide deletion) all support the nucleus analysis.

The glide deletion phenomenon indicated that the glide is represented as being comoraic with the following vowel in underlying representation. I have claimed that the underlying glide is realized as an onset consonant only when there is no preceding consonant in the onset. Otherwise, it will delete. Finally, the glide formation and deletion processes at a morpheme boundary in KD are examined and they are seen as evidence for the nucleus analysis of glides.

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The Status of Onglides in the Kyongsang Dialect of Korean

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The status of onglides in the syllable structure differs in languages. In some languages, onglides are part of the syllable onset while in other languages they are considered part of a diphthong. In Standard Korean, there have been controversies over the status of onglides whether they are part of the onset or of the nucleus. In this paper, it is claimed that onglides are part of the syllable nucleus in the Kyongsang dialect of Korean in contrast to previous claims that onglides are part of the syllable onset in this dialect. My argument is based on three pieces of dialect-internal evidence (/η/-deletion, /l/r alternation and glide deletion). The glide formation and glide deletion phenomena that occur at a morpheme boundary in KD also support the nucleus view of glides. Along the argument, it will be shown that the glide is represented as being comoraic with the following vowel in underlying representation.

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