Solving the Samothraki Greek compensatory lengthening puzzle∗

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Abstract

/r/ in Samothraki Greek deletes from an onset position and, depending on the environment, causes lengthening of the following vowel. This is a unique case of compensatory lengthening (CL). I investigate the phenomenon in detail and argue that onset /r/-loss relates to the placelessness of /r/, while I attribute CL preservation of an input mora attached to /r/. Various sub-cases, not previously discussed, are considered and incorporated in the general analysis.

Keywords: Samothraki Greek, compensatory lengthening, /r/-placelessness, input moraicity, spreading

1. Introduction

Samothraki Greek (SamG) presents interesting data, where /r/-deletion from an onset position causes compensatory lengthening (CL) of the following vowel. In contrast, coda /r/ remains. This is a counterexample to standard cases of CL, where CL occurs after coda loss, but not after onset loss (Hayes 1989). Previous attempts to analyse these data have not proved entirely successful (cf. Hayes 1989: 283; Kavitskaya 2002: 96-99), especially since numerous details which complicate things had not been taken into account. Due to the lack of space, the ideas and problems the above approaches face cannot be reviewed here (for more details, see Topintzi 2006). Using recent (Katsanis 1996; henceforth K) and cross-checked (with Maria Tsolaki, a native speaker of SamG) data, the current analysis aims at exploring the phenomenon more fully.

2. The facts

2.1 Data

SamG shares with other northern Greek dialects the raising of stressless e, o to i, u respectively, e.g. péde > pédi “five”, potamós > putamós “river” and the loss of underlying i and u (with some exceptions) tiγáni > tγa “frying pan”, kufós > kfos “deaf”. These are tangential to our current focus so I abstract away from them.

What is of importance for us here are the /r/-facts1. In particular, /r/ stays on two occasions: i) when it is word-final and ii) in sequences VrCV, i.e. when in coda position.

∗ I would like to thank Moira Yip and an anonymous reviewer for comments, Donca Steriade for valuable input, Marianna Ronga for continuous support with respect to empirical facts of Samothraki Greek and Maria Tsolaki and Andreas Makris for native speaker intuitions. All errors are of course my own. Partial financial support from the AHRC and the A.G. Leventis Foundation is gratefully acknowledged.
(1) **Coda /r/ stays** (here and throughout all glosses are mine)

fanár  “lantern” (K: 48)  
arpázu  “I grab” (K: 48)  
figár  “moon” (K: 58)  
karpás  “seed” (K: 48)

In all other instances, /r/ deletes. In the case of singleton onsets, /r/ deletion leads to vowel lengthening, but only word-initially (2). Word-medially no such lengthening occurs (3). Note that I represent a long vowel as [VV] rather than [V:] to show on which mora stress docks and to keep in line with Katsanis’ transcription.

(2) **Deletion of /r/ initially and lengthening** (K: 50-51)

ra > aa  rafts > áafts  “tailor (masc.)”
ri > ii  riya* > iiyα*  “oregano”
ru > uu  rúxa > úuxa  “clothes”
re > ee  réma > éema  “stream”
ro > oo  róya > óoya  “nipple, berry (of a grape)”

(3) **Deletion of /r/ word-medially and no lengthening** (K: 52)

aro > ao  θaró> θaó  “I reckon”
iru > iu  léftirus > léftius  “free”
are > ae  varéθ > vaéθ  “barrel”
iri > ii  θiriα > θiiα  “pigeon-hole”
eru > eu  kséru > kséu  “I know”
uri > ui  lurí > lui  “strap, strip”
era > ia  méra > mía2  “day”
ara > aa  skára > skáa  “grill”

In complex onset clusters, /r/ again deletes, but lengthening occurs in all positions. Numerous examples are given in (K: 54-55, 59). Some are presented here:

(4) **/r/ in onset cluster+V+C: deletion and lengthening**

a) **biconsonantal clusters**

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Gloss</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>pr+o &gt; poɔ</td>
<td>prótos &gt; póoutus</td>
<td>“first”</td>
</tr>
<tr>
<td>vr+i &gt; vii</td>
<td>vrísi &gt; viis’</td>
<td>“tap”</td>
</tr>
<tr>
<td>fr+e &gt; fee</td>
<td>fréna &gt; fénea</td>
<td>“brakes”</td>
</tr>
<tr>
<td>xɔ+o &gt; xoo</td>
<td>xróma &gt; óoma</td>
<td>“colour”</td>
</tr>
<tr>
<td>γry+a &gt; gaa</td>
<td>γnáfo &gt; γáafu</td>
<td>“I write”</td>
</tr>
</tbody>
</table>

1 A few general observations are in order: i) despite some disagreement over the exact details of the phenomenon in very specific cases, all sources agree on the core of it (Heisenberg 1921; Newton 1972; Katsanis 1996; Ronga p.c.). My discussion however will be largely based on Katsanis 1996, ii) the dialect undergoes changes through its partial incorporation to the dominant Modern Greek (i.e. Athenian) dialect (K: 49). However, /r/-loss is still alive, especially in the speech of the older generations. Younger generations or those with higher education or social status tend to preserve /r/, and iii) when deciding on the input speakers use, other factors have to be acknowledged: social, educational and diglossia. Nonetheless, I will focus on the phenomenon from a purely phonological perspective and will assume that /r/ is still present in the speakers’ input. Even if this now presents /r/-loss and lengthening, there must have been a point in time just before /r/-loss first applied, during which /r/ was still in the input. This is the input I will be using.

2 As the reviewer correctly points out, raising in [mía] is unexpected, since the mid-vowel is stressed. Due to the absence of space, for this idiosyncratic to SamG process, the reader should consult Katsanis (1996: 37-38). It is also unclear why [θiiα] receives stress on the first vowel instead of [θiiα].
b) **triconsonantal clusters**

\[
spr+a > spa \quad áspra > áscaa \quad “white”
\]
\[
extr+a > xtaa \quad éxtra > éxtaa \quad “hostility”
\]
\[
frt+a > ftaa \quad ráftra > áaf taa \quad “tailor (fem.)”
\]

Things are however different when the Cr+V sequence is followed by another vowel, i.e. Cr+V+V. The output of the sequence \( C + r + i/e + V \) is not \( C + ii/ee +V \) but instead it is \( C + i +vjV \) without r-deletion or lengthening.

(5) \[ C + r + i/e + V \rightarrow C + i +vjV \]

Katsanis describes exactly the same phenomenon but with reference to velars only, i.e. \( Velar + r + i/e + V \rightarrow Velar + i +vjV \). An additional process applies here, namely centralization of front vowels \( i/e \) to \( î \) (or \( ê \) occasionally)\(^4\). The velar consonants do not palatalize however (for discussion, see Katsanis 1996: 72-73).

(6) \[ Velar + r + i/e + V \rightarrow Velar + i +vjV \]

Centralization of front vowel in the environment \( k/g/x/γ + r + i/e \) generally happens, i.e., even when a consonant follows (compare (7) with (4))\(^5\).

(7) \[ Velar + r + i/e + C \rightarrow Velar + îî/êê + C \]

Thus, while vowel centralization is clearly related to velar consonants, the absence of /r/-deletion and the emergence of a glide in (6) and (5) is independent of the quality of the consonant, but relates to the presence of a \( V_{\text{front}+V} \). In what follows, I will abstract away from centralization and focus on the /r/ loss and lengthening facts.

### 2.2 Summary of the patterns

The preceding patterns can be summarized in the following (8):

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\(^3\) Data of the type fráula, krío, práos, akróasi are unattested in the dialect (Ronga p.c. 9/3/05), so we cannot yet test what happens in \( Cr+V_{[a.o.o]}+V \) sequences.

\(^4\) As the exact phonetics of \( î / ê \) is quite unclear to me, I maintain Katsanis’ representation in this respect. However, according to Ronga (p.c. 9/3/05), \([i]\) is most likely IPA [豪门] and \([ê]\) is [s]. She maintains that \([i]\) is the unstressed realization of \([ê]\).

\(^5\) According to Maria Tsolaki, some of the words above are instead pronounced as: [axéřjastus], [kirjás’] (where the final s is palatalized) and [gêêmnuus].
3. Analysis

3.1 Assumptions - proposals

Two assumptions are crucial for the subsequent discussion. The first maintains that /r/ is underlingly moraic. This will be able to account for vowel lengthening, as we will see in more detail. The second assumption claims that SamG /r/ is placeless. Such placelessness will serve not only to explain why /r/ deletes from onset position in the first place, but also to provide the basis for a specific case of vowel spreading (cf. section 3.7). Let us consider these two assumptions in turn.

First, some background. In his seminal paper on compensatory lengthening, Hayes (1989) argues that CL involves lengthening of a segment as a response to the loss of a neighbouring segment. It is proposed that a segment may delete, but its mora can survive by migrating to a neighbouring segment thus causing the latter’s elongation. In a derivational framework this is easy to describe: i) first, an input string is assumed, ii) which subsequently syllabifies and receives moras. iii) Then a segment that carries a mora deletes, iv) but its mora is preserved and realized onto a neighbouring segment, e.g. i) /kanta/ → ii) [ka^n_μ.ta^μ] → iii) [ka^n_μ.ta^μ] → iv) [ka^n_μ.ta^μ]. The crucial bit here is that an intermediate stage is available in which syllabification and moraification applies.

Classic OT however lacks such an intermediate stage as it only admits an input-output mapping. Consequently, CL becomes very difficult to explain. There are two obvious solutions to this problem. The first introduces some type of intermediate stage. Numerous versions of this idea have been proposed but all fail (see Topintzi 2006), either conceptually as they run against the spirit of OT by including some kind of (arbitrary) intermediate level (cf. sympathy in McCarthy 2003) or empirically, since proposals such as segmental faithfulness (Lee 1996; Hermans 2001) cannot capture cases like Bantu prenasalization, e.g. muntu → mu^n_μtu and *mu^n_μtu.

The alternative admits underlying moraicity that offers a CL explanation consistent with the classic input-output mapping. Nonetheless, this too faces problems (for details see Topintzi 2006), as it runs counter to the Richness of the Base by restricting inputs through mora specification (Prince & Smolensky 1993/2004), but seems more grounded than imposing arbitrary intermediate stages which undermine the whole OT enterprise.

In particular, while input moraicity is routinely used to distinguish long from short vowels, it is also commonly used to distinguish geminates from singleton consonants (Hayes 1989; Morén 1999). Moreover, analyses of certain languages require, e.g. Piro (Lin 1997) or are compatible with (cf. sesqui-syllabic languages, such as Kammu, Semai or Temiar) input moraicity. Thus, imposing underlying moraicity for at least some languages should not be as striking.

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(8) SamG /r/ patterns

<table>
<thead>
<tr>
<th>Deletion</th>
<th>Lengthening</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coda /r/</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>Singleton onset /r/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>word-initially</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>word-medially</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Complex onset /r/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cr+V+C</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Cr+V[i,e]+V</td>
<td>NO</td>
<td>NO</td>
</tr>
</tbody>
</table>

(also when C=velar & V=front→centralization)

+glide appearance
+metathesis
(+centralization as above)
This is the tack I am taking here for Samothraki Greek. Notably, I argue that only /r/ is underlyingly moraic, but this does not render it a geminate. Rather it implies that /r/’s loss on the surface will result in CL due to a requirement for mora preservation. Other consonants are not underlyingly moraic. If they were, then their deletion should also cause CL, which, as far as I am aware of, only occurs with /r/-deletion. Since at present I cannot tell with certainty whether other deletion processes arise, I will for current purposes take the more cautious route in arguing that only /r/ is moraic.

Of course, the next question is why only /r/ should be moraic. This merits fuller discussion, but some tentative thoughts are in order. It is desirable to relate /r/’s placelessness with its moraicity. One possible way to do this follows Topintzi (2006), where it is argued that moraicity relates to syllable well-formedness. By syllable well-formedness, I refer to specific properties of segments in terms of markedness and sonority that render them the best possible nuclei, onsets and codas. The idea is that the more well-formed a syllable constituent is, the more likely it is to be moraic. Now, if well-formed implies more unmarked, then placeless segments which are unmarked should be expected to be moraic. This would account for the moraicity of /r/, but not of other consonants, since these are placeful.

It is much easier to justify the assumption regarding the placelessness of /r/, as this receives support from other languages where a similar claim has also been suggested including Yoruba (Akinlabi 1993) and English (Rice 1992). The implication of /r/’s placelessness is that /r/ will be able to survive in codas where placelessness is often accepted or required (cf. Selayarese /ɔː/ (Rice 1992), Japanese / Italians / (Yip 1991)), but not in onsets, because placeful onsets are preferred. Technically, this point can be implemented by means of positional markedness (e.g. Zoll 1998), as illustrated in Topintzi (2006). To simplify things, I will refer to this property in terms of the following constraint.

\[(9) \quad *\text{ONSET}/r\colon /r/ \text{ is disallowed in onset position} \]

3.2 Constraints used

Our analysis will be making use of the following constraints (and some extra will be added as we move along).

\[(10) \quad *\text{ONSET}/r\colon /r/ \text{ is disallowed in onset position} \]

\[
\text{MAX-SEG: Do not delete segments} \\
\text{Max-}\mu: \text{Maintain the number of input moras in the output} \\
*\text{DIPH: No diphthongs} \\
*\text{GEM: No geminates} \\
\text{LINEARITY: No metathesis} \]

3.3 Singleton /r/ in a coda

In codas, /r/ does not delete, since by being in a coda, it avoids a *ONSET/r violation. Consequently, no lengthening occurs (11a). While no ranking argument can be provided by the coda data, by looking ahead to the onset analysis, the ranking *ONSET/r, MAX-\(\mu \gg \text{MAX-SEG} \) is proposed.
(11) /r/ in coda: *ONSET/r, MAX-μ >> MAX-SEG

<table>
<thead>
<tr>
<th></th>
<th>*ONSET/r</th>
<th>MAX-μ</th>
<th>MAX-SEG</th>
</tr>
</thead>
<tbody>
<tr>
<td>/kaμμp0μs/</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. kaμμp0μs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. kaμμp0μs</td>
<td></td>
<td></td>
<td>*!</td>
</tr>
</tbody>
</table>

3.4 Singleton /r/ word-initially

Word-initially, /r/ deletion is enforced by *ONSET/r, which now becomes active. Nonetheless, since the input includes a moraic /r/, MAX-μ dictates that /r/’s mora needs to be preserved. Consequently, vowel lengthening occurs as depicted in (12b).

(12) /rμuμxaμ/ --- [uμμxaμ]

a. σ

b. (σ)

(13) singleton /r/ word-initially: *GEM >> *ONSET/r, MAX-μ >> MAX-SEG

<table>
<thead>
<tr>
<th></th>
<th>*GEM</th>
<th>*ONSET/r</th>
<th>MAX-μ</th>
<th>MAX-SEG</th>
</tr>
</thead>
<tbody>
<tr>
<td>/rμuμxaμ/</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(12b) + a. uμμxaμ</td>
<td></td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>b. uμμxaμ</td>
<td></td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>(12a) c. rμuμxaμ</td>
<td></td>
<td></td>
<td>*!</td>
<td></td>
</tr>
<tr>
<td>d. uμμxaμ</td>
<td></td>
<td></td>
<td>*!</td>
<td>*</td>
</tr>
</tbody>
</table>

(13b) is ruled out by the top-ranked constraint *GEM, which militates against consonant geminates. (13c) preserves the onset /r/, so it violates *ONSET/r, while (13d) fails to preserve the mora of the lost /r/ and thus violates MAX-μ. (13a) wins as it only violates the low-ranked MAX-SEG by deleting the /r/.

3.5 Singleton onset /r/ word medially

In contrast to the word-initial position, word-medially no lengthening occurs. To account for that, I will adapt a suggestion made to me by Steriade (p.c.). The basic idea is that word medially, /r/ is intervocalic, so when it gets deleted, its duration can be absorbed by both of the flanking vowels. Translating this into moraic terms, we could say that the mora of /r/ is not lost, but shared among the surrounding surface vowels. This means that some amount of lengthening occurs in each vowel, but this is too small to be perceived. We also predict that phonetically the duration of these vowels should be slightly longer compared to the duration of underlying vowel sequences. The reviewer suggests that this is in line with the possibility that SamG /r/ is a tap, as the one in standard Modern Greek, in which case its duration will be quite short, i.e. approximately 20-30 ms. Under the present interpretation of the facts, this duration will be shared by the flanking vowels after /r/’s deletion, i.e. 10 extra ms on each V, but such

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6 The constraint against long vowels must be low-ranked.
Samothraki Greek compensatory lengthening

duration is within the normal variability in vowel production. While I have collected some SamG phonetic data, these are at present insufficient to test such a prediction.

The proposed representation of the input (14a) on the surface is as in (14b). Note that a subscripted mora indicates a mora shared by the surrounding vowels, here $u$ and $i$.

The corresponding tableau is in (15).

\[
(14) \quad /\text{lu}^\mu \text{r}^\mu \text{i}^\mu/ \rightarrow [\text{lu}^\mu \text{r}^\mu \text{i}^\mu]
\]

\[
(15) \quad \text{singleton } /\text{r}/ \text{ word-medially: } *\text{ONSET}/r, \text{ MAX-} \mu >> \text{ NO DIPH}
\]

Note that I am treating [ui] here as a diphthong. Had it been [u.i] then we would probably expect onset creation, as it happens in Cr+i/e+V clusters (section 3.7). This is because hiatus is generally avoided in SamG (Katsanis 1996: 43) and is usually treated by syllabification in a diphthong or onset creation, although facts are not as straightforward.

Another possible candidate could be *luu.ji with lengthening of the first vowel and onset creation through spreading of /i/ leftwards. The problem this faces is the directionality of spreading, which seems to be rightward in SamG, as in Malay, where /tiap/ → [ti.jap] “every” but /mengulai/ → *[mengula.ji] “to cause to sweeten” and not leftward as in Ukrainian (Rubach 2002). The candidate *lu.jii, also violates the directionality of spreading but also causes a *3 LINKS violation (more on this in (21)).

3.6 /r/ in complex clusters of the type Cr+V+C - the simple(r) case

We have now dealt with simplex /r/. It remains to see what happens with /r/ in complex clusters. I will first consider the case where the cluster is followed by a V+C sequence. As we know, the output of a cluster of this type involves /r/ deletion and lengthening. So the winning candidate is (17a) with a long vowel. But the question is why we do not get (17d) mi$^\mu$ti$^\mu$ni which is analogous to (14b) lu$^\mu$ri$^\mu$ in that both candidates present mora sharing. However, unlike (14b) where the mora left by /r/ is shared between the flanking vowels, in (17d) it is shared between /t/ and /u/. As a result, the onset /t/ ends up with a mora. But consonants other than /r/ have no moras. Such a candidate can thus be excluded due to its violation of *MORAIC ONSET (16) (which will be utilized again in (23)). The other candidates are disqualified due to familiar reasons, i.e. violations of *ONSET/r or MAX-μ.

\[
(16) \quad *\text{MORAIC ONSET}: \text{Moraic onsets are banned}
\]
3.7 /r/ in complex clusters of the type Cr+i/e+V

In cases where the cluster is followed by i/e + V, no /r/ deletion occurs, but also no lengthening takes place. The question posed then is why for an input like /αγριος/ we get [άγιρ] and not *[άγιριος]? Katsanis considers two approaches that involve derivational epenthesis and deletion, both of which he ends up finding problematic (K: 57). I present some additional reasons why these are implausible.

(18) i) \(\alpha\gamma\rho\iota\sigma\) → \(\alpha\gamma\rho\iota\jus\) (j-epenthesis) → \(\alpha\gamma\iota\jus\) (r-deletion) → \(\alpha\gamma\iota\jus\) (coalescence) → \(\alpha\gamma\iota\jus\) (r-anaptyxis/epenthesis)
   ii) \(\alpha\gamma\rho\iota\sigma\) → \(\alpha\gamma\rho\iota\jus\) (j-epenthesis) → \(\alpha\gamma\iota\rho\jus\) (i-epenthesis between γr) → \(\alpha\gamma\iota\jus\) (second-i-deletion)

The problems (18i) faces are the following. First /r/-epenthesis seems unlikely as it is a process generally unprecedented in Greek dialectology. But even if it was grounded, it is odd why /r/ should delete only to re-emerge later in the derivation. Finally, why should the high central vowel coalesce, given that lengthening is not only allowed, but is in fact necessary in Cr+i/e+C? (18ii) is similarly troublesome. No good trigger for /i/-epenthesis exists, because SamG permits complex onset clusters e.g. \(\kappa\lambda\epsilon\upsilon\upsilon\) (K: 63), \(\kappa\mu\alpha\rho\) (K: 64), \(\zeta\mu\alpha\rho\) (K: 67)) and resolves complex onset clusters with /r/ by deleting it. So why should the language choose /i/-epenthesis instead? In addition, it is extremely bizarre to argue that the second /i/ deletes, as no markedness pressure seems to be applicable here.

The alternative I offer is very different from both these approaches; I propose that what really goes on is metathesis, i.e. \(r+i/e\) becomes \(i/e+r\). As a result, /r/ syllabifies in a coda and survives without getting deleted, while it preserves its mora. Finally, due to /r/’s placelessness, i/e can spread rightward and form an onset for the following syllable. This should all become clearer if we consider the input /αγριος/ and the possible representations its output could take stepwise (I will abstract away from the centralization facts). Consider first (19).
(19a) is what I call ‘initial syllabification’, i.e. the structure we should expect if nothing at all had happened. (19b) is the structure we would expect after onset creation. The next logical step would then be to get ayiijus (20) by /r/-deletion and subsequent lengthening, but this is not what happens. Why should this configuration be suboptimal?

(20) What does not happen - multiple linking in ayiijus

\[ \sigma \sigma \sigma \\
\mu \mu \mu \\
\gamma i u s \\
\text{Root} \\
\text{Place} \]

Observe that the segment /i/ has three links to prosodic constituents (two with moras, one with a syllable). I would like to suggest that this is banned by *3 LINKS, a constraint which could perhaps be seen as part of a larger family of constraints militating against ternarity (namely three feet, three moras, etc):

(21) *3 LINKS: No ternary branching originating from a single segment

But this is not the only possibility. Assuming that all three input moras must be preserved, we could alternatively insert a glide instead of spreading (cf. (22)). This would avoid the *3 LINKS violation, but would violate DEP-SEG, the constraint against segment insertion, which I claim is highly ranked in the language. Another contender that would avoid the DEP-SEG violation is presented in (23), but again this would occur at the expense of dominant *MORAIC ONSET. What does not happen is shown below:

(22) glide insertion  

\[ \sigma \sigma \sigma \\
\mu \mu \mu \\
\gamma i u s \\
\text{Place} \]

(23) moraic onset in \(a^\mu i^\mu j^\mu u^\mu s\)

\[ \sigma \sigma \sigma \\
\mu \mu \mu \\
\gamma i u s \]

This leaves us with the following representation.

(24) What does happen

\[ \sigma \sigma \sigma \\
\mu \mu \mu \\
\gamma i r u s \\
\text{Root} \\
\text{Place} \]

This is based on /ri/’s placelessness. By lacking a place node, /i/ can (still) freely spread its place features to the onset of the next syllable. So /ri/ cannot block this process. At the same time, by having a metathesis between /i/ and /ri/, /r/ now appears in a coda position, where it can survive (cf. section 3.3) and thus no deletion occurs. As a result, it can host its mora, therefore no lengthening takes place either. This form then is
consistent with *MORAIC ONSET, DEP-SEG, *3 LINKS, *ONSET/r, MAX-μ, MAX-Seg. Only LINEARITY is violated.

(25) /r/ in Cr+i/e+V: *MORAIC ONS, DEP-SEG, *3 LINKS, *ONSET/r, MAX-μ >> LINEARITY >> MAX-Seg

|                  |  /a^gi/_ri^ti^ju's/ |   *μ/ |  |   *3 |   *ONS  | MAX-μ  | LINEARITY | MAX-Seg |
|------------------|---------------------|--------|-----------|--------|---------|---------|-----------|
| (24) a.          | +                   |        |           |         |         |         |           | *        |
| (23) b.          | +                   |         |           |         | !       |         |           | *        |
| (22) c.          | +                   |         |           |         | !       |         |           | *        |
| (20) d.          | +                   |         |           |         | !       |         |           | *        |
| (19a) e.         | +                   |         |           |         | !       |         |           | *        |
| (19f) f.         | +                   |         |           |         | !       |         |           | *        |

A final point before concluding is that SamG can be seen as a case of cooperative interaction where the less faithful emerges (Bakovic 2004) under the schema M_1, M_2 >> F_1 >> F_2. In this schema, markedness violations are usually treated by violations of the lowest faithfulness constraint (F_2). However, under certain occasions, F_2 violations might prove detrimental, in which case F_1 - the less faithful - violations are preferred. If we substitute the markedness and faithfulness constraints in SamG as follows: M_1=*ONSET/r, M_2=*3 LINKS, F_1=LINEARITY, F_2=MAX-Seg, then it becomes obvious that deletion of /r/ (through violation of MAX-Seg) is generally preferred to satisfy *ONSET/r. Metathesis of /r/ (which violates LINEARITY) is therefore suboptimal, because LINEARITY >> MAX-Seg. However, in cases like /ayrius/, the anticipated output [a^gi/_ri^ti^ju's] violates *3 LINKS. It is in that case only that the less faithful candidate emerges with metathesis, namely [a^gi/_ri^ti^ju's].

4. Conclusion

In this paper, unlike previous accounts (Hayes 1989; Kavitskaya 2002), I have explored the SamG data in detail and provided an account that covers all major aspects of the facts. I have shown that SamG presents /r/-deletion as a general strategy for satisfying *ONSET/r, thus *ONSET/r >> MAX-Seg is established. *ONSET/r is grounded in the placelessness of /r/. /r/’s input mora is preserved in the output due to *ONSET/r, MAX-μ >> MAX-Seg. Placeless codas are commonly admitted, and hence it is no surprise that coda /r/ survives and keeps its mora. Word-initially, singleton onset /r/ deletion leads to lengthening, while, word-medially, the mora left by the deleted /r/ is shared between the flanking vowels. In complex onsets, /r/ deletes in sequences Cr+V+C and lengthening follows, but in Cr+V+V sequences, a similar strategy would yield CiiV violating *3 LINKS. Hiatus is avoided in SamG, so all dominant constraints can be simultaneously satisfied by /r/ metathesis, which would bring /r/ in coda position (where it stays and

Note that in (25) we would still get the same results had the ranking been MAX-Seg >> LINEARITY and *3 LINKS was missing. We can however establish that the right ranking is LINEARITY >> MAX-Seg. Consider normal complex onset clusters with /r/, e.g. /krato/. While LINEARITY >> MAX-Seg correctly produces [kaató], the reverse wrongly generates *[karató]. But now if LINEARITY >> MAX-Seg, then an extra constraint is needed to rule out (25d). This I claim is *3 LINKS.
keeps its mora) and allow i-spreading to provide an onset. This is still possible since /t/ is placeless and cannot block such a process (cf. (24)).

References


