REPRESENTING SYNTHETIC VS. ANALYTIC SUFFIXATION IN STRICT CV IN ENGLISH. SOME PROBLEMATIC CASES

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Abstract. The aim of this paper is to present some additions and corrections to a model I proposed in an earlier article (Kristó 2006) concerning the formal distinction between analytic and non-analytic (synthetic) suffixation, couched in a Strict CV framework. I address a question which remained unanswered in the article mentioned above: I will show that Kaye's suggestion, i.e. that synthetic forms are phonologically indistinguishable from monomorphemic ones, is not tenable, and I also offer a working solution.

1. Introduction

The present paper can be regarded as an "addition" to my (2006) paper, itself a slightly modified version of Chapter 4 of my PhD dissertation (Kristó 2005). Due to lack of space, I cannot include the detailed presentation of the model described therein, and I will only repeat the essential claims here for convenience. Readers who are not familiar with the model are referred to these works, especially the 2006 version. Familiarity with the basic concepts of Government Phonology, and Strict CV Theory[1] in particular, is assumed as well – again, presenting the essentials of these theories would be beyond the scope of this paper. See, for example, Harris (1994) for "classical" Government Phonology (GP); the most detailed presentation of Strict CV (SCV) is found in Scheer (2004).

2. The chief claims of the model proposed in Kristó (2006)

According to Kaye (1995), morphological concatenations are of two types: analytic or non-analytic. The latter type, Kaye claims, is phonologically indistinguishable from monomorphemic forms. Though not used by Kaye himself, the term *synthetic* has since come to be used for a morphologically complex non-analytic form. In other words, a *non-analytic* form is (i) monomorphemic, or (ii) synthetic. Kaye formalizes the distinction by bracketing: a non-analytic form, whether monomorphemic or not, is enclosed between a pair of brackets which delimit phonological domains. Accordingly, we have the following possibilities:

(1) (a) Non-analytic domain: (i) [A]   Monomorphemic, e.g., *cat, table, travel*
                               (ii)[AB]   Synthetic suffixation, e.g., *kept, sanity*
     (b) Analytic domain: (i) [[A]B] Analytic suffixation, e.g., *peeped, travels*

As the reader can see, the Kayean synthetic/analytic distinction corresponds, by and large, to the lexical/postlexical division of Lexical Phonology, or the "+" vs. "#" distinction of classical Generative Phonology. I would like to emphasize, again, that there is an important difference: as opposed to classical Generative phonology as well as Lexical Phonology, Kaye explicitly claims that synthetic forms display the same phonological behaviour as monomorphemic ones. This stance is fully accepted in Kristó (2006), but I will argue against it in the present paper. At the same time, I argued in the same paper that the use of bracketing is inadequate for several reasons, and another alternative must be found. I proposed that the formal distinction (within an SCV framework) between synthetic and analytic forms be encoded in two ways.

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[1] Also known as CVCV Theory.

Firstly, in an analytic form, both the stem and the suffix consist of strictly alternating CV units. In a synthetic form, which is assumed to be lexically given, rather than concatenated by the productive morphology, the stem ends in a C position while the suffix begins with a V position. In other words, neither the stem nor the suffix has a complete (CV)* skeleton, but the full word form does. This is a departure from earlier versions of SCV, where the claim is that *morphemes* have a (CV)* skeleton. My claim was that it is only *full lexical entries* which are subject to this requirement, and I formulated this in the following form:

(2)   The Lexical Entry Principle (LEP)
       Lexical entries are organized along a (CV)* skeleton.

This formal distinction makes it possible to capture an important difference between analytic and synthetic suffixes: while the former always attach to free stems, the latter may also attach to bound ones. The boundness of a stem, therefore, is reflected in this model by the fact that it ends in a C position, hence it does not consist of a complete skeleton by itself. It must also be added that the initial V position of synthetic suffixes is not necessarily filled, i.e., it can be empty. At the same time, the initial C position of analytic suffixes can be empty, too.

Secondly, I proposed that the bracket marking the end of a domain be omitted. Note that a domain either ends in a surface vowel sound (= a filled V position) – e.g., in *happy* –, or a surface consonant sound (= an empty V position) – as in *cat*. Yet, in SCV (and GP in general) an empty V position needs to be properly governed: an ungoverned V position may not be empty. Proper Government, however, must originate from a following *filled* V position, and a domain-final empty V^2 is not followed by any further V. The proposal I adopted is that it is the *morphology* which licenses a domain-final empty V, termed Final Empty Nucleus (FEN)[3]. In other words, "the end of the domain" is either marked phonologically by a FEN, or it is simply not marked (= in the case of vowel-final words and free stems)[4]. In fact, the morphology of a given language may grant further potentials to FEN's — potentials which properly governed empty V's do not possess. The possibilities are summed up in (3); note that these statements are valid for *monomorphemic* forms:

(3) *The potentials of FEN's cross-linguistically*

(i) FEN's are granted the potential of remaining silent, but no other potential. In such languages, words may end in a single surface consonant. Spanish, for example, is such a language; note that the phonetic properties of the consonant itself may count. In Spanish, for instance, only a limited number of consonants are allowed word-finally (notably, coronals excepting plosives).
(ii) FEN's may be licensed to properly govern a preceding empty V. In such languages, words may end in a consonant cluster. English is a good example; note that (b) necessarily implies (a). Furthermore, the phonetic nature of the cluster may be relevant. In English, for instance, it is basically clusters exhibiting a falling or level sonority profile that can occur word-finally (such as ***mp, ld, ŋk, kt, pt***, etc., cf. *camp, held, sink, fact, apt*), but ones with a rising sonority profile are illicit (e.g., ***tr, kw, pl***, etc.), with the exception of the notorious ***ps, ks, ts***

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[2] From now on, I will simply use C and V for a *C position* and a *V position*, respectively; consonant and vowel *sounds* will be termed *consonant* and *vowel*, respectively.
[3] The term is used in GP, too.
[4] Phonologically speaking, filled V's, whether final or not, behave alike; for example, they have the same licensing and governing potential.

clusters (e.g., *lapse, fox, blitz*)[5]. In Polish or Czech, on the other hand, words may also end in certain clusters exhibiting a rising sonority profile, cf. Czech *bratr* 'brother'[6].

(ii) FEN's may be licensed to license a preceding V. This situation arises when the FEN is preceded by a long vowel. In the model I adopt here, long vowels are lexically represented as a sequence V_1cV_2 (where the lowercase *c* represents an empty C), but the phonetic content of the long vowel is lexically lodged in V_1, spreading into V_2 if that position itself is licensed by a following full V or, in the case depicted here, a FEN. Note that *properly governed empty V's may not license V_2*. This means that in such languages, a long vowel is possible before a final consonant as well as before a consonant plus a vowel. English is a good example, cf. *Rita* ˈ**riːtə**, *meet* **miːt**.

Let me now provide some diagrams to illustrate the above points. Note that a FEN will be shown as **V** in the diagrams; a continuous arrow indicates a governing relation, while a licensing relation is shown by a dashed arrow.

(4) *fact*

C   V   C   V   C   **V**
| | | |
f   æ   k   t
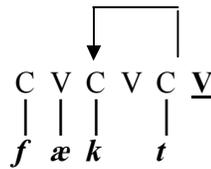
The FEN can properly govern the preceding empty V, in accordance with (3b).

(5) *Rita*

C   V   C   V   C   V
| | | |
r   i   t   ə
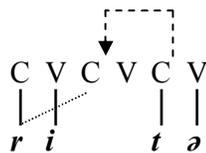
The long vowel **iː** occupies two V positions, but its melodic content is lexically lodged in the first (shown by the vertical continuous line). It can spread into the second V (shown by the dotted association line), since the second V receives licensing from the following filled V, in accordance with (3c).

(6) *meet*

C   V   C   V   C   **V**
| | |
m   i   t
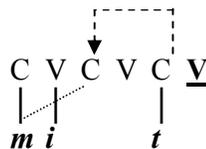
The same as in (5), but here, the second V receives licensing from the following FEN, in accordance with (3c).

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[5] The clusters **ts** and **ps** are quite rare (or even marginal), but they do exist; **ks**, on the other hand, is frequent.
[6] Note that the final **r** in the Czech word is not syllabic.

(7) *fi:pt

```
            ┌───────┐
    ┌╌╌╌┐██ │       │
    ╎   ↓  ╎↙       │
C   V   C   V   C   V   C   V̲
│   │       │       │
│   │       │       │
f   i       p       t
```

The ungrammaticality of a form such as in (7) follows from the fact that the V between the **p** and the **t** requires proper government. As it is itself governed, it cannot license the preceding empty V to receive spreading melody, in accordance with (3c): properly governed empty V's are neither licensors nor governors. The impossibility of licensing is shown by the thick line crossing the dashed one. As a result, the second V cannot receive spreading melody from the first V. Please recall that we have been dealing with *monomorphemic* forms (whether well-formed or not) so far: the diagram in (7), therefore, shows that a long vowel is not possible before the cluster **pt** in English *inside a single morpheme*.
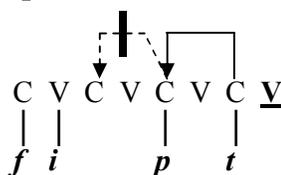
Let us now turn our attention to the difference between synthetic and analytic suffixation, more precisely, to how this difference is expressed formally. Compare the verbs *keep* and *peep*. Their preterite forms are *kept* and *peeped*, respectively; but while *kept* is synthetic (which is visible from the simple fact that the preterite suffix is added to a bound root form), *peeped* is analytic: the preterite suffix is added to a free root, and the long vowel is retained (compare the ungrammatical monomorphemic form in (7) above).

The preterite form *peeped* is unproblematic: the preterite suffix is added to the free root *peep*, which ends — structurally — in a FEN, and, of course, so does the complete preterite form:

(8) *peeped*

```
        ┌╌╌╌╌╌┐
        ↓     ╎
C   V   C   V   C   V̲   C   V̲
│   │ ·······      │       │
│   │             │       │
p   i             p       t
```
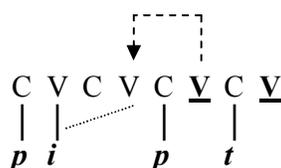
The root-final FEN, followed by the analytic suffix, behaves exactly like a FEN in word-final position (which is not surprising: *peep*, a free root, *is* a word on its own). It may, therefore, license the preceding V, which may thus receive spreading melody from the first V. Essentially, the situation is the same as in (6). But what can we say about *kept*?

According to Kristó (2006), which accepts Kaye's claim that synthetic forms are phonologically not different from monomorphemic ones, *kept* can be represented as follows:

(9) *kept*

```
        ┌───┐
        ↓   │
C   V   C   V   C   V̲
│   │   │       │
│   │   │       │
k   e   p       t
```

According to the abovesaid, the skeletal structure of the root is CVC (= **kep**), while that of the suffix is VCV, where both V's are empty. They are empty, however, due to different reasons.

The last V is a FEN, which may remain empty in English, and may also properly govern a preceding empty V. This is why the second V may remain empty — it is properly governed. The situation, then, is the same as in the word *fact*, illustrated in (4). The identity of the two structures follows from Kaye's claim that synthetic and monomorphemic forms exhibit the same kind of phonological behaviour. Note that the preterite suffix is *not* added to the free form *keep*, from which *kep-* is derived. Indeed, the latter could not possibly be derived phonologically from the former in SCV (or classical GP). The reason for this is the quality difference between the root vowels. Adherents of SCV (and GP) assume a basic restriction on what can be considered a phonological process, given in Kaye & al. (1990: 194) as follows:

(10)   There is a direct relation between a phonological process and the context in which it occurs.

This principle has been called the *Non-arbitrariness principle*. The above formulation is rather mysterious, though: what do we mean by "direct relation"? The actual practice of GP-ists, however, makes the issue quite clear: the way I can interpret this principle is that *phonological events must have relevant phonological causes*. While the difference in vowel length can be motivated on a phonological basis (= a long vowel is impossible before a *pt* cluster), the same is not true for the quality difference between *iː* and *e*. Notably, there is no relevant phonological (more precisely, melodic) trigger to account for the difference in height. Since the allomorphs *keep* and *kep-* are not relatable phonologically, the difference must be taken as lexically given. Therefore, the preterite suffix *-t* is added to the bound root allomorph *kep-*.

Indeed, Modern English vowel length alternations due to synthetic suffixation always involve differences in quality, often quite radical ones. The reason for this is familiar: it is known as the Great Vowel Shift, a historical process which raised or diphthongized long vowels at the beginning of the Early Modern English period, but which left short vowels intact. If we wish to examine vowel length alternations *not* accompanied by phonologically inexplicable quality differences, it seems reasonable to go back in time and analyze the Middle English (ME) situation. In late ME, the alternation is purely quantitative: *keep* **keːp** vs. *kept* **kept**. In Kristó (2006), I proposed that the preterite suffix could be added to the long-vowelled root; as the suffix is synthetic, however, it is added to the root which itself lacks a FEN, so that the representation of the late ME preterite form *kept* can be given as follows:

(11) Late ME *kept*

The FEN, of course, can properly govern the preceding empty V; this governed V, however, is unable to license the second V to receive spreading melody, hence the segment *e* remains attached to a single V position, thus it is interpreted as a short vowel. Note that the root still has two allomorphs *structurally speaking* – one which ends in a FEN, as in *keep*, and one ending in a C, appearing in the preterite form. Yet, the allomorphy is minimized: there is no other difference between the free and the bound allomorphs of the same root, because the length difference is derivable phonologically.

3. Problems and possible solutions
3.1 Long vowels before final clusters in monomorphemic forms

Recall the claim made in the previous section, viz. that long vowels are not found in English before final consonant clusters, as shown in the representations in (7) as well as in (11). Note, however, that a long vowel *is* found in a number of English words before a final consonant cluster, witness words such as *east, field, boost, fast, fiend, false, wound$_N$*, i.e., ***iːst, fiːld, buːst, faːst, fiːnd, fɔːls, wuːnd***[7]. This fact must clearly be accounted for.

In classical GP, as well as in several versions of SCV, the solution is based on the observation that a long vowel is only found before consonant clusters of a certain type. In English, such clusters are typically[8] composed of a coronal sonorant or ***s*** (itself coronal) followed by a *homorganic* obstruent. The explanation offered in several versions of SCV (and, mutatis mutandis, in classical GP), is that there is some governing relation holding between the members of such clusters (see Rebrus 2000, Szigetvári 1999[9]). Crucially, this governing relation holds between segments rather than skeletal positions, which is why it is sensitive to the melodic makeup of the consonants involved. The fundamental claim of these versions of the theory is that the governing relation which holds between two consonants creates a single *governing domain*; the empty V between the two C's is, therefore, enclosed within a governing domain, and, as a result, it remains silent. In other words, its silence is not due to the fact that it is properly governed. In order to clarify the above point, let me give a formal representation of the word *east*. A governing domain defined by two consonants is shown by a pair of brackets; note, however, that this has nothing to do with the notion of *morphologically defined* domains used by Kaye.

(12) *east*

```
        ┌ ─ ─ ─ ─ ─ ─ ┐
        ↓             ┊
  C  V  C  V  [C V  C] V
     ┊     |     |    |
     i     s     t
```
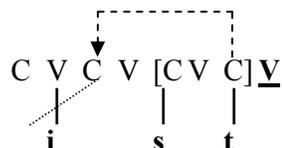
Note that the V position inside the governing domain does not need proper government – it remains silent *because it is enclosed within a governing domain*. In fact, it is not even "visible" at the skeletal level: a [CVC] domain is treated as a single C, as it were. The result is that licensing provided by the FEN may skip this V; the second V position, being licensed, may receive spreading melody from the first V, with which the segment ***i*** is lexically associated[10]. Such governing domains will prove to be useful later on, too (see section 3.3.).

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[7] Plus a number of words with a diphthong, e.g., *post, kind, change*, etc. I will not be dealing with diphthongs here, for the simple reason that they are highly problematic in the theory I adopt in this paper. Indeed, I do not know of any satisfactory treatment of diphthongs in the SCV literature; the topic certainly needs further investigation.

[8] Typically, but not exclusively, cf. *Balkans* ˈ***bɔːlkənz***, where the ***lk*** cluster is not homorganic. I have no definite answer to such untypical cases, and I leave the question open.

[9] Szigetvári (1999) uses skeletons made up of strictly alternating VC, rather than CV, units, but this difference is irrelevant for the problem under discussion.

[10]The use of governing domains adopted in this paper is at variance with my earlier model, where, following Scheer (2004), I assumed a governing relation between members of a TR cluster, where T = obstruent and R = a (non-homorganic) approximant, e.g., ***pl, sw, kr***, etc., as in English *play, swine, cry*. Such clusters have traditionally been analyzed as complex onsets. Scheer assumes no governing relation inside clusters of the type discussed above. There are problems with either assumption; in the present paper, I adopt the assumption

3.2 Synthetic vs. monomorphemic forms. Part 1: *width* and Co.

As noted above, Kaye claims that synthetic concatenations display the same phonological behaviour as monomorphemic ones. This stance was adopted in my earlier model, too. Nonetheless, there are synthetic forms which contradict this claim. Consider the following examples:

(13) a. *width*   **wɪdθ**   (cf. *wide*)
     b. *depth*   **depθ**   (cf. *deep*)

These forms display an ambivalent behaviour. On the one hand, they behave as synthetic ones, witness the shortness of the root vowel — much like in *kept*, for example. On the other hand, they appear to be analytic in terms of the final consonant clusters: no such final clusters (= **dθ, pθ**) are attested in monomorphemic forms. One possibility is to take the "easy way", saying that such clusters *could* in principle occur monomorphemically, and it is but an accidental gap that they do not, so Kaye's claim can, after all, be maintained. This, however, would only mean that we really avoid the problem.

The solution I propose here takes into consideration that the forms in (13) are suffixed ones, and I base my proposal on two facts. Firstly, the shortness of the vowel points to the synthetic nature of the concatenation. Secondly, we have assumed that *all synthetic suffixes are V-initial*, where the V can be empty. In my earlier model, I assumed that the emptiness of these V's is explicable with reference to proper government (cf. (9) above). Note, however, that these suffix-initial empty V's are adjacent to a *preceding* morphological boundary — just as FEN's are adjacent to a *following* morphological boundary. FEN's are given certain licenses by this very fact, as shown in (3). Based on these, I propose that the emptiness of V's on the left edge of a synthetic suffix is not made possible by proper government. Instead, in a parallel fashion with FEN's, they may be empty due to morphological action: it is the morphology which grants them the potential to be empty. Such empty V's will be termed *Initial Empty Nuclei* (IEN's) in accordance with (14) below:

(14) *Initial Empty Nuclei*

(i)   Synthetic suffixes begin with a V position, which may be full or empty.
(ii) In the latter case, the initial V is licensed to be empty by the fact that it is adjacent to a morphological boundary to its left.
(iii) Such empty V's are termed *Initial Empty Nuclei* (IEN's).
(iv) IEN's have no governing or licensing potential.

The essence of the abovesaid is that the morphology may allow IEN's; note, though, that (14d) embodies a strong claim. Notably, as opposed to FEN's, IEN's have but one "privilege": they may remain unfilled, while FEN's may be granted other potentials, in accordance with (3). Why this should be so is a matter we take up shortly, but let us illustrate the point made in (14) with an example. Recall that the theory I use excludes the possibility of deriving the bound allomorph *kep-* from *keep* in Modern English, due to the quality

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provided in the main text, because I am concerned with suffixation, which (quite logically) involves phenomena occurring at the right-hand edge of words (and stems). Since TR clusters are not found word-finally in English, it seems better to neglect such clusters and concentrate on possible final clusters, even at the expense of not being able to treat TR clusters in an adequate way. A unified treatment of both types of cluster is not available (at least nothing I know of).

difference. The same is obviously true for pairs such as *deep ~ depth*, etc. I consider the late ME forms again, therefore, where the vowel difference is but quantitative, viz. **deːp** vs. **depθ**, so the difference can be derived phonologically. Assuming, then, just like for late ME *kept*, in (11), that the root *dep-* (occurring in *depth*) is lexically CVCVC, the representation of *depth* in late ME is as follows (I will indicate an IEN by boldfacing, but not underlining it):

(15) Late ME *depth*

C   V   C   V   C   V   C   **V**
| | | |
d *e*   *p*   *θ*
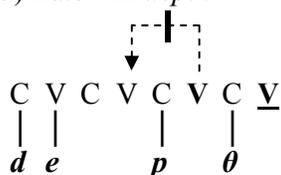
The boldfaced (but not underlined) **V** is an IEN. As a consequence, it needs no proper government to remain silent. At the same time, it has no licensing or governing abilities, hence it may not license the second V to receive spreading melody from the first V. As a result, the root vowel remains attached to a single V, being interpreted as a short vowel.

It must be noted that the representation of late ME *kept*, given in (11), must also be modified according to the structure presented in (15)[11], and the same goes for all synthetically suffixed forms.

Let us now revisit the problem mentioned above: why is it that FEN's can be granted certain governing and/or licensing potentials, but IEN's cannot? The answer, I suspect, is that FEN's are final in *free forms*, but IEN's (by definition) only occur at the left edge of synthetic suffixes. That is, a form ending in a FEN satisfies the requirement that autonomous lexical entries have a (CV)* skeleton, but a suffix beginning with an IEN (or with a filled V, for that matter) does not. The restricted potentials of IEN's, therefore, can be derived from the fact that they mark the boundary of a bound suffix, itself added to a bound root ending in C, rather than V. The morphological status — more precisely, boundness — of morphemes may be the reason why IEN's are not granted as many abilities as FEN's.

3.3 Synthetic vs. monomorphemic forms. Part 2: *lost* and Co.

This section combines the insights of the previous two sections, attempting to formalize what have traditionally been called *derived environment effects* in phonological theory. Such effects manifest themselves when one compares the behaviour of monomorphemic vs. morphologically complex forms. In particular, we will take look at the divergent behaviour of synthetic as opposed to monomorphemic forms. In this sense, this section is connected to Section 3.2.; at the same time, the notion of [CVC] governing domains will also be used, which connects this section to Section 3.1.

As mentioned in Section 3.1., long vowels are quite free to occur before certain clusters. At the same time, there is a number of synthetic preterite forms in English which do exhibit a short vowel (as opposed to a long one in the infinitive) *before a cluster which permits long vowels in monomorphemic forms*. Examples include preterite forms such as *meant, lost, felt* (cf. monomorphemic *count, east, bolt*). Again, the phonological treatment of such forms is problematic in Modern English due to the quality difference involved, but let us check the ME situation.

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[11] As the reader can verify, the representation of late ME *kept* in (11) will yield the same result as when it is represented according to (15).

Consider, for example, the late ME infinitive *lose loːz*. Its preterite form is *lost lost*, which exhibits a shortening of the root vowel, like *kept* or *depth*, see (15). The problem is that this shortening appears to be unmotivated phonotactically: in ME, just like in Modern English, long vowels *are* found before a final *st* cluster, cf. the late ME word *roost roːst* 'resting place for birds'. Note that the final *z* of *lose* becomes *s* in *lost* — but this is an automatic process, and it has nothing to do with vowel length (the underlying /*d*/ in *peeped* is devoiced, too, but, as the suffix is analytic, the long root vowel is retained in the preterite, for example). In other words, why does the *oː* shorten in the preterite although it is followed by a cluster which *does* permit long vowels before itself? Quite simply, taking the devoicing of the root-final *z*, quite expected before *t*, to be an automatic process, we would expect that the preterite of late ME *lose* should be **loːst*, but it is *lost*. Recall that *kept* is different: a long vowel is uniformly banned before *pt* in non-analytic forms.

The explanation we can offer in this framework is rather straightforward, considering the notions introduced in the previous two sections: (i) [CVC] governing domains, (ii) IEN's. First, recall the analysis of the morpheme *east*, depicted in (12), repeated here as (16) for convenience:

(16) = (12) *east*
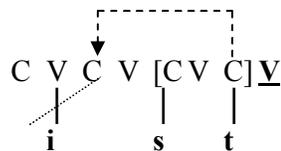
The FEN may license the long *iː* because the empty V between the *s* and the *t* requires no proper government: being enclosed inside a C-to-C governing domain, it may remain silent, so the FEN skips it, licensing the second V to receive spreading melody from the first one. The same can be said about the late ME word *roost*:

(17) Late ME *roost*
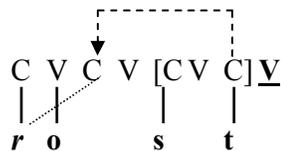
But then, why is **loːst* ill-formed in late ME? The answer is simple: because it is a suffixed synthetic form. Recall that surface consonant-initial synthetic suffixes begin with an IEN, licensed to remain silent by non-phonological (= morphological) "order". At the same time, an IEN has no licensing or governing potential. Remember, too, that we derived the late ME preterite form *kept* from *keːp* plus *t*, with an IEN between them. Accordingly, the late ME preterite form *lost* can be derived from *loːz* plus *t*, with the minor addition that the root-final fricative is automatically devoiced. Hence, we get something like the following:

(18) Late ME *lost (= lose+t)*

```
        ┌ ─ ┼ ─ ┐
        ┆   ▼   ┆
  C  V  C  V  C  V  C  V
  |  |        |     |
  l  o        s     t
```

As the reader can see, the IEN (boldfaced but not underlined) remains silent (simply because it is an IEN), but it cannot license the preceding V to receive spreading melody. As a result, the root vowel remains attached to a single V – it is pronounced short.

The question, however, is the following: Why do the members of the final consonant cluster *not* constitute a governing domain, as opposed to (17)? The answer I propose relies on a principle accepted by all versions of SCV and GP (and some other theories as well), called the *Structure Preservation Principle*. The principle has been formulated in various ways, and I prefer to give my own formulation here[12]:

(19) *Structure Preservation Principle*
   Phonological relations, i.e., government and licensing, are established at the level of lexical representations and they may not be altered in the derived representations.

Consider now the word *roost*. According to (19), a governing relation is established in the lexical representation of the word between the final consonants. The same, however, is not true for a preterite form like *lost*: lexically, the *s* and the *t* are separated by an IEN, a special type of empty V – special because it is "manipulated" from outside the phonology: its special status (= being able to remain silent without being properly governed) is granted to it by morphological action. Just as FEN's block the establishment of governing domains between consonants (and recall that FEN's are also "manipulated" from outside the phonology), it is more than reasonable to assume that the presence of the IEN makes it impossible to establish a governing relation between the *s*[13] and the *t* in the preterite form of *lose*. As no governing relation holds between the two consonants in the lexical representation of the preterite form *lost*, the phonological derivation may not create a governing relation between them, even though, potentially, the cluster *st could* be a governing domain, since such a move would create a governing relation which is *not* present in the lexical representation, contradicting Structure Preservation. The lexical and the surface forms of the late ME preterite *lost* are, accordingly, depicted in (20a) and (20b), respectively:

(20) a. Late ME *lost (= lose+t)*: lexical representation

```
        ┌ ─ ┼ ─ ┐
        ┆   ▼   ┆
  C  V  C  V  C  V  C  V
  |  |        |     |
  l  o        z     t
```

---

[12] See Harris (1992: 366), for example, for a different formulation. The difference, however, should not let the reader fail to see the essential identity in content.

[13] Actually, it is assumed here that it is lexically a z, being devoiced via voice assimilation. Note, however, that the devoicing does not alter an existing governing relation, and neither does it create a new one, hence it does not violate Structure Preservation.

b. Late ME *lost (= lose+t)*: surface (derived) representation

$$
\begin{array}{cccccccc}
\text{C} & \text{V} & \text{C} & \text{V} & \text{C} & \text{V} & \text{C} & \underline{\textbf{V}} \\
| & | & & & | & & | & \\
\textit{l} & \textit{o} & & & \textbf{s} & & \textbf{t} &
\end{array}
$$

As the reader can verify, the two forms are only different in the voiced/voiceless nature of the root-final consonant. It may be useful to go back to (17), the representation of late ME *roost*. As I mentioned above, long vowels are, structurally, V_1cV_2 (where the lowercase *c* stands for an empty C position) — but only on the surface: lexically, the vowel segment is attached to V_1 only, and it can spread into V_2 if and only if V_2 is licensed to receive it. Therefore, (17) shows the surface (derived) representation of *roost*; its lexical representation is given in (21) below:

(21) Late ME *roost*: lexical representation

$$
\begin{array}{cccccc}
\text{C} & \text{V} & \text{C} & \text{V} & [\text{C V} & \text{C}]\underline{\textbf{V}} \\
| & | & & & | & | \\
\textit{r} & \textit{o} & & & \textbf{s} & \textbf{t}
\end{array}
$$
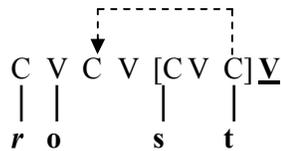
4. Conclusion and further problems

To conclude, I claim that there *is* a difference between monomorphemic and synthetic forms. The difference can be derived from two claims. The first claim, made in this paper, is that there is an IEN at the beginning of a synthetic (and surface consonant-initial) suffix, which (i) blocks the establishment of C-to-C governing domains *lexically*, (ii) remains silent due to external (= non-phonological) action, hence it does not require proper government, (iii) has no governing or licensing potential. The second claim is a fundamental principle of all versions of GP and SCV: the Structure Preservation Principle.

It must be added, though, that several problems remain; let me point out but two important ones. Firstly, the present paper (just like my earlier ones) deals with suffixation; as a result, it remains to be seen how the framework offered here can treat prefixation (or if it can treat it at all). Secondly, even if only suffixation is concerned, the adequacy of this model must certainly be checked against further data, especially from languages other than English — many of which have a much more complex morphology. At this point, however, I am not in the position to assert anything on these matters, and I leave these problems for further research.

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