Tamil pronominal alternations are phonology not allomorphy

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1. Introduction

In keeping with the theme of 'the size of things' and just how much it matters I would first like to point out that, although the impact that Susi has had on my work may seem indirect, its size does matter. Susi informed the way I saw, and see, the study and analysis of syntactic structure, and although I might be more of a phonologist, and this paper may appear to be more about phonology than the other papers in this book, the point of this short work is that the syntax and the phonology conspire sometimes to mask questions of locality, and therefore of size. So, sometimes things that appear to be small, are really big in import, and may sometimes have non-obvious impacts on an analysis.

This paper speaks to the question of adjacency, a topic that Susi has worked on (Bobaljik & Wurmbrand 2005; Wurmbrand 2007, among others) and its relation to domains of allomorphy (as in Bobaljik & Wurmbrand 2013). More specifically, it offers a sketch of an alternate analysis of the alternations seen in the Tamil pronominal system; a case that has been proposed to be problematic for adjacency and locality (Moskal 2015; Moskal & Smith 2016).

The crux of the problem that Tamil poses is that it appears that allomorphy within the pronominal domain is triggered across an intervening overt morpheme, as schematized in (1).

(1)   **BASE**-PL-**K(ase)**

In (1) the form of BASE (a pronominal root) is proposed to be determined by the K(ase) morpheme, across an intervening PL (number) head. This is an especially vexing case of non-local allomorphy. Moskal summarizes the issue in the following two quotations:

> Embick has claimed that linear adjacency is an additional restrictor on allomorphy; that is, allomorphy can only happen when the trigger and target are linearly adjacent. This seems to be supported by blocking effects in languages like Khakas and Kayardild, where a suppletive variant is blocked when an overt number morpheme intervenes between trigger and target. However, in the same

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configuration, Tamil clearly shows that suppletion can occur across an overt number morpheme. (Moskal 2015:107)

Tamil shows a suppletion patterns (*sic*) that cannot be handled in any reasonable way under the adjacency hypothesis, whether phrased in terms of linear or structural relations. (Moskal 2015:91)

In the pages to follow I will offer suggestive evidence that the Tamil case can be fruitfully analysed as a phonological, rather than as a morphological/allomorphic alternation, and that it therefore can be removed from the list of problematic cases for locality and adjacency in the literature.[1] This is not to call into question here any of the other problematic cases for adjacency in Moskal's work, or in other work on adjacency. It is just a small note on one data set, and its specific implications for the larger picture will be left to future work. The following section (Section 2) will lay out the data, adding some notes on overlooked sections of the morphological paradigms in the Tamil pronominal and verbal systems that are pertinent. Section 3 will discuss some relevant alternations in Tamil phonology and will sketch an analysis of the Tamil pronominal paradigm that does not involve allomorphy. Note here that by 'allomorphy' I am not including regular morpho-phonological alternations but am rather using it to indicate the more restrictive 'suppletion/selection of distinct vocabulary items in specific syntactic environments'. Section 4 concludes with a discussion of the open questions raised by this analysis, along with its implications if correct.

2. Root alternations in the Tamil pronominal paradigm

The pronominal roots in the (spoken) Tamil pronominal paradigm display alternations as in (2). As can be seen, the 1st and 2nd person roots have different forms in the nominative (bolded) than in all other cases, regardless of whether they are separated from the case suffixes by an intervening overt plural morpheme. Remember here that the proposal in the literature is that the K(ase) morphemes (excluding the null [or completely absent] nominative) trigger allomorphy of the pronominal BASE even when a plural morpheme (italicized) intervenes.

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[1] In the final stages of writing this short paper, I found the following note in Smith et al (2019:1054): "Andrea Calabrese, in a work in progress, offers an alternative characterisation in which on-, and respectively, en- are the underlying forms of the pronominal BASEs and in which no suppletion is involved". I take this as an encouraging sign that multiple people are coming to the same conclusions and look forward to seeing this analysis.

(2) a. First Person forms[2,3]

	Singular	Exclusive Plural	Inclusive Plural
Nominative	**naan**-Ø	**naaŋ**-*kaḷ*-Ø	naam-Ø
Accusative	enn-ai	eŋ-*kaḷ*-ai	namm-ai
Dative	en-akku	eŋ- *kaḷ*-ukku	nam-akku
Sociative	enn-ooṭu	eŋ- *kaḷ*-ooṭu	namm-ooṭu
Genitive	enn-uṭaiya	eŋ- *kaḷ*-uṭaiya	namm-uṭaiya
Instrumental	enn-aal	eŋ- *kaḷ*-aal	namm-aal
Locative	enn-iṭam	eŋ- *kaḷ*-iṭam	namm-iṭam
Ablative	enn-iṭam-iruntu	eŋ- *kaḷ*-iṭam-iruntu	namm-iṭam-iruntu

b. Second Person forms

	Singular	Plural
Nominative	**nii**-Ø	**nii**-*ŋkaḷ*-Ø
Accusative	unn-ai	uŋ-*kaḷ*-ai
Dative	un-akku	uŋ- *kaḷ*-ukku
Sociative	unn-ooṭu	uŋ-*kaḷ*-ooṭu
Genitive	unn-uṭaiya	uŋ- *kaḷ*-uṭaiya
Instrumental	unn-aal	uŋ- *kaḷ*-aal
Locative	unn-iṭam	uŋ- *kaḷ*-iṭam
Ablative	unn-iṭam-iruntu	uŋ- *kaḷ*-iṭam-iruntu

c. Third Person forms (deictic)

	Masc. Singular	Fem. Singular	Human Plural
Nominative	avan	avaḷ	avar
Accusative	avan-ai	avaḷ-ai	avar-ai
Dative	avan-ukku	avaḷ-ukku	avar-ukku
Sociative	avan-ooṭu	avaḷ-ooṭu	avar-ooṭu
Genitive	avan-uṭaiya	avaḷ-uṭaiya	avar-uṭaiya
Instrumental	avan-aal	avaḷ-aal	avar-aal

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[2] These forms are slightly modified from (Annamalai & Steever 1998:110). I have ignored the distinction between dental and alveolar nasals (as the latter are part of the peripheral, borrowed phonology of the language according to Annamalai & Steever), and have added further morphological information using dashes. Long vowels and consonants are indicated by doubling.

[3] Note that the pronominal forms display gemination of [n] in the environment of vowel-initial suffixes. The only exception is in the Dative. This exception may be related to a restriction on sequences of geminates, as per a variant of Schnieder's Law, but this requires further study. Note that this gemination is general in the language in the environment of suffixation and is not limited to the pronominal forms, or even to pre-vocalic position. I therefore leave its analysis to future work.

When morphemes or words combine, certain morphophonemic changes occur. These include the loss of final segment (paattu 'song' plus -aal instrumental case > paatt-aal 'by song', maram 'wood' + viitu 'home' > mara-viitu 'wooden home'); doubling a consonant at the boundary (e.g. kal+aal > kal.l-aal 'by stone', tamiz+paattu > tamizp-paattu 'Tamil song'); assimilation (vil+ttu > virru 'having sold', pal+poti > parpoti 'tooth powder'); and glide insertion, e.g. katti+aal > katti.y-aal 'by knife'. Such processes had broader application in earlier stages of the language, but are now more limited. They are obligatory with a bound morpheme, less frequent between members of a compound and least frequent when the combination does not result in a compound. (Annamalai & Steever 1998:103)

Locative	avan-iṭam	avaḷ-iṭam	avar-iṭam
Ablative	avan-iṭam-iruntu	avaḷ-iṭam-iruntu	avar-iṭam-iruntu

Note that much work has been done on the cross-linguistic morphosyntactic distinctions between 3rd person and 1st/2nd person pronouns and that Tamil patterns with the long list of languages in Harley & Ritter (2002) in which 3rd person pronouns have demonstrative bases/origins. They are included above for comparison. The deictic neuter and reflexive paradigms have not been included (see Annamalai & Steever 1998:110 for the complete paradigms).

Focusing on the 1st and 2nd person, and leaving aside the 1st plural inclusive for a moment, we can tease out the following suffixes in the above forms. Phonological alternations that are pertinent will be discussed in Section 3.

(3) a. (n)kaḷ   'plural'
     b. ai/ukku(akku)/ooṭu/uṭaiya/āl/iṭam/(i)runtu
         'acc/dat/soc/gen/instr/loc/abl'

Once these suffixes have been removed this leaves us with the forms which are deemed allomorphic in Moskal (2015) and Moskal & Smith (2016):

(4) a. naan/en '1st person (nominative)/1st person (elsewhere)'
     b. nii/un   '2nd person(nominative)/2nd person (elsewhere)'

This, however, obscures a clearly regular relation between these pronominal BASEs and the regular 1SG and 2nd person agreement morphemes in the verbal system of Tamil.[4] Consider the following conjugations.

(5) a. iru-kur-een   [irukkreen]
         be located-PRES-1SG

     b. poo-ʋ-ii-ngaḷ   [pooʋiinga]
         go-FUTURE-2SG-PLURAL

In the verbal system the 1st person suffix is -*een* and the 2nd person suffix is -*ii* in the plural, while in the pronominal system the 1st person pronoun has the form *naan*, and the second

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[4] Note that 1PL agreement is -oom, clearly related to the inclusive plural marker. The 2nd person marker varies in the literature but is coherently a long vowel. In the plural it is transparently followed by the same plural marker seen in the pronominal paradigms.

person pronoun has the form *nii*.[5] Let us assume that the suffixes on the verbs are also found on the 1st and 2nd person pronouns and that they may therefore be analysed as *n-aan* and *n-ii*. (I leave aside the alternation in vowel quality in the 1st person suffix). If we do so, we must then note a distinction in the morphological makeup of the nominative (vs. the other cases). The agreement suffixes only appear in the nominative (compare the forms in (2)). The distinct structures of the nominatives. the other cases can be represented as in (6). BASE in (6) is the pronominal root, following Smith et al. (2019), and the Plural head is optional (or may be a null number head in the singular). Clearly the BASEs are distinguished with regard to person features, and may even fruitfully be broken down into initial vowels and /n/. I leave open whether the AGR head is actually AGR or some kind of concord. This will be further discussed in Section 4.

(6)   a.

K(ase)
- (PL)
  - AGR
    - BASE
      en / on
    - een/ii
  - NOM
    Ø
  - (n)kaḷ

b.

K(ase)
- (PL)
  - BASE
    en / on
  - (n)kaḷ
- ACC(etc)
  ai (etc).

In the above structures I also abstract away from the internal structure of case markers (see Caha 2009) and the question of whether the nominative is morphologically present or absent (See McFadden 2018, and some discussion in Section 4). It is of note however, that it is in accordance with research such as Bittner & Hale's work on case and agreement that the nominative differs from the other cases in just this way, as only nominative arguments (in Nom/Acc systems) raise to/agree in Spec,IP. How exactly this accounts for the appearance of AGR *within* the nominative pronominal structure is not elaborated upon here.

> Nominative arguments, though Case-less and never Case-bound, may also control agreement. This is possible, for example, if a nominative subject raises to (SPEC,IP), since the foot of the resulting chain is governed by I(NFL), and the head, by C(OMP). A nominative subject, therefore, may agree with either of these functional heads. In contrast, structural obliques, with their purely lexical Case-binders, are generally too far away from any functional head to control pronominal agreement.
>
> (Bittner & Hale 1996:5)

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[5] Note that the Modern Tamil 2SG verbal AGR suffix is [aaj] in the singular but [ii] in the plural and polite forms (Annamalai & Steever 1998:113). Also, "Some dialects, particularly those centred on Tinnevelly, include a second person honorific pronoun *niir*" (ibid. 109).

(i)   piri-nt-aaj   (ii)   piri-nt-iir-kal
       separate-past-2   separate-past-2-pl

Colloquial Tamil 2nd person forms do not contain [r], as in (5b). Note that all forms contain [i/j].

The striking outcome of the above for us is that once this morphological segmentation is implemented, the phonological forms of the pronominal roots become much more similar.[6] This phonological similarity will be examined in more detail in Section 3.

Before turning to the phonology, however, let us consider one more pertinent piece of data from the tables in (2); the 1ˢᵗ plural inclusive. The verbal agreement suffix in the 1ˢᵗ plural is *-oom*. Consider the following example.

(7)   piri-nt-oom
       separate-PAST-1PL   (Annamalai & Steever 1998:113)

As can be seen in the table in (2a), repeated below as (8), with additional morphological breaks, this allows for a segmentation of this pronoun (*naam*) along the lines in (6), as *n-oom* (again with a vowel-quality alternation that will not be treated herein).

(8)   First Person forms

	Singular	Exclusive Plural	Inclusive Plural
Nominative	n-aan-Ø	n-aaŋ-*kaḷ*-Ø	n-aam-Ø
Accusative	enn-ai	eŋ- *kaḷ*-ai	n-amm-ai
Dative	en-akku	eŋ- *kaḷ*-ukku	n-am-akku
Sociative	en-ooṭu	eŋ- *kaḷ*-ooṭu	n-amm-ooṭu
Genitive	en-uṭaiya	eŋ- *kaḷ*-uṭaiya	n-amm-uṭaiya
Instrumental	enn-aal	eŋ- *kaḷ*-aal	n-amm-aal
Locative	enn-iṭam	eŋ- *kaḷ*-iṭam	n-amm-iṭam
Ablative	enn-iṭam-iruntu	eŋ- *kaḷ*-iṭam-iruntu	n-amm-iṭam-iruntu

Of interest here is that this form is consistent across the different cases in the paradigm. The alternation between [n] and [en] seen in the other 1ˢᵗ person columns is absent. Also absent is any overt reflex of the plural morpheme (n)kaḷ, which is present in the 1ˢᵗ plural exclusive paradigm. This pattern is puzzling when one looks at the root alternation seen in the 1ˢᵗ and 2ⁿᵈ person as allomorphy. Consider the following statement of allomorphy in Moskal & Smith (2016:306).

(9)   [1]   ⇔   en / _] K]
       [2]   ⇔   on / _] K]
       [1]   ⇔   naan
       [2]   ⇔   nii

What the first two statements in (9) indicate is that, in any case but the nominative, K will condition allomorphy of the root even across an intervening number head. Otherwise (in

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the nominative) the final two statements of vocabulary insertion come into effect, and the *naan/nii* forms are inserted. Now, given the extra morphological decomposition just argued for, the 1ˢᵗ Plural inclusive root is *n-*, just as in the other 1ˢᵗ and 2ⁿᵈ person paradigms. If the allomorphy of this root is conditioned across number and agreement heads in the singular and the exclusive plural, then it is not clear why this allomorphy is not triggered across the number/agreement morpheme in the inclusive plural. In other words, the statement of allomorphy in (9) correctly predicts *eŋ-kaḷ-ai* in the Accusative Exclusive Plural, but incorrectly predicts *en-amm-ai* in the Accusative Inclusive Plural. Given this expanded pattern, it appears that (non-nominative) case may not be the trigger for the *n/en* and *n/on* alternations. In the following section we will consider a phonological alternative. This alternative analysis will explain why the underlying *en* and *on* emerge with their vowels in, for example *en-ai* → *[ennai]*, but without their vowels in *en-een* → *[naan]*. We will unfortunately not come back to an analysis of why we do not see a similar BASE alternation in the 1PL inclusive; this will have to wait for future work.

3. Phonological alternations: Function words and floating melody

If the alternations seen in the forms of the 1ˢᵗ and 2ⁿᵈ person pronouns are not due to allomorphy triggered by case, how can we explain them? I suggest that the reader consider a purely phonological alternative.

First, we must consider what type of phonological framework can neatly account for the alternation at hand. An autosegmental account is one that includes the possibility of floating melodic structure. Such an account (represented below in CVCV phonology (Lowenstamm 1996; Scheer 2004, 2009) allows for, for example, the following explanation of French liaison consonants (10) or of Mixtec 2ⁿᵈ person (familiar) regressive nasalization (11).
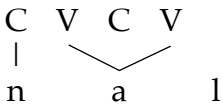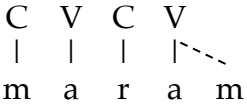
(10) a. peti**t** garçon   [pətigaʁsɔ̃]   'little boy'
      b. peti**t** ami   [pətitami]   'little friend/boyfriend'
      c.
```
C  V  C  V
|  |  |  |
p  ə  t  i  t
```
          [pəti]   'little'

                                                            (Encrevé 1983)

(11) a. kiʔvi - [+nas]   [kĩʔvĩ]   'you will be drunk'
      b. kaʔta - [+nas]   [kaʔtã]   'you will sing'
                                                    (Piggott 1992:68)

In (10) the final /t/ of *petit* is not pronounced unless it can be syllabified in the onset of a following syllable (it does not come pre-attached to syllabic structure (10c)), and in (11)

the same can be said for the [+nas] '2nd person (familiar)' morpheme: it is underlyingly floating and is expressed differently depending on its phonological environment (it spreads to the left until its attachment is blocked by a voiceless non-glottal consonant). This type of floating structure is commonly used to account for such alternations, and is especially useful in accounting for the phonology of functional morphemes as in (11), whose phonology is cross-linguistically subject to more variation than lexical morphemes (see also Faust et al 2018, and Newell 2019 for recent discussions of floating functional phonology, and Selkirk 1996 for an alternate account of the well-attested phonological variation seen in the functional domain). In any case, it is important to note that whether the melodic structure of a morpheme is underlyingly floating or not is a lexicalized property, and must be deduced based on the phonological alternations seen in context.

Now let us consider whether Tamil shows evidence of floating phonological structure. In fact, Tamil shows alternations that are quite reminiscent of the French liaison seen in (10). Final sonorants in Spoken Tamil (as opposed to Literary Tamil) are not pronounced, unless syllabified in the onset of a following vowel (either epenthetic or provided by a following word or morpheme) (12). Final nasal consonants may be realized as nasalization on the vowel (as in *garçon* in (10)), as seen in (13). We will therefore also consider them to be underlyingly floating and represented as in (12b) and (13b).

(12)   a.   naal   [naalʉ] or [naa]   'day'
                                          (in some dialects)

         b.
```
         C   V   C   V
         |     \   /
         n      a     l                          (Schiffman 1999:6)
```

(13)   a.   maram   [marõ]   'tree'
         b.
```
         C   V   C   V
         |   |   |   |⸰⸰⸰
         m   a   r   a   m                        (Schiffman 1999:4)
```

The final /n/ of the pronominal BASEs in question in the previous section also floats. For example, in isolation *naan* is pronounced [nãã] and *en* is pronounced [ʸẽ] (Schiffman 1999:5). The onglide in the latter is predictable for initial mid-vowels.

The morphological breakdown in Section 2 brought us to the conclusion that the pronominal BASE alternations are not between *naan/nii* and *en/on*, but rather between *n/en* in the 1st person, and *n/on* in the 2nd person. It is fairly straightforward to conclude that the *n* in each is the same consonant, and therefore has the same underlying representation.[7] From the pronunciation of *en* in isolation (and of the 2nd oblique form in (15b) below) we can also conclude that this *n* is underlyingly floating. It is only pronounced when followed by a vowel. What, then, can we say about the *e* of *en* and the

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[7] Tome Leu (p.c.) suggests that perhaps it is even the same morpheme, indicating 'participant'.

o of *on*? We can suggest that these vowels too, are floating (the conditions for their pronunciation will be discussed further below), and that the underlying lexical entries for the BASE morpheme in the 1st and second person are as in (14). They contain no lexicalized structure on the CV-tier (compare the underlying structures *with* lexicalized CV structure in (10c), (12b), and (13b)).

(14)   a.   en '1SG'
       b.   on '2SG'

To explain the conditions under which the initial vowels of these BASE morphemes are pronounced, we can look first to their forms in isolation. The forms in (14) can be the overt manifestations of the oblique forms, whose suffix is null, with the pronunciations in (15a,b), and the nominative pronouns can be seen in (15c,d).

(15).   a.   en-Ø   'D.1SG-OBLIQUE'   [ʸẽ]   'my'
       b.   on-Ø   'D.2SG-OBLIQUE'   [ʷõ]   'your'
       c.   en-een   'D.1SG-AGR'   [nãã]   'I'
       d.   on-ii   'D.2SG-AGR'   [nii]   'you'

Given that the /n/ of BASE is pronounced before the AGR morphemes, we can assume that these morphemes come with lexicalized CV space, where *een* has the underlying representation in (16a), and *ii* the underlying representation in (16b).
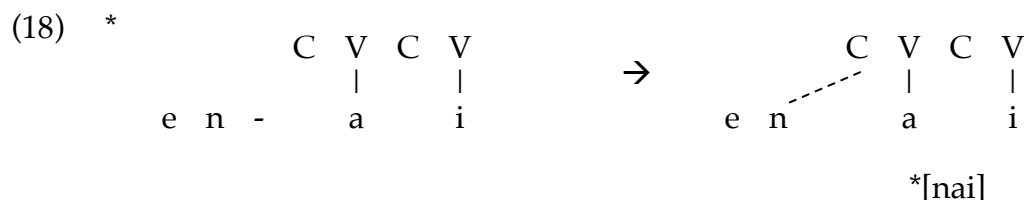
(16)   a.

     b.

Each of the morphemes in (16) will allow for the syllabification of the /n/ of *en* and *on* as an onset. In other words, the syllabification of /n/ in (14a,b) will be enabled before the vowel-initial AGR morphemes, as in (17). Remember that these AGR morphemes do not appear in any pronominal forms except for the nominative. They are absent from all other cases.
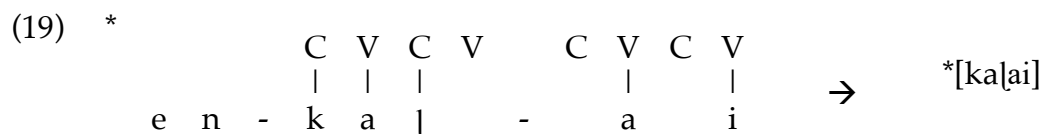
(17)

[nãã]

In (17) the initial vowel is not pronounced, as the CV structure within the derivation provides no place for it to link. On the other hand, in all cases but the nominative we must explain why the initial vowels in *en* and *on* are pronounced. We cannot propose that the BASE morpheme is spelled out with its suffixes in these cases, as sometimes these

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suffixes also begin with a vowel, and should therefore allow for the same phonological analysis/predictions as in (17). A derivation for, say, the Accusative Singular [ennai] along the lines of (17) would erroneously predict the non-pronunciation of the initial vowel of the BASE.

(18) *

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            C   V   C   V                          C   V   C   V
            |       |       |           →              ͏͏͏͏/   |       |
        e   n   -   a   i                      e   n       a   i
```
                                                            *[nai]

Note also that the initial vowels and the nasals are pronounced in the Exclusive Plural forms, wherein the BASE morpheme is followed by a C-initial morpheme. This is also unexplained if the morphemes of the Exclusive Plural are interpreted together. (19) shows this predicted, and ungrammatical, derivation of the Exclusive Plural Accusative. Here the BASE is unlinked to the CV tier, and therefore remains unpronounced. The variable initial nasal of the plural morpheme is omitted here for ease of exposition.

(19) *

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            C   V   C   V       C   V   C   V
            |   |   |               |           |          *[kaḷai]
        e   n   -   k   a   ḷ   -   a   i           →
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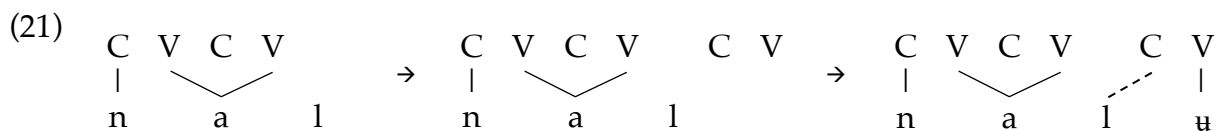
We are left with but one possible analysis of the pronunciation of BASE in all of the pronominal forms that do not contain the AGR morpheme. In these derivations, the pronominal root must undergo Spell Out in a cycle that does not include any of its suffixes. Before I can explain why this is the correct analysis of these pronominal forms, we must examine one further aspect of Tamil phonology.

First, consider again example (12), where underlying /naal/ 'day' may surface as either [naalɨ] or [naa], depending on the dialect. Now consider what must be occurring in the phonology in the derivation of a form like [naalɨ] under the lexico-structural assumptions laid out above. The final sonorant is unpronounced unless 'saved' by either the insertion of an epenthetic vowel, or by the syllabification of the final sonorant as the onset of a following word/morpheme, as for [aval] in (20).

(20) a.   ava pooraa   'she goes.'

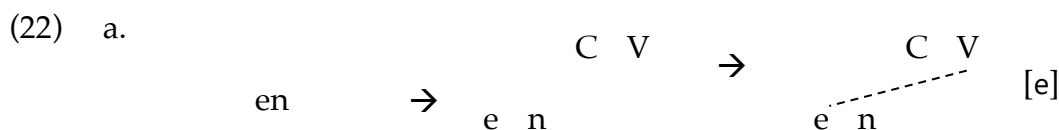   b.   aval-ukku   'to her'

In Tamil, the motivation for the epenthesis of the final vowel in [naalɨ] appears to be related to word-minimality. Word-minimality is a common cross-linguistic requirement

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that lexical words be bi-moraic or bi-syllabic.[8] Single-syllable words will undergo this epenthesis, while longer words are more likely to drop the final C. If the final C were not floating, we would expect it to always be pronounced. Since it is variably pronounced, we must assume that the epenthetic vowel affords it an onset position in which it may be syllabified. In CVCV phonology, every V position on the CV-tier comes with a preceding C (CV-sequences are the only units on the skeletal tier). Therefore, the V position in which the epenthetic vowel is pronounced will provide a consonantal position to which the final floating consonant may link.

(21)

$$
\begin{array}{ccccc}
\text{C} & \text{V} & \text{C} & \text{V} \\
| & & & \\
\text{n} & & \text{a} & \text{l}
\end{array}
\rightarrow
\begin{array}{cccccc}
\text{C} & \text{V} & \text{C} & \text{V} & \text{C} & \text{V} \\
| & & & & \\
\text{n} & & \text{a} & \text{l}
\end{array}
\rightarrow
\begin{array}{cccccc}
\text{C} & \text{V} & \text{C} & \text{V} & \text{C} & \text{V} \\
| & & & & & | \\
\text{n} & & \text{a} & \text{l} & & \text{ɨ}
\end{array}
$$

We can assume here that this epenthetic CV is not inserted except in cases where the underlying form is deemed too small, and that the pronunciation of the vocalic position is the default pronunciation of final empty vocalic positions in Tamil (in other words, the insertion of the epenthetic vowel is effected after the insertion of the CV augment; it is not underlyingly attached to the V position).[9] Now consider a derivation where the non-nominative pronouns are interpreted in two phonological cycles; one cycle that includes the BASE, and a second that includes the pronominal suffixes.

If the BASE in the non-nominative pronominal derivations undergoes Spell Out alone in its cycle, and if our analysis of its underlying structure is correct, then word-minimality requirements will impose the insertion of this epenthetic CV space at PF in these derivations.[10] (22) shows the derivation of (15a), the D.1SG-OBLIQUE 'my'. Here the derivation is effected in 2 steps. (22a) represents the output of cyclic phonology, where CV-slots are linked with melody from right to left. (22b) represents the output of post-cyclic phonology, where additional floating segments link to the CV tier in Tamil. That these two steps are distinct can be seen in the derivation of forms like *ennai* (23).
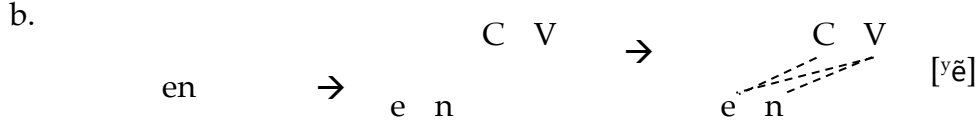
(22)   a.

$$
\text{en} \rightarrow
\begin{array}{cc}
 \\
\text{e} \ \text{n}
\end{array}
\rightarrow
\begin{array}{cc}
\text{C} & \text{V} \\
 & \\
\text{e} \ \text{n}
\end{array}
\rightarrow
\begin{array}{cc}
\text{C} & \text{V} \\
 & \\
\text{e} \ \text{n}
\end{array}
\ [\text{e}]
$$

---

[8] For example, consider that English monosyllabic words may end in a long vowel (i), or a vowel-consonant (ii) (heavy, bi-moraic syllables), but monomoraic single-syllable words are disallowed (iii).
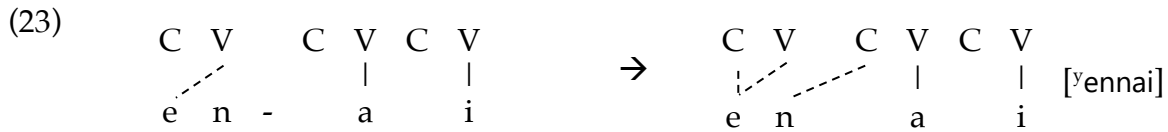(i)   bee [bii]   (ii)   bit [bɪt]   (iii)   *[bɪ])
[9] Note that word minimality requirements appear to be variable across dialects. I assume here that word-minimality repairs may be triggered if the underlying form contains only a single melodic vowel.
[10] Initial glides are predictable word-initially, and are coherent with the CVCV framework, or any phonological framework that favours the pronunciation of empty onset positions.

b.

$$\begin{array}{ccc} & \text{C V} & \\ \text{en} \rightarrow & & \rightarrow \quad \text{C V} \quad [^{y}\tilde{e}] \\ & \text{e n} & \text{e n} \end{array}$$

Before going on to (23), note that this analysis has the added advantage of offering an account of a discrepancy between the pronunciation of pronouns like *en* and single syllable lexical items like *naal* 'day'. If lexical items like *naal* have underlying CV structure linked to all melodic elements, save for the final floating consonants (the standard assumption for non-alternating phonological forms), then an epenthetic CV will offer space for the pronunciation of this floating consonant. In the case of *en*, however, the CV cannot provide for the attachment of /n/ to the C position without crossing autosegmental lines. The only option is therefore to link the nasal to the vocalic position. Final Cs in function words and final Cs in lexical words are therefore predicted to behave distinctly in the presence of an epenthetic CV, as is the case.

In the derivation of an overtly morphologically complex form like [ennai] the derivation in (22a) will be the output of a first cycle of interpretation. In the second cycle the affixation of *ai* will offer a position for the pronunciation of [n], as in (23). Post-cyclic nasalization of the vowel of the BASE will not occur, as [n] has linked to a C-position, while post-cyclic ongliding will still occur. Recall that we have put aside the question of how gemination is derived here (see footnote 3).

(23)

$$\begin{array}{ccccccc} \text{C V} & & \text{C V} & \text{C V} & & & \text{C V} & \text{C V} & \text{C V} \\ & & | & | & \rightarrow & & & | & | & [^{y}\text{ennai}] \\ \text{e n -} & & \text{a} & \text{i} & & & \text{e n} & \text{a} & \text{i} \end{array}$$

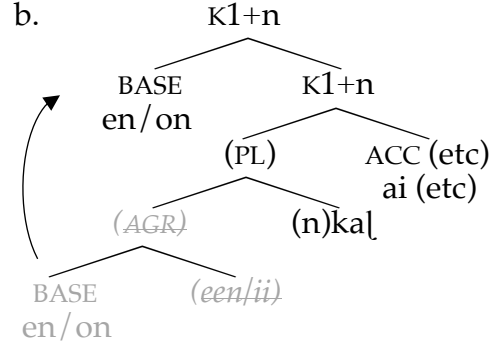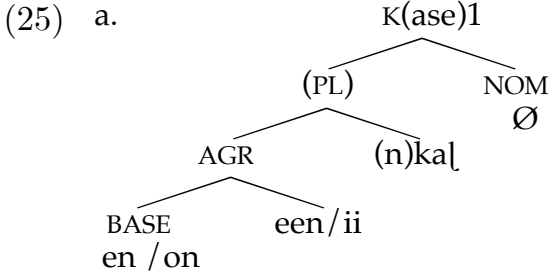# 4. Possible syntactic motivations for the bi-cyclic analysis

The analysis above makes specific predictions about the cyclic Spell Out domains in the morphosyntax of the Tamil pronominal system. It is proposed that in all derivations but the nominative, the pronominal BASE undergoes Vocabulary Insertion in its own cycle, alone. In the following paragraphs I suggest some syntactic paths to follow that would support the proposed phonological analysis in Section 3.

One option is that there is a cyclic domain that triggers PF interpretation of the root in the derivation of all pronouns (the BASE is interpreted separately from the PL/K(ase) heads in all derivations) but that there is an operation of agreement that is triggered only when the pronoun is nominative. This domain is labeled F in (24).

(24)　a.

$$\text{K(ase)}$$

(PL)　　　　NOM
　　　　　　　Ø

F　　　(n)kaḷ

BASE　　　Ø+AGR
en /on

b.

$$\text{K(ase)}$$

(PL)　　　　ACC(etc)
　　　　　　　ai (etc).

F　　　(n)kaḷ

BASE　　　Ø
en /on

c.　Spell-Out of F in (24a) → 　(i) VI of BASE : /en/~/on/
　　　　　　　　　　　　　　　(ii) VI of dissociated AGR :/aan/
　　　　　　　　　　　　　　　(iii) Phonological derivation as in (17)
　　Spell-Out of K in (24a) → 　(i) VI of K and PL : /(n)kaḷ/
　　　　　　　　　　　　　　　(ii) Linearization of BASE+ PL
　　　　　　　　　　　　　　　(iii) Phonological derivation of [naaŋkaḷ]

d.　Spell-Out of F in (24b) → 　(i) VI of BASE —> /en/~/on/
　　　　　　　　　　　　　　　(ii) Phonological derivation as in (22a)
　　Spell-Out of K in (24b) → 　(i) VI of K and PL : /(n)kaḷ/ + /ai/
　　　　　　　　　　　　　　　(ii) Linearization of BASE+ PL+K
　　　　　　　　　　　　　　　(iii) Phonological derivation of [eŋkaḷai]

This analysis clearly assumes that the nominative head is present in the structure before F is spelled out in (24), as F must only trigger the insertion of AGR in the scope of nominative case. In phase theory spell-out of a phase (here F) may be triggered by the merger of a higher phase head (here K, or a higher functional head in the pronominal structure), allowing for agreement of F and NOM prior to PF interpretation of F. If the agreement morphemes attached to F are dissociated (à la Embick 1997), then these morphemes will be inserted post-syntactically. In this analysis the AGR head is not present in the narrow syntax, and the derivations diverge at Vocabulary Insertion (VI), as in (24c,d).

A second option is that, instead of the difference between the presence of AGR in the nominative, and its absence in all other cases, there is a different distinction that triggers the extraction of BASE to a specifier position in all cases/K(ase)s but the nominative. This type of account would entail that, for example, some feature in K attracts the root to its specifier, and this feature is present only in structures larger than the nominative. For expository purposes, the nominative in (25) is represented as K1, and K1+n refers to all case structures that are larger than the nominative.

(25) a.

```
                    K(ase)1
                   /       \
                (PL)        NOM
               /    \        Ø
            AGR    (n)kaḷ
           /    \
        BASE    een/ii
        en /on
```

b.

```
                    K1+n
                   /    \
                BASE     K1+n
                en/on   /    \
                     (PL)     ACC (etc)
                    /    \     ai (etc)
                (AGR)    (n)kaḷ
               /     \
            BASE    (een/ii)
            en/on
```

c. Spell-Out of (25a = K1) → (i) VI, linearization of BASE, K and PL
   (ii) Phonological derivation of ex. [naaŋkaḷ] in a single cycle.

d. Spell-Out of BASE in (25b) → (i) Spell-Out of moved BASE
   Derivation is identical to Spell-Out of F in (24b)

  Spell-Out of K1+n in (25b) → Derivation is identical to Spell-Out of K in (24b)[11]

In the Spell-Out of (25a) we have, following Moskal (2015) and Moskal & Smith (2016), a single cycle of interpretation at the K1 node. The form of the BASE falls out of the phonological analysis in Section 3. In the Spell-Out of (25b), we again have a cycle of Spell-Out triggered at the topmost K1+n node. But, in addition to this, we have a movement operation of the BASE to the Specifier of the K1+n projection. Following Johnson (2004) and other work on the phonological interpretation of specifiers/left-branches, the BASE will be interpreted separately from the structure to which it is copy-merged. In this separate cycle, the phonological analysis in Section 3 applies to the BASE, and the linearization/spell-out of the heads within K1+n will be determined separately. *AGR* in (25b) is not inserted. It may either be absent, or it may fail to be inserted in any derivation where the BASE raises out of its scope. Note that if McFadden (2018) is correct and there is no nominative case head in the syntax, it becomes easier to distinguish why the BASE is attracted to the specifier only in derivations where there is a K(ase) projection.

Either of the above accounts would allow for the phonological analysis in Section 3 to explain the alternations between *en/on* and *n* in the Tamil pronominal paradigm without requiring any complication to the analysis of adjacency for suppletion cross-linguistically. Should derivations like in (24) and (25) be clearly impossible accounts for the data, the phonological analysis would then be improbable, and the complications raised for suppletion by the Tamil facts would again stand.

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[11] Laura Kalin, p.c., notes that this second derivation appears to be incompatible with an eventual analysis of the 1PL inclusive along the lines presented herein, where we would want the BASE to spell out with its suffix regardless of Kase.

5. Conclusions

In the previous sections I have laid out arguments for an analysis that offers an alternative to the account in Moskal (2015) and Moskal & Smith (2016) of Tamil pronominal alternations. These works have proposed that Tamil is a particular (although not the only) argument against a strict-adjacency (either structural or linear) account of suppletion, as suppletion is triggered across the plural morpheme. If, however, the phonological evidence is to be believed, this example is not a case of suppletion at all, but rather falls out of the regular derivational and representational phonology of the language (admitting that the relevant vowel quality alternations and gemination are still to be accounted for). If this egregious example of anti-locality is removed from the discourse on suppletion, one wonders if the other less fraught examples might also have alternative explanations. It is, of course, not the case that all of the patterns problematic for adjacency have phonological solutions. The problems evoked by the pruning operation (Embick 2003, 2010) discussed by Moskal (2015) and Moskal & Smith (2016) are not (clearly) phonological issues, and accounts of allomorphy that appeal to Domain Suspension (Bobaljik 2012; Bobaljik & Wurmbrand 2013) or spanning (Merchant 2015, Svenonius 2016) clearly include cases where a morphosyntactic analysis must be appealed to (although, see Newell & Noonan 2018 for a teaser of a phonological analysis of the *de le* → *du* portmanteau problem in French). The analysis in Section 3 is just one alternative piece of the puzzle that may clear the way for a simpler explanation of locality restrictions in the domain of allomorphy.

Finally, I just want to situate this analysis in the larger setting, where questions of allomorphy and suppletion butt up against questions of phonological alternations. In either case, whether we posit suppletive forms or articulated phonological representations, the speaker must lexicalize something special about a particular vocabulary item. Whether we propose (seemingly small) complications to our phonological or to our morphosyntactic derivations leads to different predictions for the role of lexicalization and its effects on the linguistic system globally.

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