Stem Allomorphy in Okinawan: Sometimes Conditioned by Adjacency, Sometimes Not

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Recent studies on stem allomorphy in the framework of Distributed Morphology (DM) commonly assume, at least tentatively, that it is subject to some kind of adjacency condition: For a stem allomorph to occur, the triggering morpheme or “span” must be linearly or structurally adjacent to the stem. (Cf. Embick (2010, 2015), Bobaljik (2012), and Merchant (2015), among others.) This paper shows that clear counterexamples to this kind of adjacency condition are found in Okinawan, a language genetically related to Japanese. At the same time, it is also shown that another case of allomorphy in Okinawan seems to obey the adjacency condition. The main goal of this paper is to provide an account of these apparently conflicting facts in the framework of DM. I will argue that the conflict disappears once we distinguish the mechanisms responsible for the two types of allomorphy. In one type, rules of exponence are responsible for the allomorphy. Unlike prevailing analyses, however, I claim in the light of Okinawan data that the adjacency condition should not be an obligatory condition applying to rules of exponence, while endorsing some kind of structural locality condition along the lines of Embick (2010, 2015) or Bobaljik (2012). For the other type of allomorphy in Okinawan that appears to obey the adjacency condition, I suggest that what is responsible for the stem alternation is not rules of exponence, but rather a readjustment rule triggered by a particular phonological environment. As such, this type of allomorphy imposes a linear adjacency condition between the morphemes involved, unlike the cases of allomorphy triggered by rules of exponence.

One instance of stem allomorphy in Okinawan, a case of suppletion, is given in (1).

(1) Suppletive Alternation of Existential Verb in Okinawan

a. \( ?a - \emptyset - N \)  
exist-Pres-Ind  
‘exist’

b. \( \text{nee-ran} - \emptyset - \emptyset \)  
exist-Neg-Pres-Ind  
‘do not exist’

In (1b), the exponent of the existential verb, assumed to be a functional morpheme \( v_{\text{exist}} \), is not the default \( ?a \), but the suppletive form \( \text{nee} \). This fact can be captured by positing the following rules of exponence, adopting the notational convention of Embick (2010, 2015):

(2) Rules of Exponence for \( v_{\text{exist}} \)

\[
v_{\text{exist}} \leftrightarrow \text{nee} / \_ \_ [\text{neg}] \\
v_{\text{exist}} \leftrightarrow ?a
\]

The examples in (3) show that the suppletion-triggering feature [neg] in (2) need not be linearly adjacent to \( v_{\text{exist}} \).

(3) Polite Forms of Existential Verb

a. \( ?a-\text{jabii}-\emptyset-N \)  
exist-Polt-Pres-Ind  
‘exist (polite)’

b. \( \text{nee}-\text{jabi-ran}-\emptyset-\emptyset \)  
exist-Polt-Neg-Pres-Ind  
‘do not exist (polite)’

In (3b), the ‘polite’ morpheme -jabi(i) intervenes between the verb stem and the negative morpheme -ran, and yet, the exponent for the \( v_{\text{exist}} \) is the suppletive form \( \text{nee} \), not the default form \( ?a \). Thus, (3b) cannot be derived correctly by the rules of exponence in (2), where the concatenation operator demands that [neg] be adjacent to \( v_{\text{exist}} \) for the suppletive exponent to
be inserted. Merchant (2015) proposes the Span Adjacency Hypothesis to account for some counterexamples to what he calls the Node Adjacency Hypothesis. However, the current study shows that the Okinawan data like (3b) cannot be accounted for by the Span Adjacency Hypothesis, either. Neither can we account for such data by appealing to Bobaljik and Wurmbrand’s (2013) Domain Suspension Principle, as long as we assume the adjacency condition simultaneously. (Bobaljik and Wurmbrand carefully avoid endorsing the adjacency condition.) These considerations lead us to designate the adjacency condition not as an obligatory constraint imposed on rules of exponence, but as an option allowed by Universal Grammar. At the same time, cases like (3b) obey other kinds of locality condition proposed in the literature, such as Embick’s (2010, 2015) Cyclic Locality and Bobaljik’s (2012) locality condition in terms of morphological “word” (= complex X0). Thus, I will suggest that a universal locality condition on contextual allomorphy should be investigated along the lines of these proposals, dispensing with the adjacency condition as an obligatory universal condition for rules of exponence.

The case of Okinawan allomorphy that seems to obey the adjacency condition concerns the allomorph ʔndʒ ‘go’ that appears instead of the basic form ʔtik (or its phonological variant ʔtif) in such examples as (4-b-d).

(4) Allomorphy of ʔtik- ‘go’ triggered by T [+past], Ger, and Cont.
   a. ʔtif-ʊ-N   b. ʔndʒ-ɑ-N       c. ʔndʒ-ɪ   d. ʔndʒ-ʊʊ-N
   go-Pres-Ind  go-Past-Ind      go-Ger      go-Cont-Ind
   ‘go’        ‘went’         ‘going’    ‘be going’

In contrast to (4b), where the morpheme -(t)a ‘Past’ triggers the insertion of the allomorphic exponent ʔndʒ, the exponents that appear in (5a,b) are the default ʔtik (or its phonological variant ʔtif), despite the presence of the T [+past].

(5) Cases where ʔtik appears in the environment of T [+past]
   a. ʔtik-ɑ̃-ta-N   b. ʔtif-abi-ta-N
      go-Neg-Past-Ind  go-Polit-Past-Ind
      ‘did not go’      ‘went (polite)’

Apparently, the morpheme intervening between the verb stem and the T [+past] morpheme -ta in (5a,b) blocks the occurrence of the allomorph ʔndʒ. I suggest that this fact can be accounted for by treating the allomorphy found in (4b-d) as a result of the application of a readjustment rule. The main motivation for this analysis comes from the fact that all the morphemes that trigger the allomorphy in (4b-d) have the underlying phonological representations that start with the phoneme /ʊ/: /-ta/ ‘Past’, /-ti/ ‘Gerund’, and /-too/ ‘Continuous’. (This morpheme-initial /ʊ/ is often dropped by a phonological rule, as witnessed by examples (4b-d).) By definition, readjustment rules are morphophonological rules. Although standard cases of readjustment (for example, English sing–sang alternation) are usually triggered by morphosyntactic features (such as [+past]), the conception of readjustment rules as post-syntactic rules that apply after Vocabulary Insertion does not rule out the possibility that a stem might be conditioned by some phonological information in a given context, even if one assumes the standard “inside-out” Vocabulary Insertion. I contend that the Okinawan data in (4b-d) exemplify such a conditioning. This analysis also offers a solution to the puzzle of why the adjacency condition does not hold in such cases as (3b), but does so in (5a,b). Phonological conditioning typically requires linear adjacency, leading to the forms in (5a,b). In contrast, rules of exponence similar to (2), but without the concatenation operator, allow interaction of non-adjacent morphemes to yield allomorphy, as long as they are within the same locality domain determined by such principles as Cyclic Locality.