

THE ALLOMORPHY OF THE TRANSITIVE SUFFIX IN PIJIN

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Abstract: This paper looks at the factors accounting for the occurrence of the various allomorphs of the transitive suffix in Pijin, an English-lexified pidgin spoken in the Solomon Islands. Unlike previous descriptions of the phonology and/or the morphology of Pijin, this analysis of the allomorphy of the transitive suffix starts from the assumption that the selection of its various allomorphs depends on the type of root, consonant-final or vowel-final, from which transitive verbs are derived. The allomorphs occurring with consonant-final roots consist of both phonologically and lexically conditioned ones. It is demonstrated that the former contain a vowel whose quality is due to the phonological processes of vowel copying and labial attraction, and to the use of two default vowels. Consequently, the rules of vowel harmony posited by previous analyses play no part in the choice of the vowel of these allomorphs. There is, however, considerable inter- and intra-speaker variation with respect to this vowel. Vowel-final roots are shown to combine with one allomorph. Finally, one type of base, previously considered to be vowel-final, is analyzed as a consonant-final root exhibiting allomorphy.

Keywords: Pijin, transitive verbs, transitive suffix, suffix allomorphy, root allomorphy

1. Introduction

Pijin¹ has a suffix with which it forms transitive verbs. This transitive suffix derives etymologically from the English personal pronoun *him*. It is believed to have been reinforced by the similar suffix attested in the Oceanic substrate languages of Pijin (Keesing 1991, Avram 2000)².

Most transitive verbs are built with a transitive suffix (Jourdan 2004). If added to an intransitive verb, the suffix turns it into a transitive one. The suffix can also be added to a nominal or adjectival base to form transitive verbs. Moreover, the transitive suffix can be attached to prepositions to form prepositional verbs. These function as prepositions, but retain morphologically the structure of transitive verbs (Keesing 1991, Jourdan 2004).

The transitive suffix has several allomorphs. There is considerable disagreement in the literature with regard to their number and form. Thus, Jourdan (2004: 709-710) lists only *-im*, *-em* and *-um*. She also mentions the form *-m*, which she considers a reduced variant of *-em*. which Jourdan and Selbach (2004: 706) state that “Pijin transitive verbs are marked with a suffix *-Vm*, variously *-em*, *-im* or *-um*”. Jourdan (2007: 183) writes that transitive verbs are built “by adding a transitivity suffix */-em/*, */-im/*, */-um/*, */-om/* to the root”. According to Lee (2008: 61), “transitive verbs [...] are marked with a suffix which can be *-em*, *-im*, *-um* or *-m*”. Finally, Crowley (1990: 301) identifies another allomorph *-rem*, not mentioned in any of the other analyses.

Not surprisingly, the analysis of the factors accounting for the occurrence of the various allomorphs of the transitive suffix in Pijin does not fare any better. Thus, Jourdan (2004: 709), Jourdan and Selbach (2007: 706-707) and Jourdan (2007: 183-184) restrict their discussion to the issue of the quality of the vowel in the transitive suffix, whereas Lee (2008: 61), only states that “the suffix rules are complex”.

¹ Also known as Solomons Pijin, Solomon Islands Pijin or Solomon Islands Pidgin English.

² For the transitive suffix in the substrate languages of Pijin see Keesing (1988: 220, and 1991: 318-319) and Siegel (2008: 87 and 167). For the transitive suffix in the Oceanic languages see Lynch (1998) and Lynch et al. (2002).

Moreover, none of the previous analyses considers the possible relevance of the type of root, i.e. consonant-final or vowel-final, or the possibility of root allomorphy.

Finally, no basic form of the morpheme has been proposed in any of the previous analyses of the transitive suffix.

The article is organized as follows. Section 2 focuses on the three allomorphs of the transitive suffix occurring with consonant-final roots. Particular attention is paid to the factors accounting for the quality of the vowel in these allomorphs. The allomorph occurring with vowel-final roots is discussed in section 3. This section also looks at a second alleged allomorph claimed to occur with some vowel-final roots and proposes an alternative analysis of the roots at issue. Section 4 summarizes the findings.

For reasons of space the number of examples has been kept to a minimum. All examples are rendered in the orthography or in the system of transcription used in the sources mentioned.

2. Consonant-final roots

The forms [-um], [-im] or [em] of the transitive suffix are normally attached to a consonant-final root, a fact that has gone unnoticed in previous phonological and/or morphological descriptions of Pijin (Jourdan 2004, Jourdan and Selbach 2004, Jourdan 2007).

According to Jourdan (2004: 709), the vowel of the transitive suffix in the allomorphs *-em*, *-im* or *-um* “varies according to a rule of vocalic harmony between the stem of the verb and the transitive suffix”:

(1)	verb stem vowel	transitive suffix
	-a	-em
	-e	-em
	-i	-im
	-o	-em
	-u	-um

Jourdan (2004: 709) further writes that “this rule [of vowel harmony] is more or less regular”.

Jourdan and Selbach (2004: 706-707) also state that “the vowel in -Vm is selected with respect to rules of vowel harmony”. On their analysis, “roots containing mid and low vowels take *-em* as a suffix, but roots with high vowels will take the identical high vowel in the suffix, *-im* or *-um*”. They conclude that “*-em* seems to function as the default suffix” since “it appears that *-em* is always a possible realization of the transitive suffix”. Consequently, according to them, “/e/ is the underspecified vowel”. Jourdan and Selbach (2004: 706) also write that “[t]he specific rules of vowel harmony can [...] vary from one speaker to the next”. While acknowledging that the “variation in the realization of the vowel in the transitivizing suffix is large”, they claim that “vowel harmony nevertheless determines the insertion of the vowel into the suffix whose vowel is underspecified for height or frontness” (Jourdan and Selbach 2004: 707).

In the most recent description of Pijin, Jourdan (2007) slightly modifies the analysis of the vowel of the transitive suffix. In this new version “transitive verbs are built by adding a transitivity suffix /-em/, /-im/, /-um/, -om/ to the root” (Jourdan 2007: 183). The rule of vowel harmony is reformulated as follows: “the choice of the appropriate suffix is made depending on the vowel harmony between the last vowel of the root of the verb and that of the transitivity suffix” (Jourdan 2007: 183):

(2)	last vowel of verb root	transitive suffix
	-a	-em, -om
	-e	-em
	-i	-im
	-o	-em, -om
	-u	-um

There are a number of objections that can be raised with respect to the analyses summarized above. First, vowel harmony is normally regular across speakers, hence the inter-speaker variation mentioned by Jourdan (2004), Jourdan and Selbach (2004), Jourdan (2007) should not occur. If vowel harmony determines the choice of the vowel in the transitive suffix, there cannot be an alternative realization, as claimed by Jourdan and Selbach (2004).

Second, on Jourdan's (2007) analysis, the non-uniform behaviour of [-high] vowels, as the last ones in the root, remains unaccounted for. In (2), /a/ and /o/ select either [e] or [o], while /e/ selects only [e].

Third, a [+high] vowel as the last one in the root, actually triggers vowel copying, not vowel harmony, contra Jourdan (2004), Jourdan and Selbach (2004), Jourdan (2007). As can be seen in (2), /i/ selects [i] and /u/ selects [u].

Fourth, the transitive suffix never has the form *-om*, as stated by Jourdan (2007). The vowel /o/ is actually part of the root of the verb, not of the transitive suffix (see section 4):

- (3) *falo-m* vs. **fal-om* (< *follow*) 'follow'

The claim that [o] also occurs as a vowel of the transitive suffix is thus the outcome of a faulty morphological analysis.

Finally, the potential effect of adjacent consonants is not taken into consideration.

In what follows I look at the quality of the vowel of the transitive suffix in Pijin. The data analysed below are from Lee (1999), Jourdan (2002, 2003 and 2004), Jourdan and Selbach (2004), Beimers (2006), Jourdan (2007) and *Link Komik* (n. d.).

2.1 The allomorph [-um]

This allomorph of the transitive suffix is the outcome of two phonological processes. A first possibility is vowel copying. As seen in the examples below, if the vowel of the root is /u/, this is copied into the transitive suffix:

- (4) a. *hukum* (< *hook*) 'fish'
 b. *pulum* (< *pull*) 'pull'

A second phonological process is that of labial attraction. If the root ends in a labial consonant, the vowel of the transitive suffix is [u], regardless of the quality of the preceding vowel:

- (5) a. *stepum* (< *step*) 'trample'
 b. *hafum* (< *half*) 'make a half of'
 c. *sopum* (< *soap*) 'soap'
 d. *bomum* (< *bomb*) 'bomb'

Note that a few cases may obtain either via vowel copying or through labial attraction:

- (6) a. *brumum* (< broom) ‘sweep’
 b. *movum* (< move) ‘move’

2.2 The allomorph [-im]

As shown in previous analyses, the vowel of the transitive suffix is [i] when the last vowel of the root is /i/:

- (7) *livim* (< leave) ‘leave alone’

However, there are a large number of cases in which the occurrence of [i] cannot be accounted for by the previous analyses. For instance, [i] occurs even though the last vowel of the root is /u/:

- (8) a. *bukim* (< book) ‘book’
 b. *kalabusim* (< calaboose ‘prison’) ‘imprison’
 c. *lukim* (< look) ‘see, look at’
 d. *rulim* (< rule) ‘order, rule’
 e. *salutim* (< salute) ‘salute’
 f. *tiunim* (< tune) ‘tune’
 g. *duim* (< do) ‘do’

Note that the examples above include recently coined forms, as in (9a) and (9f). Moreover, also included is a vowel-final root (9g), which exceptionally combines with [-im].

In several verbs with /u/ as the last vowel of the root [i] is in free variation with [u]:

- (9) a. *pusim* / *pusum* (< push) ‘push’
 b. *putim* / *putum* (< put) ‘put’
 c. *smutim* / *smutum* (< smooth) ‘smooth’

There is also evidence of intra-speaker variation in this respect, with the same speaker alternating between the form with [i] and the one with [u]:

- (10) male speaker, 11 years
 a. *Tufala go wakem, putum long oven.* (Jourdan 2007: 207)
 ‘The two [girls] went to prepare [the food] and put it in the oven.’
 b. *tekem olketa kaekae ia, putim long pot* (Jourdan 2007: 207)
 ‘[they] took the food and put it in a pot’

In a number of verbs the vowel of the transitive suffix is [i] although the last vowel of the root is [o]:

- (11) a. *bosim* (< boss) ‘oversee’
 b. *divosim* (< divorce) ‘divorce’
 c. *kosim* (< cause) ‘cause’
 d. *strongim* (< strong) ‘strengthen’
 e. *tosim* (< torch) ‘torch’

Note that the examples in (11b) and (11c) are recently formed verbs.

Several verbs have [i] in the transitive suffix even though the last vowel of the root is /e/ or the diphthong /ae/:

- (12) a. *baptaesim* (< *baptize*) ‘baptize’
 b. *faraepenim* (< *fry, pan*) ‘fry’
 c. *kruketim* (< *crooked*) ‘bend’
 d. *renim* (< *rain*) ‘drench’
 e. *trenim* (< *train*) ‘train’

Included among such verbs are recently coined ones, as in (12e).

In a rather large number of verbs whose last vowel of the root is /a/ the vowel of the transitive suffix is [i]. These include many recently formed verbs, such as those in (13c), (13d), (13f) and (13g) below:

- (13) a. *damasim* (< *damage*) ‘damage’
 b. *fakim* (< *fuck*) ‘have sexual intercourse’
 c. *faksim* (< *fax*) ‘fax’
 d. *flasim* (< *flush*) ‘flush the toilet’
 e. *krasim* (< *scratch*) ‘grate’
 f. *maenasim* (< *minus*) ‘subtract’
 g. *pronansim* (< *pronounce*) ‘pronounce’

Occasionally, [i] occurs in the transitive suffix when the preceding syllable contains the diphthong /ao/:

- (14) *saonim* (< *sound*) ‘imitate a sound’

Finally, the vowel of the transitive suffix is [i] if the root contains a diphthong attested only in anglicized forms:

- (15) *voutim* (< *vote*) ‘vote’

2.3 The allomorph [-em]

As predicted by previous analyses, [e] is indeed the vowel of the transitive suffix if the last vowel of the root is /a/, /e/, the diphthong /ae/, the diphthong /oe/, /o/ or the diphthong /ao/:

- (16) a. *lanem* (< *learn*) ‘learn’
 b. *joenem* (< *join*) ‘link’
 c. *daonem* (< *down*) ‘lower’
 d. *kolem* (< *call*) ‘call’
 e. *laekem* (< *like*) ‘like’
 f. *letem* (< *let*) ‘let’
 g. *boroem* (< *borrow*) ‘borrow’

The verb in (16g) exceptionally combines with [-em], although it is derived from a vowel-final root³.

³ In *borom*, the other variant of this verb, the allomorph is the expected [-m] which occurs with vowel-final roots. See section 3.

Several cases, however, cannot be accounted for in terms of the vowel harmony posited by previous analyses. For instance, [e] can occur even though the last vowel of the root is [u]:

(17) *kiurem* (< *cure*) ‘cure’

Moreover, the vowel [e] occurs in free variation with [u] after a labial consonant:

- (18) a. *apem* / *apum* (< *up*) ‘lift’
 b. *klaemapem* / *klaemapum* (< *climb, up*) ‘climb’
 c. *ofem* / *ofum* (< *off*) ‘switch off’
 d. *pamem* / *pamum* (< *pump*) ‘pump’
 e. *somapem* / *somapum* (< *sew, up*) ‘sew’
 f. *taemapem* / *taemapum* (< *tie, up*) ‘tie up’

2.4 Variation in the use of the allomorphs [-im] and [-em]

Variation between the forms [im] and [em] of the transitive suffix is attested in a large number of cases. For instance, [i] and [e] are in free variation when the last vowel of the root of the verb is /i/:

- (19) a. *stretim* / *stretim* (< *straight*) ‘solve’
 b. *witim* / *witem* (< *with*) ‘with’

In the transitive suffix of a number of verbs [i] is in free variation with [e] when the last vowel of the root is /e/:

- (20) a. *gredim* / *gredem* (< *grade*) ‘grade’
 b. *helpim* / *helpem* (< *help*) ‘help’
 c. *mekim* / *mekem* (< *make*) ‘make’
 d. *tuwetim* / *tuwetem* (< *too wet*) ‘soak’
 e. *witnesim* / *witnesem* (< *witness*) ‘witness’
 f. *peim* / *peem* (< *pay*) ‘pay’

As can be seen, this also applies to recently coined verbs (20a), as well as to a vowel-final root (20f), which exceptionally combines with [-im] or [-em].

Although dictionaries (Jourdan 2002, Beimers 2003) only list the form *maritim* (< *married*) ‘marry’, there is evidence of inter-speaker variation between [i] and [e]:

- (21) a. male speaker, 11 years
Sif barava hapi nao sapos tufala boe blong hem maritim tufala red gele.
 (Jourdan 2007: 215)
 ‘The chief is really happy with the idea of his sons marrying the red girls.’
 b. female speaker, 11 years
So wanfaa boe ia lo dea hem maritem hem. (Jourdan 2003)
 ‘Eventually a boy from there wanted to marry her.’

Free variation of [i] and [e] is also attested when the preceding syllable contains the diphthong /ae/:

- (22) a. *faendim* / *faendem* (< *find*) ‘find’
 b. *gaedim* / *gaedem* (< *guide*) ‘guide’
 c. *haedim* / *haedem* (< *hide*) ‘hide’
 d. *kapsaetim* / *kapsaetem* (< *capsize*) ‘spill’
 e. *sakrifaisim* / *sakrifaesem* (< *sacrifice*) ‘sacrifice’

In addition to evidence of variation, striking proof that [i] and [e] can occur in exactly the same phonological environment is provided by the fact that, for some speakers, the following words form a minimal pair:

- (23) *agensim* (< *against*) ‘oppose’ vs. *agensem* (< *against*) ‘against’

Further, if the last vowel of the root is /o/, [i] and [e] may occur in free variation. This also applies to recently formed verbs, as in (24c):

- (24) a. *fosim* / *fosem* (< *force*) ‘force’
 b. *hotim* / *hotem* (< *hot*) ‘heat (up)’
 c. *ripotim* / *ripotem* (< *report*) ‘report’

Similarly, [i] is in free variation with [e] after a syllable containing the diphthong /ao/:

- (25) a. *raosim* / *raosem* (< German *raus*) ‘drive away’
 b. *saotim* / *saotem* (< *shout*) ‘shout’

Intra-speaker variation is also attested:

- (26) male speaker, 11 years
 a. *Olketa raraosim*⁴ *hem*. (Jourdan 2007: 204)
 ‘They drove her away.’
 b. *Everiwana raosem hem nao*. (Jourdan 2007: 203)
 ‘Everybody drives her away.’

Intra-speaker variation includes cases when [i] or [e] occur in the same phonological environment, i.e. after a syllable containing the diphthong /ao/, in different verbs:

- (27) male speaker, 11 years
 a. *tufala* [...] *aotim olketa sikin blong tufala* (Jourdan 2007: 212)
 ‘The two [...] took off their skin.’
 b. *tufala lukaotem kaekae* (Jourdan 2007: 209)
 ‘The two looked for food.’

Finally, [i] and [e] are in free variation when the last vowel of the root is [a]:

- (28) a. *askim* / *askem* (< *ask*) ‘ask’
 b. *katim* / *katem* (< *cut*) ‘cut’
 c. *salim* / *salem* (< *sell*) ‘sell’
 d. *tasim* / *tasem* (< *touch*) ‘touch’
 e. *wakim* / *wakem* (< *work*) ‘make’

⁴ A partially reduplicated form, from the base *raosim*, i.e. with [i] in the transitive suffix.

Dictionaries (Jourdan 2002, Beimers 2006) exclusively list *kasem* (< *catch*) ‘get, reach’, but the competing form with [i] is widely recorded⁵:

- (29) male speaker, 11 years
 a. *Tufala go kasim maket.* (Jourdan 2007: 205)
 ‘The two went to the market.’
 b. *Hem go [...] kasem en long aelan.* (Jourdan 2007: 204)
 ‘She went [...] to the end of the island.’

Significantly, intra-speaker variation may occur even in the same utterance:

- (30) female speaker, 15 years
Hem go baek kam, kasem vilij, kam kasim lo vilij. (Jourdan 2007: 217)
 ‘She went back and arrived in the village.’

The data analysed in this section adduce evidence that vowel copying and labial attraction account for the occurrence of [u] as the vowel of the transitive suffix. The effect of a root-final labial consonant shows that it is not only the last vowel of the root which determines the quality of the vowel of the transitive suffix, as stated by Jourdan (2007: 183).

It is not the case that [-em] is always a possible realization of the transitive suffix, as claimed by Jourdan and Selbach (2004: 707), since in a number of cases the default transitive suffix is [-im]. Moreover, there is a preference for [-im] in recently coined verbs (cf. Jourdan and Selbach 2004: 707), including anglicized forms with diphthongs otherwise not attested. Hence, /e/ is not the underspecified vowel, contra Jourdan and Selbach (2004: 706).

Both [i] and [e] appear to function as default vowels. The arguments in favour of such an analysis can be summarized as follows: (i) they may occur instead of an expected [u]; (ii) they can occur when the last vowel of the root is /e/, /a/, /o/ and after a syllable containing the diphthong /ae/ or /ao/; (iii) they are frequently in free variation with one another.

Finally, there is no evidence of vowel harmony dictating the choice of the vowel of the transitive suffix⁶, contra Jourdan (2004), Jourdan and Selbach (2004), Jourdan (2007).

3. Vowel-final roots

The analysis developed below starts from the claim that the allomorph [-m] is exclusively attached to vowel-final roots. In formulating this condition on the base from which transitive verbs with the allomorph [-m] are derived, the analysis departs from all previous descriptions of Pijin phonology and morphology (Jourdan 2004, Jourdan and Selbach 2004, Jourdan 2007).

The allomorph [-m] is attached to roots ending in /i/, including reflexes of etyma ending in the diphthong /ei/:

- (31) a. *emtim* (< *empty*) ‘empty’
 b. *fotokopim* (< *photocopy*) ‘photocopy’
 c. *redim* (< *ready* ‘ready’) ‘prepare’
 d. *stadim* (< *study*) ‘study’

⁵ For instance, the speaker in (29) uses the verb at issue seven times in the text recorded by Jourdan (2007: 202–215). The form *kasim* occurs five times, whereas *kasem* appears only twice.

⁶ See also Avram (2007, 2008) on the alleged role of vowel harmony in Pijin, and Avram (2009) on the vowel of the transitive suffix.

- e. *storim* (< *story*) ‘tell a story’
- f. *obeim* (< *obey*) ‘obey’
- g. *pleim* (< *play*) ‘play’
- h. *spreim* (< *spray*) ‘spray’

The allomorph [-m] also occurs with roots ending in the diphthong /ae/:

- (32) a. *haem* (< *hae* ‘high’) ‘lift’
- b. *kaekaem* (< Pijin *kaekae* ‘food’) ‘eat’
- c. *klaem* (< *climb*) ‘climb’
- d. *saplaem* (< *supply*) ‘supply’
- e. *traem* (< *try*) ‘try’

The verb transitive verb *klaem* (32d) is an interesting case of reanalysis of morphemic boundaries. The English etymon *climb* [klaɪm] has been interpreted as being transitive, with [-m] interpreted as the marker of transitivity. Consequently, Pijin also has the intransitive verb *klae*, via back formation from the transitive *klaem*.

Roots ending in the vowel /u/, including reflexes of etyma ending in the diphthong /əʊ/ also combine with [-m]:

- (33) a. *susum* (< Pijin *susu* ‘breast milk’) ‘breastfeed’
- b. *motum* (< Pijin *motu* ‘oven made of stone’) ‘cook in an oven made of stone’
- c. *bloum* (< *blow*) ‘blow’
- d. *groum* (< *grow*) ‘grow’
- e. *houm* (< *hou* ‘hoe’) ‘hoe’

The allomorph [-m] also occurs with roots ending in the vowel /o/ or the diphthong /ao/:

- (34) a. *borom* (< *borrow*) ‘borrow’
- b. *drom* (< *draw*) ‘draw’
- c. *trom* (< *throw*) ‘throw’
- d. *solom* (< *swallow*) ‘swallow’
- e. *som* (< *sew*) ‘sew’
- f. *som* (< *show*) ‘show’
- g. *falom* (< *follow*) ‘follow’
- h. *alaom* (< *allow*) ‘allow’

Finally, with roots ending in the vowel /a/ the allomorph of the transitive suffix is also [-m]:

- (35) a. *bangam* (< Pijin *banga* ‘collide’ < *bang*) ‘bang’
- b. *nilam* (< Pijin *nila* ‘nail’) ‘nail’

Several roots ending in /a/ are formed from Pijin reflexes of English etyma ending in orthographic <r>. Since Pijin words do not exhibit [r] in coda position⁷, these roots also take [-m]:

⁷ Cf. *ka* (< *car*) ‘bar’, *farm* (< *farm*) ‘farm’. Etymological /r/ surfaces in forms with a paragogic vowel, e.g. *got bagere* (< *got, bugger*) ‘forget it’ (Jourdan 2007: 171).

- (36) a. *onam* (< Pijin *ona* ‘owner’ < *owner*) ‘own’
 b. *pilam* (< Pijin *pila* ‘peeler’ < *peeler*) ‘peel’

However, other transitive verbs formed from what appears to be the same kind of root end in [-rem]. These include verbs related to Pijin words, listed below after the English etymon:

- (37) a. *aftarem* (< *after*, cf. Pijin *afta* ‘after’) ‘chase after’
 b. *kiliarem* (< *clear*, cf. Pijin *kilia* ‘clear’) ‘clear’
 c. *piksarem* (< *picture*, cf. Pijin *piksa* ‘picture’) ‘illustrate’
 d. *spiarem* (< *spear*, cf. Pijin *spia* ‘spear’) ‘spear’
 e. *skuearem* (< *equal*, cf. Pijin *skuea* ‘equal’) ‘equalize’
 f. *stiaarem* (< *steer*, cf. Pijin *stia* ‘rudder’) ‘steer’
 g. *stoarem* (< *store*, cf. Pijin *stoa* ‘store’) ‘store’
 h. *sugarem* (< *sugar*, cf. Pijin *suga* ‘sugar’) ‘flatter’
 i. *watarem* (< *water*, cf. Pijin *wata* ‘water’) ‘water (flowers)’

Other transitive verbs formed from this kind of root and ending in [-rem] are not related to a Pijin word:

- (38) a. *haearem* (< *hire*) ‘hire, rent, charter’
 b. *ofarem* (< *offer*) ‘offer’
 c. *onarem* (< *honour*) ‘honour’
 d. *poarem* (< *pour*) ‘pour’
 e. *satarem* (< *charter*) ‘charter’

This brings us to the rather complex issue of whether Pijin has yet another allomorph of the transitive suffix occurring with vowel-final roots, namely [-rem], as claimed by Crowley (1990: 301), on the basis of comparative evidence from two closely related varieties, Bislama⁸ and Tok Pisin⁹. On his analysis, [-rem] is an allomorph occurring with roots ending in /a/¹⁰. This raises the question why with some roots ending in /a/ the allomorph of the transitive suffix is [-m], as in (36), whereas with others the allomorph is [-rem]. Since both [-m] and [-rem] occur in the same phonological environment, they cannot be phonologically conditioned allomorphs of the transitive suffix. One possible solution would be to analyze [-m] and [-rem] as lexically conditioned allomorphs. On this analysis, with some roots ending in /a/, such as those in (36), the allomorph of the transitive suffix is [-m], whereas with others, such as those in (37) and (38), the allomorph is [-rem].

In what follows, however, I would like to propose that the [r] in the transitive verbs ending in [-rem] is not part of the transitive suffix, but rather of the root. In other words, transitive verbs ending in [-m] and respectively in [-rem] are formed from different roots, one vowel-final and the other consonant-final, i.e. ending in /r/. Transitive verbs are derived from roots ending in /a/, and thus combine with [-m] like all vowel-final roots, whereas with those formed from roots ending in /r/ the allomorph is [-em], which has been shown to occur with consonant-final roots (see section 2.3).

⁸ Spoken in Vanuatu.

⁹ Spoken in Papua-New Guinea.

¹⁰ Crowley (1990: 301) traces [-rem] to the 1880s, which would account for its occurrence in Pijin, Bislama and Tok Pisin.

Several pieces of evidence can be adduced in support of an analysis assuming underlying representations containing root-final /r/ combining with [-em] rather than a vowel-final root combining with the allomorph [-rem]. First, as shown in section 1, the origin of the transitive suffix is the English personal pronoun *him*. While the allomorphs [-im], [-em], [-um] and [-m] can all be plausibly derived from this etymon, the form [-rem] is not.

Second, underlying representations with root-final /r/ would account for the conspicuous fact that all the transitive verbs at issue are exclusively derived from Pijin reflexes of English etyma ending in orthographic <r>. This /r/ does not surface in these reflexes in word-final position. It does surface, however, when it is followed by the allomorph of the transitive suffix [-em] since this begins with a vowel. The underlying /r/ is syllabified together with the allomorph [-em].

Third, the analysis posits a single underlying representation for what are obviously related surface forms. For instance, two surface forms obtain from the underlying representation /watar/: one is [wata] ‘water’, where /r/ does not surface in word-final position, and the other is [watarem] ‘water (flowers)’, with the /r/ syllabified together with the allomorph [-em]¹¹. On this view, roots ending in /r/ exhibit allomorphy, with the two allomorphs of the root occurring in complementary distribution. This analysis leaves out an exception like *faerem* ‘to speak angrily / quickly’ vs. *faea* ‘fire’. The consonant-final underlying representation /faer/ can account for the surface form [faerem], but not for [faea]¹².

Fourth, the analysis can account for the existence of a number of transitive verbs with two variants, one of which ends in [-rem] and the other in [-m]:

- (39) a. *angarem / angam* (< *anchor*, cf. Pijin *anga* ‘anchor’) ‘anchor’
 b. *ansarem / ansam* (< *answer*, cf. Pijin *ansa* ‘answer’) ‘answer’
 c. *kalarem / kalam* (< *colour*, cf. Pijin *kala* ‘colour’) ‘colour’
 d. *kavarem / kava* (< *cover*, cf. Pijin *kava* ‘cover’) ‘cover’
 e. *odarem / odam* (< *order*, cf. Pijin *oda* ‘order’) ‘order’
 f. *resarem / resam* (< *razor*, cf. Pijin *resa* ‘razor’) ‘shave’

Jourdan (2004: 709) implicitly assumes a consonant-final root for the first set of variants when she writes that “some streamlining common in the speech of young urban Pijin speakers shortens the *-em* in *-m*” in “*ansam* [...] instead of *ansarem*, *kalam* [...] instead of *kalarem*” (Jourdan 2004: 709). On her view, [-m] is a reduced form of the allomorph [-em]. She does not explain, however, why the /r/ no longer surfaces in the variants exhibiting the reduced form [-m]. The alternative account put forth here posits different underlying forms for the two sets of variants. Thus, the variants in the first set are derived from underlying forms ending in /r/. These roots are therefore consonant-final and combine with the allomorph [-em]. The variants in the second set obtain from vowel-final underlying forms, which, as seen above, combine with the allomorph [-m]¹³.

¹¹ Cf. the underlying forms ending in the consonant cluster /st/. The /t/ does not surface in word-final position, but it does surface when followed by the allomorph [-em] of the transitive suffix: /post/ yields [pos] ‘post (n.)’, but [postem] ‘post (v.)’; /test/ yields [tes] ‘test (n.)’, but [testem] ‘test (v.)’.

¹² Crowley (1990: 302) analyzes such forms occurring in Bislama as cases in which “the final *-a* shifts to *-r* and then the suffix takes the regular form as stated for consonant-final roots”. Crowley’s “shift” actually exemplifies root allomorphy; this “shift” enables Crowley to explain the consonant-final root-like behaviour of what he regards as a vowel-final root.

¹³ The examples under (39) also disconfirm the claim that “the allomorph *-rem* in Solomons Pijin now alternates with *-em*” (Crowley 1990: 301).

Fifth, the analysis also explains why occasionally two different transitive verbs, one ending in [-m] and another one ending in [-rem], are derived from different underlying representations which are reflexes of the same English etymon:

- (40) a. *hamarem* ‘hammer’ vs. *hamam*¹⁴ ‘copulate’ (< *hammer*)
 b. *ovarem* ‘exaggerate’ vs. *ovam* ‘exceed’ (< *over*)
 c. *plastarem* ‘plaster’ vs. *plastam* ‘bandage’ (< *plaster*)

The forms [hamarem], [ovarem] and [plastarem] obtain from underlying representations ending in /r/, whereas [hamam], [ovam] and [plastam] are derived from vowel-final underlying representations.

4. Conclusions

The findings can be summarized as follows. The transitive suffix of Pijin has four allomorphs: [-im], [-em], [-um] and [-m].

The choice of the particular allomorphs depends on whether the root from which transitive verbs are derived is consonant-final or vowel-final.

Three of the allomorphs of the transitive suffix occur with consonant-final roots. The different quality of the vowels of these allomorphs is due to the phonological processes of vowel copying and labial attraction, as well as to the use of the two default vowels [i] and [e]. There is no evidence for rules of vowel harmony enforcing the selection of the vowel in these allomorphs. The allomorph occurring in the largest number of phonological contexts is [-im]. There is considerable inter- and intra-speaker variation with respect to the vowel of these allomorphs. Thus [-im] occurs in free variation with [-um] and [-em], while [-em] occurs in free variation with [-um]. Finally, in a large number of verbs the allomorph of the transitive suffix appears to be lexically conditioned.

The fourth allomorph [-m] occurs with vowel-final roots exclusively. Roots etymologically derived from English words ending in orthographic <r> have been analyzed as roots ending in /r/. This accounts for their selecting the allomorph [-em], one of the allomorphs occurring with consonant-final roots. Roots ending in /r/ have been shown to exhibit allomorphy. English etyma ending in orthographic <r> occasionally have two Pijin reflexes: a consonant-final root ending in /r/, selecting the allomorph [-em], and a vowel-final one, combining with [-m].

Given the considerable variation in the phonetic realization of the transitive suffix, it is difficult to posit a basic form of this morpheme. The most likely candidate is /-im/, which appears in the largest number of phonological environments. On this analysis, the allomorphs [-em], [-um] and [-m] are derived by means of phonological (morphophonological) rules. Basically, [-em] occurs after roots ending in /r/ or due to vowel copying, [-um] obtains via labial attraction or vowel copying, and [-m] is derived by deletion of /i/ after a vowel-final root. While this analysis covers a considerable number of cases, it cannot, however, account for many others, which are best treated as instances of lexically conditioned allomorphy.

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¹⁴ Crowley (1990: 302) erroneously lists “Solomons Pijin *hamarem/hamaem*”.

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