

0.1 Empty morphology and reduplication in Wubuy (Gunwinyguan, Australia)

In Wubuy, reduplication typically copies the stem following the inflectional pronominal prefix, including any derivational prefixes and incorporated elements, though reduplication has scope over the entire word. This appears to be highly unusual amongst Australian languages, though it has not been specifically addressed in typological surveys of reduplication (e.g. Fabricius 1998, Parncutt 2015). For example, the related language Ngalakgan has two main types of reduplication, one which realises certain TAM categories of the verb root (ROOT-level reduplication), and another which reduplicates inflected roots to indicate iterative or distributive aspect (WORD-level reduplication); however derivational affixes and incorporated elements are never copied in reduplication (Baker 2008). Unusually, the reduplicant in Wubuy is a light monosyllable when copying a stop-initial base, and a disyllabic minimal word otherwise, however that issue will not be addressed by this paper.

Given the base for reduplication is normally the entire derived stem, the reduplicant often copies material from derivational prefixes and incorporated nouns, including empty morphology. Particularly troubling is the process of inserting the meaningless morpheme /ŋu/. This occurs wherever an underlyingly stop-initial morpheme is preceded by either a consonant-final inflectional prefix or a derivational morpheme of any kind (including incorporated elements). (1) shows that both these environments can be found within a single word (the verbal stem which serves as the base for copying is indicated with square brackets). Since the behaviour is completely predictable, we should expect /ŋu/ to be absent from the underlying representation. This is the position taken by Heath (1984).

- (1) ŋaŋubabaŋubaŋuna
 ŋa-**ŋu**-ba-[ba-**ŋu**-baŋuna]
 /ŋan-RED-[bag-baŋuna]/
 1sg>3NEUT.IRR-DISTR-[eye-cut.FUTCONT]
 ‘I will cut its eye’ (adapted from Heath 1984, p. 107)

This /ŋu/ can appear in the reduplicant whenever there is a preceding derivational morpheme which cannot provide enough material on its own for the reduplicant to copy. In the following, we see that /ŋu/ must be inserted before the stop-initial verb root /ḍidaŋi/, as it is preceded by a monosyllabic derivational morpheme: the applicative /ag-/. Reduplication targets the whole stem, including the /ŋu/.¹

- (2) juga nimba:ŋa:ŋuḍidaŋi
 juga nimba-**ŋa**-[a-**ŋu**-ḍidaŋi]
 /juga nimba-RED-[ag-(Ø)-ḍidaŋi]/
 Q 2sg>1sg.R-DISTR-APPL-close.PCONT
 ‘Did you shut them [the doors] up for me?’ (Speaker MM; PN2017-07-06)

Although it is less common, we do occasionally find examples of reduplication of the verb root inside a complex verbal stem, such as /wuru-caŋgal-**aba**-abina/ ‘3pl-ankle-RED-jump.PRESCONT’. We also find reduplication of both root and stem /wu:-**laga**-lagar-**jamba**-jambina/ ‘3pl-RED-softly-RED-speak.PRESCONT’. We also find the reduplicant inserted at the boundary between a derivational prefix (in this case the MULT prefix) and an incorporated noun, as in /ŋama-ara-**wiŋci**-wiŋ-caba:/ ‘1sg>VEG-MULT-RED-flesh-insert = I put all the [nut] flesh in’. The problem that then arises is that of properly delimiting the base for copying under reduplication.

¹The reduplicated form has a different vowel, as the second vowel in a disyllabic reduplicant must always harmonise with the first.

However, observe that /ŋu/ can never serve as the left edge of the base for reduplication. This fact is interesting in a number of respects. First, it provides counterevidence to Baker's (2009) proposal to treat ŋu-affixed forms as lexically-listed stem allomorphs. Second, if we assume that morphemes are concatenated outwards from the root, we need an explanation of why reduplication may apply directly to the root, or after affixation of derivational material, but not immediately after the stage where /ŋu/ is attached. Thirdly, it suggests that reduplication in Wubuy is not like other compounding processes, against some suggestions put forth by Inkelas & Zoll (2005), since it can copy /ŋu/ where it fits within the bisyllabic reduplicant shape, but /ŋu/ cannot be inserted between a stop-initial reduplicant and base as it would have to be if it were an ordinary compound. If reduplication constructions were equivalent to compounding constructions, we should expect the stem /ba-ba_luna/ 'eye-cut.PRESCONT' to first insert /ŋu/, producing the stem /ba-ŋu-ba_luna/. This would then reduplicate as /ba-[ba-ŋu-ba_luna]/, and then must insert /ŋu/ between reduplicant and base, since the base begins in a stop: /ba-ŋu-[ba-ŋu-ba_luna].

This paper argues that the two conditions for the insertion of /ŋu/ involve morphology of a different nature. The /ŋu/ inserted at the prefix-stem boundary is, I argue, best thought of as part of the prefix it follows, leading to an analysis of the underlying forms of prefixes which differs from that of Heath (1984). The /ŋu/ found inside the stem is analysed as a compound linking morph along the lines of those found in Germanic languages (Nübling and Szczepaniak 2008); it is only licensed as part of a compound in which the right-hand member is a stop. As a result, /ŋu/ can never occur at the left edge of a stem, thus it is impossible to anchor the left edge of the base for reduplication to the left edge of /ŋu/.

The analysis has implications for the treatment of the Wubuy lexicon and the interaction between consonant alternations and empty morphology, issues which have been central to previous work on the language. Further, it provides support for more than one stage of derivation in reduplication constructions, and for the interleaving of phonological and morphological processes.