

## (Q) Better Left Unsaid (1/3)

Here is a summary of all the answers--more detailed descriptions follow these answers:

- (a) membuat
- (b) memilih
- (c) mattimbe
- (d) mappande
- (e) hatumba
- (f) hatumbi
- (g) flawta
- (h) ndisko
- (i) ngopak
- (j) esosi
- (k) embafu
- (l) epagi
- (m) etambi
- (n) nasal
- (o) voiceless consonant
- (p) sentence

### Part 1:

Every verb has a root. To form the passive of the verb, simply add the prefix *di-*. To form the active, add the prefix *meN-*, where *N* is the nasal at the same place of articulation as the following consonant (or is *n* if the root is vowel-initial). If this prefixing results in a nasal being directly followed by a voiceless stop, delete the voiceless stop; e.g., underlying /mentulis/ becomes /ditulis/.

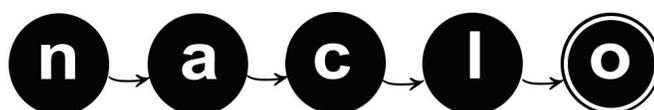
From *dibuat* and *dipilih*, we can see that the roots for “make” and “choose” are *buat* and *pilih*, respectively. In both cases, the active prefix would then be *mem-* since the start of the root is bilabial; but for *pilih* the *p* must then be deleted because *mempilih* has a nasal followed by a voiceless stop. Thus, the answers are:

- (a) membuat
- (b) memilih

### Part 2:

Mandar is very similar to Indonesian but with a couple of differences: First, the default nasal (ie the one before vowels) is *ŋ* rather than *n* as in Indonesian. Secondly, when a configuration of a nasal followed by a voiceless consonant occurs, it is not repaired by deleting the voiceless consonant but rather by turning the nasal into the voiceless consonant; e.g., underlying /mantunu/ becomes /mattunu/. Finally, the active prefix is *maN-* rather than *meN-*.

From *ditimbe* and *dipande*, we can see that the roots for “throw” and “feed” are *timbe* and *pande*. Both of these start with voiceless sounds, so in both cases the nasal turns into a copy of the voiceless sound. Thus, the answers are:



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- (c) mattimbe
- (d) mappande

### Part 3:

From the examples, you can see that *-pa* is a possessive prefix while *-pi* means “in”. However, the *p* in these suffixes becomes *b* if the preceding sound is a nasal. Using this info, we get the following answers:

- (e) hatumba
- (f) hatumbi

### Part 4:

From the examples, you can see that the prefix *N-* means “my” (where *N* is a nasal at the same place of articulation as the following sound). If the word begins with a voiceless stop, then the *m-* prefixation also results in voicing of the voiceless stop. If it begins with a voiceless fricative, then the *N-* is not realized at all. Using these rules, we get:

- (g) flawta
- (h) ndisko
- (i) ngopak

### Part 5:

Each noun has a stem. To make the singular, you give the stem the prefix *o/u-*, while to make it plural you add the prefix *eN-* (where *N* is a nasal at the same place of articulation as the following sound). However, the nasal is deleted from the *eN-* prefix if the following sound is voiceless. Thus, we get the following answers:

- (j) esosi
- (k) embafu
- (l) epagi
- (m) etambi

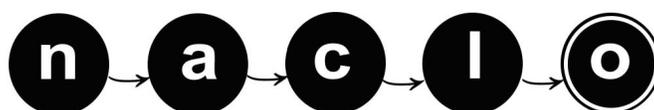
### Part 6:

In all 5 previous parts, the relevant phonological process(es) all worked to avoid having a configuration of a nasal followed by a voiceless stop. Indonesian did this by deleting the stop (which might in fact be better viewed as the nasal and stop coalescing); Mandarin did this by turning the nasal consonant pair into a geminated version of the consonant; Quechua did this by voicing the consonant; Zoque did this by deleting the nasal (if before a voiceless fricative) or by voicing the stop if before a voiceless stop; and Lunyole did this by deleting the nasal. Thus we can sum it up by answering:

- (n) nasal
- (o) voiceless consonant

The word in the bolded sentence that violates the rule is *sentence*, which contains *nt* (as well as [ns] if you think phonetically!):

- (p) sentence



## (Q) Better Left Unsaid (3/3)

### Sources:

- *General inspiration and source for some language data:*
  - ◇ Pater, Joe. "Austronesian nasal substitution and other NC effects." *The prosody-morphology interface* (1999): 310-343.
- *Puyo Pungo Quechua:*
  - ◇ Orr, Carolyn. 1962. Ecuador Quichua Phonology. *Studies in Ecuadorian Indian Languages*, ed. by Benjamin Elson, 60-77. Norman, Oklahoma: Summer Institute in Linguistics.
- *Indonesian:*
  - ◇ The following dictionary: [http://www.lexilogos.com/english/indonesian\\_dictionary.htm](http://www.lexilogos.com/english/indonesian_dictionary.htm)
- *Mandar:*
  - ◇ Mills, Roger F. 1975. Proto South Sulawesi and Proto Austronesian Phonology. University of Michigan doctoral dissertation
- *Lunyole:*
  - ◇ The following dictionary: <http://lunyole.webonary.org/>
- *Zoque:*
  - ◇ Padgett, Jaye. "Stricture and nasal place assimilation." *Natural Language & Linguistic Theory* 12.3 (1994): 465-513.

