

underlying and surface phonology. And necessarily we also need to account for allophonic versus phonemic phenomena.

Underlyingly some Mayan morphemes (but not lexemes) begin with vowels. But no word begins with a vowel. In word-initial position, what happens to underlying initial vowels? That question will be answered below.

Beyond this, from a phonological point of view, there are three special types of morphemes:

[1] **suffixes**: some begin with consonants, others begin with vowels.

[2] **prefixes/proclitics**: it is not clear whether Mayan languages have any prefixes: that is, the preposed elements

ERG++

are proclitic - unstressed and unstressable. ERGatives are agreement markers, therefore inflexional, therefore affixes/prefixes - but they are extrametrical, thus proclitics. The ERG markers *a:(w)++, *u++, *e:(r)++ begin with vowels; how are they pronounced? Not uniformly. More below.

[n.b. **extrametrical** means, roughly, outside the scope of stress assignment.]

There are two other preposed elements in Mayan that some think of as prefixes, but are in fact prepounds, because they are roots:

*7aj= 'male; large'

*7ix= 'female; small'

Unlike ERG markers, these prepounds do not have allomorphs depending on what consonant follows them.

In K'ichee7, according to the prevailing analysis, a word beginning with <V> necessarily has [7] inserted before it:

iitz [7í:tz] 'witchcraft'

vs **aj iitz**, pronounced [7àj 7í:tz] 'witch'

In some languages these prepounds lose their vowels under certain circumstances; thus Tzeltal **j=xun** 'John', vs **k-aj=xun-tik** 'our John' or 7ab't.el 'work' vs j=7ab't.el 'worker' vs k-aj=7ab't.el 'my worker'

This vowel loss is perhaps attributable to the unstressed and word/phrase-initial original forms of *7aj= and *7ix=, but in Tzeltal the vowelful forms **-aj-** and **-ix-** are not extra-metrical in the way that {aw+} ERG2 is. More on this set of elements below.

[3] **enclitics**: these are unstressable morphemes/words that attach to what immediately precedes them; some begin with consonants, others begin with vowels.

K'ichee7an-Poqom minus Q'eqchi7 [that is, K'ichee7, Kaqchikel, Tz'utujiil, Sakapulteko, Sipakapenyo, Uspanteko, Poqomam, Poqomchii7]: Lexemes may begin with vowels; in absolute phrase-initial position /7/ or [7] is inserted before an initial vowel. All roots lost initial /7/; this happened in no other set of Mayan languages. [The facts stated here will be restated and reinterpreted below, where I withdraw the claim that there are vowel-initial lexemes in these languages.]

This phenomenon was observed by me and Will Norman in the early 1970s as we started the research program of the PLFM and were deciding on what orthographic customs to adopt. This led us to see as good the notion of not writing initial [7], because in these languages [but these languages ONLY!] initial [7] can be viewed as inserted phonetically. Unfortunately, we unwisely adopted this custom for all the languages of the PLFM, and this custom has been wrongly followed by some Mayanists working on Mexican Mayan languages.

At the outset we saw that this orthographic custom was a problem for Chuj, Popti7, Akateko, and Q'anjobal, because these languages

first: have an underlying /7/ at the beginnings of all words that do not have some other consonant there;

second: insert /h/, not [7] before vowel-initial ERG and ABS markers

On the PLFM the speakers of these languages were trained to ignore and not write initial /7/, which they could hear, and write initial /h/, which is so hard to hear or focus on that it mostly gets failed to be notated.

In fact, the analysis we made of K'ichee7-Poqom was wrong. When morphemes of the shape /7VC/ are reduplicated, /7/ is present as part of the reduplication. Thus when the numeral root {7ox} 'three' is reduplicated, it is [7ox7ox] 'three by three', which it would be bone-headed to phonemicize as /ox7ox/: it must be /7ox=7ox/. Reduplication has to reduplicate something; therefore underlyingly the root is {7ox}. This being so, there has to be another way of accounting for the presence vs absence of [7] at the beginning of lexical roots in word-initial position. It is preferable to analyze these words as starting with /7/, and postulate a rule that says

..VC # 7V.. => ..VCV..

Thus point [4] above should be reformulated as below:

[4] What happens when a word ending with a consonant is followed by a word beginning in glottal stop?

..C # 7V..	[a] in K'ichee7an-Poqom	7 => 0
	[b] in other Mayan languages	NOTHING

The ABSolutive set of person markers provides several opportunities to interact with /ʔ/, and both generate /ʔ/ or /h/, and efface adjacent /ʔ/. The pM ABS markers are

*iin	ABS1
*at	ABS2
*0	ABS3
*o7nh	ABS4
*ex	ABS5
*eb'	ABS6

In Tzotzil-Q'anjob'alan Proper-Chuj-Awakateko-Q'eqchiʔ ABS are second position clitics: if a verb word begins with an aspect clitic (ASP), ABS follows ASP; if a verb word begins with the verb and no ASP, ABS comes after the verb. This I take to be the original pM situation. The remaining languages have fixed the position of ABS to either before ERG, if present, or directly after the verb with its status suffixes. Languages with preverbal ABS include Eastern Mayan (-Ixil, -Q'eq) and Wasteko; languages with postverbal ABS include Greater Lowland, i.e. Greater Tzeltalan + Yukatekan + Tojol ʔAb'al + Kotoke + Ixil. In the latter case, ABS is attached to the end of a verb, and no pronunciation adjustments are made. In these languages ABS function like suffixes, not clitics: they are not extrametrical. However, in Ixil, postverbal ABS is a separate phonological word, and begins with inserted /ʔ/. Languages with preposed ABS have ABS interact with an intransitive verb that begins with /ʔ/, but in a non-uniform way. In K'icheeʔan-Poqom after ABS+ initial glottal stop is effaced; in other languages initial /ʔ/ is preserved. The same behavior of initial /ʔ/ of intransitive stems is observable with ASP+ markers that end in a consonant. In Q'anjob'alan Proper-Chuj when ABS+ are the first morphemes in a phonological phrase they have /h/ inserted before them. In K'icheeʔan-Poqom initial /ʔ/ of an intransitive lexeme after ASP+ or ABS+ ending in C (C+ ʔV => CV) behaves like any word-initial /ʔ/ directly after a C in the preceding word (C # ʔV => CV). /abc+/ marks the morph as proclitic and unstressable, but this seems to pose a cognitive problem for the ERG+ proclitics, because except for K'icheeʔan-Poqom, /ʔ/ does not drop after ASP+ or ABS+, while it does drop after ERG+ in all languages but Wasteko. So ERG must have some additional phonological specification. My proposal is to spell them ERG++.

Mayan sounds do not include anything that can be properly categorized as glides, though Ch'orti7 may have cases of glide insertion. (This is apart from the fact that many phonologists, for many languages, overuse the concept and term **glide**, and incorrectly define the contexts where the term would be appropriately applied. For example, semivowels, if they are a class of consonants, are NOT glides.)

In my interpretation, a glide is a non-syllabic element inserted inside of underlying //V1V2// sequences; the glide has features of one of the flanking vowels; it will resemble [i], [u], or [i"]; depending on the rest of the phonological patterning of the language it will be analyzed as ZERO, or as a semivowel /y/ /w/ or /g-/. Other phonological behavior of the language will help decide whether semivowels are one type of consonant, or a category neither of consonants nor of vowels), Another kind of glide is [y] inserted word-initially before front vowels, and [w] inserted word-initially before rounded vowels. This is just a special case of the V1V2 cluster phenomenon. Apart from cases like like these, there is no reason to accord structural/technical status to the term/notion **glide**. For example, to call a weakly articulated semivowel a glide, or to use glide as a synonym for semivowel is otiose and reveals that the writer is chasing after novelty. It is an entirely language-specific fact whether semivowels are consonants, or neither consonants nor vowels. Semivowels are non-syllabic vowels that are phonemes or stable allophones.

Although the pre-glottal allomorph of ERG1 ends in, and consists of, /w/, it does not delete. To be sure, if it did delete, there would be no pronounced manifestation of ERG1, but that is probably irrelevant. The relevant factor is probably the fact that the /w/ and /r/ that disappear are postvocalic.

Why ERG1 /nu++ ~ w++/ and ERG3 /u++ ~ r++/ have two allomorphs each is a mystery that I cannot unravel. The answer must lie in the prehistory of proto-Mayan. To my knowledge, neither Mije-Sokean nor Totonakan has any morphemes in play that might relate to this phenomenon. A heads-up, if relevant, would be appreciated. [We might explore uniting nu++ and w++ under an underlying form //nw++//; this would require vocalizing/syllabifying //w// as /u/, not something that I am comfortable with. Mije-Sokean has ERG1 *na+ and ERG3 *7i+, which, if we are seeking cognates, are comparable to Mayan *nu++ and *u++]

