The glide's big fat Greek wedding… to the palatals

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1. Intro – Aims

What has traditionally been named 'glide' is difficult to understand in Greek, because: (i) it has variable phonetic realization (ii) its phonological distribution is complex and ambiguous in nature.

We aim to answer the following three questions (of which, only the first has been addressed in previous research)
- Is the GLIDE underlying?
- Are palatals underlying?
- Does morphology influence patterns in GLIDE distribution?

NB: Since 'glide' is inaccurate, we use **GLIDE or /J/** as a placeholder for all possible realizations

2. The Data

We briefly mention the phonetics of the GLIDE, but our focus is on (morpho)phonology.

Phonetics of GLIDE

If tautosyllabic **V+J** → **j** [majda'nos] "parsley"

If tautosyllabic **J+V** then
- If /l/ or /n/ + J + V → **ʎ, ɲ** [ku.'kʎa] "dolls" [pa.'ɲa) "cloths"
- If [voiced obstruent] + J + V → **ʝ** ['po.ðʝa] "legs"
- If [voiceless obstruent] + J + V → **ç** ['matça) "eyes"
- If /m/ + J + V → **ɲ** [mɲa] "one"

Phonological distribution of GLIDE

- **Evidence for Glide as a phoneme**

(1) Minimal pairs with or without semantic affinity

'aðia	permission	*'aðʝa*	empty
vi'astike	was raped	*'vʝastike*	was in a hurry
'ðolio	devious	*'ðoʎo*	poor soul
'opio	opium	*'opço*	whichever

(2) Contrast between offglide and nucleic /i/ in same environment

Offglide		Surface [j]	
majda'nos	parsley	*zoi'raða*	vitality
koroj'ðia	mockery	*elei'nos*	disgraceful
'ɣajðaros	donkey	*aploi'kos*	simplistic

- **Evidence for GLIDE as allophone of /i/**

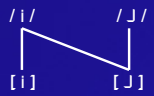
(3) [i] ~ [J] alternations

Lack of alternation			Alternation		
Nom.Sg.	Nom.Pl.		Nom.Sg.	Nom.Pl.	
pe.'ði.o	*pe.'ði.a*	field	*pe.'ði*	*pe.'ðʝa*	child
ðo.'ma.ti.o	*ðo.'ma.ti.a*	room	*ðe.'ma.ti*	*ðe.'ma.tça*	stook

3. Our Proposal for the GLIDE

Wrap up so far: evidence that GLIDE is both a phoneme and an allophone of /i/! Possible conflict? No, if we assume the following representation:

(4) Status of /i/ and the GLIDE



Similar situation arises in Karuk, Sundanese and Pulaar (Levi 2008)

We also argue that the presence vs. absence of alternations can be – at least partly – predicted by morphological considerations. In particular:

- Consider (3) again. Neuter nouns predictably present alternations vs. lack thereof depending on the noun's morphological class:
  /i/-stem final + ∅ suffix → no alternation
  /i/-stem final + V-initial suffix → alternation
- But why? Paradigm uniformity asks that same number of syllables is preserved across the paradigm (cf. Bat-El 2008; Faith-Syllable Number). Thus:
  pe.'ði.o (Nom.Sg) - pe.'ði.u (Gen.Sg) - pe.'ði.a (Nom.Pl) is OK
  pe.'ði (Nom.Sg) - *pe.ði.'u (Gen.Sg) - *pe.ði.'a (Nom.Pl) is NOT
- Solution: i → [J] and consequently tautosyllabic syllabification of i+V. Hence: pe.'ði (Nom.Sg) - pe.'ðʝu (Gen.Sg) - pe.'ðʝa (Nom.Pl)

4. GLIDE and the Palatals

As seen in (3), the *i-Glide* alternations between Nom. Sg. and Pl. are realized by means of *j* vs. *palatal fricative*. But what about cases where there is a palatal C in the Nom.Sg. too?

(5) [i] ~ [∅] alternation with palatals?

Nom. Sg.	Nom. Pl		
'luci	*'luca*	**lucça*	gutter
pu'ʝi	*pu'ʝa*	**pu'ʝʝa*	reticule

Although superficially no GLIDE emerges here in the Nom.Pl, it should have as these data are completely analogous to those of (3) in terms of the identical morphophonological environment.

- Claim: Greek employs both simple and extreme palatalization
- Extreme palatalization (Bateman 2007): the pal. trigger (here the GLIDE) gets absorbed by the target, as it is easily recoverable
- Consequence: palatals in Greek are derived

/luki-∅/ → [luci] simple palatalization
/luki-a/ → lukJ-a → lucJ-a → [luca] extreme palatalization

- Welcome extension: similar analysis for palatals found in purely phonological contexts, e.g. /kJali/ → cJali → 'cali "binocular" (with extreme palatalization) vs. /kili/ → ['cili] "hernia" (with simple palatalization) vs. /kali/ → ['kali] "beauty"
- We can now explain why words like [cia'nos] "blue" are not pronounced as *[ca'nos]. This is because it comes from /kianos/ which may undergo simple palatalization only (following Bateman's claims that absorption of vowels is avoided, since loss of information from a nucleus is non-gratuitous)

5. Discussion

Answers to questions initially posed
- Is the GLIDE underlying? **IT CAN BE**
- Are palatals underlying? **NO, THEY ARE DERIVED FROM VELARS OR VELARS + J**
- Does morphology influence patterns in GLIDE distribution? **YES**

The current proposal manages to
- resolve the paradox in the nature of the GLIDE by means of (4) [past accounts failed to do so adequately, cf. Kazazis 1968, Malavakis 1984, Nikolopoulos 1985, Warburton 1976, Deligiorgis 1987, Malikouti-Drachman & Drachman 1990, Householder 1964, Koutsoudas 1962, Mirambel 1959, Nyman 1981, Setatos 1974, Holton 1997)
- provide a link between the GLIDE and the palatals that had previously gone unnoticed
- offer evidence that the distribution of the GLIDE vs. /i/ is to some extent regulated by grammatical considerations, i.e. morphology, instead of sociolinguistic factors. Note that the latter have been proposed in the literature as the main regulating factor in the distribution of GLIDE, cf. Nyman (1981)

What next?
- investigate phonotactics and morpheme combinatorics to have a more accurate picture of the distribution of [i] and [J] in a wider area of the lexicon
- beyond the cases mentioned here, there are other forms for which inter- and even intra-speaker variation exists, e.g. [a.per.ʝi.a.'kos] vs. [a.per.ʝa.'kos] "strike (adj.)". It'd be interesting to see how much of this variation can be explained by grammatical factors

*** **Please visit: http://users.auth.gr/~topintzi/research.html under the section "Glides & Palatals in Standard and NW Greek" for the handout of this poster** ***

Selected References: Bat-El, O. 2008. Morphologically Conditioned V - ∅ alternation in Hebrew: Distinction among Nouns, Adjectives&Participles, and Verbs. In S. Armon-Lotem, G. Danon, and S. Rothstein (eds) *Current Issues in Generative Hebrew Linguistics*, pp. 27-59, Amsterdam & Philadelphia: John Benjamins / Bateman, N. 2007. *A Crosslinguistic Investigation of Palatalization*. PhD. University of California, San Diego. / Bhat, D.N.S. 1978. A general study of palatalization. In *Universals of language*, Vol. 2: Phonology, J.H. Greenberg (ed.), Stanford University Press, Stanford, pp. 47-91 / Deligiorgis, I. 1987. 'On rules of syllabification and syllabic restructuring', *Proceedings of Chicago Linguistic Society* 23 (Part 2), pp. 76-90, Chicago: Department of Linguistics, University of Chicago. / Kazazis, K. 1968. Sunday Greek. *Papers from the Fourth Regional Meeting, Chicago Linguistics Society* (CLS 4), Chicago: Department of Linguistics, University of Chicago, pp. 130-140. / Levi, S. 2008. Phonemic vs. Derived glides. *Lingua* 118: 1956-1978. / Malikouti-Drachman, A. and G. Drachman. 1990. 'Φωνολογική κυβέρνηση και προβολή: Αφομοιώσεις, ανομοιώσεις' [Phonological government and projection: assimilations, dissimilations], *Working Papers in Greek Grammar*, University of Salzburg, pp. 1-20. / Warburton, I. 1976. On the boundaries of morphology and phonology: A case study from Modern Greek. *Journal of Linguistics* 12: 258-278