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An Assimilation Process in Altamurano and Other Apulian Dialects: an Argument for Labio-velars.

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1.0 INTRODUCTION AND PLAN

In a cursory examination of data gathered during a recent field trip to the central and southern regions of Apulia in southeast Italy, I was struck by a seeming complementarity of contexts for two superficially distinct phonological processes: a *u̯e* diphthong[1] reduces to *e* after certain consonants; an insertion of *u* takes place after certain other consonants. On closer scrutiny, it was ascertained that the complementarity of contexts for the processes in the dialects taken as a whole was more illusory than real: some dialects had *u̯e* reduction and a restricted type of *u* insertion; others had *u̯e* reduction and no *u* insertion; still others had sporadic instances of *u* insertion and no *u̯e* reduction. In Altamurano, however, the contexts for the two processes were fully complementary.

In this paper I shall attempt to demonstrate that these two processes can best be understood when seen as two parts of a single diachronic process of consonant labialization, subject to a single surface phonetic condition that permitted *u* insertion after certain consonants and not only blocked it after certain other consonants, but also eliminated the glide of *u̯e* after these same consonants. I shall also show that Altamurano alone holds the key to this solution as it is the only dialect where both processes reached

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[1] For expositional purposes I use *u̯e* as a general transcription for a diphthong which in some dialects is realised phonetically as [wɛ] and in others has the allophones [we] and [wɛ], as seen below.

their maximal extension.

Earlier studies will first be reviewed in order to pinpoint the areal and temporal distribution of the two phenomena, held previously to be unconnected. Prose accounts enumerating centres or areas affected will be checked against the data contained in the Italo-Swiss (linguistic) atlas (henceforth AIS), Melillo's Apulian phonetic atlas (AFP), using Bari province data only, and his new Apulian phonetic atlas (NAFP). Barese and Leccese diphthong reduction will next be examined, followed by a presentation of the data from Altamurano. Finally, after accounting for some pseudo-exceptions in Barese, evidence will be submitted from both Barese and neighbouring Molese to corroborate my labialized consonant hypothesis - evidence which necessitates a slight revision of the initial formulation of the labialization rules.

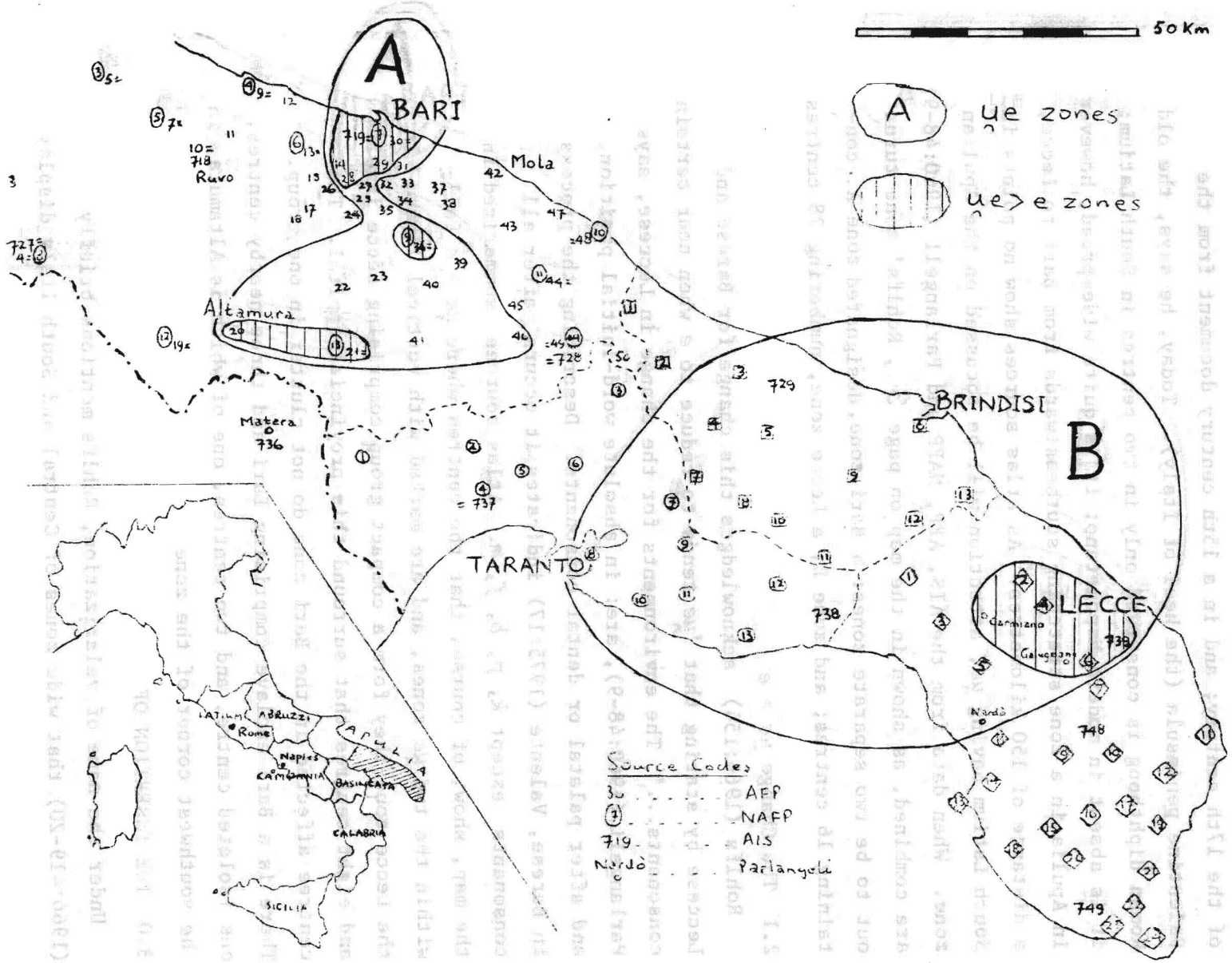
2.0 THE DIPHTHONG *ue̯*

In the South Italian dialects that have the *ue̯* diphthong, it is the result of the anticipatory assimilation process known as umlaut. In a proto-stage of the dialect group(s), a stressed *ɔ was diphthongised when the final syllable of the word contained **u* or **i*. The change thus affected primarily masculine singular nouns and adjectives (u-forms) and plural nouns and adjectives together with 2nd singular present tense verbal forms (i-forms), as in Altamurano:

(1) *bɔnu > *buɔnu > buenə 'good msg.' (cf. bonə 'good fsg.')

(2) *kɔšˇi > *kuɔšˇi > kuešˇə 'you cook sg.' (cf. košˇə I(he)cook(s))

Gerhard Rohlfs notes, in his monumental *Grammatica storica della lingua italiana e dei suoi dialetti* (1966:153-4), that this diphthong appeared in three separate centres in old texts in South Italy: in 14th and 15th century writings of Rome; in those from Naples


50 Km
A
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CALABRIA
SICILIA
LAZIUM
ABRUZZI
APULIA
Source Codes
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NAFP
AIS
Parlangeli

of the 17th century; and in a 15th century document from the Salentine peninsula (the heel of Italy). Today, he says, the old Roman diphthong is conserved only in two centres in South Latium; it is absent in modern Napoletano; it is quite widespread, however, in Apulia in a zone stretching southeastwards from Bari to Lecce, a distance of 150 kilometres. As atlas sources show no points in South Latium having *ue̯*, attention will be focussed on the Apulian zone. When data from the AIS, AFP, NAFP and Parlangeli (1960:48-9) are combined, as shown in the map on page 3 , Rohlfs' zone turns out to be two separate zones: a Bari zone, designated zone A, containing 16 centres; and zone B, a Lecce zone, numbering 28 centres.

2.1 The Change *ue̯* > *e*

Rohlfs (1966:154) acknowledges this change for Barese and Leccese by stating that '*ue̯* tends to reduce to *e* when near certain consonants...' The environments for the change in Leccese, says Parlangeli (1960:48-9), are: in absolute word-initial position, and after palatal or dental consonants. Describing the process in Barese, Valente (1975:17) indicates it occurs after all consonants except *k, p, b, f, m*. Atlas sources, summarized in the map, show, of course, that the centres where *ue̯* > *e* fall within the two *ue̯* zones, and are marked with vertical lines. In the Lecce zone they form a compact group comprising Lecce itself and eight centres that surround this provincial capital. The centres affected in the Bari zone do not cluster in one group. There is a Bari enclave comprising Bari and three nearby centres, one isolated centre, and two centres, one of which is Altamura, in the southwest corner of the zone.

3.0 THE INSERTION OF *u*

Under the name of velarization, Rohlfs mentions briefly (1966:419-20) that wide zones of Central and South Italy display

u insertion before the stressed vowel under the influence of a preceding *u*. These zones include, he says, the Abruzzi, South Latium, North Campania, North Apulia, Basilicata and Central Sicily. I was able to verify most of these from my one source of primary data outside Apulia, the AIS, but the South Latium and Central Abruzzi areas he mentioned slipped through its mesh, which at times has rather large holes. Other than specifying that in Sicily *u* insertion occurs only before *a* and at Verbicaro in Calabria it takes place before any vowel, Rohlfs does not indicate whether all or only some consonants permit this change. No mention is made of it occurring in old texts, so if it had been a speech habit when they were written it was probably sub-phonemic.

Valente (1975:36), reporting on the dialects of North and Central Apulia, states that *u* (or *o*) from a pretonic syllable is often 'propagated' after a following *k* in Barese but makes no mention of it occurring outside that dialect. In a study involving three Basilicata speech communities, Leonard (1969:450) refers to what he calls a morphological innovation in two of the dialects, Matera (just south of Altamura; see map) being one of them. Masculine singular nouns and 1st conjugation infinitives show an intrusive labial element after *k* before *a*. Finally Merlo (1925:94) shows *u* propagation in two 1st conjugation infinitives in a dialect neighbouring Barese.

Verification of these reports through primary sources was undertaken for the central and south Apulian areas, given the interest in determining, in this study, the exact relationship between *u* insertion and *ue* reduction. The AIS shows *u* insertion only in 1st conjugation infinitives in just two centres, Bari and

Ruvo, out of a total of eleven surveyed. The AFP gives a total of 44 out of 50 points in Bari province having *u* insertion with 1st conjugation infinitives, and in six out of 50 centres it occurs in masculine nouns after *k* and before *a*, if the pattern of *il cane* (60-62) may be taken as general.[2] Three of these centres are in the u̯e zone A, one being Altamurano. In the NAFP there is no trace of the phenomenon, either for the Bari or for the Lecce u̯e zones. Thus, to summarize, *u* insertion appears to have occurred throughout most of Bari province, but only after *k* and before *a*. In all 1st conjugation infinitives having *u* insertion, the change can be linked to an earlier *u* in a preceding syllable. In just four centres does, or did, it occur in nouns (cf. statement above on Matera). It therefore seems impossible, from the data examined or from the accounts reviewed, to link directly the processes of u̯e reduction and *u* insertion. I shall next delineate the phonetic environments for u̯e reduction.

4.0 BARESE AND LECCESE

The following examples illustrate the process in Barese and Leccese, and show that it is identical in both:

		Barese	Leccese	Italian	
(3)	UF*ɔ[[3] > u̯e	bu̯enə	bu̯ɛnu	buono	'good msg.'
(4)		ku̯eč̆ə	ku̯ɛč̆i	cuoci	'you cook sg.'
(5)	UF*ɔ[> e	senə	sɛnu	suono	'sound'
(6)		š̆ekə	š̆ɛku	giuoco	'game'

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2 Colasuonno (1976:73) indicates that it occurred in Old Grumese, too (point 17 on map).

3 UF is the underlying or base form, which is arrived at by examining the non-umlauted alternation or by reconstruction. The sign [after a vowel indicates a free syllable,] a checked one.

(7)	UF*ɔ] > ue̯	kue̯ddə	kue̯ddu	collo	'neck'
(8)		mue̯¢¢əkə[4]	mue̯¢¢iku	morso	'bite'
(9)	UF*ɔ] > e	nɛstə	nɛšš̆u	nostro	'our msg.'
(10)		tɛstə	tɛsti	tosti	'hard mpl.'

It can be observed that the diphthong *ue̯* appears after labials and velars, elsewhere it is reduced to *e*. All other centres in the two *ue̯* zones, apart from those in the shaded areas on the map, preserve *ue̯* in all environments. It is probable that in the past more centres had the diphthong reducing rule and that its sphere of influence has receded, but it is hazardous to conclude that such was the chain of events unless evidence from the speech of old people were to bear it out (cf. remarks below on Molese).

5.0 THE SITUATION IN ALTAMURANO

5.1 Altamurano *ue̯>e*

In Altamurano, as may be expected, the conditions for the change parallel those for Barese and Leccese:

	Altamurano	Italian	
(11)	bue̯nə	buono	'good msg.'
(12)	kue̯šə	cuoci	'you cook sg.'
(13)	senə	suono	'sound'
(14)	šekə	giuoco	'game'
(15)	kue̯ddə	collo	'neck'
(16)	mue̯¢¢əkə	morso	'bite'
(17)	ðermə	dormi	'you sleep sg.'
(18)	testə	tosti	'hard mpl.'

This diphthong reduction also takes place in absolute word-initial position, but I consider this environment the same as in (11), (15)

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[4] /¢/ represents [t͡s].

or (16), that is, after a dental, as such words usually appear with the elided form of the definite or indefinite articles, with which they are in close juncture:

(19)	l-evə	l'uovo	'the egg'
(20)	n-ertə	un orto	'a garden'
(21)	l-eggjə	l'olio	'the (olive) oil'

The same situation holds true for Barese and Leccese, although it is masked somewhat for the former in the case of the definite article, which is *u*. At this point it may be said that Altamurano is no different from the other dialects discussed so far.

5.2 Altamurano *u* Insertion

Where Altamurano innovates is in the form of its *u* insertion rule. As implied in section 0 above, it does not have the restricted application found in the other dialects examined. It is pervasive, though it involves some restrictions which are predictable. Cirrottola (1977:32) states that 'harmonization' occurs in nouns which are preceded by the articles or the (msg.) demonstrative adjectives *kussə* 'this' and *kuddə* 'that'. They harmonize by adding a 'weakened' *u* before the vowel of the first syllable, or of the second syllable if the first vowel is *ə*:

(22) benə 'well'; u bu̯enə 'good (vs. evil)'

(23) u/nu/kussə/kuddə furku̯àunə
'the/a/this/that pitchfork'

He notes further that harmonization does not take place after dentals or palatals.

Cirrottola's rule implies that this harmonization is a restricted morphological process with certain phonological constraints. His characterization of the rule proves, however,

to be incomplete, as I discovered when I made a thorough examination of his data. The following examples are offered as evidence for my revision of his rule:

(24)	u pu̯alumu̯ìddə	'the small pigeon'
(25)	la skupu̯éttə	'the brush'
(26)	kumu̯annὲ	'to command'
(27)	n-u fu̯ačìtə	'will you do it for me?'
(28)	u mənùnnə	'the child'
(29)	u kulə kakὲtə	'the shitty behind'
(30)	u mu̯eggjə wutìddə	'the best calf'
(31)	u surəku̯ìkkjə	'the small mouse'
(32)	u sɛlə	'the salt'
(33)	u čendrə	'the centre'

The restriction of the domain of the rule to nouns is shown to be inaccurate by (26), (27) and (30); the restriction to the deictics as triggers for its application is counter-evidenced by (25) to (27); (24) to (26) and (31) show that it is triggered also by a preceding *u* within the same word. Thus it is an iterative process that applies syllabically. It cannot apply before a schwa as shown in (28), and (31) indicates that it can jump the schwa-syllable and apply to the next eligible syllable. Examples (32) and (33) are included to show that it is blocked by dentals and palatals. I have attempted to capture formally the revised generalization in the following rule:

(34) $\begin{bmatrix} \breve{} \\ \text{C} \\ +\text{peripheral} \end{bmatrix}^{5} \rightarrow [+\text{labialized}]/\text{u}((\text{CC}\ə)\#)(\text{C})\_\_\_\ \text{V}$

Condition: V ≠ u or ə

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[5] Peripheral consonants in Altamurano are labials and velars. It

The data available to me indicate that there are at least two syntactically definable restrictions on the domain of (34). Example (29) above was included to illustrate one of these. It operates on NPs as far as the end of the head noun, and in VPs from object pronouns as far as the main verb, as in (27).

To account for the interaction of labialization and the *ue̯* diphthong I posit the following deletion rule:

(35) $\underset{\wedge}{u} \rightarrow \emptyset \; / \; C \_\_$

These rules are ordered as they appear serially, for by deleting the labial glide after all consonants, the correct surface forms are obtained. The formalism hides a change that may rather have involved the coalescence of the glide with the labialized consonants and its deletion after all others.

6.0 PSEUDO-EXCEPTIONS IN BARESE

There are forms in Barese which would appear to violate rule (34), as non-peripherals should not be labialized:

(36) sfuà 'to flow: give vent to: a ruañña 'the chamber pot'

(37) tə¢¢uà 'to knock (door); kalduà 'to keep warm'

The apparent labial glides are not, however, the result of labialization; in fact, *tə¢¢uà* of (37) is the only item that is a potential candidate for the assimilation, since the unstressed schwa is a reduction of a former *u* , as evidenced by neighbouring dialects. There is an orthographic convention in Barese which

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is interesting to note that the single Jakobson-Fant-Halle feature *grave* is sufficient to label this natural class, but that the Chomsky-Halle system requires several features to do so.

does not distinguish between the glide *u̯* and the vowel *u*. I contend that the *ua* of the above forms is bisyllabic. In some other dialects the same lexical item has *uga* and the *g* has lenited to Ø in Barese[6] (a change common to many dialects of South Italy, cf. Cox 1977). The actual pronunciation shows that the hiatus so produced between the two *full* vowels is filled with a transitional *u*, so that it is more accurate to write *sfuu̯à* or *sfəu̯à*. In the forms in (37) I derive the *ua* from *ula*, which is still seen in the cognate forms in many Bari province dialects. The *l* first velarized and then vocalized, so again the orthography should be revised to *təɕɕuu̯à* or *təɕɕəu̯à*, and so on. Whilst the lenition of *g* is an older change and appears more general in Apulian dialects, that of *l*, although appearing at other isolated spots in South Italy, seems to be present in Apulia only in Barese and a few surrounding centres. It is thus likely that Bari has been the centre of diffusion for this more recent change, destined as it is to further proliferate the labial glide.

6. Corroboration from Barese

It was shown in (1) and (2) that presence or absence of umlaut produced the alternation *o* ~ *u̯e* in a given verbal or adjectival paradigm having an underlying stressed *ɔ. This pattern extends to nominal paradigms too:

(38) mɔnəkə 'monk' ; mu̯ɛnəčə 'monks'

The expected alternation is not to be found in the following paradigms, however:

(39) sɔffrə 'he suffers' ; siəffrə 'you suffer sg.'

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[6] Scorcia (1972:117) notes that in a 15th century Barese text the form *rugagne* is recorded.

(40) dɔrmə 'he sleeps ; diərmə 'you sleep sg.'

(41) pu̯ɛrkə 'pig' ; pu̯iərčə 'pigs'

(42) senə 'sound' ; siənə 'sounds'

The verbal paradigms in (39) and (40) have the expected segment on the left side of the alternation but differ on the right: *ɔ ~ iə*, but it is by looking at the nominal paradigms in (41) and (42) and the alternation *u̯ɛ ~ u̯iə* that the clue to the path of evolution may be found. Stripped of its labial glide in (42), the alternation parallels that found in nominals having an underlying stressed **ɛ*:

(43) vɛrmə 'worm', cf. viərmə 'worms'

Thus the base vowel in (41) and (42) has been interpreted by the speakers as *ɛ* which becomes *iə* when umlauted. It is irrelevant that the singulars in (41) and (42) are already umlauted and the stressed vowel in the plural should therefore be the same as that of the singular; morphological pull has overcome phonological pull because of the need to mark number by the prevailing internal inflection pattern. The verbs in (39) and (40) must have undergone a similar re-interpretation of the vowel of the 2nd singular forms. For such an interpretation to have taken place, I suggest that the labial glide must have separated from the *ɛ* in some sense for the *ɛ* to have followed the evolution of primary *ɛ*. This separation could most easily have occurred if *u* had ceased to be a discrete segment and instead become secondary articulation on the preceding consonant, that is, labialization. I would rewrite (41) as *p^{w}ɛrkə* and *p^{w}iərčə*.

According to Valente (1975:17), this rule affected only part of the lexicon before dying out, and there is a modern tendency that is destroying even the input forms for the rule such that *bu̯enə*

is being pronounced *buənə*, and *kụ̈ekə* 'cook' as *kuəkə*.

8.0 CORROBORATION FROM MOLESE

In Molese[7] I have discovered 23 relic forms containing *ụ̈ɛ* (or *ɛ*), indicating that the *ụ̈e* zone has receded in recent times. Less that half of the forms are known to speakers under 25 years of age and the rest are known to those usually over 35 and more often than not as words used by their grandparents. In the dialect of today umlauted *ɔ appears as *u*:

(44) mɔnəkə 'monk' ; munəčə 'monks', cf.

(45) kụ̈ɛddə 'neck', and

(46) u ɛssə 'the bone', but n-ussə 'a bone'

Apart from the vowel initial forms such as (46), the remaining forms all appear with *k* before *u* , as in (45). No forms remain (or existed?) where *ụ̈ɛ* has become *ɛ* before a non-peripheral. Like *n-ussə* in (46) they all have *u*. Some forms which elderly people pronounce with *ụ̈ɛ* are pronounced with *u* by the younger generation of adults.

The forms that are especially interesting and relevant for my labialization hypothesis are given in (47) to (50). They have something in common with the plural form in (41) above:

(47) u ə̄və 'the egg' ; l-ɔvə 'the eggs' ; cf. Barese u evə

(48) prəkụ̈ə̄kə 'type of peach'

(49) kụ̈aị̈rə 'leather' ; cf. Barese kụ̈ɛrə

(50) čəkụ̈aị̈rə 'chicory, endive' ; cf. Barese čəkụ̈ɛrə

Interdialectal comparison shows that Molese ə̄ normally appears

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[7] The dialect of Mola di Bari, 22 kilometres southeast of Bari (see map). Data from the writer's fieldnotes.

where other dialects have ɛ and only appears in open syllables. Thus the path of evolution in (48) must have been something like:

(51) *k + *ɔ$ > k + u̯ɛ$ > k^w + ɛ$ > k^w + ə̄$

In the singular form of (47), the glide of the diphthong appears to have been absorbed by the definite article before $\varepsilon > \bar{\partial}$.

The *ai̯* diphthong in (49) and (50) is common to other Central Apulian dialects, excluding Barese, but dialects outside this area have *e*:

	Molese	Ruttésə[8]	Napolet.	Italian	
(52)	mai̯sə	mesə	mesə	mese	'month'

The reason for the closed *e* here, instead of the open ɛ as in (51), is not clear to me at present, but does not detract from the value of these forms in my argumentation. I take it that the evolution was as follows:

(53) *k + *ɔ$ > k + u̯ɛ$ > k + u̯e$ > k^w + e$ > k^w + ai

As *u̯e* underlies the stressed vowels in these words, the subsequent restructuring and further evolution lend additional support to the labialization hypothesis outlined above.

9.0 A RE-APPRAISAL

In the foregoing account I originally attempted to show a link between labialization of the Altamura type, that is, lag assimilation, and the delabialization, or reduction, of the diphthong *u̯e*. It has become clear, however, that an interaction of these two processes cannot be demonstrated for Barese, where labialization

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[8] The dialect of Grottaminarda, east of Naples in Avellino province; see Cox 1977.

of the type found in Altamurano is present in a very restricted form. It is especially not the case in Leccese, where it is, in fact, completely absent. How then can the Barese and Leccese diphthong reductions be accounted for? The answer seems to lie in examples (41), (42) and (47) to (50), and in the discussion of them. What seems to have occurred is labialization by anticipatory assimilation, which is blocked, as in Altamurano labialization, by non-peripherals, which instead lose the glide. This generalization may be formalized as:

(54) $\begin{bmatrix} C \\ +\text{ peripheral} \end{bmatrix} \rightarrow [\ +\text{ labialized }]\ /\ \underline{\quad}\ \underset{\frown}{u}$

Rule (54) and rule (35), which ordered after it, will then handle the coalescence of the glide with the labialized consonants and its deletion elsewhere. Furthermore, as it has been shown that the diphthongization of *ɔ to $\underset{\frown}{ue}$ was most certainly a much earlier change than Altamurano type labialization, rules (54) and (55) should be ordered before (34). Indeed, it seems reasonable to assume that the Barese type labialization (of rule (54)) paved the way, so to speak, for the Altamurano type (rule (34)) by establishing the phonetic parameters for its application. The discussion in section 2 implies that a more restricted form of rule (34), something like (56), was operative in Central Apulia, which later generalized to the environments of (34) in Altamurano:

(56) $k \rightarrow [\ +\text{ labialized }]\ /\ u \begin{Bmatrix} \underline{\quad}\grave{a}\# \\ \#\underline{\quad}a \end{Bmatrix}$

10.0 SUMMARY

The labialization hypothesis is, of course, plausible only to the degree that labiovelars were compatible with the phonological systems of the dialects under consideration. I maintain that at

a certain period in the past conditions were most favourable for the integration of labio-velars into the systems of the Apulian dialects in the *u̯e* zones on the map, and probably many more as well. Historically, Latin is posited as having inherited labio-velars from Indo-European, and writings in early Romance show that k^w or *ku̯* alone survived, and only before back vowels, with *ku̯a* having a high functional load. When the *u̯e* evolved in the South Italian region, it favoured the spread of this labialization, at least phonetically, to other consonants and before a front vowel. The lag assimilation typified by (56) acted to spread further the incidence of these labialized segments. I am not proposing that the phonemic inventories of present-day Apulian dialects include labio-velars, but that present conditions strongly suggest their inclusion in a diachronic account of the dialects of the region.

In accounting in detail for only three out of fifty dialects in Bari province, I can make no claim that the three are representative enough to preclude possible future refinements to my analysis. My conclusions are therefore necessarily somewhat tentative, and much remains to be done. I hope to have demonstrated in this study, however, that *u* insertion and diphthong reduction were indeed the results of a general, albeit incomplete, labialization process, and further, that the technique of interdialectal comparison, essential to linguistic geography, still may provide valuable insights concerning the paths language change has followed.

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