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Lenition of Proto-Uto-Aztecan **t* in Luiseño

The present study is focused on the lenition of Proto-Uto-Aztecan (PUA) coronal plosive **t*, which some scholars proposed to have taken place in clusters with glides in Luiseño (< Takic < Uto-Aztecan). Instead of the shift of PUA **t* to *l* in *owla* 'blood' followed by sporadic metathesis and haplology, which were previously considered to occur in the historical development of this word, it is suggested that *owla* has undergone a deletion of **t* before *w*. I argue that the results of this shift can be seen in other Luiseño words, primarily those derived using the augmentative affix *-wu*. In order to clarify the etymology of one of such words, *pá:xawu-t* 'young jackrabbit', I analyze semantic patterns of deriving Luiseño nouns using the augmentative and its homonymous morpheme and provide evidence in favor of several words previously considered to have undergone augmentative denominal derivation being historically deverbal derivatives.

Additionally, I suggest an evolutionary scenario of *alwut* 'crow' in Luiseño that does not involve pre-glide lenition of **t* and propose the reconstruction of the Proto-Northern-Uto-Aztecan root as **ata-* rather than **at-*.

Keywords: Luiseño language; consonant lenition; consonant deletion; Uto-Aztecan, historical phonology.

1. Introduction

Luiseño is a North American language formerly spoken in Southern California, USA (Mamet 2010: 239). It belongs to the Takic group of the Northern branch of the Uto-Aztecan language family[1].

Proto-Uto-Aztecan (PUA) **t* was found to be reflected in Luiseño (Lui.) as *l* in an originally intervocalic context: PUA **t* > Lui. *l* / *V_V and as *t* elsewhere (Manaster Ramer 1996: 120). Hence, the **t* of the Proto-Uto-Aztecan absolutive marker **-ta* has *t* as its reflex after an originally consonant-final stem and *l* after an originally vowel-final stem (Mamet 2010: 253–255).

While deriving Luiseño *owla* 'blood' from PUA**ɨtwa-ta*, Alexis Manaster Ramer suggests broadening the range of possible contexts for PUA **t* > Lui. *l*. He lists glides to either side of the **t* as being able to cause lenition as well as vowels (Manaster Ramer 1991). He also argues that the *l* in Lui. *owla* 'blood' is a reflex of a stem **t*[2], thus being a result of sporadic metathesis **tw* > **wt*, followed by a lenition with a glide as the left environment and a haplology with the absolutive suffix.

In this paper, I argue that the assumption that glides could serve as a context triggering the lenition does not find support on the basis of the reliable cognate sets postulated up to date and, moreover, is omittable within the etymology in question. I suggest alternative explanations for a number of cases of lenited **t* that synchronically appears in a glide context in Luiseño.

[1] For a more detailed account of the inner subgrouping of the Takic clade, its place within the UA family and some common innovations supporting the established classification see e.g. Hill 2011: 262–273.

[2] Rather than an absolutive one, as suggested in Miller 1967.

However, I consider the reconstruction for PUA 'blood' suggested by Manaster Ramer valid, and argue that the change of PUA *tw > Lui. w took place in some of the other cases discussed.

The background on the subdivision of Uto-Aztecan and the Proto-Uto-Aztecan features which supposedly gave rise to reflexes of *t in Luiseño is given in section 2. In section 3, arguments against *t undergoing lenition in non-intervocalic environments and an alternative analysis involving deletion are given.

2. Overview of preceding research

2.1. Several notes on the transcription system

The notation used in this paper for the vowel phonemes of Luiseño, Serrano, Gabrielino, Cupeño, and Cahuilla is almost identical to the system introduced in the Comparative Takic Grammar by Hill and Hill (see Hill & Hill 2019: 59, 61 for its principles and the detailed information on the inventories of all languages mentioned above). However, phonologically significant vowel length is marked as *X:*, and *ə* is used in place of *y*, which is motivated by the cross-linguistical ambivalence of the latter and the vowel being described as mid central for both Serrano and Cupeño — the two of the aforementioned systems where this vowel is present. Additionally, *r*-coloring in Serrano vowels is marked with the diacritic for rhoticity from the International Phonetic Alphabet.

Likewise, the transcription of consonantal inventories of the Takic languages mostly resembles the notation used in Hill & Hill 2019: 71–72. The exceptions are the symbols introduced by the authors of the Comparative Takic Grammar in pursuit of typographical simplicity: instead, the symbols of the International Phonetic Alphabet are used in this work (see Table 1). It is also important to note that unlike in some Uto-Aztecan orthographies, both here and in the work by Hill and Hill *x* is used for the velar fricative rather than the posterior sibilant.

Comparative Takic Grammar	This paper
t$	t͡s̪
$	s̪
ch	t͡ʃ
sh	ʃ
7	ʔ
ng	ŋ

Table 1. The correspondences between the transcriptions used for the Takic languages in the Comparative Takic Grammar (Hill & Hill 2019) and in this paper.

Words from other Northern Uto-Aztecan languages are given in almost exact agreement with the transcriptions from the original works, aside from the unification of phonological length notation (see above). The same principles apply to citations of reconstructed forms.

2.2. Brief introduction to Uto-Aztecan phylogeny

Northern Uto-Aztecan (NUA) has been considered a separate genealogical unit of the Uto-Aztecan family since the early twentieth century, having at the time borne the name "Shoshonean" (Kroeber 1907). It was distinguished from two other branches, Nahuatl and Piman-

Sonoran, which are now believed to form a single unit of Southern Uto-Aztecan languages (Merill 2013; although this opinion is not unanimous, cf. Hill 2011: 259–262).

Within the Northern Uto-Aztecan branch four units are distinguished: the Numic group, the Takic group, the Hopi language and the Tübatulabal language. Luiseño belongs to the Takic group (Cupan group, Coastal subgroup), which includes, among others, Serrano (Serran group), Gabrielino (Tongva group), Cahuilla and Cupeño (Cupan group, Inland subgroup) (Hill & Hill 2019). Here I consider only the languages included in the 2003 edition of Miller's Uto-Aztecan Cognate Sets (Hill 2020).

Hopi and Tübatulabal are regarded by some of the scholars as "near Takic", which means they are considered not as far removed from Takic as Numic (Hill & Hill 2019: 32). Hill and Hill propose a hierarchical structure of Northern Uto-Aztecan, where Proto-NUA has two immediate descendants: (a) Proto-Numic and (b) the proto-language for a subset of NUA languages. Hill and Hill refer to the latter as "Northern Uto-Aztecan other than Numic". It has Hopi and the Californian group as its descendants.

The Californian group was proposed by Manaster Ramer, who suggested that Tübatulabal might form a single genealogical unit with the Takic languages (Manaster Ramer 1992). I return to the discussion of this proposal in section 3.5.

2.3. Reflexes of Uto-Aztecan stem-final features in Northern Uto-Aztecan languages

Proto-Uto-Aztecan is believed to have had three types of word stems: vowel-final (V), oral consonant-final (C) and nasal consonant-final (N) (Manaster Ramer 1996: 119–120). The reflexes of Uto-Aztecan stem-final opposition were studied by Edward Sapir and Benjamin Whorf, who showed that the three ways in which stems morphophonologically interact with the following suffix in the languages of the Numic branch reflect the PUA tripartite opposition (Sapir 1913, 1919, 1933; Whorf 1935). For example, the suffixation in Southern Paiute looks as follows:

- vocalic type — PUA *V-, no change in the suffix, first consonant of the suffix is spirantized (regular intervocalic shift), e.g. *paː-pɔː* [paːβɔː] 'waterway' from *paː-* 'water' and *pɔː* — 'way' (Sapir 1933: 252);
- consonantal type — PUA *C-, the first consonant of the suffix is geminated, e.g. *tïmpí-kːʸanʻⁱ* 'stone house' from *tïmpi-* 'stone' and *qanʻⁱ* 'house' (Sapir 1919: 447);
- nasal type — PUA *N-, the first consonant of the suffix is preceded by a homorganic nasal, e.g. *ovíŋkːʸanʻⁱ* 'wooden house' from *ovi-* 'wood' and *qanʻⁱ* 'house' (ibid).

Preaspiration in Hopi can be considered another feature connected to these PUA stem-final segments. However, the opposition retained in Hopi is binary: it distinguishes between vowels and consonants only. Vowel-final stems did not affect the following consonant aside from causing *p* to spirantize to *v.* Originally consonant-final stems, however, caused the first consonant of the following suffix to preaspirate, e.g. *si-* 'flower' and *paala* 'liquid' give *sihpaala* 'flower liquid' (Whorf 1935: 604).

Another approach to analyzing PUA final feature effects was proposed in the works of Ingo Mamet, who argues for absence of stem-final coda consonants in the proto-language (Mamet 2010). Instead, he suggests that the gemination, preaspiration and prenasalisation effects on morpheme boundaries in daughter languages are caused by Proto-Uto-Aztecan preglottalization. Although my analysis is based on the assumption that PUA coda consonants did exist and the non-spirantizing shifts were triggered by their deletion, these data do not inherently speak in favour of either approach, and I remain hopeful that both theories could benefit from the discussion of concrete etymologies that is presented here.

2.4. The absolutive suffix in Luiseño, other Takic languages and Tübatulabal

Proto-Uto-Aztecan stem-final opposition is also illustrated by the lenition of PUA *t and allomorphy of the absolutive suffix in Takic languages and Tübatulabal.

In Uto-Aztecan studies, the term "absolutive suffix" is used for a nominal ending that lacks semantic value, appears in citation forms and is often dropped as a result of a noun undergoing various morphological processes (Langacker 1977: 77). The PUA form for this morpheme is reconstructed as *-*ta*, see e.g. Mamet 2010: 255. The vowel quality is supported, among other facts, by evidence presented by the Nahuatl *-tl*, which is a reflex of PUA *t only before PUA **a* (and more recent Proto-Aztecan **ɨ*), e.g. PUA **taman* 'tooth' > Proto-Aztecan **tlan-* (Hill 2011: 247). Therefore the absolutive **t* always has a vowel to its right.

Luiseño has six absolutive allomorphs: *-t(a)*, *-l(a)*, *-ʧa* and *-ʃ*; for this paper, the crucial distinction[3] is between the two allomorphs retaining the PUA *t* and the two allomorphs that exhibit its lenition to *l*. PUA **t* also undergoes lenition to *l* in Cupeño, Cahuilla and Tübatulabal, while leniting to *r* in Gabrielino and *ʦ̪* in Serrano (Manaster Ramer 1996: 120). Whether lenition should take place is determined by the left environment being either a vowel (lenition to *l* after a vowel-final stem) or a consonant (*t* after a consonant-final stem), which reflects the stem-final opposition dating back to PUA. Importantly, not all of the stems with an unlenited allomorph of the absolutive suffix are synchronically consonant-final. For instance, it is assumed that Lui. *tu:ku-t* 'wildcat' had **t* as the final consonant of the stem, followed by the absolutive suffix not being affected by lenition due to the consonantal left environment. The geminate later simplified to a single consonant: **-t-t* > *-t*, resulting in the stem being synchronically vowel-final (Manaster Ramer 1991); see section 3.2.

3. PUA **t* in Luiseño and other Northern Uto-Aztecan languages

In this section, I overview the cases that I consider as examples of *t* undergoing deletion before the glide *w* in Luiseño. I first give arguments in favor of this shift (as opposed to the lenition of *t* in a non-intervocalic environment) happening in the historical development of *owla* 'blood'. In 3.2 and 3.3, I present other cases where the same shift can be suggested. In 3.4, I discuss the etymology of the word *alwut* 'crow' and argue against it being a counterexample to the shift. In 3.5, I try to show how the alternative analysis with lenition creates problems for the integrity of the Californian group, which is considered a clade by some scholars specializing in Uto-Aztecan languages.

3.1 The case of *owla* 'blood'

The etymology of *owla* 'blood' in Luiseño is used by Manaster Ramer as evidence for broadening the environment for lenition in Luiseño and assuming that it had occurred in contexts next to glides as well as in intervocalic ones (Manaster Ramer 1991, see Table 2).

Arguing that the protoform of Lui. *owla* 'blood' must have looked like **ɨtwa-(ta)* in Proto-Uto-Aztecan, Manaster Ramer suggests the following series of changes: either **Vtwa-ta* >

[3] For conditions determining presence of the word-final vowel and the distribution between sibilant allomorphs and *-t(a)/-l(a)* see Mamet 2010: 255–256.

Language	Cognate
Luiseño	*ow-la*
Serrano	*ɔ·t̪s-t̪s*
Tübatulabal	*ɨkwa-l*
Hopi	*ɨŋwa*
Guarijio	*e-la*
Classical Nahuatl	*es-tli*

Table 2. Partial set for PUA **ɨtwa-(ta)* 'blood' (Manaster Ramer 1991).

**Vwta-ta* > **Vw-ta* > *ow-la* or **Vtwa-ta* > **Vwta-ta* > **Vwla-la* > *ow-la*.[4] Should *l* in *owla* be proven to be a regular lenited reflex of the consonant in the root of the proto-form, the quality of this consonant can be reconstructed as **t*.

This scenario requires a few assumptions. First, we would need to assume that metathesis and haplology have occurred without any known evidence to consider these processes regular or motivated. Despite the fact that both of these processes often lack regularity in historical phonology in general[5], it would seem that, other things being equal, postulating sporadic changes should be avoided. Second, in order for *l* to go back to PUA **t*, it would need to appear in a position suitable for lenition at the time of its productivity. Since the analysis suggested by Manaster Ramer involves **t* leniting in a non-intervocalic context, he suggests revising the known conditions for lenition so that they include the glides. I believe this proposal to be in need of further research, since the only etymology supporting it involves several assumptions of irregularity. I discuss other etymologies involving reflexes of **tw* in sections 3.2–3.4.

Following Miller (1967), I propose an etymology of *owla* which involves neither irregular metathesis nor sporadic haplology, nor does it pose a need for revision of the conditions of lenition, while simultaneously supporting the existing reconstructed form and considering the Luiseño word its regular derivate. I suggest that *l* in *owla* is a reflex of the absolutive rather than the root **t*, thus assuming the following changes to have occurred: **Vtwa-ta* > **Vwa-la* > *ow-la*. I therefore propose a shift of PUA **tw* > Lui. *w*. This hypothesis is also supported by the fact that *-la* is an absolutive affix in *owla* synchronically: cf. *-ow páːla maríqaːt* 'anemic'(lit. 'blood water turned') featuring no final *-la* in the possessive form where the absolutive affix has to be omitted (Elliott 1999: 215). If intervocalic **w* was also subject to lenition to *ŋ*[6], a reflex that is not encountered in *owla,* one has to assume **tw* > *w* to be a process posterior to the lenition, so deletion of the root **t* must have occurred after the lenition of absolutive **t* had already taken place. This shift created an open stressed syllable, which means that regular syncope of the post-stressed vowel from **ɨtwa-* had to follow, see section 3.2.

3.2 The case of *tukwut* 'mountain lion'[7]

In order to determine whether lenition or deletion happened to PUA **t* in the pre-glide position, one would need to investigate the evolution of the same proto-cluster in other PUA roots with attested Luiseño derivatives. Some of the most numerous lists of etymologized Uto-Aztecan vocabulary are later revisions of Miller's *Uto-Aztecan Cognate Sets*.

Another piece of evidence in support of the proposal regarding PUA **tw* > Lui. *w* is, in fact, a derivation suggested by Manaster Ramer for Lui. *túːkut* 'wildcat' and *túkwut* 'mountain

[4] It is unclear whether this sporadic haplology is suggested to predate or postdate the lenition; since the vocalic shift **ɨ* > *o* is not discussed in my paper, the relative chronology of the change in the initial vowel is intentionally not touched upon here.

[5] See e.g. Campbell 2020: 35: "Metathesis is often thought to be found mostly only in sporadic changes, but metathesis can also be a regular change".

[6] This development was proposed in Mamet 2010: 254.

[7] Lat. *Lynx rufus*.

Language	Cognate	Other related words
Serrano	*tukut*	
Cahuilla	*túkut*	*túkwet* 'mountain lion'[8]
Cupeño	*túkut*	
Luiseño	*tú:kut*	*túkwut* 'mountain lion'
Gabrielino	*tokút*	*tokúrot* 'león'
Tübatulabal	*tu:kt*	*tugu:kut* 'mountain lion'

Table 3. Cognate set for PUA **tuku* 'wildcat' (Manaster Ramer 1991): Proto-Californian **tu:kut-*.

lion' (Manaster Ramer 1991). He argues that synchronically the vowel-final root of *tú:ku-t* had *-*t-* as a root-final consonant, which led to the absence of lenition of **t* in the absolutive suffix. However, given that the adjunction of the absolutive happened before the stem became vowel-final, the form with the augmentative[9] would have had a cluster **tw*, with **t* appearing to have syncopated rather than lenited before *w*: **tw* > *w*.

As noted by Manaster Ramer, it is not clear whether and when borrowings of the descendants of this etymon took place, which makes it complicated to reconstruct the chronological order of phonological changes. It might be assumed, however, that syncope of the second vowel of the root in Lui. *túkwut* was regular and required certain shifts to precede it. According to Munro and Benson, Luiseño vowels in post-stressed syllables were subject to syncope on three conditions: (a) if both stressed and post-stressed syllables were open, (b) if post-stressed syllable was non-final and (c) if the stressed vowel was short (Munro & Benson 1973). In case of *túkwut*, this means that both shortening of the stressed vowel (either in Luiseño or in another Takic language from which this root form was borrowed) and **tw* > *w* were inescapable prerequisites of the syncope of **u*. Aside from Manaster Ramer's argument for the historically consonant-final stem of this etymon in Luiseño, the Gabrielino form *tokúrot* with *r* as a regular lenited reflex of **t* is an indicator that post-stressed root vowel in the Luiseño form with the augmentative suffix was originally followed not by a singleton glide, but rather a cluster containing **t* from the root and **w* from the affix, which suggests that the aforementioned **t* deletion had to occur.

3.3 The case of 'young jackrabbit'

Let us look at another example of the postulated **tw* > *w* shift involving a non-retained final **t*- of the synchronically vowel-final stem and **w* of the augmentative affix **wɨ* — the Luiseño word *pá:xa-wu-t* 'young jackrabbit'[10].

Despite the fact that it does not have any known Takic or Tübatulabal cognates, it has a related word *pá:xu-t* 'young jackrabbit'. This allows us to suggest a proto-form like **pá:-xut-ta*, with later simplification possibly happening as a result of gemination. The geminate became word-final after the absolutive final vowel had syncopated, neutralizing in quantity with its singleton counterpart, a process synchronically attested in many modern languages.

If the addition of the augmentative affix had occurred before the simplification of **tt* to *t* that caused the stem to become vowel-final, it would have resulted in the cluster **tw* followed

[8] Lat. *Puma concolor*.

[9] Augmentative is a "not very productive" suffix shared across all Takic subgroups which has an approximate meaning of greater size; for details see Hill & Hill 2019: 1268–1273.

[10] Lat. *Lepus spp*.

by deletion of the pre-glide *t*: **pá:-xut-wɨ-t* > *pá:xawut*, **tw* > *w*. It should be noted that a comprehensive explanation is yet to be found for the fact that the word without the affix has *u* as the final vowel of the root, while the vowel before the affix in the derivative word is an *a*. Mamet lists *-xa-* and *-xu-* as two distinct "stem-final sequences" (Mamet 2010: 249). This might suggest that *pá:xawut* was derived from another related form like **pá:-xat-* rather than directly from **pá:-xut-*. Nevertheless, given that both of the sequences tend to take *-t* as an absolutive affix, the reasons for reconstructing stem-final consonant (and, more precisely, stem-final *-t*) are the same in both scenarios.

An anonymous reviewer considers it problematic for *pá:xawut* (*pá:xwut*) 'young jackrabbit' to be derived from the word *pá:xut* with the same meaning. They suggest it to be the case of an augmentative taking the meaning 'someone who likes to X', with X here being *pá:xat* 'type of greens'. Unfortunately, I cannot agree with this suggestion. First, it is worth noting that all the cases of what Elliott considers an augmentative derivation introducing a meaning "someone who likes X" require X to be what is prototypically expressed by verbs: an action or a state. The entire list of such derivations is featured below (Table 4).

Noun and its meaning	Meaning of the augmentative
tó:yuki-ʃ 'laughter'	someone who likes to laugh
tukwánvo-l 'bundle, what has been carried, backpack'	little one (baby) that likes to be carried
tuvótviŋawi-ʃ 'of the desert, desert Indian'	someone who likes to be in the desert
wá:lki-ʃ 'something toasted brown'	someone who likes to toast things
wéhŋawi-ʃ 'of two parties, of two groups'	someone who likes to do things two at a time
wiwmawi-ʃ 'full of acorn mush'	someone who likes to be full of acorn mush
yáyavi-ʃ 'poor runner'	someone who likes to run but is not good at it

Table 4. The complete list of augmentatives introducing a meaning of 'someone who likes X' (from Elliott 1999).

It is clear from this table that the majority of the meanings are related in the following way: a form with the augmentative has a meaning of 'someone who likes to VERB', while the noun without the augmentative has a meaning of 'a thing/person that 1) VERBs or 2) is VERBed': 1) *tukwánvo-l* (VERB = 'to be carried'), *tuvótviŋawi-ʃ* ('to be in the desert'), *wiwmawi-ʃ* ('to be full of acorn mush'), *yáyavi-ʃ* ('to run poorly'); 2) *wá:lki-ʃ* ('to toast') and arguably *wéhŋawi-ʃ*[11] ('something that is done two at a time'; VERB = 'to do two at a time'). The word *tó:yuk-iʃ*, although an outlier denoting the result of the VERB rather than its subject or object (what is laughed at), is clearly derived from the verb *tó:ya* t'to laugh'. None of these derivations feature the augmentative introducing a meaning of liking a concrete thing that is a noun it is derived from, which would be a valid parallel for the 'type of greens' > 'someone who likes this type of greens' derivation. Instead, *pá:xat* would need to have an approximate meaning of 'green-eater' for it to relate to its supposed augmentative in the same manner as *tukwánvo-l*, *tuvótviŋawi-ʃ*, *wiwmawi-ʃ*, and *yáyavi-ʃ* do, which it does not.

Second, the nominal augmentative has a homonymous morpheme in the verbal paradigm that is labeled by Elliott as Present Participle, which adds the meaning '(while) VERB-ing' and also takes the *-t* allomorph of the absolutive, e.g. *náki* 'to close', *náki-wut* 'while closing' (Elliott 1999: 52). Probably not unrelated to this form, one frequently encounters deverbal derivations with *-wut* as separate entries in Elliott 1999 with a slightly different meaning of '(a person or

[11] It is difficult to speculate on the exact meaning of this word, since the only example mentioned in the dictionary is rejected by Mrs. Hyde, a native speaker of Luiseño, as unintelligible (Elliott 1999: 1044).

a thing) prone to VERB', with VERB being an action signified by the verb stem, e.g. *náːɬaxanwut* 'overeater, glutton' (*náːɬaxan* 'eat'), *ixíiwu-t* 'person who catches cold easily' (*ixíi* 'to have cold'), etc. Approximately half of such nouns appear with a *-ka-* sequence after the original verb stem, e.g. *ívkawu-t* 'combative (of animals with horns)' (*íva* 'have horns locked'), *ɬévkawu-t* 'easily breakable' (*chéva* 'be broken'), *táːykawu-t* 'restless' (*táːya* 'be moved'), etc. While it might initially seem appealing to consider *-kawu-* an allomorph of *-wu-*, a few verbal derivatives retaining an element *-ka-* clearly demonstrate that such nominal forms do, in fact, originate in verbs ending in *-ka-*: *láwkawu-t* 'prone to drilling' (*láwa* 'have a hole', *láwka* 'be readily drillable'), *maháykawu-t* 'what is easily unraveled' (*maháya* 'be loosely woven', *maháyka* 'be easily unraveled'), *míːɬkawu-t* 'strangler' (*míːɬa* 'choke', *míːɬka* 'strangle continually'). It then seems probable that the majority of such derived verbs, traces of which can be seen in deverbal nouns ending in *-ka-wu-t*, were either already obsolete in Luiseño at the time when the dictionary was created or not included due to other reasons.

I argue that the words from Table 4, the meanings of which are featured in the right column, are ultimately deverbal derivatives. One of the nouns, *wáːlki-ʃ*, has a related verb *wáalki* 'to toast' with the exact same stem listed as a dictionary entry. The relationship of the supposed augmentative form of *wáːlki-ʃ* — *wáːlkiwu-t* 'someone who likes to toast things' — to the aforementioned verb would be very akin to that of *weʔéqlawu-t* 'attorney, argumentative person' (i.e. a person who likes to argue) and *weʔéqla* 'argue with someone', *ʔóːʔolmiwu-t* 'mockingbird; anyone who mocks' and *ʔóːʔolmi* 'to ridicule', as well as many other word pairs following the 'prone to X' derivation model. Since this model features some examples where both the related verb and the related noun without the affix are present in the language (e.g. *tóʂŋuwu-t* 'controlling', *tóʂŋu* 'order (around)', *tóʂŋu-ʃ* 'order, command'[12]), I consider it a possible scenario that in all other cases from Table 4, a verb (but not a noun without *-wu-*) ceased to be used in the language, which led Elliott to analyse the nouns ending in *-wu-t* as denominal derivatives.

The hypothesis that *páːx(a)wut* is a historical derivate of *páːxut* that evolved to have a meaning identical to that of its counterpart without the augmentative affix is paralleled by the words *mixéː-l* 'dove, pigeon' and *mixéːwu-t* 'pigeon', which, judging by the second translation of the former word, could likely be used interchangeably in Luiseño in the late 20th century. More numerous are historical augmentative derivatives that, albeit not evolving to have the exact meaning as their non-augmented counterpart, fail to demonstrate the semantics of greater size synchronically, e.g. *tóːpawu-t* 'pestle' and *tóːpa-l* 'mortar for grinding'.

3.4 *alwut* 'crow' and the context of *t

In this section, I am going to discuss a word that seemingly contradicts my proposal: Lui. *alwut* 'crow'. Manaster Ramer considers it to have a "root ending in *t*" (Manaster Ramer 1991). If this assumption were true, *l* in *alwut* would be a lenited *t* before a glide *w*, which would support the hypothesis that the Takic lenition has happened in environments near glides (and, consequently, disprove my claim that PUA *t had a tendency to syncopate before *w in Luiseño).

Language	Cognate
Luiseño	*al-wu-t*
Serrano	*aʈʂa-w-t*
Hopi	*aŋ-wɨ-si*

Table 5. Partial cognate set for PNUA **at-wɨt* 'crow' (Manaster Ramer 1991).

[12] Despite this, an overwhelming majority of *-wu-t* derivatives mentioned alongside related verbs in the absence of related nouns clearly indicates a deverbal derivation.

I would argue, however, that the cognate set in question is a standard instance of lenition of **t* in the intervocalic context. Taking the Serrano cognate and the regular deletion in Luiseño described in detail in Section 3.2 into consideration, I find it reasonable to assume the root in Luiseño to originally end in **a.* According to Jeanne, interconsonantal vowel deletion is to be expected in Hopi as well (Jeanne 1978: 17). Given that the cognates attested in the languages of the Numic branch show vowels of the same quality in the same position (Northern Paiute *ata*, Kawaiisu *atakaci*, Chemehuevi *atapɨci*; see Hill 2020: 9), the version with *a* as an epenthetic vowel or another Serran innovation seems improbable.

I therefore propose **ata-* as a proto-form for 'crow' and argue that this stem with an augmentative affix cannot serve as evidence for the evolution of **tw*, since these consonants were originally separated with a vowel.

3.5. Tübatulabal *ta:twal* 'man' and lenition in a near-glide context

Manaster Ramer argues that the Takic group and Tübatulabal form a separate genealogical unit within the Northern Uto-Aztecan branch and are therefore more closely related to each other than to Hopi or Numic (Manaster Ramer 1992). He establishes his argument on the basis of the Takic (namely Cahuilla, Serrano and Gabrielino) and Tübatulabal words for 'man' sharing both the irregular allomorph of the absolutive suffix (since the stem is vowel-final, a lenited allomorph is expected) and the integration of this suffix into the stem.

While discussing whether the correct proto-form for PUA 'man' is **taka-(ta)* or **takat-(ta)*, Manaster Ramer points out that either version poses problems for the explanation of the derivation process. In the first case, one would expect a lenited allomorph of the absolutive in both Takic and Tübatulabal. In the second case, following PUA **k* > Tub. *h* / V[−high]_, *h* would have to be lost intervocally, which is only possible in open syllables (Manaster Ramer 1993).

Language	Cognate
Cahuilla	*taxa-t* 'he, that guy (used by men as an intensifier); brave man'
Serrano	*ta:q-t* 'person, human being'
Gabrielino	*ta:xa-t* 'una persona'
Tübatulabal	*ta:twa-l* 'man'

Table 6. Cognate set for PUA **taka-(ta)* 'man' (from Manaster Ramer 1992).

However, Tübatulabal appears to have a non-lenited *t* right next to the glide, despite the fact that the lenited allomorph of the synchronic absolutive suffix leaves no question as to whether the suffixation could take place after the productive state of lenition of **t* was over. Therefore, one wishing to argue for lenition in the glide environment in Luiseño would have a few options to explain the named phenomenon.

If one was to argue that conditions for the lenition of PUA **t* in Tübatulabal and Luiseño were different and it operated only intervocally in Tübatulabal (while Luiseño allowed lenition in a glide context), their proposal would weaken the potential claim for Takic and Tübatulabal having lenition of PUA **t* as a common innovation that was meant to serve as a reinforcement for the Californian hypothesis. If the Tübatulabal word was deemed unrelated to its supposed Takic cognates or even a borrowing, it would invalidate all of the arguments in favour of the Californian hypothesis based on the evolution of this concrete etymon.

It could be argued, then, that the only option for the evolution of **t* not to interfere with the Californian hypothesis is to assume that lenition did, in fact, take place only intervocally in both Tübatulabal and Luiseño (as well as other Takic languages).

4. Conclusion

I have argued against all cases of PUA *t that had earlier been posed as evidence in favor of lenition of *t in the near-glide environment in Luiseño and have presented arguments against certain etymologies which were considered by some researchers to support this shift. I instead proposed a shift of PUA *tw > Lui. *w* on the basis of the derivation of *owla* and supported this proposal with a number of cases involving a stem-final *t reconstructed due to the unlenited *t of the absolutive affix. Although the original driving force of my hypothesis was the evolution of *owla*, the proposed shift made it possible to review the historical development of several other words. It was suggested that the proto-form of *páːxut* 'young jackrabbit' contained stem-final *t and argued that PNUA 'crow' should be reconstructed as **ata-* rather than **at-*.

It should be admitted that the arguments presented in sections 3.2 and 3.3 of this paper are potentially inferior to those in favor of the shift occurring in either roots or other morphemes with non-syncopated reflexes of *t which are attested in other words containing the same morpheme. The small part of the Luiseño vocabulary that has both well-established etymologies and cognates at least in other Takic languages does not, to my knowledge, contain words with morpheme-internal reflexes of *tw, which would either support or disprove the suggested shift. I therefore see further perspectives for this work in filling the gaps in our knowledge of the evolution of those few Luiseño etymons with root-internal *-w-* (the cognates of which in other Takic contain lenited reflexes of PUA *t) and, if possible, establishing new sets of historically related words in various NUA languages.

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В. Д. Петрова. *Л*ениция праюто-астекского **t* в языке луисеньо.

Настоящее исследование посвящено лениции коронального взрывного согласного **t* праюто-астекского (ПЮА) языка, которая, по мнению некоторых учёных, произошла в кластерах с глайдами в языке луисеньо. Вместо сдвига ПЮА **t* → *l* в слове *owla* ‘кровь’, сопровождавшегося спорадической метатезой и гаплологией, которые ранее считались следствием исторического развития этого слова, предлагается постулировать для слова *owla* выпадение **t* перед *w*. Показано, что результаты такого изменения можно увидеть и в других словах луисеньо, в первую очередь тех, которые образованы с помощью аугментативного аффикса *-wu*. Чтобы прояснить этимологию одного из таких слов (*pá:xa-wu-t* ‘молодой заяц’), я анализирую семантические закономерности образования существительных в языке луисеньо с помощью аугментативной формы и её омонимичной морфемы и привожу доказательства того, что несколько слов, ранее считавшихся аугментативными отыменными образованиями, исторически представляют собой отглагольные производные. Кроме того, постулируется сценарий эволюции слова *alwut* ‘ворона’ в языке луисеньо, не предполагающий лениции **t* перед глайдом, а соответствующий прасеверно-юто-астекский корень предлагается реконструировать как **ata-*, а не **at-*.

Ключевые слова: язык луисеньо; лениция согласных; выпадение согласных; юто-астекский язык; историческая фонология.