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Kroeber and Harrington on Mesa Grande Diegueño (Iipay)

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Introduction

At the First J.P. Harrington Conference held in Santa Barbara in 1992, I reported that I had been unable to locate in the available guides to the field notes of J.P. Harrington (Mills 1981, Walsh 1976) any reference to material on Diegueño prior to about 1925, even though Kroeber and Harrington (1914)—the first description of the phonetics of Diegueño—states that Harrington "... had a brief opportunity to hear Diegueño.." I was then informed by Mr. John Johnson of the Museum of Natural History in Santa Barbara that the Museum's archives contain the manuscript of Kroeber and Harrington (1914) and other documentation relevant to that article. I am grateful to Mr. Johnson for allowing me access to this archive and giving me the opportunity to make xerox copies of the relevant sections. A major portion of this paper relates my observations on this material.

Background

In the spring of 1963, just over thirty years ago, I started working on Diegueño in San Diego County. At the time, with the exception of a few unpublished wordlists collected by non-linguists, there was only one published source on any aspect of the structure of the language, Kroeber and Harrington's (1914) 'The Phonetic Elements of the Diegueño Language' (hereafter KH). The paper was essentially written by Kroeber and its purpose was to compare some Diegueño data collected by him with the equivalent forms in Mojave,¹ a language Kroeber had had considerable exposure to and had described phonetically in Kroeber (1911). Notes on the comparative phonetics of these two related languages² and a comparative word list of 75 words

¹ I follow the most common current practice of spelling the name of this language as Mojave, except when quoting sources where the spelling Mohave is used.

² The place of Mojave and the various Diegueño languages in the Yuman family is given in the following subgrouping. Note I now consider there to be at least three Diegueño languages (Langdon 1990). Dialects relevant to this paper are listed in parentheses.

California-Delta:

Diegueño:

Iipay (Mesa Grande, San Pasqual)

Kumeyaay (Campo)

Tiipay (Jamul)

Cocopa

River:

Yuma

Maricopa

Mojave

are found in KH.

The unexpected discovery of unpublished Harrington notes supplementing KH, including Harrington's re-eliciting of the same 75 words provided by Kroeber gives me a unique opportunity to compare their transcriptions to each other and to my own transcriptions begun some fifty years later. Particularly fortunate is the fact that Kroeber's consultant, but not Harrington's, was Mr. Rosendo Curo, the father of my own main consultant. There can therefore be no doubt that we are dealing with the same subdialect of Iipay Diegueño.

The history of KH

The contribution of Harrington to KH is described by Kroeber as follows:

Independent observations on the phonetics of the language courteously furnished by Mr. J.P. Harrington, who has had a brief opportunity to hear Diegueño, have been added as notes initialled by him. (KH:177)

The manuscript of the paper in the archives at Santa Barbara consists of a carbon copy of a typewritten version obviously prepared by Kroeber. The author is listed as Kroeber only and no reference to Harrington is made. The text is much like the published article, but the footnotes by Harrington are not present. There are a few typographical errors, which were mostly corrected in the published version. The implication is that this represents the copy of the manuscript sent by Kroeber to Harrington, presumably to prompt his comments. It is not clear in view of the lack of co-author on this version of the paper that there was at the time any plan to write the paper jointly, although something of the sort must have been agreed to (maybe later) in view of a covering note by Harrington transmitting his comments to Kroeber, the relevant part of which is quoted below.

Here is the paper. On reviewing my notes and trying to incorporate my cold material with your cold material, I became so ~~dissatisfied~~ [the word is crossed out in the original ML] discouraged that I decided to adopt the present form [i.e. footnotes ML], which I hope will prove satisfactory. [I have tried my best and hope that you will appreciate my endeavor.]

I am so rushed to death with a lot of things that simply must be done that I hardly know where I am at...

I presume that by "here is the paper" Harrington meant that he had annotated a copy of the paper to be returned to Kroeber, although this is not sure, since there are handwritten notes by Harrington of more or less the material that appeared as footnotes in the article. There seems to

Pai:

1. Upland:

Havasupai

Hualapai

Yavapai (Tolkapaya)

2. Paipai

Kiliwa (KI)

Sources of data used in this paper other than KH are as follows. Mesa Grande: Couro and Hutcheson (1973); Cocopa: Crawford (1989); Maricopa: Gordon (ms); Yuma: Halpern (1946-47); Mojave: Munro, Brown, and Crawford (1992); Tolkapaya: Munro and Fasthorse (1993ms); Jamul: Walker (ms).

have been the intention of a closer collaboration on the writing of the paper at one time which was subsequently abandoned by Harrington. I rather suspect that Harrington would not have been an ideal co-author.

Most of the footnotes actually appeared in print. The major difference is in the wording of the paragraph describing Harrington's contribution, the printed version of which has already been quoted above. The Harrington text is as follows:

Certain observations on the phonetics of the language by Mr. J.P. Harrington, have been added. Mr. Harrington had a brief opportunity to hear Diegueño in ~~July, 1908~~ and [crossed out in the original ML] February and again in September, 1913, while making collections for the Panama-California Exposition.

The crossed out reference to 1908 refers to the collection of material, parts of which were published in a footnote to Harrington (1908), which cites numerals in several Yuman languages, including Diegueño. The Diegueño numerals are interesting in their own right but I suspect they are not from the same Diegueño language as the 1913 notes, as they seem to represent a dialect with some Yuma influence. The collection of the 1913 material was obviously commissioned by the organizers of the Panama-California Exposition of 1915, which took place in San Diego. Why mention of this was omitted from the published version of the paper is not clear, but it is possible that it might not have been politically wise to mention that Harrington was collecting information under the sponsorship of the Exposition for other than his commissioned task.

The fieldnotes of Harrington's trip in 1913 are also available from the set of materials at the Santa Barbara Museum of Natural History and consist of 34 pages of mostly ethnographic notes (with appropriate lexical forms for the items discussed). It is likely that the contribution for the KH paper was based on the notes of September 1913 (although no date except 1913 is given in the notes), to which is appended, almost as an afterthought, a wordlist which clearly was elicited from Kroeber's Diegueño wordlist and thus allows direct comparison of Kroeber's and Harrington's transcriptions. Since this list was not published in KH, I reproduce it here as Table 2. This list was apparently obtained from Mr. Isidro Nejo at Mesa Grande, who is identified by name in Harrington's footnote 9 (KH:179). According to my consultants, Mr. Nejo was originally from San Pasqual where an Iipai dialect is also spoken. With only minor differences, his list matches that of Mr. Rosendo Curo, Kroeber's Mesa Grande consultant.

Kroeber's transcription

Kroeber's transcription practices need comment. I have reproduced the comparative wordlist of Mojave and Diegueño from KH as Table 1, which should be consulted while reading this section.

A rather puzzling practice is the inclusion of dashes in certain forms. In the most obvious cases, this is done when a segment in one of the languages is not present in the other. So 6, the word for 'five', has a final *-k* in Mojave not present in Diegueño. 7 'salt' is the other way round, Diegueño has final *-ly*, which is absent in Mojave, just as in 52 'leg'. This final *-ly* is a peculiarity of some words in a few varieties of Diegueño and its origin is obscure. *kwe-* is missing in Mojave 15 'white'. 31 'hot' has *-k* in Mojave and nothing in Diegueño. Of a different order are the dashes in 9 'ocean' which is a compound of the words for 'water' and 'salt' in both languages.

What to make of dashes in 13 'star', 14 'mockingbird' and 41 'mortar' is not so clear, but probably implies that only one part of the words is being compared; in 32 'skunk' the Diegueño form contains a typographical error already present in the manuscript, the word is *kallyixwiiw*³ and does not contain an *r*, as is duly pointed out by Harrington in footnote 31.

The interpretation of vowel symbols also calls for comment. A good deal of discussion is devoted to the "slurring of unaccented vowels", the famous schwa problem of Yuman languages, but no mention is made of vowel length, even though "lengthened consonants" are discussed to some extent. Note on Table 1 that the only vowel diacritic used in Diegueño is the macron, whereas Mojave also has some grave accents which are unexplained in the paper. For their interpretation it is necessary to refer to Kroeber (1911). It turns out that the macron for Kroeber means not only length, but simultaneous "close" pronunciation, while the grave accent means the vowel is long and "open". Kroeber indicates stress in Mojave by the acute accent following the stressed vowel. No indication of stress is found in KH either in Mojave or Diegueño, and the only discussion of "accent" states "..the stress and pitch accents of Diegueño seem to be identical with those of Mohave" (KH185). This is probably not correct since Mojave has (as discussed in Kroeber 1911:63-64) a number of exceptions to the general Yuman final stem syllable stress rule. An example of contrasting forms given by Kroeber (KH64) is *a'ha* 'water' vs *ah'á'* 'cottonwood'. This is still the case in present-day Mojave, as described in Langdon (1977), where it is demonstrated that the perception of stress in non stem-final syllables is a manifestation of underlying final-syllable stress conditioned by the distribution of long and short vowels in the word. Because this is essentially predictable, modern recordings of Mojave (e.g. Munro, Brown, and Crawford 1992) do not indicate this. In my exposure to various dialects of Diegueño, I have observed no such alternations in the place of stress, as all words have stress on the stem-final syllable.

The only indication of length in the Diegueño words is the macron and length does not necessarily match between Mojave and Diegueño.

In the case of unstressed vowels, i.e. any vowel not in stem-final syllable, Kroeber uses mostly the same vowel symbols as for stressed vowels, except for the additional symbol *E* apparently representing a central schwa-like unrounded vowel. It also appears once in stressed position in 28 'tongue', a word in which I heard the same vowel as in 29 'ear', i.e. /a/. In stressed position, Kroeber's practice implicitly recognizes the basic 3-vowel system of Diegueño (as opposed to the 5-vowel system of Mojave), with the exception of 28 discussed above, and also 58 'two', the only instance of *o* in the entire Diegueño list; this captures quite nicely the backed and rounded allophone of /a/ in that word.

Palatal consonants are written as clusters, *tc* [č], *ty* [ʧ], etc; voiceless laterals are written *L* and *Ly* or *Li*. Initial glottal stops are not marked, but true vowel-initial words begin with the symbol denoting the slightly aspirated onset of these vowels, so the contrast is captured adequately. Long vowels are discussed in more detail below.

There is one serious typographical error in the Table of Consonants (KH:183) where the sound described as "affricate, half sonant or aspirated surd" is listed as *t*, but should have been *tc*.

³ Throughout this paper, I cite forms in the orthography of the sources; some are standard phonemic transcriptions, some are practical orthographies also based on phonemic principles, the conventions of which should not cause any serious confusion.

Harrington's transcription

Table 2 should be consulted while reading this section. Harrington's consonant notation is pretty straightforward, but a few comments are needed in special cases. Voiceless laterals use the notation $l̥$; palatal consonants are as follows: $j[y]$, $ɲ$, $n̟$, $tʃ$, $ɬ$. Words written with initial vowels should be interpreted as beginning in glottal stop, though in a few cases (24, 26, 66, 67, 68, 75), a glottal stop initial is marked as $ʔ$. The aspirated onset of true vowel-initial words is indicated as h , an unambiguous notation, since the language does not have an /h/ phoneme.

Stress is marked on most forms; Harrington uses the acute accent over the vowel. It always appears in the stem-final syllable, as is still the case in the language today. In stressed position Harrington (like Kroeber) implicitly recognizes the basic three-vowel system. In addition to i , u , a , in stressed position, we also find $ʌ$ in 49, 58, 62, 68, which correctly captures the allophone of /a/ in these environments. The $ɛ$ in 11 correctly represents the phonetic quality of the stressed vowel in this word. Its quality is actually predictable if it is recognized that the final consonant should have been $ɬ$ and not $ʃ$.

Harrington was acutely aware of the difficulty in transcribing unstressed vowels. His statement is particularly apt as it describes my own predicament when I started fieldwork on the language. In fact, it has sustained me through the nightmare of trying to make sense of them. It is reproduced below.

The determination of the quality of the vowel in these unaccented syllables proved so baffling that I determined to operate with a large number of characters. I found myself using nearly all the symbols for mixed vowels provided by the alphabet of the International Phonetic Association. (KH:184, fn 20)

Most of the vowels in non-final syllable position in the Diegueño material are of this type. These are the vowels that I eventually phonemicized as schwa. Attested in Harrington's hand are: i , e , a , y , $ɨ$, $ɨ̄$, $ɨ̄$, $ʌ$, $ɛ$, $ɛ̄$, $ə$, u . y seems to stand for [ɨ]. What he meant by $ɨ̄$ in 19 as distinct from y elsewhere, I don't know. Note that some words, i.e 35 'roadrunner' and 38 'moon', have what appears to be a marker of secondary stress; one, 13 'star', even seems to have primary stress on the first syllable, something I have never heard.

The s/ʃ problem

On the whole, Harrington and Kroeber's transcriptions, allowing for differences in notation, are remarkably similar, suggesting that Kroeber's was a pretty accurate transcription, capturing the state of the language on the Mesa Grande reservation where both interviews were conducted from two different speakers. In view of this, it is all the more surprising that some aspects of both Kroeber's and Harrington's transcription do not discriminate contrasts attested in my own recordings. One is the omission of the sound $ʃ$, a post-alveolar fricative often informally called California s (discussed in detail in Bright 1978). California s or its reflex clearly contrasts with dental s in all varieties of Diegueño. Harrington heard it sporadically in some of his later Diegueño transcriptions around 1925, but not in 1913. There are, however, very few instances of words that should contain it in the KH wordlist. They are 17 'buzzard', 14 'mockingbird', and 70 'bird', all containing the word for 'bird', in two cases as first member of a compound. It is nevertheless surprising that Kroeber did not distinguish a second s -sound, since in discussing fricatives, he notes:

Mohave surd interdental $θ$ is always s in Diegueño (4-10, 51). Diegueño s , however, corresponds also to Mohave s (11-16).

Table 1. Kroeber's comparative wordlist

English	Mohave	Diegueño	moon	haly's	xɛɬya
1 one	elto	ɛx-ian'ə	38	ipa	apall
2 good	ahət	ɛxana	39	'javume	'alemi
3 fox	ınarlıo	parxau.	40	ah-mo	kaly-mu
4 fly	ɔɬyahmo	mosxap-u-ly	41	iyu	ɛwu
5 woman	ɔnyə'əka	sinəɣ	42	anyā	inya
6 five	ɔarap-k	ɔarapə	43	hatca	ɛɬca
7 eak	aɔl	ɛsi-ly	44	abpe	ɛɬpi
8 drink	lɔl	ɛzi	45	ammo	ɛɬmu
9 ocean	(a)ha-ɔo'ilya	ɛx-sil	46	shaja	axaɬ
10 raccoon	namaɔa	nɛmas	47	tinayam	tinayam
11 hand	isalya	ɛsɛl	48	amaɬa	amat
12 liver	'ipasa	le-ɬɬai	49	ammaya	ammasi
13 star	ha-muso	kwily-mosapə	50	kwəɬisə	kwilyalə
14 mockingbird	sakwa-ɔə'alya	sakwi-lau	51	'ime	'emi-ly
15 white	nyamašim	kwə-simsap	52	ikwe	ɛkwi
16 buzzard	asɔi	ɛə'ɬ	53	'ito	'etu
17 eagle	aspa	ɛx-pəɬ	54	'ihl	'exu
18 sleep	l-smā	ɛx-mā	55	kolyuhə	silyexwau
19 tooth	'lɛb	ɛyau	56	haiqo, bilqo	xaiqu
20 eye	'lɛb	iyu	57	havik	xawokə
21 sweet	mašuly-k	miyul-k	58	'iya	'ə
22 where	maki	malvə	59	mempəka	mozetunn
23 stone	avl	ɛwi	60	kworə'əka	kwirak
24 house	ava	awa	61	shoata	axwat
25 south	kavcik	kawak	62	'upaka	aləp
26 rattlesnake	əve	ɛwi	63	ima	ɬu
27 you (pl.)	māteva	minyawapə	64	otisa	ima
28 tongue	'ipalya	'anapɛl	65	auva	atimm
29 ear	'amalya	'zmal	66	aqwəq	up
30 ash	hammulye	ɛmpil	67	mabə	aqwəq
31 hot, day	'ipily-k	'upil	68	teiyəro	maxwa
32 skunk	ilyhuo	kwilyexwiru	69	aqəq	asa
33 rabbit	halyə'auva	xɛliu	70	vəra	axəq
34 spider	halytota	ɛɛliut	71	viə-nyə	uməq
35 roadrunner	talypo	ɛɛpu	72	alə-k	plyə'ə
36 gourd, turtle	abnalya	axnal	73	ahə	wilic
37 rat	amalyka	malik	74	ahə	axə
			75		

²³ With the equivalent Mohave -o = Diegueño -au, cf. Mohave -o = Diegueño -al in no. 51.—J. P. H.

²⁴ Also given as ɛx-inak, it is one.—J. P. H.

²⁵ It is stated that the proper Diegueño form for five is 'zəstəkakal.—J. P. H.

²⁶ The informant gave kwan'mosap, evidently a variant form.—J. P. H.

²⁷ ɛxpaɬ.—J. P. H.

²⁸ Given as malpe.—J. P. H.

²⁹ Given also as ɛwily.—J. P. H.

³⁰ Given as minyawap.—J. P. H.

³¹ Given as kalyxw'ə.—J. P. H.

³² Recorded as kwəɬɬai.—J. P. H.

³³ Mohave ho < hwot.—J. P. H.

³⁴ The pronunciation is practically identical with the Cocopa.—J. P. H.

Table 2. Harrington's list

1 one	exyñ ^h k	38 moon	xýł ^h á
2 good	axán	39 arrow	apál (not l _g)
3 fox	parxáu	40 beard	halamí
4 fly	mýsxapúl _g	41 mortar	kal _g aw
5 woman	sīn ^h	42 see	awú
6 five	xasát xakái	43 sun	yñ _g á
7 salt	ēsíl _g	44 Peiades	xyt _g á
8 drink	ēsí	45 metate	axpí
9 ocean	axa(h) asíl _g k	46 mountain sheep	ēñú
10 raccoon	námás	47 dog	axát
11 hand	hasé	48 night	tin _g ám
12 liver	t _g ypestí	49 earth	amát
13 star	kwán ^h m _g sáp	50 sky	amái
14 mockingbird	sakwyláw	51 medicine man	kwasijái
15 white	kwynam ^h sáp	52 leg, foot	hemíl _g
16 buzzard	saí	53 cloud, rain	akwí
17 eagle	əxpá	54 belly	hētú
18 sleep	k _g ymá' (kxma'?)	55 nose	haxú
19 tooth	hýjáw	56 nail	sil _g axwáw
20 eye	hájú	57 whiteman	xai _g kú (Mexican)
21 sweet	myju _g k	58 two	xawak
22 where	máipe ^h	59 mouth	ha
23 stone	ēwil _g	60 knee	ham _g xatún
24 house	łwá	61 old man	kwy _g fák (not trilled)
25 south	kawāk	62 blood	haxwat
26 rattlesnake	'awí	63 snow	haláp
27 you (pl.)	min _g awáp	64 fire	áw
28 tongue	hanapát	65 dance	hymá
29 ear	xamał	66 bow	'atým
30 ash	ēmpit	67 tobacco	'úp
31 hot, day	hupít	68 deer	'akwak
32 skunk	ka _g hyxwíw	69 badger	maxwá
33 rabbit	xə _g aw	70 bird	asá
34 spider	xal _g tút	71 raven	axák (crow)
35 roadrunner	týłpú	72 no	humáw
36 gourd, turtle	axná _g	73 this	pijá
37 rat	amał _g k	74 bad	wy _g tít _g
		75 cane	'axtá

In fact, the latter part of that statement is correct only in a couple of exceptional cases (involving sound symbolism), whereas the regular correspondence is Mohave *s*: Diegueño *ʂ*. I don't know how to account for this deficiency. It is truly doubtful that both Kroeber's and Harrington's consultants had no contrast between these two segments, especially since Kroeber's Diegueño consultant was Rosendo Couro, of Mesa Grande, the father of Ted Couro,⁴ my own major consultant from 1963 until his death in 1975. In the speech of Ted Couro, as well as in that of all other speakers of Diegueño I have worked with, there is a contrast between two kinds of *s*'s, and the Yuman comparative evidence in general makes clear that the contrast is archaic. Perhaps this was both Kroeber's and Harrington's first exposure to California *s* contrasting with another *s*-sound and they consequently interpreted *ʂ* as a variant of *s* as in some American dialects of English.

The long vowel problem.

The most startling feature of both Kroeber's and Harrington's notation is the paucity of long vowels, which are clearly distinctive in the language in both stressed and unstressed position. They are harder to hear in unstressed position and only after repeated exposure did I consistently record them there, so it is understandable that upon a first short exposure to the language this contrast might have been missed. In modern Mesa Grande speech, unstressed long vowels are found in 4 'fly' *mes-haapuuly* where Harrington, but not Kroeber, correctly heard the length of the stressed final syllable, but neither heard the unstressed *aa* as long. Other instances of long unstressed vowels occur in 14 'mockingbird' '*aashaakwilaaw*, 27 'you (pl)' *memyaawap*, 48 'night' *tjinyaam*, 63 'snow' *aalap*, 65 'dance' *iimaa*, 66 'bow' '*aatim*, 70 'bird' '*aashaa*. These are quite distinct from the *a*, *i*, *u* colored short vowels I analyze as schwa, and I am at a loss to explain the lack of distinctions, especially in Harrington's transcription, where he is at such pains to use many different symbols for unstressed vowels.

Length is also contrastive for stressed vowels in closed syllables; Harrington's transcription of these is better than Kroeber's, as in 4 'fly' *mes-haapuuly*, 25 'south' *kewaak*; he does not hear vowel length consistently in this environment, even in a near minimal pair like 36 'gourd' '*ahnqaaly*, vs 37 'woodrat' '*emallk*.

Diegueño also has contrastive short and long diphthongs. In the KH wordlist, the only diphthongs are what I transcribe as long ones, there being no instances of short diphthongs in the list. Note, however, that 42 'see' *Ewu* for Kroeber, has a long diphthong in modern Mesa Grande where the word is *ewuuw*.

The problem of vowel length is most acute in the case of final open stressed syllables, where in modern Diegueño dialects, at least in the Lipay area where Mesa Grande is located, but also in Kumeyaay varieties, final stressed vowels are all long. In Kroeber's list, only four are long: 20 'eye', which in fact is a (long) diphthong and is accurately so transcribed by Harrington (see Table 2); 26 'rattlesnake', also long for Harrington; 59 'mouth', short for Harrington but long for Kroeber; and 75 'cane', long for Kroeber but short for Harrington. So it's not that Kroeber and Harrington could not hear final long vowels at all, and something more must be going on.

Before engaging in speculation about the meaning of these discrepancies, it is necessary to discuss what is known about both Kroeber and Harrington's practice and reliability with respect

⁴ The difference in spelling of the last name is not significant.

to vowel length. It is often asserted that Kroeber was not a good phonetician so that his transcriptions may not be overly reliable. Some examples of this have been noted above with respect to the two varieties of *s* in Diegueño. However, the majority of forms relevant here are fairly accurately transcribed for a first exposure to the language. Taking first his Mojave transcriptions, it should be noted that vowel length is not altogether easy to hear in that language. Thus, Pamela Munro⁵ states:

There is no question that Mojave has a clearcut contrast between short and long vowels, in both stressed and unstressed positions, as attested by the existence of numerous minimal pairs for vowel length. However, researchers from Kroeber to Crawford to myself have often found it difficult to determine the length of particular stressed vowels. (Munro, Brown, and Crawford 1992:4)

When comparing Kroeber's Mojave wordlist with modern recordings of the language (Munro, Brown, and Crawford 1992) there are a total of 27 mismatches of vowel length in 75 words, each of which contains at least two vowels (many have three). There are thus many more agreements than disagreements. 10 of the mismatches are in unstressed position, the most difficult position in which to hear vowel length distinctions in Yuman languages, leaving only 17 mismatches in stressed vowels. Given the fact that the data were collected from different speakers at an interval of more than 50 years, and that vowel length is notoriously hard to hear in Mojave, these discrepancies are not altogether surprising.

Admittedly, Kroeber had much less exposure to Diegueño than to Mojave, but he certainly had non-trivial phonetic expectations of Yuman languages, which would in general be an asset rather than a liability. Kroeber's transcriptions of Mesa Grande forms should therefore not be disregarded, and the fact that he heard both short and long vowels in final open stressed syllables must be taken into account.

As for Harrington's accuracy in transcribing vowel contrasts, the following observations are relevant. His transcription of vowel length in Mojave in early fieldnotes suffers from the same problems as Kroeber's, but is not particularly more inaccurate (Pamela Munro, p.c.) In the case of Diegueño, in the 1913 wordlist, he heard some long vowels (as discussed above, and see Table 2). In later notes on the language, he heard long final stressed vowels quite regularly in 1925, when he writes them as sequences of two vowels, e.g. *xəʔáa* 'moon' a word in which he heard a short vowel in 1913. It is my conclusion that, as with Kroeber, Harrington's perception of vowel length cannot be discounted out of hand.

I conclude that both Kroeber and Harrington's transcriptions of long vowels, while imperfect, reflect something significant about the data. The conclusion seems warranted that the Mesa Grande dialect in 1913 showed both short and long final stressed vowels, while in Mesa Grande in the early 1960's, these were all long.

The Yuman comparative evidence

Iipay and Kumeyaay are the only languages of the whole Yuman family to consistently have long vowels in open stressed final syllables at the present time; all others have both short and long vowels in that position. Vowel length distinctions are obviously archaic in Yuman,

⁵ I am grateful to Pamela Munro for discussing the issues raised in this paper, particularly with respect to the vowel length problem, and for providing recently rechecked data from Tolkapaya and Maricopa.

playing an important role in the morphology, as length alternations pervade the derivational morphology and also distinguish unrelated lexical items. It is nevertheless the case that not all cognate sets show full agreement for vowel length and determining whether a reconstructed Proto-Yuman form should have a long or a short vowel is often quite difficult.

As an illustration of this state of affairs, I have gathered in Table 3 data from all Yuman subgroups (except Kiliwa which is considerably divergent) for the words in KH ending in stressed vowels. I have included data from Jamul Diegueño, a dialect which does not regularly have long final stressed vowels. Also included are cognates from Cocopa, in the same subgroup as Diegueño, the three River languages Yuma, Mojave, and Maricopa, and one Pai dialect of Yavapai, Tolkapaya. These were chosen because the data available for them in the database for the Comparative Dictionary of the Yuman Languages⁶ are most complete and have been checked for accuracy.

These forms are compared to Harrington's 1913 Mesa Grande Diegueño list.

The results are, if not totally conclusive, at least of considerable interest. What is abundantly clear is that all languages listed, including Iipay in 1913, have vowel length distinctions in final stressed vowels, although the vowel length does not necessarily match across languages. While it is certain that vowel length was distinctive in Proto-Yuman, Table 3 shows that there are some problems deciding which forms should be reconstructed with final long vowels in Proto-Yuman, since the distribution of long vowels across the languages is erratic.

Of the 24 sets in Table 3, only 7 agree in the length of the final vowel, and all of them are consistently short. They are 24 'house', 35 'roadrunner', 41 'mortar', 45 'metate', 46 'sheep', 56 'white man', and 65 'dance'. They can presumably be reconstructed securely as short in Proto-Yuman. Not only do all the others show a mixture of long and short vowels across the languages, but no distinct pattern of length systematically clustering in the same languages emerges.

Obviously, the reconstruction of these forms in Proto-Yuman raises a number of problems, and this topic needs further study.

Chronology of changes within Diegueño

I have presented evidence above that the rule of lengthening of stressed final vowels in Iipay and Kumeyaay is a recent development having taken place sometime between 1913 and as early as 1925 in some areas (as attested in fieldnotes of Harrington at that time) and most certainly was complete before 1960 when Bright conducted his dialect survey of Diegueño and found essentially that situation.

Since there are other traits that distinguish the various varieties of Diegueño, it is tempting to attempt a chronology of these distinctions.

First, there is the odd fact that a few words which in some varieties of Diegueño and all other Yuman languages end in a short high front vowel, end in others in *-ily*. The source of this distinction is far from clear. Its distribution is limited to Iipay, Sycuan, and San Miguel, the latter two being dialects intermediate between Iipay and Tiipay. San Miguel is attested only in a wordlist collected in 1856 (Langdon 1992). Whatever its origin, this trait obviously was well-

⁶ Available on computer at UCSD and supported by NSF Grant No. BNS 8317837.

Table 3. Words with Final Stressed Vowels

	JPH	Jamul	Cocopa	Yuma	Mojave	Maricopa	Tolkapaya
8 drink	ěsí	si	ši	así(°)	ithii	sii	thii
12 liver	tʃypesí	chpsi	cpušu	--	chavusii	xhlyuusii	chvsii
17 eagle	əxpá	shpa	--	ʔaspá	ʔaspa	hshpaa	'sa
18 sleep	kxma'	shma	šma	ašmá	isma	shmaa	smaa
24 house	ʔwá	wa	wa	ʔavá	'ava	va	'wa
26 rattlesnake	'wí	a'wi	awi	ʔavé	'ave	'ave 'snake'	'lwi
35 roadrunner	tʃɪpú	tillypu	clpu	talypó	talypo	talypo	tlpu
36 moon	xʃyá	xlly'aa	xʃʔa	xʃʔá	haly'a	hly'a	hala
40 beard	halemí K alemí	alemi	ʃiyalmiʃ	yavurmé	yavuume	yav..uume	yav*nymi
41 mortar	kalɣ mú	xmu	xmu	ʔaxmó	'ahmo	hmuche	--
43 sun	yʃá	nyaa	n'a	ʔan'á	'anya	'nyaa	'nyaa
44 Pleiades	xatʃa	--	xsa	xacá	hachaa	hachaa	hachaa
45 metate	axpí	xpi	xpi	ʔaxpé	'ahpe	'hpe	hapi
46 sheep	ěmú	--	mu	ʔamó	'amo	mo	'mu
53 cloud	akwí	kwii	kwi	ʔak'é	'iikwe	kwe	'kwi
54 stomach	həú	tu	icu	i-tó	iito	iito	tuu- 'middle'
55 nose	haxú	xu	ʃixu	i-xú	iihu	iihuu	huu
57 white man	xajkú	xayku 'Mexican'	xayku	--	hayiko	hiko 'Mexican'	hayko
59 mouth	ha K'a	aa	ʃiya	i-yá	iiya	iiyaa	ya
65 dance	hymá	iima	ʃi·ma	i·má	iima	iima	iima
69 badger	maxwa	--	mx'a	max'á	mahwa	mhwaa	mhwaa
70 bird	asá	aasha	ša	ʔašé	'ase 'buzzard'	shee 'buzzard'	'ichsa
73 this	pijá	piya	pí	vdá-	vida-	vda-	--
75 cane,reed	'axta K axtá	--	xca	--	'ahta	hta	'hta

NOTE: In a few cases where the length of the stressed vowel is not the same for Kroeber as for Harrington, the Kroeber form is given just below the Harrington form, preceded by the notation K. The Maricopa list has been checked against recent reelicitations by Pamela Munro and corrected accordingly.

installed by the mid 1800's. Examples of final *-ity* in KH are 7 'salt' and 52 'leg, foot' (see Table 1).

Second, there is an odd correspondence between instances of *ʃ* in all Yuman languages including all Diegueño varieties except Iipay, and *x* in Iipay, only in certain words and in odd environments. This was clearly well installed in Mesa Grande Iipay in 1913 as shown in both Kroeber and Harrington's data, and in fact one example of it dates from the 1908 data collected by Harrington. Examples from Table 1 are 1 'one', 17 'eagle', 18 'sleep' (Mojave *s* is the regular reflex of Proto-Yuman **ʃ*).

Third, there is the final stressed vowel lengthening rule of Iipay and Kumeyaay which was introduced after 1913 and had spread considerably by 1925 (Harrington's notes). It was fully installed by 1960.

I propose that the relative chronology of these changes is in the order listed above, even though the distribution of the more recent trait is wider than the other two. Without the evidence of Kroeber and Harrington such a relative chronology could not have been proposed.

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REPORT 8

**SURVEY OF CALIFORNIA AND
OTHER INDIAN LANGUAGES**



**Proceedings of the Meeting of
the Society for the Study of the
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July 3, 1993

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cover design by Leanne Hinton (Santa Barbara Chumash rock painting)

This volume is dedicated to
JAMES E. REDDEN
on the occasion of his retirement
for his enduring commitment to the publication
of the results of research on Yuman, Hokan, Penutian and
other American Indian languages
and also
for his contributions to the
documentation of the Hualapai language

INTRODUCTION

This volume includes a number of papers presented in conjunction with the 1993 Linguistic Institute at Ohio State University in Columbus, Ohio, at two conferences on American Indian Languages: the meeting of the Society for the Study of the Indigenous languages of the Americas, held July 2-4, 1993, and the meeting of the Hokan-Penutian Workshop, held on the morning of July 3, 1993.

This continues a tradition initiated during the Linguistic Institute at the University of Arizona in 1988, of offering conferences on American Indian languages during the summer Linguistic Institute of the Linguistic Society of America, which is held every two years on the campus of the host institution. The interaction thus afforded between students and faculty of the Institute and specialists in American Indian languages has proved mutually profitable.

We gratefully acknowledge the dedication of Catherine Callaghan in making these meetings thoroughly enjoyable, as well as the hospitality of Ohio State University.

The Hokan-Penutian Conference has a tradition of meetings dating as far back as 1970, when the first Hokan Conference was hosted by Margaret Langdon at UCSD. Since 1976, the Hokan (and later Hokan-Penutian) Conference proceedings were published most years by James Redden, as part of the series *Occasional Papers on Linguistics*, out of the department of Linguistics at Southern Illinois University at Carbondale. Beginning this year, with James Redden's retirement, the reports of these conferences are being published as part of the *Survey Reports* out of the Survey of California and Other Indian Languages at the University of California at Berkeley.

Margaret Langdon
Volume Editor

Leanne Hinton
Series Editor

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