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Person marking in Ja'a Kumiai (Yuman)*

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Abstract: Kumiai language varieties (Yuman; Mexico/USA) have been documented to possess complex person marking systems, with portmanteau markers for transitive verbs and a high degree of optionality and variability in terms of their morphophonological realization. This variation in person marking realization has been attributed to various factors, including patterns of language attrition and contact. Based on original field research data, this paper provides a compositional analysis of the person marking system of Ja'a Kumiai, where general phonological constraints may lead to the reduction or loss of morphological contrasts. Person marking is thus neither optional nor undergoing erosion; homophony in verbal paradigms results instead from systematic structural principles. We also show that agreement in this language involves an inverse/direct contrast, a type of system not previously described in the Yuman language family.

Keywords: Yuman, verbal agreement, inverse marking, morphophonology, morphosyntax.

1. Introduction

Ja'a Kumiai is a critically endangered Yuman language spoken in Baja California, Mexico. We contribute to the description and documentation of this language by providing an analysis of its person marking system and the factors that govern its morphological exponence. Related varieties have been documented to possess complex person marking systems, with a set of portmanteau markers that encode agreement with more than one argument for transitive predicates and a high degree of variability/ optionality in their surface realization. Variation/optionality in person marking in these varieties is described as an instance of pervasive variation in their synchronic grammar and lexicon (Kroeber & Harrington 1914; Walker 1970; Langdon 1976, 1991; Miller 1991, 2001; Miller & Langdon 2008; Field 2012), which

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has been attributed to language ideologies regarding dialect variation, linguistic contact, and language erosion due to a high degree of language attrition, among other factors (Field 2012; Gil-Burgoin 2016).

Through the analysis of original data obtained through field research, we provide an analysis of Ja'a Kumiai that differs in two crucial respects from the analyses offered for related varieties. First, we propose the system involves almost exclusively compositional markers, not portmanteau ones, and that person exponence is not variable nor optional, but is rather governed by general phonological and morphological constraints that may lead to homophony in verbal paradigms. Second, we show this person marking system features an inverse/direct contrast, where arguments of transitive clauses are encoded according to a referential hierarchy (1> 2 > 3). Specifically, a dedicated inverse morpheme occurs in inverse configurations, namely those in which an argument lower in the referential hierarchy is the Agent and an argument higher in the referential hierarchy is the Patient or Goal. This person marking system therefore does not refer to grammatical roles, but to arguments in a deictic hierarchy. While direct/inverse systems have been documented in other language families in the Americas (most notably in the Algonquian, Mayan, and Mixe-Zoquean families; see Zúñiga 2006 and Zavala 2007 for an overview), no person marking system of any Yuman language had been previously described as involving a direct/inverse distinction. This paper thus contributes more generally to the documentation of these systems cross-linguistically.

The structure of the paper is as follows. In §2, we provide a description of the basic phonological and morphological characteristics of Ja'a Kumiai. In §3, we summarize the person marking systems of other Kumiai varieties described in the literature. In §4 we present the Ja'a Kumiai data and analysis. We conclude in §5.

2. Basic phonological and morphological characteristics

2.1. The language

Kumiai (formerly known as 'Diegueño' and known as Kumeyaay in the United States)[1] is a Yuman language from the Delta-California branch historically spoken in the current border area between southern California in the United States and northern Baja California in Mexico. Map 1 shows the geographic location of Kumiai and related Yuman languages.

Map 1. Geographic location of Kumiai (Kumeyaay) and neighboring Yuman languages (map by Gerardo Chávez Velasco; in Wilken-Robertson 2018: 62)

Kumiai language varieties are classified into two sets of varieties, Ipai ('Iipaay or Northern Kumiai) and Tipai (Tipaay, Tiipay or Southern Kumiai), located north and south of the San Diego River, respectively. This paper focuses on Ja'a Kumiai, a Tipai variety spoken in (Juntas de) Nejí in Baja California. Figure 1 shows the location of Ja'a Kumiai within Kumiai and Map 2 shows the location of Nejí and other Ipai and Tipai Kumiai communities.

[1] Other names and spellings of the language include *Kamia*, *Kamiai*, *Kamiyahi*, *Kamiyai*, *Ki-Miai*, *Kumeyaai*, *Kumia*, among others (Eberhard *et al.* 2019). We use *Kumiai*, as it is the preferred spelling by our language teacher.

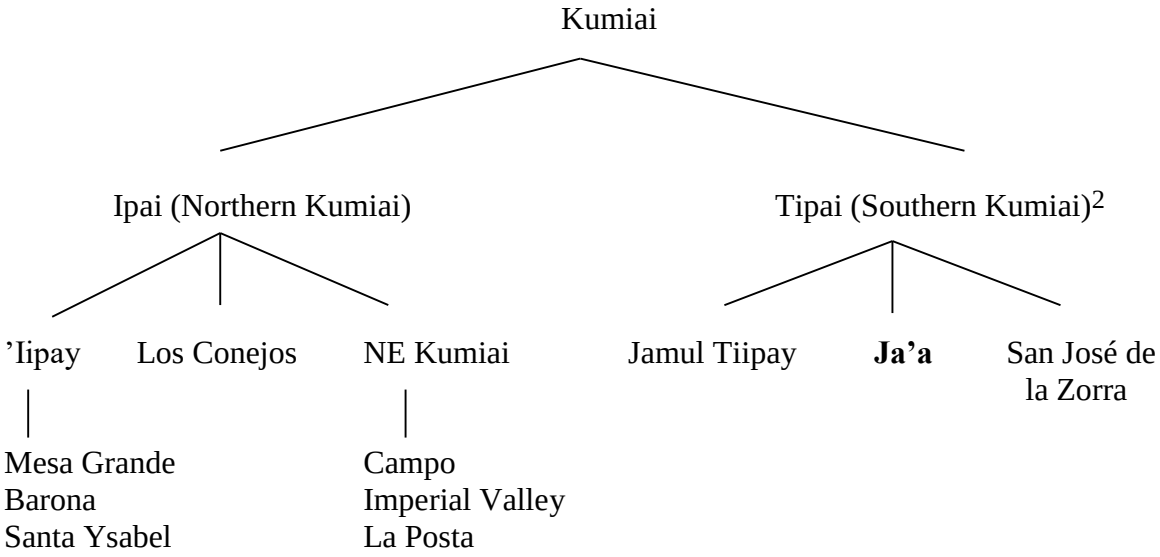
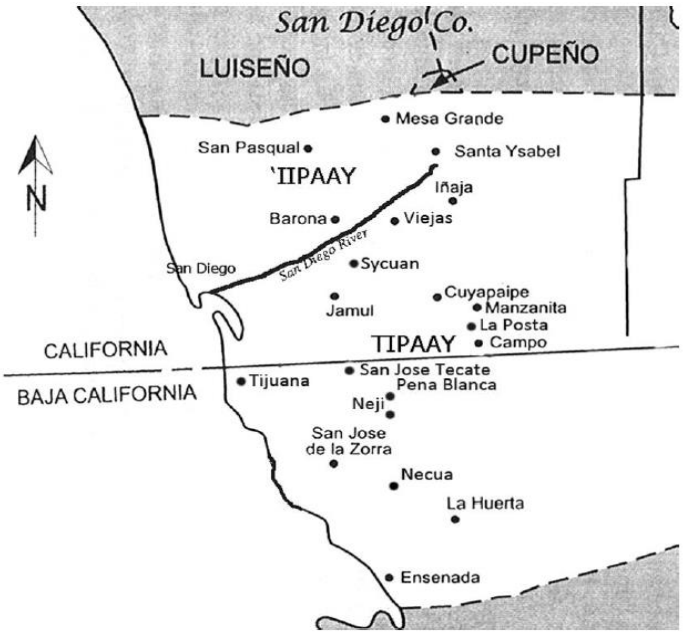


Figure 1. Kumiai language varieties (adapted from Miller 2018)



Map 2. Location of Nejí and other Ipai ('Iipaay) and Tipai (Tipaay) Kumiai communities (Field 2012)

The number of Kumiai community members for whom Kumiai is their first language is estimated to be approximately 150 (Golla 2011), though recent

[2] In Miller's (2018) classification, other Tipai speech varieties include those spoken in La Huerta, San Antonio Necua and Peña Blanca; other 'Iipay varieties include Iñaja and San Pasqual; and other NE Kumiai include Baron Long, Ewiiaapaayp, Manzanita, and Sycuan (2018: 386).

reports suggest this number may be smaller (Field 2013; Miller 2016).[3] It is estimated that Kumiai varieties were spoken by approximately 3,000 people in pre-contact times (Kroeber 1925). All fluent Kumiai speakers are adults and inter-generational transmission of the language has been interrupted.

Several Kumiai varieties spoken north of the US-Mexico border have been documented in detail (most notably the Mesa Grande variety by Langdon (1966, 1970), and the Jamul variety by Miller 2001), but only a few studies had been carried out for varieties south of the border, including Hinton & Langdon (1976). More recent studies include Gil-Burgoin (2016) for San José de la Zorra Kumiai, and Miller (2016), Miller (2018) and Mai *et al.* (2018) for Ja'a Kumiai. The first documentary archive collections of Kumiai varieties spoken in Baja California have been produced in this decade and deposited in the Archive of the Indigenous Languages of Latin America (AILLA) and the Endangered Language Archive ELAR (Field 2011; Field & Miller 2017). In addition to these linguistic studies and corpora, Kumiai community members are engaged in language revitalization and preservation projects on both sides of the border.

2.2. Phonological system

Three aspects of the phonological structure of Ja'a Kumiai interact closely with morphological structure and exponence, namely stress, syllable structure, and the phonetic realization of laryngeal segments. Stress is predictable and non-contrastive, and is co-extensive with a morphological root, as described for other Kumiai varieties (e.g., Langdon 1970; Miller 2001) (more details about the morphological structure of Ja'a Kumiai are given in §2.3). The stressed syllable is also aligned with the end of the word, in a domain that excludes enclitics.

Syllabic structure in Ja'a Kumiai is highly complex, featuring complex consonant sequences: stressed syllables may have up to four onset segments (e.g. /xplʃa / 'sycamore') and two coda segments (e.g. /tapʃ / 'flower');[4]

[3] Field (2013) estimates there are only 50 fluent speakers of the language. There are also second-language learners and speakers with passive competence, though there are no official counts of how many speakers fall within this category.

[4] Ja'a Kumiai is a language with a moderate phonological inventory, which includes the following segments (with marginal segments represented in parentheses): /p, (b), t̪, t [t̪], (tʲ), k, ʔ, (t͡ʃ), m, n, ɲ, r,

unstressed syllables, on the other hand, are only V or CV in shape (Mai *et al.* 2018). Word-initial sonorant segments may surface as syllabic consonants (for a discussion of syllabic alveolar nasal segments in Jamul, see Miller 2001: 26). There is no in-depth analysis of the phonotactics and syllabification of Ja'a Kumiai yet, but there is preliminary evidence for the following restrictions concerning word-initial clusters in Ja'a Kumiai (see also Langdon 1966: 57 for a description of phonotactic restrictions in the Mesa Grande dialect):

(1) *Phonotactic restrictions on word-initial consonant clusters in Ja'a Kumiai*
   a. Word-initial ʔC clusters are not allowed (schematically *[ʔC) (a restriction also documented in San José de la Zorra (Gil-Burgoin 2016))
   b. Homorganic CC sequences with divergent mode of articulation are not allowed
   c. Sequences of identical consonants are disallowed, except for bilabial nasal stop clusters (with similar restrictions documented in Mesa Grande (Langdon 1970) and Jamul (Miller 2001))[5]

Ja'a Kumiai also features "inorganic" vowels, a term used in the Yumanist literature to refer to non-phonemic vowels that surface in unstressed syllables across the Yuman language family (vs. phonemic or "organic" vowels) (see Langdon 1966; Miller 2001; Gil-Burgoin 2016). Following Mai *et al.* (2018), we assume "inorganic" vowels in Ja'a Kumiai are intrusive (or *excrescent*) (see Hall 2006 for the criteria differentiating intrusive and epenthetic vowels).

Finally, a phonemic glottal stop in Ja'a Kumiai exhibits variable phonetic realization, which includes canonical closure (e.g., [t͡ʃaʔˈjou] /t͡ʃaʔˈjou/ 'song'), and glottalization of an adjacent vowel (e.g., [ɣa̰ˈnak] /xaʔˈnak/ 'necklace') or resonant (e.g., [łtaˈn̰ap] /łtaʔˈnap/ 'braid') (Mai et al. 2018). The surface realization of /ʔ/ in different environments is variable, but it exhibits some trends: (i) in inter-vocalic position or before a glide, a stop realization is favored; (ii) preceding a sonorant consonant, /ʔ/ is likely to surface as glottalization of the sonorant, though it may also surface as a stop or glottalization of a preceding vowel; and (iii) before an obstruent consonant, /ʔ/ is likely to surface as glottalization in a prior consonant

s, ʃ, x, ł, w, j, l, (lʲ), a, e, i, o, u, aː, eː, iː, oː, uː/. Miller (2018) presents an alternative analysis of the phonological system of this variety.

5 Miller posits the same restriction in Jamul, with the exception of clusters of alveo-palatal affricates (2001: 24).

(Aguilar 2017). Glottal stops may also be highly reduced; in such cases, the only indication of a glottal feature may be the lowering of the fundamental frequency (Mai *et al.* 2018). As discussed in more detail in §5, the phonetic realization of glottal stops and the phonological restrictions on its distribution in word-initial position are crucial for understanding patterns of exponence of person marking in this language.

2.3. Morphological system

Ja'a Kumiai is a morphologically complex language that features a slot-and-filler structure characteristic of (templatic) position-class systems (as defined in Simpson & Whitgott 1986), and productive processes of affixation, compounding and ablaut. Morphological and morpho-phonological patterns of Yuman languages are traditionally analyzed in the Yumanist literature with respect to a morphological root, a templatic morpheme with a common (C)V(C) shape (Langdon 1966, 1975; Miller 2001, 2018). In Ja'a Kumiai, verb and noun stems may consist solely of this templatic morphological root, which may be vowel-initial (e.g., *iɲ* 'give', *a:* 'to go') or consonant-initial (e.g., *xap* 'to enter'). These roots may be preceded by formatives that Yumanists refer to as 'lexical prefixes',[6] single consonant or vowel formatives that are no longer productive and are mostly semantically opaque, though in some varieties they can be analyzed as having instrumental or causative meanings (e.g., Mesa Grande (Langdon 1966)). Here we retain the term 'lexical prefixes' to be consistent with the rest of the Yumanist literature. In the traditional analysis, a stem with a CVC shape may involve either a single root with no lexical prefixes (e.g., *pap* 'to bake', *nak* 'to sit') or a morphologically complex stem containing a templatic root and a lexical prefix (e.g., *m-ap* 'to want', *n-ar* 'to steal') (Miller 2001: 60-61).

The main argument for positing a templatic root in these varieties is that both inflectional and derivational prefixes may refer to the boundaries between this root and the so-called lexical prefixes in their patterns of alignment (Miller 2016). Specifically, the root is analyzed as the base of

6 Lexical suffixes are also posited, but lexical affixes mainly involve prefixation.

affixation for several prefixing constructions. This is exemplified in (2) with forms derived through the nominalizing *aʔ-* prefix in Ja'a Kumiai:[7]

(2) *Prefixation of nominalizing aʔ- in Ja'a Kumiai*

	Nouns		*Base verbs (roots underlined)*		
a.	**aʔ-**nak	'chair'	nak	'to sit'	<DIH0006:02:44.7>
b.	**aʔ-**t͡ʃau	'brick'	t͡ʃou	'to build'	<DIH0079:03:43.4>
c.	x-**aʔ-**ṭup	'trampoline'	x-ṭup	'to jump'	<DIH0101:21:47.3>
d.	t-**aʔ-**ʃoq	'cleaning rug'	t-ʃoq	'to clean'	<DIH0104:33:20.6>

As shown in these examples, *aʔ-* may prefix to the verbal stem (2a-b) or it may break up an initial consonant cluster, where the first consonant is assumed in the traditional analysis to be a lexical prefix and the second consonant is the root-initial consonant (2c-d).

These examples may be analyzed as resulting from the subcategorization properties of the prefix, which attaches to the templatic morphological root. Alternatively, prefixes may be analyzed as infixing after an initial C in a consonant cluster, an analysis that does not require positing a root template. Other morphological forms in Ja'a Kumiai, however, suggest that the exponence patterns are sensitive to morphological, not phonological, structure: in (3), we show a contrast between two verbal stems that are equivalent phonologically but exhibit different alignment patterns of the inverse *ʔ-* prefix (we discuss this prefix in more detail in §4 and §5 below; see also Miller 2016 for discussion of similar evidence involving person marking in Ja'a Kumiai).

(3) Prefixation of inverse ʔ- in Ja'a Kumiai (Aguilar 2017)

a.	[ɲⁱnap]	/ɲ̃**ʔ-**nap/	1OBJ-INV-braid	'S/he braids (my hair)'	<DIH0147:01:35.3>
b.	[ɲⁱnʔaɾ̥a]	/ɲ-n-**ʔ-**ar/	1OBJ-PLEX-INV-steal	'S/he steals me'	<DIH0147:03:09.0>

[7] Examples are given with surface representations that include intrusive (inorganic) vowels (absent from the underlying representation, if provided). Intrusive vowels in Ja'a Kumiai are represented with superscripts. We use the following abbreviations in this paper: 1 = 1st person; 2 = 2nd person; 3 = 3rd person; A = agent; CAUS = causative; G = goal; INV = inverse; OBJ = object; P = patient; PL = pluractional; PLEX = lexical prefix; SUBJ = subject; → = relationship between agent and patient in transitive clauses (e.g., 1→2 = 1st agent and 2nd patient). Some examples include a reference to a developing corpus of Ja'a Kumiai (Meza *et al.* 2018) (in angled brackets (<>)) (e.g., <DIH0020:00:33.4>). The data shown in this paper were primarily acquired though translation elicitation using Spanish.

As shown in these examples, the *ʔ-* prefix attaches to the CVC root *nap* 'to braid' in (3a) but to the VC root in the morphologically complex stem *n-ar* 'to steal' in (3b). Following the trends of surface realization of glottal stops in the language described in §2.2, /ʔ/ is realized phonetically as glottalization of the root-initial sonorant ([n]) in (3a), but as a stop before the root-initial V in (3b).

We thus conclude, following Miller's (2016) proposal, that the templatic morphological root in Ja'a Kumiai is relevant for describing the person marking patterns in Ja'a Kumiai, and assume this for the analysis of the person marking system provided below.

3. Person marking in other Kumiai varieties

3.1. Morphosyntactic properties of person marking in Kumiai

Kumiai varieties and other Yuman languages are head-marking languages that have been documented to possess person marking systems that employ prefixes to codify the single argument with intransitive verbs and specialized portmanteau prefixes to codify subject and object arguments with transitive verbs (e.g., Yuma (Halpern 1947), Walapai (Redden 1966), Cocopa (Crawford 1966), La Huerta Kumiai (Hinton & Langdon 1976), Jamul Tiipay (Miller 2001), *inter alia*).

Given that an inflected verb may be a minimal clause with person prefixes as the only exponents of verbal arguments, person marking in Kumiai language varieties has been described in the literature as pronominal (e.g., Miller 2001, Hinton & Langdon 1976). However, these systems may be characterized as involving grammatical agreement, where person markers do not preclude the overt appearance of the agreement-triggering nominal or pronominal arguments (Bickel & Nichols 2001:74). This is exemplified in (4) with data from Ja'a Kumiai, where the presence of a pronominal form codifying person and syntactic function (*ɲa:-ʲt* '1st person subject' and *ma:-ʲt* '2nd person subject') does not preclude agreement marking on the verb.

(4) *Person marking in clauses containing case-marked pronominal forms*

a. ɲa:-ʲt **ʔ-**iɲ
1-SUBJ 1-give
'I give it to him/her'

b. ma:-ʲt **m**-iɲ
2-SUBJ 2-give
'You give it to him/her'

We thus propose that this system involves agreement in all Kumiai varieties. In the rest of the paper we refer to this cross-reference system simply as person marking. We assume all Kumiai person-marking systems are characterized by the following morphosyntactic properties:

(5) *Morphosyntactic properties of person marking in Kumiai*
a. Agent arguments are obligatorily marked in verbal predicates
b. There is no encoding of number nor any other inflectional feature of the core verbal arguments in person marking (Langdon 1966; Miller 2001)
c. Person marking prefixes may double an NP argument of the clause, including pronominal forms that encode syntactic function
d. Only one object is codified with ditransitive predicates (Langdon 1970; Miller 2001); a person marking prefix in the verb may encode either the patient argument or the goal argument with ditransitive predicates (Miller 2001: 162).

There are three Kumiai language varieties with detailed descriptions of their person marking systems: Mesa Grande (Ipai; Langdon 1966), La Huerta (Tipai; Hinton & Langdon 1976) and Jamul (Tipai; Miller 2001). We provide an overview of each of these systems next.

3.2. Mesa Grande (Ipai)

Table 1 provides the person marking prefix paradigm for Mesa Grande Kumiai, an Ipai variety described in detail by Langdon (1966). The cells of the paradigm corresponding to the 1→1 and 2→2 configurations are semantically reflexive and represented in gray since they are expressed with the intransitive person markers in this and all other Kumiai varieties.

Subject		1	2	2IMP	3
Object	1		ʔ-nʲ-m-	ʔ-nʲ-k-	nʲ-
	2	nʲ-			m-
	3	ʔ-	m-	k-	w-
INTR		ʔ-	m-	k-	w-

Table 1. Person markers in Mesa Grande (Langdon 1966: 160-161)

Langdon analyzes the Mesa Grande Kumiai person marking system as involving a sequence of prefixes, where prefix order determines syntactic function. In the template proposed in Langdon there are three prefix

positions: a first position for Object, a second position for a *nʲ*- prefix described as "general, indefinite", and a third position for Subject.[8] In this analysis, the only portmanteau prefix is the one deployed for the 1→2 configuration (*nʲ*-), which is homophonous with the marker used in the 3→1 configuration (where only the 1st person object *nʲ*- prefix is deployed and there is zero exponence for the 3rd person subject).[9] The system also exhibits homophony in the cells of the paradigm for the 2→3 and 3→2 configurations, where only the second person *m*- prefix is deployed and assumed to occupy different slots in the verbal template in each configuration.[10]

In terms of allomorphy, the third person *w*- prefix is described as attaching to vowel-initial stems and bound stems (except /u/- or /w/-initial roots); all other verb stems have no overt third person subject marking (1966:160). No other allomorphy nor any other phonotactic restrictions that may affect person markers are described, except for the insertion of [ə] between consonants at morpheme boundaries, which are handled through morphophonemic rules.

3.3. Jamul (Tipai)

In contrast to the compositional analysis given for Mesa Grande, the person marker paradigm in Jamul is analyzed in Miller (2001) as involving portmanteau prefixes with transitive verbs. As with the system described in Mesa Grande, the person markers of transitive verbs with 3rd person objects are the same as the prefixes found with intransitive verbs (i.e., there is no overt marking of 3rd person object arguments). The person marking prefix paradigm is provided in Table 2. We represent Miller's analysis using the IPA. Schwas are analyzed as "inorganic", inserted between consonants to break up consonant clusters, and are also treated as phonemic (for more

8 Langdon discusses that it is difficult to assign a semantic meaning to the *nʲ*- prefix, and remarks this formative is identical to a 'general possessive' *nʲ*- prefix (1966:160), suggesting a possible diachronic connection.

9 We assume the '1→2' *nʲ*- prefix blocks the affixation of other person markers in the Mesa Grande verbal template.

10 For Langdon, the homophony between the 3→1 and the 1→2 prefixes and between the 2→3 and 3→2 prefixes is unexpected and results from reduction (from /ʔ-nʲ/ for the 3→1 marker and /m-nʲ-ʔ/ for the 1→2 marker) (1966:161).

details, see Miller 2001: 20-21). We follow Miller's convention of representing surface schwa vowels in the Jamul data transcription.

Subject		1	2	2IMP	3
Object	1		nʲəm-	nʲək...ʔ-	nʲ...ʔ-
	2	nʲ-			m-
	3	ʔ-	m-	k-	w-
INTR		ʔ-	m-	k-	w-

Table 2. Person markers in Jamul (adapted from Miller 2001: 140).

In this system, the prefixes for 2IMP→1 (*nʲək...ʔ-*) and 3→1 (*nʲ...ʔ-*) are described as involving a glottal stop segment that may be discontinuous, with the glottal stop attaching to the templatic verb root and the rest of the formative attaching to the stem which may contain lexical prefixes.

Miller describes the following allomorphy patterns concerning person markers in Jamul: (i) the 1st person subject *ʔ-* prefix attaches to stressed, vowel-initial bases, while other bases do not exhibit any overt 1st person marking; and (ii) the 3rd person subject *w-* prefix attaches to root initial stems (*i.e.* stems lacking lexical prefixes), while other bases do not exhibit any overt 3rd person marking.

In addition to these allomorphy patterns, Miller describes discontinuous glottal stops of person markers as being optionally deleted in casual speech (2001: 140). Miller discusses patterns of inter-speaker variation and irregular person marking, including a number of exceptions with the 3rd person subject *w-* prefix, when root-initial stems are exceptionally unmarked for 3rd person (Miller 2001: 137-138). She also highlights differences between the inflectional verbal paradigms of Mesa Grande and Jamul as the result of "erosion or metathesis" of the 1st person *ʔ-* prefix. Thus, in addition of having homophonous person markers in this variety, allomorphy, optionality and variability yield a system with a high degree of surface homophony in inflectional paradigms.

3.4. La Huerta Kumiai (Tipai)

In contrast to the person marking systems in Mesa Grande and Jamul, where some cells of the person marking paradigm are underlyingly homophonous, the paradigm of La Huerta Kumiai exhibits complete differentiation for each

cell. This system, as analyzed in Hinton & Langdon (1976), is summarized in Table 3.

Subject		1	2	2IMP	3
Object	1		nʲmʔ-	nʲkʔ-	nʲʔ-
	2	nʲ			mʔ-
	3	ʔ-	m-	k-	w-
INTR		ʔ-	m-	k-	w-

Table 3. Person markers in La Huerta (Hinton & Langdon 1976: 114).

Hinton and Langdon (1976) argue that although the subject-object prefixes resemble simple subject prefixes in a compositional system, a full analysis of the combinations is not available in this variety. Crucially, they assume the glottal stop in person marking prefixes would be expected to appear only in the cells of the paradigm involving the 1st person (subject or object) in a compositional analysis, an expectation not fulfilled in the 3→2 configuration (which involves the *mʔ-* prefix).

As described for Jamul, the glottal stop of the prefixes involving a 1st person object or a 2nd person object are analyzed as discontinuous segments attaching to the templatic root. Laryngeal segments of person markers are described as optional: glottal stops in word initial position are described as being often omitted, while word-internal glottal stops are described as being more stable but usually deleted when preceding a velar consonant (1976: 116).

As in other Kumiai varieties, some suppletive allomorphy is described for the exponence of the third person *w-* prefix, which is only documented with monosyllabic stems. In addition to this allomorphy, they describe that adding person marking prefixes to certain stems yields complex consonant clusters that are susceptible of being simplified in surface form (especially if they involve a similar manner of articulation) (1976: 116). No details are given for any systematic phonotactic restrictions that may hold across morphologically complex words.

Finally, they also document intra-speaker variation involving overapplication of the glottal stop in unexpected contexts (e.g. use of an *ʔnʲ-* formative in configurations involving a 1→2 marker where a plain palatalized nasal prefix would be expected). Thus, while underlyingly proposed to exhibit complete differentiation of each cell in its person

marking paradigm, this variety is also documented to exhibit a high degree of surface homophony and reduction.[11]

4. Person marking in Ja'a Kumiai (Tipai)

The verbal agreement marking paradigm in Ja'a is identical in it surface form to the one documented in La Huerta. In contrast to the analysis provided in Hinton & Langdon (1976), we show that verbal agreement in Ja'a Kumiai is organized in a **morphologically inverse** system, where arguments of transitive clauses are encoded according to a 1 > 2 > 3 referential hierarchy:[12] in **inverse** configurations there is an additional morphological marker on the verb. There are no discontinuous glottal stop segments of portmanteau transitive person markers, but rather a dedicated inverse morpheme, a *ʔ-* prefix that occupies a defined position within the verbal template. In contrast, the **direct** configuration is unmarked, consistent with cross-linguistic trends of morphological inverse systems (see, e.g., Zavala 2007).

We provide the person marking prefixes in our analysis in (6). Given that person configurations of transitive predicates in direct/inverse systems are described in terms of referential hierarchies, not grammatical roles (Zavala 2007; Jacques & Antonov 2014), we replace reference to subjects and objects with reference to Agents (A) (the single S argument in intransitive clauses and the agent-like argument in transitive and ditransitive ones) and Patients/Goals (P/G).

(6) *Person marking prefixes in Ja'a Kumiai*

a. *ʔ-* 1st person agent (1A)
b. *w-* 3rd person agent (highly unproductive) (3A)
c. *ɲ-* 1st person patient or goal (1P/G)
d. *m-* 2nd person declarative (A or P/G)
e. *k-* 2nd person imperative (2IMP)
f. *ʔ-* inverse (INV)
g. *ɲ-* 1→2

[11] Hinton & Langdon (1976) propose a diachronic account for the development of the prefix system from Proto-Yuman to contemporary varieties involving pronoun incorporation and a series of restructuring processes including deletion, metathesis, and deletion of the glottal stop.

[12] Miller (2001:163) describes an "animacy hierarchy" of 1st person > 2nd person > 3rd person at play in the encoding of only one of two objects in ditransitive clauses.

The only specialized marker is the *ɲ-* prefix, a portmanteau morpheme that encodes the 1→2 configuration (1st person agent, 2nd person patient/goal), a typologically highly common pattern (Heath 1998; Bickel & Nichols 2007).[13] The rest of the person markers are compositional and occupy a slot in the verbal template, which we illustrate below. In this analysis, there is homophony between the portmanteau 1→2 *ɲ-* prefix and the 1st patient/goal *ɲ-* prefix, and between the 1st person agent *ʔ-* prefix and the inverse *ʔ-* prefix. Despite this homophony, and as documented in La Huerta, the cells of the person marking inflectional paradigm are fully differentiated underlyingly. The data in (7) and (8) exemplify person marking with an intransitive verb and a ditransitive verb,[14] respectively.

(7) *Ja'a Kumiai intransitive verbal paradigm*

a.	ʔ-amp	1A-walk	'I walk'	<DIH0126:07:15.9>
b.	m-amp	2-walk	'You walk'	<DIH0126:07:58.5>
c.	w-amp	3A-walk	'S/he walks'	<DIH0020:03:28.3>
d.	k-amp	2IMP-walk	'Walk!'	<DIH0056:11:48.5>

(8) *Ja'a Kumiai (di)transitive verbal paradigm*

a.	ʔ-iɲ	1A-give	'I give it to him/her'	<DIH0100:13:03.0>
b.	m-iɲ	2-give	'You give it to him/her'	<DIH0120:02:28.2>
c.	k- iɲ	2IMP-give	'Give it to him/her!'	<DIH0120:06:38.1>
d.	w-iɲ	3A-give	'S/he gives it to him/her'	<DIH0120:07:48.6>
e.	ɲ-iɲ	1→2-give	'I give it to you'	<DIH0103:16:60.0>
f.	ɲ-m-ʔ-iɲ	1P-2-INV-give	'You give it to me'	<DIH0113:04:54.2>
g.	ɲ-k-ʔ-iɲ	1P-2IMP-INV-give	'Give it to me!'	<DIH0112:16:05.6>
h.	ɲ-ʔ-iɲ	1P-INV-give	'S/he gives it to me'	<DIH0120:03:02.1>
i.	m-ʔ-iɲ	2-INV-give	'S/he gives it to you'	<DIH0120:04:07.0>

The person marking paradigm in this language is shown in Table 4. Cells corresponding to semantically reflexive configurations are indicated with

[13] An anonymous reviewer asks whether this prefix should be better analyzed as one encoding a 1st person argument, whether A, P or G, instead of a portmanteau formative encoding the 1→2 configuration. We posit that the prefixes in (6c) and (6g) are indeed distinct prefixes since this allows us to explain that the 1→2 *ɲ-* prefix is attested in the 1→2 configuration, as opposed to the unattested ***ɲ-m-*** sequence, which would be expected if both the 1st person A argument and the 2nd person P/G argument were encoded by the *ɲ-* and *m-* prefixes, respectively. We assume the portmanteau *ɲ-* prefix *blocks* the other person markers in the verbal template.

[14] We have chosen the verb 'give' (*iɲ*) to exemplify a transitive/ditransitive verbal paradigm since a monosyllabic, V-initial verb exhibits all the person marking distinctions, which may otherwise be reduced or precluded due to phonotactic restrictions (see §2 above). The descriptions of person marking systems of other Kumiai varieties (Langdon 1966; Hinton & Langdon 1976; Miller 2001, *inter alia*) also use this predicate to exemplify these distinctions.

gray since they are codified with the intransitive person prefix set. The 3rd person agent *w-* prefix is represented in parentheses since it is highly restricted and documented only with some monosyllabic, vowel-initial roots.

Agent		1	2	2IMP	3
Patient	1		ɲ-m-ʔ-	ɲ-k-ʔ-	ɲ-ʔ-
	2	ɲ-			m-ʔ-
	3	ʔ-	m-	k-	(w-)
INTR		ʔ-	m-	k-	(w-)

Table 4. Person marking paradigm in Ja'a Kumiai

As seen in this Table, all the **inverse** transitive configurations, where an argument lower in the hierarchy functions as an agent and an argument higher in the hierarchy functions as a patient (2→1, 2IMP→1, 3→1 and 3→2), require the use of an inverse morpheme, the *ʔ-* prefix. In contrast, in the direct configuration, where the agent is a higher ranked argument in the hierarchy and the patient a lower ranked one, person marking involves the intransitive predicate set of prefixes or the portmanteau 1→2 *ɲ-* prefix.

Inverse/direct systems are classified typologically in terms of **local**, **non-local** or **mixed** domains, depending on the type of interaction involved between members of the hierarchy: the local domain involves interactions between the speech act participants (SAP) (SAP ↔ SAP); the non-local domain involves interactions between two 3rd person arguments (3'↔ 3"); and a mixed domain involves interactions between a SAP and a 3rd person argument (SAP ↔ 3) (Zúñiga 2006; Zavala 2007). The Ja'a Kumiai inverse marking system involves both the local and the mixed domain.[15] Specifically, the local configuration has been assimilated within the system of non-local configurations: the 1→2 configuration follows the direct pattern (with a portmanteau dedicated prefix and no inverse morpheme), while the 2→1 configuration follows the inverse pattern, deploying the inverse *ʔ-* prefix.

[15] So far, we have not found any evidence of interactions of the non-local domain (i.e., there is no evidence that animacy or other semantic parameters play any role when two 3rd person arguments are involved in transitive predicates), though analysis of discourse data may reveal that topicality or other pragmatic factors play a role in defining these interactions. We leave this question for further research.

In the analysis we propose, person markers occupy several defined slots in their verbal template in Ja'a Kumiai. A partial template for prefixes is schematized in Table 5.

P6	P5	P4	P3	P2	P1	
1P/G	1A 2 2IMP 3A 1→2	PL	LEXICAL PREFIXES[16]	CAUS	INVERSE	TEMPLATIC ROOT
ɲ-	**{ʔ-/m-/k-/w- ~ Ø/ɲ-}**	n-	{C/V-}	u-	**ʔ-**	-(C)V(:)(C)

Table 5. Prefixes in the verbal template in Ja'a Kumiai (partial template)

In this verbal template, prefixes codifying person distinctions are located in peripheral positions (P6 and P5), while the inverse *ʔ-* prefix is adjacent to the templatic root (P1). The position of this prefix is shown in the near-minimal phonological pair in (3), repeated in (9).

(9)a. /ɲ-**ʔ**-nap/ 1P/G-INV-braid 'S/he braids (my hair)' <DIH0147:01:35.3>

b. /ɲ-n-**ʔ**-ar/ 1P/G-PLEX-INV-steal 'S/he steals me' <DIH0147:03:09.0>

In (9a) the templatic root is *nap*, while the templatic root in (9b) is *-ar* (preceded by the lexical prefix *n-*). As argued above, this example shows that the distribution of the inverse *ʔ-* prefix is morphologically, not phonologically, conditioned.

Finally, and as evidenced in examples (8f-h), the most peripheral P6 prefix slot is occupied by the *ɲ-* 1P/G prefix, while the homophonous 1→2 *ɲ-* prefix occupies the P5 slot, given that it blocks the 2nd person *m-* prefix (also in this prefix slot).

5. Phonotactic restrictions governing person marking in Ja'a Kumiai

As mentioned above, person exponence in Ja'a may be reduced or omitted as a result of a set of systematic structural factors, including the general phonotactic restrictions discussed in §2.2. This is the case of the restriction banning word-initial ʔC clusters (*[ʔC), which governs the exponence of the

16 Recall from §2.3 that lexical prefixes in the Yumanist literature refer to unproductive formatives that are semantically opaque.

1st person agent *ʔ-* prefix. As shown in (10), this prefix attaches to vowel-initial bases (10a-b), but is precluded with consonant-initial ones (10c-e).

(10)a.	ʔ-iɲ	/ʔ-iɲ/	1A-give	‘I give it to him/her’		<DIH0100:13:03.0>
b.	ʔamp	/ʔ-amp/	1A-walk	‘I walk’		<DIH0110:13:23.0>
c.	jok	/ʔ-jok/	1A-vomit	‘I throw up’	**ʔ-jok*	<DIH0056:05:08.9>
d.	t͡ʃijow	/ʔ-t͡ʃijow/	1A-sing	‘I sing’	**ʔ-t͡ʃijow*	<DIH0035:17:56.7>
e.	nup	/ʔ-nup/	1A-dive	‘I dive’	**ʔ-nup*	<DIH0111:07:30.2>

We argue *[ʔC is an input phonotactic restriction, since it precludes the affixation that would generate the expected but unattested inflected forms **ʔ-jok, *ʔ-t͡ʃijow* and **ʔ-nup* in (10c), (10d) and (10e), respectively. There are no underlying ʔC sequences word-initially and there is no evidence of any phonotactic repairs in cases where word-initial ʔC sequences would arise.

This phonotactic restriction is also observed with morphologically complex bases, as exemplified in (11).

(11)a.	ʔ-amp	1A-walk	‘I walk’		< DIH0110:13:23.0 >
b.	m-amp	2-walk	‘You walk’		< DIH0126:07:58.5 >
c.	n-amp	PL-walk	‘We walk’	**ʔ-n-amp*	< DIH0126:09:08.9 >
d.	n-amp	PL-walk	‘They walk’		< DIH0126:11:47.0 >
e.	m-n-amp	2-PL-walk	‘You all walk’		< DIH0126:09:24.6 >

In these examples, person marking interacts with pluractional marking (the *n-* prefix), which generates the phonological environment that precludes the prefixation of *ʔ-* (a consonant-initial stem in (11c)). As shown in the contrast between (2b) and (2e), the second person *m-* prefix is attested independently of the presence/absence of the pluractional *n-* prefix; given this contrast we expect the form **ʔ-n-amp* in (11c), which is nonetheless unattested. Crucially, there is no instrumental evidence of glottalization of the sonorant onset segments in this inflected form, which is phonotactically possible in other morphotactic configurations as we show below. This confirms this phonotactic constraint is indeed an input one and not a case of deletion as optimization of the surface phonological form. Thus, this restriction results in the neutralization of pluractional verbs inflected for 1st and 3rd person in verbal paradigms.

Other phonotactic constraints at play in restricting the exponence of person markers in this language include the ban on sequences of identical consonants, which precludes the prefixation of the 2nd imperative *k-* suffix with *k*-initial bases. This is exemplified in (12).

(12)a. kiipˀ /k-kip/ 2IMP-distribute 'Distribute it!' **k-kiip* <DIH0103:23:15.0>

b. kanap /k-kanap/ 2IMP-tell 'Tell her!' **k-kanap* < DIH0107:27:04.5 >

Other verbs lacking overt 2nd person imperative marking are bases with word-initial velar fricatives or post-alveolar affricates, given the ban on clusters of consonants that share a place of articulation but differ in their mode of articulation. This is exemplified in (13).[17]

(13)a. xmkapˀ /k-xmkap/ 2IMP-hug 'Hug her!' **k-xmkap* <DIH0092:08:35.7>

b. χaʲl /k-xaʲl/ 2IMP-comfort 'Comfort her!' **k- χaʲl* <DIH0112:09:44.1>

As in the case of *[ʔC, we assume these restrictions hold for input representations and preclude prefixation.

The surface form of verbs inflected for person in Ja'a Kumiai is also determined by the phonetic implementation of laryngeal segments in this language variety: the 1st person A /ʔ-/ prefix may be alternatively realized as a glottal stop (example (7a) repeated here as (14a)) or as laryngealization of an adjacent vowel (14b).[18]

(14)a. ʔamp /ʔ-amp/ 1A-walk 'I walk' <DIH0110:13:23.0>

b. a̰mp /ʔ-amp/ 1A-walk 'I walk' <DIH0106:12:16.7>

Laryngeal segments that are not word-initial (including the inverse *ʔ-* prefix) may also be realized phonetically as laryngealization of an adjacent consonant or vowel segment. The examples in (15) show the contrast between two inflected forms of the same verb that yield a morphological minimal pair.

(15)a. m̰iʃʔet *inverse configuration*
/m-ʔ-t͡ʃʔet/
2-INV-push
'S/he pushes you' <DIH0123:05:34.6>

[17] The dorsal plosive in Ja'a Kumiai is gradiently realized as velar or backed velar (Mai *et al.* 2018).

[18] While the glottal stop realization of this prefix is favored with vowel initial bases, there is intra-speaker variation in terms of the surface realization of this segment.

b. miʃʔetˀ *direct configuration*
/m-t͡ʃʔet/
2-push
'You push her/him' <DIH0123:05:56.1>

In (15a), the inverse *ʔ-* prefix is realized in the surface not as a glottal stop, but as laringealization of a preceding resonant segment (the second person *m-* prefix). This laryngealization is what maintains the paradigmatic contrast between the 3→2 inverse configuration (15a) and the direct one (2→3 in (15b)) in the surface form.

6. Conclusion

We have presented a description of the person marking system of Ja'a Kumiai, an underdocumented, endangered language. We argue this variety features a direct/inverse system and that, contrary to what is posited for other Yuman languages, person markers can be analyzed compositionally. Person marking exhibits neutralization as well as contrast preservation across paradigms due to general structural principles. Thus, while the language exhibits a high degree of attrition, the patterns of contrast neutralization in verbal paradigms can be explained via typologically common processes. This includes metathesis, as suggested in Miller (2001: 361) when comparing Mesa Grande and Jamul in terms of the realization of the 1st person *ʔ-* prefix. We propose that this metathesis process can be attributed to a diachronic process where phonological sequences including glottal stops may be reinterpreted in different ways due to the intrinsic acoustic ambiguity of these segments, i.e., if a /ʔa/ sequence is phonetically realized as [a̰], listeners may interpret it as either /ʔa/ or /aʔ/. In the cases where listeners interpret the sequence as /aʔ/, a phonological change of metathesis has taken place (Garrett & Johnson 2012).

We speculate that the variable phonetic realization of laryngeal segments attested in Ja'a Kumiai may also be present for other Kumiai varieties. This may in turn have influenced the description of person marking exponence involving laryngeals as "unstable", "variable", "optional" or "undergoing erosion", given that these surface realizations are easily undetected impressionistically and (in some cases) require an instrumental analysis to be verified. So far, the Ja'a Kumiai data suggests that both the neutralization

and preservation of paradigmatic contrasts result from general principles, either general phonotactic constraints or of phonetic implementation of phonological segments. There is no evidence of any anti-homophony principle or systematic syncretism in the synchronic grammar of this variety.

In terms of the status of person marking of other Kumiai varieties, the analysis we have provided for Ja'a Kumiai can be extended to La Huerta, given the surface distinctions are the same as those found in Ja'a (see §3.4). In the case of Mesa Grande, we suggest this system may potentially also be analyzed as one involving a direct/inverse system: a prefix *ʔ-*, the posited inverse marker, appears in this variety in the inverse configurations involving a *local domain* (see §3.2) (i.e., in contrast to the Ja'a and La Huerta systems, its use did not extend to the mixed domain). In Jamul, on the other hand, a glottal stop is only documented in the paradigm cells for the transitive configurations 2IMP→1 and 3→1 (*ɲkʔ-* and *ɲʔ-*, respectively), but not in the cell for the 2→1 configuration (*ɲm-*) nor in the one for the 3→2 configuration (*m-*) as could be expected if this variety were to have an inverse system for the local and mixed domains (see §3.3). An acoustic analysis of audio recordings may also reveal variable phonetic realization of laryngeal segments as has been documented in Ja'a, opening up the possibility of an analysis involving an inverse system. We leave the possibility of extending the analysis provided for Ja'a to other related varieties for future research.

This paper presents only the first step in the comprehensive documentation of the person marking system and other grammatical structures of Ja'a Kumiai. At the current stage, relying mostly on elicited data, little is known about the discourse factors that may govern the person marking system in Ja'a Kumiai. As one anonymous reviewer suggests, it is possible that aspects of this system relate to topicality and a more complex distribution underlies the shape of the paradigm. Future work requires the analysis of discourse data and targeted elicitation methods that may uncover syntactic processes of the language. More generally, we seek to contribute to the cross-linguistic documentation of inverse systems and a better understanding of how these systems develop diachronically (Goddard 1979; Jacques 2012; DeLancey 2011), as well as a better understanding of the synchronic variation within the Yuman language family.

References

Aguilar, Andrés. 2017. La realización de rasgos laríngeos en el kumiai de Ja'a. Proceedings for the VIII Congreso de Idiomas Indígenas de América Latina, University of Texas, Austin.

Bickel, Balthasar & Nichols, Johanna. 2007. Inflectional morphology. *Language typology and syntactic description* (revised second edition), T. Shopen (ed.), 169-240. Cambridge: Cambridge University Press.

Crawford, James M. 1966. The Cocopa Language. PhD dissertation, University of California, Berkeley.

DeLancey, Scott. 2011. Notes on verb agreement prefixes in Tibeto-Burman. *Himalayan Linguistics Journal* 10.1: 1-29.

Eberhard, David M., Simons, Gary F. & Fennig, Charles D. (eds). 2019. *Ethnologue: Languages of the World*. Twenty-second edition. Dallas, Texas: SIL International <http://www.ethnologue.com>

Field, Margaret. 2011. Corpus of Kumiai and Koalh spoken in Baja California, Mexico of Margaret Field. Documentary collection archived at AILLA <https://ailla.utexas.org/islandora/object/ailla%3A124455>

Field, Margaret. 2012. Kumeyaay language variation, group identity and the land. *International Journal of American Linguistics* 78(4): 557-573.

Field, Margaret. 2013. American Indian oral literature, cultural identity, and language revitalisation: some considerations for researchers. *Oral Literature in the Digital Age: Archiving Orality and Connecting with Communities,* M. Turin, C. Wheeler & E. Wilkinson (eds), 91-101. Cambridge, U.K.: Open Book.

Field, Margaret & Miller, Amy. 2017. Documentation of the Baja California Yuman Languages Kumeyaay and Ko'alh. Documentary collection archived at ELAR <https://elar.soas.ac.uk/Collection/MPI1031994>

Garrett, Andrew & Keith, Johnson. 2012. Phonetic bias in sound change. *Origins of sound change: Approaches to phonologization*, A. C. L. Yu (ed.), 51-97. Oxford: Oxford University Press.

Gil-Burgoin, Carlos I. 2016. Problemas fonológicos del kumiai de San José de la Zorra: segmentos, sílabas y acento. PhD dissertation, El Colegio de México, Centro de Estudios Lingüísticos y Literarios.

Goddard, Ives. 1979. Comparative Algonquian. *The languages of native America*, L. Campbell & M. Mithun (eds), 70-132. Austin: University of Texas Press.

Golla, Victor. 2011. *California Indian Languages*. Berkeley: University of California Press.

Hall, Nancy. 2006. Cross-linguistic patterns of vowel intrusion. *Phonology* 23: 387-429.

Halpern, Abraham M. 1947. Yuma VI: Miscellaneous morphemes. *International Journal of American Linguistics* 13(3): 147-66.

Heath, Jeffrey. 1998. Pragmatic skewing in 1↔2 pronominal combinations in Native American languages. *International Journal of American Linguistics* 64 (2): 83-105.

Hinton, Leanne & Langdon, Margaret. 1976. Object-subject pronominal prefixes in La Huerta Diegueño. *Hokan Studies: papers from the First Conference on Hokan Languages, held in San Diego, California, April 23-25, 1970*, Margaret Langdon & Shirley Silver (eds), 113-28. The Hague: Mouton.

Jacques, Guillaume. 2012. Agreement morphology: the case of Rgyalrongic and Kiranti. *Language and Linguistics* 13(1): 83-116.

Jacques, Guillaume & Antonov, Anton. 2014. Direct/Inverse Systems. *Language and Linguistic Compass* 8/7: 301-318.

Kroeber, Alfred L. & Harrington, J.P. 1914. *Phonetic elements of the Diegueño language, volume 11*. Berkeley/Los Angeles: University of California Press.

Kroeber, Alfred. 1925. *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin, 78. Washington, DC: Smithsonian Institution

Langdon, Margaret. 1966. A Grammar of Diegueño: The Mesa Grande Dialect. PhD dissertation, University of California, Berkeley.

Langdon, Margaret. 1970. *A Grammar of Diegueño: The Mesa Grande Dialect*. Berkeley: University of California Press.

Langdon, Margaret. 1975. Boundaries and lenition in Yuman languages. *International Journal of American Linguistics* 41: 218-33.

Langdon, Margaret. 1976. Syntactic diversity in Diegueño dialects. In *Proceedings of the First Yuman Languages Workshop*, J. E. Redden (ed.), 1-9. Carbondale: Southern Illinois University Museum Studies 7.

Mai, Anna, Aguilar, Andrés & Caballero, Gabriela. 2018. Ja'a Kumiai. Illustration of the IPA. *Journal of the International Phonetic Association* <https://doi.org/10.1017/S0025100317000536>

Meza, Yolanda; Aguilar, Andrés; Caballero, Gabriela; Cheng, Qi; Kroeger, Richard; Mai, Anna; Poppels, Till; Semushina, Nina; Zhan, Meilin & Fernández Guerrero, José Armando. 2018. *Ja'a Kumiai language annotated web-corpus* <field.ucsd.edu/kumiai>

Miller, Amy. 1991. Some difference between two speakers of Jamul Diegueño. *Proceedings of the 1990 Hokan-Penutian Workshop*, 23-31. Carbondale: Southern Illinois University Occasional Papers in Linguistics 2.

Miller, Amy. 2001. *Grammar of Jamul Tiipay*. Berlin/New York: Mouton de Gruyter.

Miller, Amy. 2016. Lexical structure in Yuman, especially in the Ja'a variety of Neji Kumeyaay. Unpublished Ms.

Miller, Amy. 2018. Phonological Developments in Delta-Californian Yuman. *International Journal of American Linguistics* 84(3): 383-433.

Miller, Amy & Margaret Langdon. 2008. *Barona Inter-Tribal Dictionary: 'Iipay Aa Tiipay Aa Uumall*. Lakeside: Barona Museum Press.

Redden, James E. 1966. Walapai I: Phonology. *International Journal of American Linguistics* 32 (1): 1-16.

Simpson, Jane & Withgott, Margaret. 1986. Promonimal clitic clusters and templates. *Syntax and Semantics 19: The syntax of pronominal clitics*, H. Borer (ed.), 149-174. New York: Academic Press.

Walker, Douglas. 1970. Diegueño plural formation. Linguistic Notes from La Jolla IV: 1-16.

Wilken-Robertson, Michael. 2018. *Kumeyaay Ethnobotany: Shared Heritage of the Californias.* San Diego: Sunbelt Publications.

Zavala, Roberto. 2007. Inversion and obviation in Mesoamerica. *Endangered Languages*, P. K. Austin & A. Simpson (eds), 267-306. Hamburg: Helmut Buske Verlag.

Zúñiga, Fernando. 2006. *Deixis and Alignment. Inverse systems in indigenous languages languages of the Americas*. Amsterdam/ Philadelphia: Benjamins.