Chapter 1

Existential negation in O'dam

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This chapter discusses the properties of existential constructions as well as standard and existential negation in the Uto-Aztecan language O'dam. In terms of the negative existential cycle, O'dam is a Type A language where existential constructions are negated by means of standard negation strategies. We also compare existential negation in O'dam to that of several other Southern Uto-Aztecan languages, most of which appear to be Type B languages. We find that standard negation and existential negation strategies have overall played very little role in each other's development in O'dam and across Southern Uto-Aztecan.

1 Introduction

In this chapter we discuss existential negation in O'dam (Southeastern Tepehuan)[1] and compare the negation strategies used to those of other Southern Uto-Aztecan languages. O'dam uses several strategies to express existential meaning: the existential predicate *jai'ch*, as in (1), positionals and movement verbs such as *daa* 'sit' in (2), and copular constructions, as in (3). All existential predication strategies in O'dam are also compatible with definite subjects, where they express a locative meaning, rather than an existential one.

(1) Ya' jai'ch-am gu o'dam
DEM.PROX EXIST-3PL.SBJ DET O'dam
'There are O'dam.' (Text_072011_PSC_GG_elcuidadodelamujer1, 15:37)

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[1] We use O'dam here in accordance with the community's preferences.

(2) Añ   na=∅=gu'   gui'-ñi   mu'-ñi   ja'k daa gu
1SG.SBJ SUB=3SG.SBJ-ADV DEM.DIST-VIS DEM.DIS-VIS DIR sit.SG DET
dɨ'i'n
mother.POSSD
'As for me, because the mother is over there (Lit. the mother sits over there).' (Text_102010_CFC_GGS_Cuandolacuranderaeraniña, 19:57)

(3) Para dhi   balh-cha'm pai' ja'p pai' jɨ'k   na jir=ki∼kcham
for DEM.PROX basket-on   where DIR where QUANT SUB COP=PL∼house
'For those in The Basket over there where there are houses'
(García Salido, Arellano & Everdell in review)

Existential negation is largely attested as clausal negation, although preverbal (as opposed to postverbal) constituent negation is also attested. O'dam is a Type A language[2] because all negation is expressed through one of two particles: *cham* and *cham tu'*. O'dam contrasts with other Southern Uto-Aztecan languages, which are largely type B, except Pima Bajo and Guarijío, which are types A and A ∼ B, respectively. The existential negation type, as well as the standard and existential negation markers of each language examined here are shown in Table 1. We find that there is little evidence that either negation type played a role in the other's development. The etymological variety in the standard and existential negators suggests that both sets of markers emerge, evolve and are replaced along distinct pathways.

In §2 we briefly lay out some of the characteristics of O'dam, focusing on constituent order and argument expression. In §3 we describe the strategies that have been attested as expressing existential meaning. In §4 we discuss negation strategies in the language, beginning with standard negation (§4.1) and ending with existential negation (§4.2). We then take a broader look at the place of other Uto-Aztecan languages on the negative existential cycle in §5 and then discuss a possible pathway of change in standard and existential negation in O'dam in §6.

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[2] Croft (1991) describes 3 language types, relating to various stages in the development of existential negation. In Type A, the standard negation strategy is used to negate verbal and existential clauses. In Type B, existentials are only negated by a special strategy. In Type C, the standard negation strategy differs from the existential negation strategy, but the existential negator is regularly used for verbal negation.

Table 1: Southern Uto-Aztecan Existential Negation Cycle

Language	Existential Negation Type	Standard Negation Marker	Existential Negation Marker
O'dam	A	*cham (tu')*	—
Northern Tepehuan	B	*mai*/*tomali*	*tiípu(ka)*
Pima Bajo	A	*im*/*kova*	—
Cora	B	*ka*	*ka + me'e*
Huichol	B	*ka-*	*mawe* or *ka + xuawe*
Guarijío	A ∼ B	*ki=*	*ki'te* or *ki=maní*

2 Basic characteristics of O'dam

O'dam is a Uto-Aztecan language and is a variety of Southern Tepehuan. As of the last census, there are approximately 36,543 speakers of Southern Tepehuan, which consists of three varieties O'dam, Audam (Southwestern Tepehuan) and Central Tepehuan. The majority of Southern Tepehuan speakers speak O'dam and live parimarily in the Mexican state of Durango with smaller communities of speakers in Nayarit and Zacatecas (INEGI 2015).

An O'dam clause obligatorily consists of a verb, all other clausal constituents are optional and it is quite rare for multiple DPs to appear in a sentence (T. L. Willett 1991; García Salido 2014). The language is V-initial with S and O arguments being freely ordered following the verb, this is shown in (4) and (5) where the subject and primary object appear in opposite orders.[3]

(4) Verb-Primary Object-Subject
     Mummu ja-kukpa-am   [gu ja'tkam]_{PO} [gu sandaarux]_{SBJ}
     DEM.DIST 3PL.PO-lock.up-3PL.SBJ DET persons   DET soldiers
     'The soldiers lock up people there (in Santiago Teneraca).'
     (E1_32011_IA_GGS)

(5) Verb-Subject-Primary Object
     Ya'   sap   pu=x-maax-ka'   na=m-pai'   daghia' [gu
     DEM.PROX REP.UI SENS=COP-know-EST SUB=3PL.SBJ-ADV grab   DET

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[3] S and O orders are equally free in matrix and subordinate clauses.

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chio'ñ]_{SBJ} [gu ubii]_{PO}

man   DET woman

'Here one could tell where they grab her, the man to the woman.'
(Text_082011_CRG_GGS_El mito, 00:11)

DPs are not marked for case, instead grammatical roles are indicated through verbal argument affixes. Subjects are marked with a subject suffix, or preverbal free form as in (7), and a prefix on the verb that agrees with the primary object. By primary object, we mean that only one object is marked on the verb even if the clause contains more than one object.[4] The object that is marked on the verb is generally the most prominent (i.e. human, animate), although the exact factors that determine primary objecthood are still unknown. Both verbs in (6) and (7) realize the same object marking, the 3PL marker *ja-*. The primary object marker in (7) refers to the plural recipient rather than the theme[5] because the recipient is more prominent.

(6) Ya'   ja-ai-ch-dha'-iñ
    DEM.PROX 3PL.PO-arrive-CAUS-CONT-1SG.SBJ
    'I brought them.' (Elicitation_032011_IA_GGS)

(7) Añ   tu-ja-maa   gu ta~toxkolh gu koi'
    1SG.SBJ DUR-3PL.PO-give.PFV DET PL~pig   DET food
    'As for me, I gave food to the pigs.' (E1_032011_IA_GGS)

While O'dam currently exhibits verb-initial order, it maintains elements of the verb-final order of Proto Uto-Aztecan, these are shown in Table 2 (García Salido 2014, García Salido & Reyes Valdez 2015, also see Langacker 1977: 24-6 for a reconstruction of Proto Uto-Aztecan word order). In the next section we describe the attested strategies in O'dam for expressing existential meaning. First, we consider the non-verbal existential predicate *jai'ch*, then we consider other strategies based off of locative constructions and a copular construction.

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[4] Note that the notion here of "primary object language" is somewhat different from the primary object alignment system. Dryer (1986) defines a primary object marking language as that which treats the recipient of a ditransitive sentence in the same way as the object/patient of the monotransitive sentence. However, O'dam primary object marking is somewhat less consistent.

[5] Mass nouns like *koi'* 'food' are morphologically and syntactically singular so 3PL *ja-* can only refer to the overtly plural recipient.

Table 2: O'dam features with respect to order of constituents (García Salido 2014, García Salido & Reyes Valdez 2015)

VO		O'dam	OV
prepositions		X	postpositions
initial question particle		X	final question particle
verb – adpositional phrase	X	X	adpositional phrase – verb
auxiliary verb – main verb	X	X	main verb – auxiliary verb
main clause – subordinate clause	X	X (temporal)	subordinate clause – main clause
noun – genitive	X		genitive - noun
initial adverbial subordinator	X		final adverbial subordinator
initial complementizer	X		final complementizer
noun – relative clause	X		relative clause - noun

3 Existential constructions

Here we consider an *existential construction/existential* to be a construction that expresses a proposition about the existence of some entity (McNally 2011: 1829). In many languages these constructions are atypical in one or more ways: non-canonical subject order, lack of agreement between the subject and predicate, special morphology, specialized negation, etc. However, as we discuss in this section, existential constructions in O'dam do not appear to be encoded differently from non-existentials, therefore we cannot turn to such diagnostics. We also follow other authors in this volume, as well as Veselinova (2014; 2016) in assuming the definiteness restriction, where existential constructions are constrained to indefinite nominals, although see Ziv (1982); Reuland & Meulen (1987); Abbott (1997); Beaver, Francez & Levinson (2006); McNally (2016) for further discussion and criticisms.

O'dam uses several strategies to encode existential meaning. The primary strategy is the non-verbal existential predicate *jai'ch*, shown in (8-11). García Salido (2014: 93) analyses *jai'ch* as a non-verbal predicate because it takes morphology that otherwise only appears on non-verbal predicates, such as the stative marker *-ka'* in (11).

(8) Ya'   jai'ch-am   gu o'dam
    DEM.PROX EXIST-3PL.SBJ DET O'dam
    'Here, there are O'dam.' (Text_072011_PSC_GG_elcuidadodelamujer1,

15:37)

(9) Na=∅=gu'   xib   makam ba-jai'ch gu kostumbre
    SUB=3SG.SBJ-ADV today different CMP-EXIST DET custom

'Because now there is a different custom'
(Text_072011_PSC_GGS_elcuidadodelamujer1, 8:50)

(10) Jai'ch=aa gu jabook matai mi'-ñi   bibiatam jup-kai'ch gu Juan
     EXIST=Q DET light lime DEM.MED-VIS spring   IT-say   DET Juan
     pui'-ñ   dho   te-kee-ka'   na sap   jai'ch jup-kai'ch gu
     SENS-1SG.SBJ EVID.DIR DUR-hear-EST SUB REP.UI EXIST IT-say   DET
     Peegro
     Pedro

'"Is there lime in the spring?" Juan asked "I have heard that there is" said
Pedro' (E. R. Willett & T. L. Willett 2015: 76)

(11) Cham jai'ch-ka' na=m   tu'   jugia'
     NEG EXIST-EST SUB=3PL.SBJ something eat

'There was nothing to eat.' (Text_072011_PSC_GGS_elcuidadodelamujer1,
9:40)

The *jai'ch* predicate is also used for locative predications, as in (12-13). There is no
clear syntactic difference between locative and existential *jai'ch*. Both take stan-
dard subject marking, as in (8) and (12), and standard V-initial word order. One
possible difference is that in our data existential predications are only attested
with overt DPs. In contrast, *jai'ch* in locative contexts is attested without a DP
referring to the subject. Posture seems to have a cultural significance, in our cor-
pora women tend to be associated with sitting posture *daa*, men with standing
kiik and we believe that *jai'ch* is possibly used here for things that are bad or
taboo (i.e. they lack posture). In our experience, mestizo doctors (12), as opposed
to Tepehuan *curanderos*, are rarely talked about and the second reference to *ani-
males* (from Spanish 'animals') in (13) refers to animals under the influence of a
demon. Thus both apparently postureless subjects here appear to be taboo or bad,
although, we must admit that this is tentative and requires further investigation.

(12) Mia'n jaich-am   gui'   na=m   jaroi' jich-rebisar-ka'
     close EXIST-3PL.SBJ DEM.DIST SUB=3PL.SBJ who 1PL.PO-check-EST

'They [meztizo doctors] are close, the ones that check us.'
(Text_072011_PSC_GGS_elcuidadodelamujer1, 04:27)

(13) Kuantas animales bhɨjɨdɨr ja'p kantar-im-am   gio jumai bhɨjɨ ja'p
cuántas animales DIR   DIR sing-PROG-3PL.SBJ and other DIR DIR
kɨɨk   g*e*   ja'ok' kuj-im   na=∅-jɨ'k   **jaich-am**   gu
stand.SG great demon roar-PROG SUB=3SG.SBJ-QUANT EXIST-3PL.SBJ DET
animales bhai' ba-kujim-am
animales DIR   CMP-roar-PROG-3PL.SBJ

'How many animals came singing…the other was standing over there, a great demon came roaring, all the animals came roaring (Text003_Hipolito_los2compadres, 03:13)

Positional verbs in O'dam are generally used for locative constructions (García Salido 2017) but in (14-15) we see them used for existential meaning. Similarly, the verb *oilhia'* 'move'[6] can be used for existential meaning, as in (16).

(14) Mi'   kɨɨk   ma'n gu tua bhai'=ñich   ji   dhaibu
DEM.MED stand.SG one   DET tree DIR=1SG.SBJ.PFV FOC sit

'There was a tree (Lit. there stands a tree), and I climbed and sat there.' (Text_092010_HSA_GGS_Los2compadres, 4:51)

(15) Dai sap ja'm-ni gok am   bha daraa   gu u'~ub   tɨ~tɨya
only REP PTC-PREC two 3PL.SBJ DIR sit.PL.SBJ DET PL~woman PL~young

'But that there were only two there (sitting), two girls' (García Salido, Arellano & Everdell in review)

(16) Mi   oipo-'am   quince gu ja'tkam mi   piesta
DEM.MED move.PL-3PL.SBJ quince DET people DEM.MED party

'Are there fifteen people at the party?' (Elicitation_082018_MA_ME)

Positional verbs and *oilhia'* 'move' appear to be compatible with both definite and indefinite existential and non-existential locative meanings. The determiner *gu* is underspecified for definiteness and can be pragmatically linked to (in)definiteness based on context or the appearance of certain quantifiers. Notice in (10), reproduced below, that *gu jabook* is not referring to a definite referent, only the existence of some referent. Later in the same utterance *gu Juan* and *gu Peegro* both have definite and specific referents. For further discussion of O'dam determiners and definiteness see Everdell (2018: 25-28).

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[6] This is a suppletive verb, *oilhia'* is the form for singular subjects, while *oipo* is the form for plural subjects.

(17) Jai'ch=aa gu jabook matai mi'-ñi   bibiatam jup-kai'ch gu Juan
EXIST=Q DET light lime DEM.MED-VIS spring IT-say   DET Juan
pui'-ñ   dho   tɇ-kɇɇ-ka'   na sap   jai'ch jup-kai'ch gu
SENS-1SG.SBJ EVID.DIR DUR-hear-EST SUB REP.UI EXIST IT-say   DET
Peegro
Pedro

'"Is there lime in the spring?" Juan asked "I have heard that there is" said
Pedro' (E. R. Willett & T. L. Willett 2015: 76)

It is unsurprising that O'dam uses locative predicates for both locative (18-19)
and existential meaning (14-16), even though it also has a separate existential
predicate. The relationship between locatives and existentials has been well doc-
umented, including from a diachronic perspective (e.g. Breivik 1981; Gaeta 2013).
The full set of positional verbs is shown in Table 3, because they are suppletive
for number, we show their singular and plural forms.

(18) Añ   na=∅-gu'   gui'-ñi   mu'-ñi   ja'k daa gu
1SG.SBJ SUB=3SG.SBJ-ADV DEM.DIST-VIS DEM.DIST-VIS DIR sit.SG DET
dɨ'i'n
mother.POSSD

'As for me, because the mother is over there (Lit. the mother sits over
there).' (Text_102010_CFC_GGS_Cuandolacuranderaeraniña, 19:57)

(19) Jum-kuidar-ka'   nai' na=m   tu-oipo
3R/R/M-take.care-EST DIR SUB=3PL.SBJ DUR-move.PL

'(They) need to take are of themselves where they are around.'
(Text_072011_PSC_GGS_elcuidadodelamujer1, 2:09)

Table 3: Positional verbs in O'dam (García Salido & Everdell 2019)

SG	PL	Meaning
kɨɨk	*guguk*	stand animate
kɨɨk	*tut*	stand inanimate
boo'	*bobuk*	lay down animate
kat	*bit*	lay down inanimate
daa	*daara*	sit
sɇ'	*sɇsɇ'*	hang

The final existential strategy we find in O'dam is a copular construction with a
PP or noun. Copular constructions in O'dam are formed by a copula that appears

as a preclitic on the predicate expression. The element derived by the copula is treated as part of the predicate and is not treated as a syntactic object (i.e. it does not receive a coreferenced object prefix). The copula construction is limited to intransitive valency and the aspectual suffixes *-ka* 'stative' and *-t* 'imperfective'. The aspectual restriction García Salido (2014: 88ff) considers to be diagnostic of their status as non-verbal predicates.

(20) Na=p   jir=[xib-kam]-ka'
      SUB=2SG.SBJ COP=today-from-EST
      'When you were new.' (García Salido 2014: 89)

In existential copula constructions, the nominal appears as either a bare N, as in (21), or as derived with a postposition, as in (22). The most common copula used for existential predication is *jir=*.[7]

(21) Dhu   sap   buimuk   mo   bhai=r-piasta-ka' ji   bhai'-ñi
      EVID.DIR REP.UI tomorrow doubt DIR=COP-fiesta-EST FOC DEM.MED-VIS
      dam-dɨr na-∅-pai'=r-iskuel
      up-from SUB=3SG.SBJ-where=COP-school
      'Supposedly, tomorrow there is a party up here where there is a school.'
      (Text_092011_MMC_GGS_Elborrachoylamuerte, 14:46)

(22) Para dhi   balh-cha'm pai' ja'p pai' ji'k   na=∅
      for DEM.PROX basket-on   where DIR where QUANT SUB-3SG.SBJ
      jir=ki∼kcham
      COP=PL∼house
      'For those in The Basket over there where there are houses' García Salido,
      Arellano & Everdell (in review)

While we generally find the copula construction being used for existential predication, we see in (23-24) that it is also compatible with locative predication. The sentences below are minimally changed from (21) and (22), respectively. We use possessor prefixes to force a locative reading, because attributive possession presupposes possession and existence (Mithun 2001).

(23) cham tu' bhai ja'k **jir=jiñ-piasta**   jir=bhammu-ñi ja'k
      NEG   DIR DIR COP=1SG.POSS-party COP=DIR-VIS   DIR

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[7] O'dam has a second copula *jix=*, which is related to temporary states, while *jir=* is used for permanent states (Martínez Córdova 2016).

na-pai'=**r-jum-iskuel**
SUB-where=COP-2SG.POSS-school

'My party is not up there, it is where your school is.'
(Elicitation_082019_WG_MSE)

(24) Para dhi   balh-cha'm pai'   ja'p pai'   jɨ'k   na=∅
for   DEM.PROX basket-on   where DIR where QUANT SUB=3SG.SBJ
jir=jiñ-ki∼kcham
COP=1SG.POSS-PL∼house

'For those in The Basket over there where my houses are.'
(Elicitation_082019_WG_MSE)

Now that we have discussed the expression of existential predication in O'dam, we turn to negation. First we discuss standard negation strategies in §4.1, then we discuss the use of standard negation in existential predications §4.2, and an existential negation strategy that does not have an attested positive syntactic counterpart.

4 Negation

4.1 Standard negation

Miestamo (2005) defines standard negation as the negation of simple indicative sentences using an overt verbal predicate; in the following subsections, we show that O'dam uses the same strategy for both standard negation and existential negation. Standard negation in O'dam is marked using the particle *cham tu'* and its shortened form *cham* (García Salido 2014: 109). The two negation strategies are distinguished by the position of the particle, but both can be used for clausal or constituent negation. For clausal negation, the negative particle precedes the verb, as in (25) and (26). For constituent negation, the negation particle follows the negated elements (e.g. DPs), as in (27). It is rare but there are a few attested examples where *cham tu'* precedes a negated element that is not a verb, like in (28-29), although this is not attested for *cham*.

(25) Karabiñ-kɨ'n tɨi   pu=p jiñ-ma'yasa na=ñich   cham <u>oi</u>
carabine-with INT.NR SENS=IT 1SG.PO-shoot SUB=1SG.SBJ NEG   go.PFV

'With a rifle he wanted to shoot me because I did not go'
(Text_062011_ESS_GGS_susamores, 04:51)

(26) Na=∅   cham tu' <u>tu=x-pasarui-dha</u>
SUB=3SG.SBJ NEG   DUR=COP-happen-APPL

'So that nothing happens to us.'
(Text028/Text_102010_MCC_GGS_Losmuchachosquebuscabancomida, 07:16)

(27) Ma'nim dhu   gu siman ji   na=ñ   chu-bos-ka'   <u>gu</u>
one.time EVID.DIR DET week   FOC SUB=1SG.SBJ DUR-sweep-ASP DET
<u>nabat</u>   cham na=∅-jax   xia'lhi-dha'
mestizo NEG   SUB=3SG.SBJ-how dawn-CONT

'Once a week, I sweep, but the mestiza does not, she sweeps whenever she wakes up.' (Text_072011_PSC_GGS_elcuidadodelamujer2, 08:10)

(28) Cham tu' <u>tu'</u>   ja'tkam ja'pi xi'∼xbulhi-k
NEG   something people   but   PL∼swirl-PNCT

'They were not human, they were swirls.'
(Text_092011_MMC_GGS_Lamujerquenopodiatenerhijos, 12:20)

(29) Dhu   ji   xib   ji   cham tu' kabuimuk
EVID.DIR FOC today FOC NEG   <u>tomorrow</u>

'Well today, not tomorrow.' (Text_092011_Varios_GGS_pláticaenlacocina, 05:05)

In addition to clauses and noun phrases, *cham* and *cham tu'* are used to negate directionals and demonstratives (30) and pronouns (31-32).

(30) gu   chiatnarak ach   <u>ya'</u>   cham ji
DET Teneraca   1PL.SBJ DEM.PROX NEG   FOC

'The people from Teneraca, as for us, not (the ones from) here'
(Text_082011_CRG_GGS_Conquistarmujer, 00:12)

(31) <u>Ach</u>   cham na=ch   jir=o'dam   na=ch-gu'   jix=momgon-ka'
1PL.SBJ NEG   SUB=1PL.SBJ COP=O'dam SUB=1PL.SBJ-ADV COP=tired-EST

'We do not, the O'dam people, because we are always tired.'
(Text_072011_PSC_GGS_elcuidadodelamujer2, 08:34)

(32) Añ   ubii   ya'   ai-ch-dha   jumai' cham tu' <u>ap</u>
1SG.SBJ woman DEM.PROX arrive-CAUS-APPL another NEG   2SG.SBJ

'I am going to bring another woman and not you.'
(Text045_102010_CFC_GGS_Cuandolacuranderaeraniña, 21:18)

Finally, when negating a dependent clause, *cham* appears inside of the dependent clause but still precedes the verb, as in (33), while *cham tu'* always immediately precedes the subordinator (34).

(33) no'=ñ   git jir=alhii-ka' cham bhammuk-da'-iñ   git gio
     COND=1SG.SBJ SUBJ COP=little-EST NEG   angry-CONT-1SG.SBJ SUBJ COORD

     [**na=ñ**   **cham** jiñ-lokiar-da']
     SUB=1SG.SBJ NEG   1R/M-crazy-CONT

     'If I were a child, I could not be able to get angry or get crazy.'
     (Text_092010_MSM_GGS_Lavidatepehuana)

(34) Jix=kako'k-ka'-am   cham tu' na=m   tu'
     COP=sick-EST-3PL.SBJ NEG   SUB=3PL.SBJ something

     jix=kɨkɨ'-ka'-am
     COP=healthy-EST-3PL.SBJ

     'They are ill, they are not in good health.'
     (Text_072011_PSC_GGS_elcuidadodelamujer2, 13:42)

Beyond positional differences, it is not clear what the differences in usage are between *cham* and *cham tu'*. The former may be somewhat more emphatic because García Salido (2014: 136-140) finds that negative commands are only formed with *cham + ap* '2SG.SBJ', as in (35). However, we do not have clear evidence that emphaticness distinguishes the two negators otherwise.

(35) a. gio   sap bhai'=p ka-xi-juu **cha=p**   dhu=ñ
        COORD REP.UI DIR=IT   PRF-IMP-eat NEG=2SG.SBJ EVID=1SG.SBJ

        kua'da' jiñ-jaduñ   ja'p sap   kai'ch
        eat-CONT 1SG.POSS-brother DIR REP.UI say.PFV

        'And he ate again, do not eat me brother, he said.'
        (Text_072011_PSC_GGS_Gokbhabomkox, 28:59)

     b. **Cha'=p**   ñiok-da'   tɨɨ   gu-m-taat
        NEG=2SG.SBJ speak-CONT INT.NR DET-2SG.POSS-father

        na=t-jax   dhoda
        SUB=3SG.SBJ.PFV-how do.something.to.person

        'Shut up, you do not know what he did to your father.'
        (Text_092010_HSA_GGS_Elcuento, 04:28)

4.2 Existential negation

In terms of the negative existential cycle, O'dam is a Type A language, where standard negation strategies are used for existential constructions. Notice in (36-39) *jai'ch* is negated by an immediately preceding negation particle and that the negation strategy is the same regardless of whether the existential occurs in a matrix clause (36-37) or a subordinate clause (38-39). It seems that singular nouns are only used to negate the existence of a singular referent (e.g. the demon), while plural nouns are used to negate the existence of sets (e.g. women, plants). This appears to contrast with O'dam's treatment of mass nouns, which are morphosyntactically singular but may have individuated units.[8]

(36) Bajɨk dɨr cham tu' jaich-ka' dhu
     before DIR NEG   EXIST-EST EVID.DIR
     'That did not exist before'
     (Text007/Text_092010_MSM_GGS_Lavidatepehuana, 11:03)

(37) Cham jai'ch-am-a'   ba' gu u'~ub
     NEG   EXIST-3PL.SBJ-IRR SEQ DET PL~woman
     'Then there are no women (and there will be no women).'
     (Text_082011_MMC-MRS_GGS_Conversación, 00:52)

(38) Ji   chu'ul pu jii   na=∅-jax   cham ka-jaich xib gu ji
     FOC demon SENS go.PFV SUB=3SG.SBJ-how NEG   PRF-EXIST today DET FOC
     chu'ul
     demon
     'The demon went and since then there hasn't been a demon.'
     (Text013/Text_092010_HSA_GGS_Elcuento, 07:15)

(39) Gɇ' giotɨr pai'   na=∅   cham jai'ch gu u'~ux
     Big Plains where SUB=3SG.SBJ NEG   EXIST DET PL~plant
     'Llano Grande where there are no plants.' (Text_082011_MMC_GGS_La
     estrelladelamañana3, 05:47)

Standard negation strategies are also used for existential constructions where the predicate element is other than *jai'ch*. In (40-41), the standard negation strategy is used for the copular existential construction in a subordinate and main clause, respectively.

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[8] For example, tortillas, potatoes and apples are all mass nouns in O'dam but Everdell & Denlinger (2019) find that they can trigger plural state marking on resultatives and statives.

(40) Mi=ñ   jodero no=ñ   jim na=Ø   cham pai'
      DEM.MED=1SG.SBJ fuck COND=1SG.SBJ go SUB=3SG.SBJ NEG place
      jir=ki~kcham ja'p sap   tɨtda
      COP=PL~house DIR REP.UI say
      'He's going to fuck me if I walk around where there are no people, he
      said.' (lit. if I walk around in the place where there are no houses)
      (Text028_102010_MCC_GGS_Losmuchachosquebuscabancomida, 05:43)

(41) Cham tu' pɨk mi'   jap jir=bailes-ka'   mi'   ja'p pai'
      NEG   PTC DEM.MED DIR COP=dances-EST DEM.MED DIR where
      dhi'   juktɨr
      DEM.PROX Santa.Maria.de.Ocotán
      'Now there are no dances in Santa María de Ocotán.'
      (Text007_092010_MSM_GGS_Lavidatepehuana, 19:10)

While constituent negation is well attested in non-existential contexts, in existen-
tial constructions we have no attested cases of postverbal constituent negation.
Instead, apparently constituent negation must take place before the verb, as in
(42) where the demonstrative *ya'* is negated. In (43) and (44) we see examples of
negation of preverbal indefinite pronouns, where DPs cannot appear.

(42) Na=Ø-gu'   ya'   cham pai' jaich gu tu'   na=ñ
      SUB=3G.SBJ-ADV DEM.PROX NEG place EXIST DET something SUB-1SG.SBJ
      chu-tan-da-'   na-ñ   chu-kua-da-'
      DUR-buy-CONT-IRR SUB=1SG.SBJ DUR-eat-CONT-IRR
      'Because this here is not what I'm going to buy to eat'
      (Text005_092010_TSC_GGS_Guasak, 05:56)

(43) Cham jaroi'   bha=jim
      NEG someone DIR=go
      'Nobody is coming.' (Elicitation_082018_MA_ME)

(44) Cham tu'   nii'ñ-iñ
      NEG something see-1SG.SBJ
      'I do not see anything' (Elicitation_082018_MA_ME)

We only find examples of non-clausal negation of indefinite pronouns (no + some-
body, no + thing, etc.) in existential constructions, we have no examples of
negated preverbal subject pronouns. Thus, in O'dam clausal negation appears to

rely on the definiteness of the verbal arguments. We show indefinite existential negation through the clausal negation strategy in (45-46). In both examples, the subordinate clauses expressing the negated referent use the indefinite pronouns *tu'* 'something' and *jaroi'* 'someone', respectively.

(45) Cham jai'ch-ka' na=m   tu'   jugia'
      NEG   EXIST-EST SUB=3PL.SBJ something eat
      'There was nothing to eat.' (Text_072011_PSC_GGS_elcuidadodelamujer1, 9:40)

(46) Na=∅-gu'   sap   cham jai'ch-ka' na=ñ   tu-tɨka-'
      SUB=3SG.SBJ-ADV EVID.UI NEG   EXIST-EST SUB=1SG.SBJ DUR-cover-IRR
      'Because there was nothing to cover me with.'
      (Text_102010_PSC_GGS_Lavidademiesposo, 43:00)

It may be that existential constructions in O'dam entirely disallow postverbal constituent negation or that it is simply unattested. Our findings for O'dam (negative) indefinite pronouns align with typological work showing that negative/negated indefinite pronouns can often function as direct negation markers (Haspelmath 1997; Veselinova 2013; Van Alsenoy 2014). At this point, we do not find any difference in the use of negated *jai'ch* + INDEFINITE PRONOUN versus a negated indefinite pronoun, unlike in Swedish (Valentine Bordal 2017). However, our current corpus is relatively small so we do not discount statistical tendencies.

In addition to the use of standard negation on attested existential construction types, we also find several cases where a negative existential meaning arises out of a construction that is not attested in positive existential contexts. The verb *maax* 'see, notice' can express an existential meaning when negated. In (47), *maax* is being used to express that there are no footprints but speakers report that the footprints discussed in the sentence are not visible because they do not exist.[9] However, in positive contexts like (48a) and some negative contexts like (48b), the verb expresses visibility rather than existence.

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[9] Our consultants report that (48b) is quite odd if followed up with something like (i) that contradicts the existential negation meaning of the original sentence.

(i)   *…pero mi=x*   *jai'ch-am*
      …pero DEM.MED=COP EXIST-3PL.SBJ
      'but they are there.'

(47) Na=m-gu'   cham maax
     SUB=3PL.SBJ-ADV NEG   see
     'Because there are no footprints.'
     (Text_092011_MMC_GGS_elseñorqueperdiósusanimales1, 03:49)

(48) a. Ya   ja'p bak buus gu jaroi'   na ba' gamai'-ñi pɨx maax
         DEM.PROX DIR INFR pass DET someone SUB SEQ DIR-VIS   MIR see
         bɨix   a'nsap
         along descent
         'It seems that some people passed by here, you can see the tracks on
         the descent' (E. R. Willett & T. L. Willett 2015: 120)

      b. Moo ja'p cham maax jia na=∅-jax   dhuu-ka-t
         doubt DIR NEG   see   RET SUB=3SG.SBJ-how rain-EST-IPFV
         tu-iipuñi-dha'   sia na=r   tu'
         DUR-grow-CONT EXPS SUB=COP something
         'See how you cannot tell when the plants are sprouting.' (E. R. Willett
         & T. L. Willett 2015: 120)

In (49-50) we see two cases where the negated existential construction is ex-
pressed through zero-derived denominal verbs, *juuk* 'pine' and *busiñ* 'pass', re-
spectively. This construction type is, thus far, unattested for positive existential
meanings but is attested in negative predicative possession constructions, as in
(51).

(49) Cham tu' pɨk mo   ka-juku-'
     NEG   PTC doubt PRF-pine-IRR
     'Then there are probably almost no pines.'
     (Text007_092010_MSM_GGS_Lavidatepehuana, 10:17)

(50) Cham tu' ka-busiñ
     NEG   PRF-pass
     'There is no pass' (Text_092011_Varios_GGS_Platica, 05:31)

(51) Gu jax dhui   na=∅-gu'   cham tu' bu∼pui-ka-t   jia
     DET how EVID.DIR SUB=3SG.SBJ-ADV NEG   PL∼eye-EST-IPFV RET
     'Well, as he did not have eyes, right?'
     (Text_092010_HSA_GGS_Los2compadres, 4:08)

In addition to overt negation, there appear to be attested cases where the negative
sense is expressed, but there is no overt marker. This comes across with the

adverb *ampɨx* 'only' and the verb *jugia'* 'finish' (52-54). There does not appear to be a similar construction for positive contexts so that this construction appears to be restricted to negative meaning when used in existential contexts. However, this structure is attested outside of existential contexts, where *ampɨx* appears to add the meaning that 'everything' will be finished, as in (54).

(52) Ampɨx chu-ju'   mi' sudai-chɨr apim   chi-jix=bhio'   ji ja'p
       only DUR-finish DIR water-of   2PL.SBJ DUR-COP=hungry FOC DIR
       sap   kai'ch
       REP.UI say
       'There is nothing in the water, you all will be hungry, he say.'
       (Text033_102010_TMR_GGS_Los3hermanos1parte, 03:26)

(53) Nai' sap   ba' pɨx ampɨx ba-tu-ju'
       DIR REP.UI SEQ MIR only CMP-DUR-finish
       'So there's nothing there.' (Text_072011_PSC_GGS_Gokbhabomkox,
       08:50)

(54) Gio   na=∅   ba=r-taabhak-ka' ampɨx ji   chu-m-jugia'
       COORD SUB=3SG.SBJ CMP=COP-rain-EST only   FOC DUR-3R/M-finish
       'And when it does not rain (Lit. when rain is done), everything ends.'
       (Text_072011_LRF_GGS_Lahistoriadelasmujeres1, 00:28)

Now that we have discussed existential negation in O'dam, we turn to standard and existential negation in several Southern Uto-Aztecan languages.

5 Existential Negation in Southern Uto-Aztecan

O'dam is on the Tepiman branch of Uto-Aztecan, which is a subgroup of the Southern Uto-Aztecan branch (a full tree is shown in the Appendix). Northern Tepehuan is a Tepiman language spoken in Chihuahua and Northern Durango. It appears to be a Type B language where there are distinct strategies for standard and existential negation. Standard negation is indicated through the negative particle *mai* and the negative adverbial *tomali*, as shown in (55-56). As we discuss in §6, it is plausible that *mai* is cognate with the /m/ in O'dam *cham*.

(55) Mai áágai aánɨ   góóvai áágai aánɨ   ɨgáa
       NEG want 1SG.SBJ DEM   want 1SG.SBJ other
       'I do not want those, I want the others' (Bascom 2003: 26)

(56) Tomali ɨmóóko go-ááli   mai maátɨ ñioókai oobáí-kɨ-dɨ
       not   one   DET-children NEG know speak   spanish-VBLZ-NMLZ
       'None of those children can speak Spanish' (Bascom 2003: 32)

Existential negation is indicated by the negative existential *tiípu(ka)*, shown in
(57-58). The negative existential is apparently compatible with the negative particle *mai*, as shown in (59), although it is not clear if the construction in (59) is
used for emphasis.

(57) Tiipúka   maáxi óodami kiiyɨ́rɨ
       NEG.EXIST seem   person   house.inside
       'There seems to be nobody in the house.' (Bascom & Molina 1998: 264)

(58) Alí   ɨɨpídi oidígi   vai   tiípu   kuáági ixtumá naadá-gi   dai
       very cold   weather CONJ NEG.EXIST wood   thing   make.fire-IRR CONJ
       gɨr-uukáda-gi
       1PL.OBJ-warm-IRR
       'It's very cold and there is no wood to put in the fire to warm us.' (Bascom
       & Molina 1998: 264)

(59) Tɨ́ɨ́ aánɨ   ɨmó alí   sáívuli ɨmó uuxí-ána dai   ka   mai tiípu
       find 1SG.SBJ one small hive   one tree-in   CONJ already NEG NEG.EXIST
       dɨɨ~dɨ́dɨ
       PL~bee
       'I found a little hive in a tree and there were no more bees' (Bascom &
       Molina 1998: 15)

Bascom (1982) finds that positive existential predications in Northern Tepehuan
are either expressed through juxtaposition (noun-noun, noun-pronoun, question
word-noun, adjective-noun, or quantifier-noun), as in (60), or through the verb
oid^yága, as in (61). Based on Bascom (1982)'s brief discussion, Northern Tepehuan
may separate locative from existential predications. Bascom (1982) does not list
examples of locative predications with the juxtaposition or the existential verb
strategy. Instead, Bascom (1982) only give examples of locative predications with
positional verbs.

(60)   a. Múí-d^yu   kií~ki
          many-QUANT PL~house
          'There are many houses' (Bascom 1982: 281)

    b. Ši=ɨ́ɨki-du-ka-tadai
       Q=how.many-QNT-EST-PAST.CONT
       'How many were there?' (Bascom 1982: 282)

(61) a. Oidʸága múí-dʸ   kií∼ki
       there.are many-QUANT PL∼house
       'There are many houses' (Bascom 1982: 282)

The positive existential predicate *oidʸága* isrelated to O'dam *oilhia'* 'move'. The Northern Tepehuan form is from Proto-Tepiman **oida* 'to follow', while the O'dam form is from the related form **oimɨrai* 'to walk about' (Hill 2014). Bascom (1982: 281) notes that the positive existential *oidʸága* can co-occur with the standard negation particle *mai*. However, he does not offer examples nor does he explain possible differences between the negative existential *tiipú(ka)* and *mai + oidʸága*.

    Pima Bajo, a Tepiman language spoken in Sonora, appears to be a Type A language. Estrada Fernández (2014: 149) finds that Pima Bajo has two suppletive existential forms that are probably historically related: one for existential predicates of plural or mass entities (62) and another for singular existential predicates (63). In addition, Estrada Fernández (2014: 154) lists several other verbs used for existential meaning: *maasi* 'seem, be, exist', *tu'ig* 'stay', and *is* 'be'.

(62) I'i si'ik   amig.
      LOC PL∼deer exist.PL
      'Here, there are deer.' (Estrada Fernández 2014: 149)

(63) Ai-m   kii in-ki-ga.
      exist.SG-CONT house 1SG.NSBJ-house-AL
      'My house is that.' (lit. 'There is a house, my house.') (Estrada Fernández 2014: 150)

    Standard negation in Pima Bajo is expressed by means of the negative particle *im* (64-65) or by the emphatic negative particle *kova* (66), both in preverbal position (Estrada Fernández 2014).

(64) Im hɨɨp
      NEG cold
      'There is no cold.' (Estrada Fernández 2014: 162)

(65) Tia im gɨɨs-im
      hail NEG fall-CONT
      'It is not hailing.' (Estrada Fernández 2014: 163)

(66) Kova-in   giig-ia uus-kar ha'a
     NEG.EMF-IMP hit-PROB stick-INS pot

     'Do not hit the pot with the stick!' (Estrada Fernández 2014: 132)

Standard negation is also used for existential predications (Estrada Fernández 2014: 155). Notice in (67) that the standard negation marker *im* is used so that existential negation is accomplished through the same means as standard negation.

(67) As higi   im maasi irav   kuid-am
     REP 3SG.SBJ NEG seem inside below-LOC

     'He said there does not seem to be anything down in there.'
     (Estrada Fernández 2014: 155)

Cora, a Corachol language spoken in Nayarit immediately to the south of O'dam, appears to be a Type B language. It uses the particle *ka* to express standard negation (68). This particle usually appears in first position in the clause and is followed by second position enclitics that encode subject (Vázquez Soto p.c.).

(68) i   Juan, ka pu wa-mí'i
     DET John NEG s3SG cmp-die.SGS

     'As for John, he did not die.' (Vázquez Soto 2001: 201)

Cora differentiates between a positive (69) existential copula[10] that suppletes for number and a negative existential copula that does not supplete (70). The standard negation particle *ka* is also apparently obligatory in negative existential constructions.

(69) hó'u-ni   h-é'en   tátsi'u?
     LOC-INTER 3SG.SBJ.ANI-COP.EXIST.SG rabbit

     'Where is the rabbit?' (Vázquez Soto 2013: 139)

(70) ká=pu   mé'e   pá'arih Chimaltita
     NEG=3SBJ COP.EXIST.NEG child   Chimaltita

     'There are no children in Chimaltita.' (Vázquez Soto 2013: 165)

A verb of posture can co-occur with the existential copula in Cora, as in (71), however, it is unclear whether this co-occurrence is possible with indefinite subjects Vázquez Soto (see 2013: 180ff).

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[10] Vázquez Soto (2013) shows that Cora can use the existential copula for locative constructions of definite referents, especially in questions.

(71) Núh náimi'i ma-tíh   mána'a   pwá'ame
     EV all   3PL.SBJ-SUB 3PL.SBJ.EMPH COP.EXIST.PL
     wi-ráa-uu
     ADH:hole-inside-be.standing.PL
     'They say that all of them are inside.' (Vázquez Soto 2013: 181)

(Vázquez Soto 2013: 181) argues that in the case of negative locative descriptions of the existential type the postural verb is ungrammatical, as in (72). Instead only the negative existential copula may be used, as in (73). Thus, it seems that all negative existential constructions in Cora require both the standard negator *ka* and the negative existential copula *mé'e*.

(72) *Ká=pu   wa-tá-ka   tuíixu kuráh-ta'a
     NEG=3SG.SBJ.ANI CMP.EXT-SUP-sit.SG pig   barnyard-LOC
     Intended meaning: 'There is not a pig in the corral.' (Vázquez Soto 2013: 181)

(73) Ká=pu   mé'e   tuíixu kuráh-ta'a
     NEG=3SG.SBJ COP.EXIST.NEG pig   barnyard-LOC
     'There is not a pig in the corral.' (Vázquez Soto 2013: 181)

Huichol, a Corachol language spoken in Nayarit just to the south of O'dam, appears to be a Type B language where a separate negative existential verb *mawe* is used for existential negation,[11] compare (74) and (75).

(74) Kwiniya waniu   mu-xuawe
     disease EVID.IND AS2-EXIST
     '...there are diseases...' (Bierge 2017: 112)

(75) kumu ne-maine   hepaɨ 'ukara-tsi pu-mawe-kai
     how 1SG.SBJ-say how   woman-PL   AS1-NEG.EXIST-IPFV
     '...as I'm saying, there were not women...' (Bierge 2017: 112)

Unlike in the closely related Cora, in Huichol the negative existential apparently does not co-occur with the standard negation prefix *ka-*, as in (76). However, the negative existential *mawe* can alternate with the standard negation prefix plus

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[11] The phonological and functional similarities between Northern Tepehuan *mai*, Cora *mé'e*, and Huichol *mawe* are such that they may be cognate, although we hesitate make a more definitive claim here because the exact vowel correspondences and the correspondence between Cora /'/ and Huichol /w/ are not otherwise attested (Stubbs 2011).

existential *xuawe*, as shown in (77). Bierge (2017: 115) notes that the *ka-* + *xuawe* construction is less frequently used than the negative existential *mawe* and it is probably borrowed from Spanish *no* + *existir*. We tentatively do not consider Huichol to be intermediate between Type A and B, because the Type A strategy seems to be so marginal.

(76) nee=ri   kwatsie 'a-hetsie ne-p-e-tanua-ni   'a-papa
      1SG=already AFF   2SG-in 1SG.SBJ-AS1-EXT-defend-FUT 2SG-father
      '…I'll defend you from your dad'
      ka-metsi-he-ku-waya-ni=ri
      NEG-2SG.NSBJ-EXT-SP-hit-FUT=already
      'so that he does not hit you anymore…' (Bierge 2017: 54)

(77) ne-kie   teɨteri me-kwa-xuawe-kai
      1SG-house people 3PL.SBJ-NEG-EXIST-IPFV
      'There were not people at home.' (Bierge 2017: 115)

Finally, Guarijío, a Taracahitan language located in the West Sierra Madre Mountains in Chihuahua and the border of Sonora, also appears to be a type A ∼ B language. For existential negation, speakers can choose to use a standard negation strategy with the positive existential predicate, Type A, or use a dedicated negative existential predicate without the standard negator, Type B. For standard negation Guarijío uses the clitic *ki=*, which apparently attaches to the negated element (78-79).

(78) Ki=tara-rú=ne   munní
      NEG=buy-PFV.EV=1SG.SBJ beans
      'I didn't buy beans' (Félix Armendáriz 2006: 192)

(79) Ki=amó   tara-ké-ru=ne   munní
      NEG=2SG.NSBJ buy-APPL-PFV.EV=1SG.SBJ beans
      'I didn't buy beans for you' (Félix Armendáriz 2006: 193)

The positive existential *maní* (80) contrasts with the negative existential verb *ki'te*, as in (81). However, the standard negation particle can also attach to the positive existential marker, as in (82). Félix Armendáriz (2006) makes no comment on the different uses of the dedicated negative existential versus the negated positive existential.

(80) Maní munní
      EXIST beans
      'There are beans.' (Félix Armendáriz 2006: 191)

(81) Ki'té   munní
      NEG.EXIST beans
      'There are not beans.' (Félix Armendáriz 2006: 191)

(82) Ki=maní-re   nerói
      NEG=EXIST-PFV water
      'There is no water' (Félix Armendáriz 2006: 115)

In light of the other negation elements in Guarijío (*kái* 'negative answer', *katé* 'negative imperative'), it seems likely that the negative existential *ki'té* consists of a fossilized form of the negation particle *ki=* that fused with some element *té*, although we do not discount the possibility that *ki=* is a reduction of *ki'té*.

   To summarize the discussions here, we present the standard and existential negation strategies in our sample of Southern Uto-Aztecan languages in Table 4. Now that we have discussed the existential negation types in a sample of South-

Table 4: Negation strategies among Southern Uto-Aztecan languages

Language (branch)	SN	NegEx	Source
O'dam (Tepiman)	*cham(tu')*	*cham(tu')*	
Northern (Tepiman) Tepehuan	*mai, tomali*	*tiípu(ka)*	(Bascom 2003)
Pima Bajo (Tepiman)	*im, kova*	*im, kova*?	(Estrada Fernández 2014)
Cora (Corachol)	*ka*	*ka + mé'e*	(Vázquez Soto 2013)
Huichol (Corachol)	*ka-*	*mawe*, or *ka + xuawe*	(Bierge 2017)
Guarijío (Taracahitan)	*ki=*	*ki'té* or *ki=maní*	(Félix Armendáriz 2006)

ern Uto-Aztecan languages, we take a historical view and posit a developmental path for existential and standard negation in O'dam.

6 A possible pathway of change

Southern Uto-Aztecan languages in general seem to be Type B languages, where existential constructions are negated by a special strategy. The exceptions are

O'dam and Pima Bajo, which are both Type A, where standard negation is used in all cases, and Guarijío, which seems to be both Type A and B. In the standard and existential negation strategies in Table 4 we find a significant amount of replacement and change. This suggests that in Southern Uto-Aztecan languages, the development of standard and existential negation occurs along quite different paths. Especially in Tepiman languages (O'dam, Northern Tepehuan, Pima Bajo), both existential and standard negation appear to be highly susceptible to change, but their change cannot obviously be linked in any way.

Langacker (1977: 32-3) reconstructs *ka* as the Proto Uto-Aztecan basic negative morpheme. Across Southern Uto-Aztecan, Tepiman appears to be unique in lacking reflexes of *ka*.[12] All of the non-Tepiman languages discussed in this chapter maintain a reflex of the particle, summarized in Table 4. Aztecan languages, which form a subgroup with Corachol, appear to use cognates of Classical Nahuatl *a'mo* (Launey 1981) for standard negation and express existential negation through negated indefinite pronouns.[13] Hill (2014) and Langacker (1977) say that *a'mo* is a reflex of the aforementioned Proto Uto-Aztecan *ka*. Pima Bajo is possibly the only Tepiman language that maintains *ka* in its negative emphatic marker *kova*, which is likely derived from a combination of the basic negator *ka* plus *pa*, which Langacker (1977: 32) reconstructs as an emphatic affirmative.

Looking to Northern Tepehuan, *mai*, if *tia=mai* was a negative Proto-Tepehuan construction, then *cham* would be the expected reflex if O'dam speakers froze the full construction and Northern Tepehuan speakers only maintained the ending *mai*. The initial consonant [ch] appears in O'dam due to palatalization when /t/ is immediately adjacent to /i/ and the Southwestern Tepehuan negation particle *jiam*, suggests that *i* in the Proto-Tepehuan form followed the initial *t*. O'dam would have then placed stress on the initial syllable and deleted the final diphthong (E. Willett 1982).

Langacker (1977: 33) reconstructs **ta* as a Proto Uto-Aztecan emphatic particle that gained its negative meaning through its common use in negative expressions. This could be the source of the *tia* element in the possible Proto-Tepehuan construction, however it does not explain the high vowel. A possible source for the high vowel lies in Pima Bajo *im*, which suggest there could have been a Proto-Tepiman construction **ta-imai*. It is then possible that Proto-Tepehuan or Southern Tepehuan metathesized the diphthong in the initial syllable, however,

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[12] This includes the Tepiman language Tohono O'odham, which uses the negation particle *pi*.

[13] See Hausteca Nahuatl (R. Beller & P. Beller 1979), Mecayapan Nahuatl (Wolgemuth 2002), Michoacán Nahuatl (Sischo 1979), North Puebla Nahuatl (Brockway 1979), Tetelcingo Nahuatl (Tuggy 1979), Tlaxcala Nahuatl (Flores Nájera 2019), and Pipil (Campbell 1985)

such **ai* > *ia* metathesis is otherwise unattested in O'dam reflexes so this seems unlikely. Additionally, ***imai* does not have a clear source as we do not find negative or emphatic morphemes in other Uto-Aztecan languages with a similar phonological shape. The possible pathway of developments is shown in Table 5, however without a in-depth look at negative and emphatic particles (beyond the scope of this chapter), we can only speculate on the origins of O'dam *cham*.

Table 5: Possible development of O'dam *cham*

*****ta* >	*****ta-imai* >	**tia-mai* >	*cham*
NEG.EMPH	NEG-??	NEG-NEG?	NEG
Proto Uto-Aztecan	Proto-Tepiman	Proto-(Southern) Tepehuan	O'dam

Hill (2014) finds that the Proto Uto-Aztecan negator **ka* was maintained in all subgroups as a negation marker, except Tepiman, which entirely lacks reflexes of the form. In contrast with the rest of Uto-Aztecan, it seems that Tepiman has undergone quite a bit of innovation specific to the standard negation particles. We can only speculate on the origins of the Tepiman negation particles. The possible proto-form **imai* is not attested in any other parts of the family and is only weakly constructible based on present evidence. Moreover, the Tohono O'odham negation particle *pi* is not obviously connected to any elements in any other Uto-Aztecan language.[14]

O'dam also uniquely innovated the negation particle *cham tu'*. This particle almost certainly developed from the combination of the basic negator *cham* plus the indefinite pronoun *tu'* 'something'. While *tu'* seems to most often pronominalize nouns, it also seems to be able to have an irrealis non-specific function with dependent clauses, a property not unique to O'dam (Haspelmath 1997). In (83), *tu'* is the head of the bracketed subordinate clauses and essentially makes their meaning irrealis and non-specific. This structure mirrors that of standard externally headed relative clauses, shown in (84), where the head immediately precedes the subordinator (García Salido Submitted).

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[14] While it is possible that it developed out of a compound of the Proto Uto-Aztecan emphatic negator ***pa* and our Proto-Tepiman **imai*, we seriously doubt this. First Proto Uto-Aztecan ***p* became **v* in Proto-Tepiman, so that we would expect *vi* rather than *pi*. Second, **pa=imai* would have had to lose its final CV segment and completely assimilate /a/ > /i/. While final vowel devoicing and deletion is almost a universal Tepiman process, deletion of final consonants, or full CV segments, is not attested in Tepiman, let alone Tohono O'odham.

(83) a. Tu'   na   pix   ba-ñ-pasaru-'
          something SUB MIR CMP-1SG.PO-pass-IRR
          'Something is going to happen to me.'
          (Text_092010_MSM_GGS_Lavidatepehuana, 27:32)

   b. Jiñ-alhii-chu-k   dhi'   tu'   [na=∅   pix
       1SG.POSS-boy-CAUS-PNCT DEM.PROX something SUB=3SG.SBJ MIR
       pasar-ka']   ora   mui' chumiñ-kɨ'n na=ñ   ba-dependero'
       happen-EST now a.lot money-with SUB=1SG.SBJ CMP-depend
       'Something is going to happen to my son, now with a lot of money, I
       help him.' (Text_102010_CFC_GGS_Lacostumbre, 02:11)

(84) Gu chi~chio'ñ [na=m   ba-nab-dhi-po']
      DET PL~man   SUB=3PL.SBJ CMP-hunt-APPL-MOV
      'The men who are going to hunt.'
      (Text004/Text_092010_TSC_GGS_Elxiotahl, 00:31)

Through frequent collocation, *cham + tu'* would become a frozen NEG + 'indef-inite head' construction. We must caution that the modern particle *cham tu'* differs in many ways from its plausible previous life as a negated external rela-tive clause head construction. It can be used in realis and specific contexts (85) and currently we do not know of any semantic constraints that *cham tu'* places on the negated element that would follow from it being a relative clause head. As discussed in §4.1, *cham* can only precede negated verbs (clausal negation) and must follow all other negated constituents. In addition it must occur inside of negated dependent clauses. Conversely, *cham tu'* can precede negated verbs and constituents and occurs outside of dependent clauses. Thus, the position of the particle follows from its development from an external relative clause head.

(85) Añ   ubii   ya' ai-ch-dha'   jumai' **cham tu'** ap
      1SG.SBJ woman DIR arrive-CAUS-APPL another NEG   2SG.SBJ
      'As for me, I am going to bring another woman (for me), not you.'
      (Text_102010_CFC_GGS_Cuandolacuranderaeraniña, 21:17)

   It seems that Tepiman languages as a whole, including O'dam, are particularly prone to elaborating and replacing negative particles within the Uto-Aztecan family. It is not clear whether the O'dam and Tepiman forms were taken from common sources (e.g. emphatic negative particles) or whether they were simply innovated separately. However, the key point is that the development of stan-dard negation in O'dam, and Tepiman more widely, is unconnected to existential negation.

Turning to existential predication in Southern Uto-Aztecan, we find that there is quite a bit of evidence for the (re-)emergence of negative existentials. In Table (6) we show the dedicated positive and negative existential predicates in each language in our sample. To our knowledge none of the forms are cognate with each other, and they do not appear to be reflexes of attested Proto Uto-Aztecan cognates.

Table 6: Positive and negative existential predicates in our Southern Uto-Aztecan sample

Language	PositiveEX	NegativeEX
O'dam	*jai'ch*	*cham (tu') + jai'ch*
Northern Tepehuan	*oidʸága*	(mai +) tiípu(ka)
Pima Bajo	*ai* SG	*im/kova? + ai/amig*
	amig PL	
Cora	*é'en* SG	*(ka +) mé'e*
	pwá'ame PL	
Huichol	*xuawe*	*mawe*
Guarijío	*maní*	*ki'té* or
		ki=maní

We see that the Corachol subgroup (Cora, Huichol) seems to have derived their positive and negative existentials from a common source, or possibly one from the other. However, it is unclear where this source would be or what the origin of the /m/ initial segment is. The possible Proto-Tepiman *imai* seems an unlikely source because it is unattested in Corachol and truncation of /imai/ > /m/ would be otherwise unattested in Corachol.

The negative existential in Northern Tepehuan and Guarijío are completely unrelated to their positive counterpart. Most of the languages allow the negative marker to co-occur with either the positive or negative existential, and this is obligatory in O'dam and Pima Bajo. However, Guarijío is the only language that has plausible evidence for evolutionary interaction of standard and existential negation, because the /ki/ segment of *ki'té* could plausibly be from the standard negation clitic. All others do not show any obvious reflex of the standard negation particle in the positive or negative existential forms. Thus, while we do not know the source of the negative, or positive, existential predicates in Southern Uto-Aztecan, only Guarijío seems to have any evolutionary interaction between standard and existential negation.

7 Conclusion

This chapter describes the strategies that O'dam employs to express existential meaning and their negation. O'dam uses several types of constructions to express positive existential meaning, these include the non-verbal predicate *jai'ch*, locative positional constructions and a copular construction. We also describe standard negation, which is accomplished through the use of two particles *cham* and *cham tu'* that are used for both clausal and constituent negation. O'dam is a Type A language because it uses standard negation strategies to negate existential constructions. Although clausal negation seems to be preferred for existential negation and we find no attested cases of postverbal constituent negation. The apparent exception to O'dam's Type A status is the use of *ampɨx* + 'finish', which does not appear with any overtly negative elements and seems limited to 'there is nothing'. Finally, we discuss the place of other Southern Uto-Aztecan languages in the existential negation cycle, most of which appear to be Type B. O'dam and Pima Bajo appear to be unique as Type A languages. Standard negation particles and existential negators seem to be commonly replaced and emergent, especially in Tepiman. Thus, it seems that standard and existential negation in the history of O'dam, and likely Southern Uto-Aztecan, have not played roles in each others development and evolution.

Abbreviations

ADV: adverbializer
AFF: affirmative
AL: alienable
ANI: animate
AP: antipassive
APPL: applicative
AS1: primary assertion
AS2: secondary assertion
ASP: aspectual
DEM.PROX: demonstrative proximal
DEM.DIST: demonstrative distal
DEM.MED: demonstrative medial
DET: determiner
DUR: durative
CAUS: causative

CMP: completive
COND: conditional
CONJ: conjunction
CONT: continuative
COORD: coordinator
COP: copula DIR: directional
DUR: durative
EST: stative
EMF: emphatic
EV: evidential
EVID.DIR: direct evidential
EVID.IND: indirect evidential
EXIST: existential
EXPS: expository
EXT: extension
FOC: focus
FUT: future
IMP: imperative
IND: indicating
INFR: inferential
INS: instrumental
INTER: interrogative
INT.NR: intention not realize
IPFV: imperfective
IRR: irrealis
IT: iterative
LOC: locative
MIR: mirative
MOV: movement
NEG: negation
NMLZ: nominalizer
NSBJ: non-subject
PFV: perfective
PNCT: punctual
PO: primary object
POSSD: possessed
PREC: precision
PRF: perfect

PROB: probability
PROG: progressive
PTC: particle
Q: question marker
QUANT: quantifier
R/M: reflexive/middle
R/R: reflexive/reciprocal
R/R/M: reflexive/reciprocal/middle
REP: reportative
REP.UI: reportative unknown information
RET: rhetorical
SBJ: subject
SENS: sensorial
SEQ: sequential
SUB: subordinator
SUBJ: subjunctive
SUP: support
VBLZ: verbalizer
VIS: visual

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Appendix: Uto-Aztecan family tree

Uto-Aztecan family tree based on Haugen (to appear). Language names are in italics. Some subgroups are controversial, these are indicated with a (?).

1. Northern Uto-Aztecan
    a) Numic

b) Takic

    i. Serran

    ii. Gab-Cupan

c) *Tübatulabal*

d) *Hopi*

2. Southern Uto-Aztecan (?)

    a) Tepiman

        i. Piman

           A. Upper Piman
             Pima, Tohono O'odham

           B. Lower Piman
             Pima Bajo, Névome

        ii. Tepehuan

           A. *Northern Tepehuan*

           B. Southern Tepehuan
             O'dam, Audam, Central Tepehuan, Tepecano

    b) Taracahitan (?)

        i. Cahitan
          Yaqui, Mayo

        ii. *Ópata-Eudeve*

        iii. *Tarahumara-Guarijío*

    c) *Tubar*

    d) Corachol-Aztecan

        i. Corachol
          Cora, Huichol

        ii. Aztecan

           A. *Pochutec*

           B. General Aztecan
             Nahuatl (many varieties), *Pipil*

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