The Mysterious $t$-

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1 Introduction

Some postpositions in Pima show up with a prefix /t-/; e.g., 'am ‘on’ versus t'am ‘on’. The distribution of this prefix has never been documented (to my knowledge), and two major dictionaries (Saxton and Saxton (1969) and Saxton et al. (1983)) do not even list these forms. My goal here is to give a preliminary account of the distribution.

2 An overview of Pima PPs

There are three salient portions of the PP in Pima: the postposition, the object of the postposition, and the deictic. The only necessary portion is the postposition; the object and the deictic can be omitted (when appropriate). The cannonical structure of these phrases is:

Specifier

Object Postposition

(1) 'an miish daam
PR table on
‘on top of the table’

(2) 'ab L.A. wui
NR L.A. to
‘to L.a. (toward speaker)’

Postpositions can be broken down into multiple syntactic types. The two major categories are the “short postpositions” and the “full postposition”. Short postpositions occur in exclusively head final structures, and look a bit like case suffixes. The full postpositions can occur as either prepositions or postpositions.

(3) a. *'ed: heg kii
   in house
   ‘in the house’
b. kii ’ed: house in

(4) a. kii ’amjed: house from ‘from the house’
b. ’amjed: heg kii from house

Postpositions can be stacked (to a limited degree). So far, all my examples of this end with the postposition gahi ‘across, through’.

(5) Alice ’at ’am ńeidakud: c- ’ed: gahi hii Alice AUX:PF FR mirror T- in through go(PF) ‘Alice walked through the looking glass.’

(6) Eric ’at vaikka daam gahi ’i daha. Eric AUX:PF ditch over across INCEP jump ‘Eric jumped over the ditch.’

3 Phonology and t-

I’ve called t- a prefix. My reasons for doing so are mainly phonological. There is a tighter phonological cohesion between this morpheme and the following postposition than any other type of morpheme. This /t/ changes to [c] before high vowels.

(7) t- ’an T- on ‘on’

(8) c- ’ed: T- in ‘in’

The homophonous first person plural clitic t= does not undergo the same phonological change. There is no change in nouns ending in a /t/ either.

(9) t= ’ed: 1P= in ‘in us’

(10) Haashañ Bahidag Mashat ’ed: June in ‘in June’

Based on this contrast, I suggest that there is a tighter morphological connection between t- and the postposition than with the clitics or preceding nouns. In other words, the morpheme under discussion is a prefix, while the pronominal units are clitics, and nouns are separate words.
4 Postpositions and t-

First we will look at which postpositions may take the t- suffix and look for possible patterns.

4.1 Postpositions Attached To

The prefix t- may only attach to a small set of postpositions, shown in the chart below. No postposition requires t- to be present.¹

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>'ab 'on, by, at, for (time)'</td>
<td>daam 'on top, above, over'</td>
<td>ba'ic 'in front of'</td>
</tr>
<tr>
<td>'am 'in, at'</td>
<td>'ed:a 'in, inside'</td>
<td>basho 'in front of'</td>
</tr>
<tr>
<td>'amjed: 'from, about'</td>
<td>gahi 'across, through'</td>
<td>veegaj 'behind'</td>
</tr>
<tr>
<td>'an 'on'</td>
<td>hug-taan 'beside, next to'</td>
<td></td>
</tr>
<tr>
<td>'ed: 'in'</td>
<td>kaj 'with (instrumental)'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>shaagid 'between'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>veeco 'under'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>veem 'with (comitative)'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>wui 'to'</td>
<td></td>
</tr>
</tbody>
</table>

Are there any generalizations that can be extracted to determine what postpositions take t- and which do not?

4.2 Phonological Generalizations?

The only phonological property of the “t-takers” versus the “non-t-takers” is that the former have an initial heavy syllable, starting with a glottal stop vowel sequence.²

Most the t-takers are also monosyllabic. This may be significant: 'ed: ‘in’, for example, does not allow you to leave off the t-, but 'amjed: ‘from’ occasionally does. There might be a semantic alternation involved here, however (see below).

(11) a. tohono c- 'ed:
    desert  T- in
    ‘in the desert’

b. * tohono ’ed:
   desert  in

(12) a. La Mancha t- 'amjed:
   La Mancha T- from
   ‘from La Mancha’

b. La Mancha 'amjed:
   La Mancha from

¹The postpositions in the “unknown” column probably belong with the “no’s” since I have never seen the prefix attached to them. I have not explicitly checked, however.

²I have Pam Munro to thank for noticing this pattern.
4.3 Syntactic Generalization?

The order of the postposition relative to its object appears to be crucial for the presence of t-. The prefix only occurs when the object is before the postposition. (There are issues with the second pair that make it less than convincing, as we will see below.)

(13) a. Cekol 'at 'i gei kui t- 'amjed:. squirrel AUX:PF INCEP fall tree T- from 'The squirrel fell from the tree.'
   b. *Cekol 'at 'i gei t- 'amjed: heg kui. squirrel AUX:PF INCEP fall T- from DET tree

There are postpositions, such as wui ‘to’ that do not allow the alternative order, which do not allow this prefix, so this cannot be a deciding factor.

4.4 Semantic Generalization?

All the postpositions that take t- deal with physical location in some way. They tend to deal with pure location, without encoding any movement, e.g., 'am ‘at, in’ but not wui ‘to’, though this is not absolute. Furthermore, some postpositions that seem to encode pure spatial location do not allow the prefix; e.g., veco ‘under’.

The postposition 'ed: ‘in’ is not ambiguous like English in. Whereas English in can encode simple location or entrance, 'ed: only seems to express simple location.

(15) He's swimming in(to) the cave.

(16) a. Hega'i 'o m vaccvi cecco c- 'ed:. that AUX:IMP FR cave T- in 'He's swimming in (∗into) the cave.
   b. Vaccvig vaa 'at cecco c- 'ed:. swim enter AUX:PF cave T- in 'He entered the cave swimming.'

(17) Alice 'at 'am ńeidakud: c- 'ed: gahi hii. Alice AUX:PF FR mirror T- in through go

   'Alice walked through the looking glass.'

It is unclear how 'amjed: ‘from’ fits into this comsmology. There seem to be multiple senses of this word, and this affects the distribution of t-. When used to express where a person comes from (city, etc.), the t- appears to be optional.
Mesa ‘amjed: ‘añ.
Mesa from AUX:1s
‘I am from Mesa.’

Mesa t- ‘amjed: ‘añ.
Mesa T- from AUX:1s
When it is used to express the origin of movement, it is usually necessary.

a. Jason ‘at gamhu ‘i vuush kii t- ‘amjed:.
Jason AUX:PF far INCEP exit house T- from
‘Jason did go outside of the house.’

b. * Jason ‘at gamhu ‘i vuush kii ‘amjed:.
Jason AUX:PF far INCEP exit house from

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Jason AUX:PF far INCEP exit house from

However, this doesn’t jive with the following example.

a. Eric ‘at hep hu mee ‘iid kii ‘amjed:.
Eric AUX:PF somewhere far run this house from
‘Eric ran away from this house.’

b. * Eric ‘at hep hu mee ‘iid kii t- ‘amjed:.
Eric AUX:PF somewhere far run this house T- from

Postpositional uses that do not refer to spatial location do not (generally) take the prefix.

a. Eric ‘o m hema ‘aagid heg Sahyang heg ‘aaga Heriberto ‘amjed:.
Eric AUX:PF FR some tell DET Sahyang DET story Heriberto about
‘Eric told Sahyang a story about Heriberto.’

b. * Eric ‘o m hema ‘aagid heg Sahyang heg ‘aaga Heriberto ‘amjed:.
Eric AUX:PF FR some tell DET Sahyang DET story Heriberto from

This is not a perfect generalization either. I have found one example of this prefix used with a temporal expression. This is an unusual use of ‘amjed: ‘from’, but what was starting was a three day coming-of-age ceremony, so “from” seems to mark Tuesday as the beginning point. The example was given in a narrative by Mary Makil. On the other hand, a similar use of ‘amjed: in the Tohono O’odham Bible does not use t-.

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4.5 Conclusions

The best generalization that can be made is that the prefix attaches to postpositions that begin with a glottal stop and have an initial closed syllable. Every other generalization has exceptions. Interestingly, it is always 'amjed: that does the damage.

5 Object of the Postposition and t-

The object of the postposition plays a crucial role in determining whether or not t- shows up. Many factors contribute, including part of speech, animacy, and possessed vs. non-possessed.

5.1 Part of Speech Effects

The t- behaves differently depending on whether the object of the postposition is a noun or a pronoun. The former may co-occur with t-, the latter cannot, regardless of whether there is a pronominal clitic or not.

5.2 Animacy Effects

I use the term animacy in reference to the Animacy Heirarchy. The division does not reflect a real world animacy distinction, but it does occur at a natural point in the heirarchy. (Corbett, 2000) Things that are “animate” or below tend to trigger t- (except for temporal expressions?), while things “Human” and above only do so optionally, with a preference for not triggering it.
desert T- in AUX:1S live
‘I live in the desert.’
desert in AUX:1S live

(31) Skiikig c- ’ed: ’añ kii.
Phoenix T- in AUX:1S live
‘I live in Phoenix.’

chair T- in AUX:1S sit
‘I’m sitting in a chair.’

(33) Jonah ’o ’am ŋebig c- ’ed: hemako domig ’ab.
Jonah AUX:IMP FR behemoth T- in one week in
‘Jonah was in the whale for a week.’

(34) a. Tokdot ’o ’an keli ’ab.
spider AUX:IMP NR man on
‘The spider is on the man.’
b. !Tokdot ’o ’an keli t- ’ab.
spider AUX:IMP NR man T- on

(35) a. Ge tokdot ’o ’ab ha= mascamdam ’ab.
spec spider AUX:IMP NR 3P= teacher on
‘There’s a spider on the teacher.’
b. !Ge tokdot ’o ’ab ha= mascamdam t- ’ab.
spec spider AUX:IMP NR 3P= teacher T- on

(I use an exclamation mark to indicate possibility with dispreference.)

5.3 Possession

Whether or not a noun is possessed plays a very important role in these constructions. t- never shows up when a noun is possessed.

(36) a. M ’o ge s= ’a’acig gogs t- ’ab.
FR AUX:IMP SPEC S= fleas dog T- on
‘There’s fleas on the dog.’
b. M ’o ge s= ’a’acig heñ= gogs -ga ’ab.
FR AUX:IMP SPEC S= fleas 1S= dog -POSS on
‘There’s fleas on my dog.’

(37) a. Park c- ’ed: ’añ has ’oimed:.
park T- in AUX:1S somewhere wander
‘I’m walking around in the park.’
b. Heñ= park 'ed: 'añ has 'oimed:
   1S= park in AUX:1S somewhere wander
   ‘I’m walking around in my park.’

   FR AUX:1S tree T- in sit
   ‘I’m sitting in a tree.’

b. M 'añ daha kui -ga -j 'ed:.
   FR AUX:1S sit tree -POSS -3ARG in
   ‘I’m sitting in his tree.’

The pattern is found with full nominal possessors as well: compare the following sentences from the Tohono O’odham Bible. The first example has t- when the noun is not possessed, and the second example does not have it when it is possessed.

(39) Kutsh am hihim k gd hu thatha Capernaum t am k am
    AUX:PF:EVID FR go and DIST far arrive Capernaum T- at and FR
    i wahp kih ch ed mash hebai thadha.
    INCEP enter house T- in AUX:EVID somewhere sat
   ‘They went and arrived over there in Capernaum and entered into the house
   where he resided.’ (Mark 9:33)

(40) ... mant am wo gei Jiawul kih ed...
    AUX:2P:PF FR IRR fall devil house in
   ‘... you will fall into the Devil’s house....’ (Mark 9:49)

5.4 Number

The line of analysis I’m taking (to be detailed below), suggests that t- might be incompatible with reduplicated (plural or distributive) nouns. The evidence regarding this is lacking, so I do not know if it is true.

I was unable to find any examples of a reduplicated noun co-occurring with the prefix in my own notes or any of the notes distributed by e-mail by other Pima researchers. Nor was I able to find any examples in a less-than-thorough search through the Book of Mark in the Tohono O’odham Bible.

6 Langacker’s Suggestion

Langacker (1977) suggests that t- is the historical remnant of the Proto-Uto-Aztecan absolutive suffix ∗-ti, and implies that it does not have a meaningful use in the modern language.

6.1 Absolutives

Many Uto-Aztecan languages feature suffixes known as absolutes. These are suffixes that appear on nouns unless certain morphological conditions are met. I use Nahuatl to illustrate:
Plurals: picoo-tl ‘pig’  picoo-me’ ‘pigs’
Postpositions: aa-tl ‘water’  aa-pan ‘on the water’
Possessives: ta’-tli ‘father’  no-ta’ ‘my father’
Derivational Suffixes: miil-li ‘field’  miil-e’ ‘land-owner’
Compounded (non-final): tepe-tl ‘hill’  ‘tepe-yawal-li ‘circle of hills’
Reduplicated: konee-tl ‘child’  koo-kone-’ ‘children’

Notice that some of the morphological processes that affect absolutes are prefixes. Furthermore, not all suffixes cause the absolute to disappear, e.g., the absolute is kept in Shoshoni with the accusative suffix.

(41) huu ~/pi ~/ta
    stick -ABS -ACC
    ‘stick (ACC)’ (Langacker, 1977, p. 78)

6.2 Pima t- and Absolutives

The Piman languages have very thoroughly removed nominal suffixes, so the absolute and case suffixes are no longer present in the modern languages. Langacker’s suggestion is that in certain contexts, a postposition might block the deletion of the absolute suffix. Subsequent reanalysis could set in. Langacker illustrates the historical process using Cahuilla.

(42) *nea-t pe-Na’ > *nea-t pa’ > nea-t-pa’
    basket-ABS it-in basket-ABS in basket-ABS-in
    ‘in the basket’

If this is correct, we have a reasonable start towards explaining why this prefix has the distribution it does.

<table>
<thead>
<tr>
<th>Fact</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doesn’t occur with pronouns</td>
<td>Pronouns didn’t have absolutives</td>
</tr>
<tr>
<td>Doesn’t occur with possession</td>
<td>Absolutives didn’t occur with possessives</td>
</tr>
<tr>
<td>Noun must precede postposition</td>
<td>Absolutive deletion was only blocked before postpositions</td>
</tr>
<tr>
<td>(?) Doesn’t occur with reduplication</td>
<td>Absolutives didn’t occur with reduplication</td>
</tr>
</tbody>
</table>

The meaningless absolute suffix would only occur between a noun and a postposition, leading to a reanalysis whereby the morpheme becomes a prefix on the postposition.

7 Conclusion

Areas for further exploration are:

1. Does reduplication have an affect?
2. Where does the animacy effect come from?
3. Why is it restricted to just a few postpositions?

4. Why is it restricted to spatial location?

References


