

Structuring the Pima Clause

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1 Introduction

The region between the auxiliary and verb root (the “midfield”) of the Pima clause has not been well studied. If we include work on Tohono O’odham, then previous work includes ?, Kroch and Marshall (1973), Shapira (1979), Munro (1984), Munro (1989), and Jackson (2002). This is almost exhaustive. With the exception of Kroch and Marshall (1973), most of these works have chosen a specific element or natural class and studied its properties. As a result we have little understanding of the overall architecture of this region.

My goal today is to outline a more generalized picture of the midfield. The resulting picture confirms the suggestion by Kroch and Marshall (1973) that the midfield is much more constrained than the rest of the clause.

2 Defining the Midfield

I define the midfield as the region beginning at the end of the auxiliary and the beginning of the predicate. Exactly where these are in the string of morphemes is subject to dispute, so I assume the following.

The auxiliary (hereafter, the “aux”) has the following templatic structure. Any element found after a modal morpheme is considered to be part of the midfield.

Base	Subject marker	Aspect	Modal
'a	n	t	p
	ls	Pf	Mod
'I probably...'			

If the sentence is an imperative with the imperative marker *g*, the midfield starts after this marker. If the sentence has no auxiliary or other marker, then the midfield starts with the beginning of the sentence.

The predicate is more difficult to define. There are many elements that must be flush up against the beginning of a verb, but it is not always clear which of these may be prefixes or clitics. To remain maximally general, I assume that everything before the verb root is in the midfield. This is not unproblematic, but I am not aware of any point that would be easier.

Postpositions have the structure immediately below. I specify the right edge of the midfield as immediately after the deictic particle.

Deictic	Noun Phrase	Postposition
'am	Mesa	wui
FR	Mesa	to
'to Mesa'		

For predicates asserting possession, the midfield ends with the root of the possessum. For predicate nominals, the predicate starts with the root of the nominal. Thus, the copula is part of the midfield.¹

3 Elements in the Midfield

The elements that occur in the midfield can be divided into three categories.

Class 1 Mainly affixes and clitics. Perhaps some non-dependent particles/adverbs.

These elements are always found in the midfield: they cannot be moved before the aux or after the verb (unless piggy-backing of other material).

E.g., *'absh* 'just', *o irrealis*, *s-* **stative**

- (1) John 'atp o cikpanad.
 John AUX:PF:MOD IRR work
 'John might be working.'

Class 2 Mostly particles and adverbs. These elements appear in the midfield or before the aux. They never appear after the verb.

E.g., *'am* **deictic**, *pi* 'not', *si* 'very'

¹I made these choices because the nouns in these constructions behave quite analogous to the verb, in that they can take pronominal clitics and aspectual suffixes. The copula is not verbal, so does not appear to be an appropriate dividing line.

- (2) a. John 'o [si] coatk.
 John AUX:IMP very tall
 'John is very tall.'
- b. [Si] 'o padaj heg tash!
 very AUX:IMP ruined DET day
 'It was such a bad day!'

Class 3 Many adverbs, arguments, prepositional phrases. These elements appear in all three regions of the clause.

E.g., *'eep* 'again', *tako* 'yesterday', *'uupam* 'back'

- (3) 'oks 'o [ab] [aagc] 'am ñe'e matsh 'am o
 woman AUX:IMP DX say DX sing C:AUX:PF:EVID *dx irr*
 koi heg mad: -aj.
 sleep(PF) DET child -3
 'The woman sings so her child will fall asleep.'
- (4) [ab] [aagc] 'o cikpan hega'i 'o'od:ham mat heg
 DX say AUX:IMP work that person C:AUX:PF DET
 'a'ali -ga -j o 'e= mashcamam.
 PL,child -POSS -3 IRR ANA= attend.school
 'That man works so his children can go to school.'
- (5) 'oks 'o 'am ñe'e [ab] [aagc] matsh 'am o
 woman AUX:IMP DX sing DX say C:AUX:PF:EVID *dx irr*
 koi heg mad:aj.
 sleep(PF) DET child -3
 'The woman sings so her child will fall asleep.'

4 Ordering elements

For the rest of this talk, I will focus on a small number of elements, and show how the characterization above can help us figure out how to put a sentence together.

4.1 Class 1

In some ways, this class of elements is the most difficult to investigate. Here I discuss just two: *o* **irrealis** and *sha* **counterfactual**. These elements must occur in the following order:

o > *sha*

- (6) a. Mat o sha juu, t o hii heg Juan.
 C:AUX:PF IRR CNTR rain(PF) PF IRR go(PF) DET Juan
 ‘If it rain, Juan will go.’
- b. *Mat sha o juu, t o hii heg Juan.
 C:AUX:PF CNTR IRR rain(PF) PF IRR go(PF) DET Juan

4.2 Class 2

The particles *pi* ‘not’, *koi* ‘not yet’, ‘*am* **away deictic**, and ‘*ab* **toward deictic** are class 2 elements. The negatives are often accompanied by the intensifying particle *sha’i* ‘really, a bit, at all’. Similarly with *ha* ‘in any way, at all’. The deictic is often accompanied by the distal particle *hu*². These elements always appear in the following order:

pi > *koi* > ‘*am* > *hu* > *sha’i* > *ha*

- (7) Jason ‘o b kaij mash pi ’am hu sha’i ha=
 Jason AUX:IMP DX say C:AUX:EVID not DX far a.bit 3PL=
 ‘ees heg maagina.
 steal DET machine
 ‘Jason said he didn’t steal the machine.’
- (8) Eric ‘at pi koi ha’icu huu.
 Eric AUX:PF not not.yet something eat
 ‘Eric has not eaten anything yet.’
- (9) Koi m hu sha’i kei.
 not.yet DX far a.bit stand(PF)
 ‘It’s not set yet.’

²*hu* can also be licensed by a modal. In these cases, it seems to signify that the possibility is further removed.

- (10) ...Homer Simpson 'ab kaij mash [pi] [sha'i] [ha] Jioshig...
 Homer Simpson DX say C:AUX:EVID not a.bit at.all God
 '[and] Homer Simpson said that there was no God...'

If the position immediately in front of the auxiliary is open, one or more of these particles can move there. There is a condition, however, that the above order be maintained.

- (11) [Pi] 'at [am] [hu] [sha'i] shoñhi heg John.
 not AUX:PF DX far a.bit hit DET John
 'She didn't slap John.'
- (12) [Koi] 'ant ha'icu huu.
 not.yet AUX:1S:PF something eat.
 'I have not eaten anything yet.'
- (13) a. [Pi] 'ant o [sha'i] vees ha= ñei hegam geget
 not AUX:1S:PF IRR a.bit all 3PL= read those PL,big
 'o"ohan.
 PL,book
 'I can't read all those big books.'
- b. * [M] 'ant o [pi] [sha'i] vees ha= ñei hegam geget
 DX AUX:1S:PF IRR not a.bit all 3PL= read those PL,big
 'o"ohan.
 PL,book
 'I will, I will not read all those big books.'

I suggest the reason (13b) is unacceptable is that the deictic must always follow a negative. Thus, once the hearer recognizes the deictic without hearing a negative particle, the sentence should be construed as positive.

Sometimes, semantically connected elements from the same class can be bundled together for positioning purposes. The basic linear order is always maintained.

- (14) [Pi] [koi] 'ant ha'icu huu.
 not not.yet AUX:1S:PF something eat
 'I have not eaten anything yet.'
- (15) [Koi] [sha'i] 'añ ñeid heg heñ= veem kiikam.
 not.yet a.bit AUX:1S see DET 1S= spouse
 'I have not seen my old man yet.'

4.3 Merging Classes 1 and 2

When elements of classes 1 and 2 occur in the same clause, their interactions are not always straightforward. It is possible for both the class 1 elements to precede the class 2 and vice versa.

- (16) Hega'i 'uvi 'o 'am t= kakke matsh 'am o
 that woman AUX:IMP DX 1P= ask C:AUX:PF:EVID DX IRR
sha koom heg mad: -aj.
 CNTR hold DET child -3

‘That woman asked us if she could hold her baby.’

- (17) a. Mat pi o sha juu, t o hii heg Juan.
 C:AUX:PF not IRR CNTR rain(PF) PF IRR go(PF) DET Juan
 ‘If it doesn’t rain, Juan will go.’
 b. Mat o sha pi juu, t o hii heg Juan.
 C:AUX:PF IRR CNTR not rain(PF) PF IRR go(PF) DET Juan

- (18) Mapt o sha pi ha koi, t o hem= gevkokc
 C:AUX:2S:PF IRR CNTR not at.all sleep(PF) PF IRR 2S= tired
 si'alim.
 tomorrow

‘If you don’t sleep at all, you’ll be tired tomorrow.’

Looking closer at how *pi* ‘not’ interacts with *o* and *sha*, reveals that the hierarchies can be interleaved. While this is not always possible, it is occasionally. I have no theories on this.

- (19) a. *Mat o pi sha juu, t o hii heg Juan.
 C:AUX:PF IRR not CNTR rain(PF) PF IRR go(PF) DET Juan
 ‘If it doesn’t rain, Juan will go.’
 b. Mat o pi sha ha juu, t o hii heg
 C:AUX:PF IRR not CNTR at.all rain(PF) PF IRR go(PF) DET
 Juan.
 Juan
 ‘If it doesn’t rain at all, Juan will go.’

- (20) Pi 'att o 'am hu sha'i hihi.
 not AUX:1P:PF IRR DX far a.bit PL,go
 ‘We didn’t go.’

5 Accounting for Verb Placement

It has long been noted that verbs in Pima may occur before the auxiliary. When this happens, it is possible for class 3 elements to follow the auxiliary. However, verbs do not seem to be allowed before the auxiliary if there are any class 1 or 2 elements, unless both are moved to the front together.

- (21) 'ii 'ant heg hialwui 'am hem= veehejed:
 drink AUX:1S:PF DET poison DX 2S= for
 'I drank poison for you.'
- (22) 'i juu 'at mo 'am 'i tamiam heg
 INCEP rain(PF) AUX:PF C:AUX:IMP DX INCEP wait DET
 pasiamakud: kalit heg Eric.
 travel car DET Eric.
 'It started raining while Eric was waiting for the bus.'
- (23) Si shoñhi 'at heg John.
 very hit AUX:PF DET John
 'She really slapped John.'

6 Extending the analysis

The evidence above shows that there are some constraints on the order of elements in the midfield, and some kind of constraint on which elements may escape the midfield. So far this has been done with a small number of words. In this last section, I would like to present some data relevant for determining if the entire system works this way.

The particle *cum* 'should, try' is a member of class 2. Another particle *'i* here, appears to be class 2 as well. The order of these two elements may not be inverted, consistent with the discussion above.

- (24) a. Juan 'at o cum 'i hii tako.
 Juan AUX:PF IRR should here go(PF) yesterday
 'Juan was supposed to come yesterday.'
- b. * Juan 'at o 'i cum hii tako.
 Juan AUX:PF IRR here should go(PF) yesterday

Comparing the sentences below with the ones above, we can see that the reversal of the ordering between class 1 and 2 elements is not always

perfectly felicitous without additional factors. The order *o cum* seems to be much better with some kind of locative element, as above.

- (25) a. Juan 'at cum o hii tako.
 Juan AUX:PF should IRR go(PF) yesterday
 'Juan was supposed to go yesterday.'
- b. ? Juan 'at o cum hii tako.
 Juan AUX:PF IRR should go(PF) yesterday

Recall that *pi* 'not' is a class 2 word. When this is added in with *cum* 'should, try', either order is acceptable. Note, however, that the meaning of the sentence changes. With the order *cum pi o*, this expresses something about the speakers intentions; but with the order *pi o cum*, this expresses something that should not have happened. Thus, the alteration of the order of elements within a class is accompanied by alteration in the meaning.

- (26) a. Juan at cum pi o hii tako.
 Juan AUX:PF should not IRR go(PF) yesterday
 'Juan didn't want to leave yesterday.'
- b. ? Juan 'at pi o cum hii tako.
 Juan AUX:PF not IRR should go(PF) yesterday
 'Juan wasn't supposed to go yesterday.'

7 Conclusion

The evidence above suggests that the midfield is a fairly structured region of the Pima clause. Word order is constrained to a fair degree, and some changes in word order affect the basic interpretation of the sentence.

References

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