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.

<table>
<thead>
<tr>
<th>Base</th>
<th>Subject marker</th>
<th>Aspect</th>
<th>Modal</th>
</tr>
</thead>
<tbody>
<tr>
<td>'a'</td>
<td>n</td>
<td>t</td>
<td>p</td>
</tr>
<tr>
<td>1s</td>
<td>Pf</td>
<td>Mod</td>
<td></td>
</tr>
</tbody>
</table>

‘I probably...’

I probably...’
If the sentence is an imperative with the imperative marker $q$, 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.

<table>
<thead>
<tr>
<th>Deictic</th>
<th>Noun Phrase</th>
<th>Postposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>'am</td>
<td>Mesa</td>
<td>wui</td>
</tr>
<tr>
<td>FR</td>
<td>Mesa</td>
<td>to</td>
</tr>
</tbody>
</table>

‘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 mate-
rial).

E.g., ‘absh ‘just’, $o$ \textbf{irrealis}, $s$- \textbf{stative}

\begin{equation}
\begin{array}{l}
\text{John } 'atp [0] \text{ cikpanad.} \\
\text{John AUX:PF:MOD IRR work} \\
\text{‘John might be working.’}
\end{array}
\end{equation}

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 \textbf{deictic}, $pi$ ‘not’, $si$ ‘very’

\(^1\)I 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  
  John AUX:IMP very tall
  'John is very tall.'

b.  
  Si 'o  
  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  
  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  
  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  
  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:

\[ o \rightarrow sha \]

(6) a. Mat  \[ \square \] 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  \[ \square \] 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:

\[ pi \rightarrow koi \rightarrow 'am \rightarrow hu \rightarrow sha'i \rightarrow ha \]

(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.
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'ī shoñii 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'ī vees ha= ņei 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'ī vees ha= ņei 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'ī 'añ ņeid 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.’

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 as 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  incep  juu  rain(pf)  '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 onces 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.

   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.’

   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


