Deictic and Spatial Agreement in Mamuju (and Beyond)

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July 22, 2011

1 Introduction

- Through well known processes generally referred to in the literature as 'grammaticalization', independent syntactic elements come to be reduced phonologically and become dependent on lexical categories with which they frequently appear.
- This has been studied most extensively for the development of pronominals into person agreement markers.
- The grammaticalization of independent verbs as tense/aspect morphology has also been the focus of much attention.
- Here, we will look at the more "exotic" phenomenon of deictic agreement, as it is found in Mamuju (West Sulawesi, South Sulawesi subgroup) and its neighbors. While most studies of deixis in Austronesian have focused on the meanings of deictic elements and their contexts of usage, I focus here on their syntax and historical development.
- The pattern of interest can be found commonly across languages, including English, shown in (1).

(1) I'm going **up** [to 14th street].

- Unlike Mamuju, English and most other languages typically display optionality and a good deal of indeterminacy.

(2) *Optionality*
   a. I'm going to 14th st.
   b. I'm going up to 14th st.

(3) *Indeterminacy*
   a. I'm going up to Brooklyn. (As spoken in Manhattan)
   b. I'm going down to Brooklyn. (As spoken in Manhattan)

- The Mamuju equivalents of the deictic elements in the above examples are best described as *deictic agreement*, rather than simple modification. As an agreement system, there exists far less indeterminacy and optionality in the use of the Mamuju deictic markers than is familiar to us from other Indonesian languages.

- There are two types of deictic clauses which participate in this agreement. In the first, a verb-like directional marker takes the PP as its complement, as in (4). In the second, a noun-like deictic element precedes the PP and takes it as its complement, as shown in (5).

(4) **dai'** di Mangkasar
[$_{\text{DeicticVP}}$ Deictic [$_{\text{PP}}$ Prep [$_{\text{NP}}$ N]]]
'Up (to) there in Makassar'

(5) di **bao** di Mangkasar
[$_{\text{PP}}$ Prep [$_{\text{DeicticNP}}$ Deictic [$_{\text{PP}}$ Prep [$_{\text{NP}}$ N]]]]
'Up there in Makassar'

- Mamuju represents an intermediate stage between a typical verb-framed language and a typical satellite-framed one (Talmy 1985).
- Information concerning motion is not entirely encoded by the main predicate as it appears to have been in PAn but it is not exactly encoded within the PP either. All directional information lies between the verb and the lexical PP, in the phrases I label here as DeicticP.
- I will also argue that deictics markers of different diachronic origins appear to behave quite differently synchronically as well. N-deictics, historically derived from nouns, do not participate in Pied-Piping and Inversion (PPI) as V-deictics do, historically derived from verbs.

1.1 Grammaticalization: From adverb to agreement marker in Ikota

- Ikota, a Bantu language of Northeast Gabon.
- Basic two-way tense distinction is marked on the vowel preceding the root. Roughly, *a-* NON-FUTURE, *e-* FUTURE.

(6) m-a-dʒa
1SG-NFUT-eat
'I ate.'

- Similar to other Bantu languages, Ikota has a proximate past and future and a distal past and future. The first is only used to express events that take place one day before or after speech time.
- Interestingly, the marker that indicates proximate tense appears to have been grammaticalized from *yana*, the free adverb that refers both to 'yesterday' and 'tomorrow'.

(7) m-a-dʒa-**na** (yana)
1SG-NFUT-eat-PROX.TNS 1DAY
'I ate yesterday.'

- The proximate tense marking is obligatory when referring to an event that occurs in the relevant time frame. Omission as in (8a), or use of the distal tense marker, as in (8b), is ungrammatical.

(8) a. *m-a-dʒa yana
1SG-NFUT-eat PROX.TNS

b. *m-a-dʒa-sa yana
1SG-NFUT-eat-DIST.TNS 1DAY

(9) a. m-e-dʒa-ka-**na** (yana)
1SG-FUT-speak-GRND-PROX.TNS 1DAY
'I will eat tomorrow.'
b. *m-e-dʒa-ka yana
1SG-FUT-speak 1DAY

2 The history of deixis in Austronesian

	NOM	GEN	ACC	OBL	LOC
Common noun phrases	*∅-, *k-	*n-	*t-	***s**-	***d**-
Personal noun phrases	*si	*ni	–	***ka**-ni, ***ka**-y	–

Table 1: Reconstruction of PMP case markers (Ross 2006)

- Assuming the reconstruction of oblique and directional markers is correct, there were only three formatives involved: **s*-, **d*-, **ka*-.
  - These may have been in complementary distribution. In languages like Tagalog, *sa=* is the general oblique but this can never appear before deictics, which have all incorporated the *d-* morpheme, e.g. *(*sa) dito* '(from/to/in) here', *(*sa) diyan* '(from/to/in) there (near speaker)', *(*sa) doon* '(from/to/in) there (near hearer)'.
- Blust (1995/2011) differs here, reconstructing **i* to PAn as 'generic marker of location in space or time' and **di* as '3p deixis and spatial reference: that, there'. He notes that reflexes meaning 'this, here' are problematic though. At this point, the distribution of prepositions and deictics with **di* appear to make the reconstruction of both **i* and **di* with identical functions unavoidable.
- Evidence for PAn **i* is found in such forms as **i-babaw* 'above', **i-babaq* 'below', **i-daya* 'upriver, toward the interior', **i-lahud* 'downriver, toward the sea'. (Blust 1989, 2009).
- Note that at their core meaning, the roots of the above locatives were probably nominal in nature, e.g. **babaq* 'lower surface, bottom' (ACD) (also 'lowlands').
- As Blust also notes, reflexes of **i-* appear to be productive in many languages: *maso* 'eye', *i-maso* 'before the eyes', *voho* 'the back', *i-voho* 'at the back of'.
  - Many languages have reflexes of both **di-* and **i-*, e.g. Tagalog: *dito* 'here', *diyan* 'there (near speaker)', *doon* 'there (far from speaker)'; *i-babâ* 'bottom, under', *i-bábaw* 'above', *i-taas* 'upper part',*i-báyo* 'across', etc.
- While the oblique set appears to have been used for dynamic directional arguments and arguments while the locative set was used for stative locations.
- This has remained relatively stable although we can find examples of almost every possible reordering of this system, e.g.
  - Malay generalized personal oblique **ka-* to all oblique arguments, personal and common. Puyuma has done the same thing with definite oblique NPs.

  - **ka-* drops out (cf. Bikolano *sa-iya* 'to him/her', Tagalog *sa=kaniya* 'to him/her')
  - *d-* reanalyzed as oblique (see Kaufman 2010:181 for Maranao)
- This is indicates a very simple spatial system considering these markers covered all directions and locations and no class of prepositions are reconstructable. Path must thus be expressed in the predicate, not in the preposition/case marker.

(10) *Tagalog*

∅-da~daan ako sa=Taft pa-punta sa=Manila
AV-IMPRF~pass 1S.NOM OBL=Taft DIR-go OBL=Manila
'I will pass through Taft on the way to Manila.'

- Many (most?) Austronesian languages are persistent in maintaining a generalized oblique/preposition for source, path, goal, location.

(11) *Muna* (Van den Berg 1997:208-9)

a. Na-s<um>uli **te** Watopute
3S.IRR-<AV>return LOC Watuputih
'He will return to Watopute.'

b. No-mai-ghoo **te** Watopute
3S.RL-come-IO LOC Watopute
'He comes from Watopute.'

c. Ne-late **te** Watupute
3S.RL-live LOC Watupute
'He lives in Watopute.'

2.1 Enrichment of the PAn system

- Many (most?) languages have lost Ross's LOCATIVE vs. OBLIQUE distinction in case marking, conflating the two.
- Malay maintained it, but innovatively expresses the oblique with a reflex of the personal **ka-* rather than the general **s-* .

(12) *Indonesian*

a. Mereka di Jakarta
3PL at Jakarta
'There are in Jakarta.'

b. Mereka ke Jakarta
3PL to Jakarta
'They are going to Jakarta.'

- Further enrichment of the system can come from two directions: heavier use of relational nouns or development of more prepositions. Most languages seem to have moved in both of these directions.
- Muna is one of many languages that has recruited new nouns for a relational function, e.g.

(13) *Muna* (Van den Berg 1997:201)

Ne-late we wiwi-no sala
3S.RL-live LOC side-POSS road
'He lives on the edge of the road.'

- Tagalog has enriched the inventory of spatial NP markers, e.g. *gáling* 'from', *mula* 'begin > from', *pa-punta* 'to'. There is not much agreement among Philippine languages as to the form of the prepositions, e.g. Cebuano *gikan* 'from', *pa-ingon* 'to'.

3 Mamuju

3.1 Forms, meanings, functions

- Mamuju and its neighbors in West Sulawesi stand out among other Indonesian languages in requiring deictic agreement with most locational and directional PPs.
- Other languages of the South Sulawesi subgroup are not so strict. Outside of the immediate area, it is Toratan, surprisingly, which appears to come closest to the obligatory nature of deictics (among described languages).

> "The system of spatial orientation found in Toratán is fairly elaborate and conspicuous in the sense that it is manifested in almost every utterance." — Himmelmann and Wolff (1999:72)

- The obligatory nature of deictic agreement can be seen in (14) and (15).

(14) *Mamuju* (Dialogues 1)

a. Su'be di bao=a' di Ujung Pandang
from PREP up=1.ABS PREP Ujung Pandang
'I came from Ujung Pandang (up there) .'

b. ?*Su'be=a' di Ujung Pandang
from=1.ABS PREP Ujung Pandang

(15) *Mamuju* (MasaKecil)

a. Me-lampa=' sao di Jawa
AV-go=1.ABS SEAWARDS PREP Java
'I went overseas to Java.'

b. *Me-lampa=' di Jawa
AV-go=1.ABS PREP Java
('I went to Java.')

- The almost paradigmatic nature of deictic agreement can be gleaned from the following series of sentences, as recorded in a narrative about refugees in the Mamuju area during the time of WWII.

(16) *Mamuju* (T7; 350sec)

a. diang=mo **sau** di **lau'** di liutang di Karmapuang
EXT=EMPH SEAWARDS PREP OVERSEAS PREP island PREP Karampuang
'There were (some) there across the water on the island in Karampuang.'

b. diang=mo **naung** di Tambi
EXT=EMPH downwards PREP Tambi
'There were (some) down in Tambi.'

c. diang=mo **dai'** di Timbu
EXT=EMPH upwards PREP Timbu
'There were (some) up in Timbu.

d. diang=mo **tama** Simboro sanggaa'
EXT=EMPH inwards Simboro some
'There were some in Timbu.

e. diang=mo **tama** Karema
EXT=EMPH inwards Karema
'There were some in Karema.

- The basic system is very similar to that described by McKenzie (1997) for Aralle-Tabulahan, a neighboring language spoken to the east in the area of Pitu Ullu Salunna, as shown in Table 3.
- The markers can be split into locational (McKenzie's 'deictic') and Directional.
- Most of the directional markers are speaker-centric, but some of them are also Mamuju-centric, cf. English *overseas*.
  - One can only go *overseas* in one direction (away from home). This is precisely the behavior of Mamuju *lau'*. While it means 'overseas', it can only refer to overseas from the Mamuju area, regardless of where the speakers happen to be at speech time.

	Demonstratives	**Locational**		**Directionals**	
SPEAKER PROXIMATE	*inne*	*dinne*		*dumai*	
HEARER PROXIMATE	*ittu*	*dittu*			
		diting		*mating*	
DISTAL	*itte*	*ditte*			
		jao	far over there		
		bao		*dai'*	upwards
		allung	top	*naung*	downwards
		–		*mako*	level(wards)
		jaling	in	*tama*	upstream/inwards
		jaung	under, down below		
		lau'	overseas	*sau*	seawards/outwards
				su'be	arrive/from

Table 2: Mamuju deictics and demonstratives (provisional)

- Deictics need not take complements. In some cases they simply modify the meaning of the predicate, much like English and Germanic "particles":

(17) *Mamuju* (Kaleleleng)
Mem-bangong=a' **dai'**, ku-kita sau namang
AV-wake=1.ABS UPWARDS 1.ERG-see out weather
'When I woke up I saw the weather.'

	Demonstratives	Locational		Directionals	
SPEAKER PROXIMATE	*inde (e)*	*dinne*		*mai*	
HEARER PROXIMATE	*ne (e)*	*diting*		*mating*	
DISTAL	*indo (o)*				
		yaho		*dai'*	upwards
		hoi'	down	*naung*	downwards
		hao	level	*pano*	level(wards)
		yaling	upstream/in	*tama*	upstream/inwards
		lau'	downstream/out	*sau*	downstream/outwards
		hipe	across	*bete'*	downstream/outwards

Table 3: Aralle-Tabulahan deictics and demonstratives (McKenzie 1997)

3.2 V-Deictics and N-Deictics

- Some of the elements above have rather transparent etymologies.
- A pattern in the historical development of these markers emerges: The directional/dynamic set appears to derive from earlier verbs while the deictic/locational set appears to derive from nouns.

	Deictics	Etymology
LOCATIONAL	bao	PAn **babaw* 'upper surface, top'
	lau'	PAn **lahud* 'downriver'
	jao	PMP **zauq* 'far'
DIRECTIONAL	dai'	PWMP **udahik* 'upstream part of a river'
	mako	PMP **l<um>akaw* 'go, walk'
	pano	PMP **panaw* 'go away'

Table 4: Deictic etymologies

- The original verbal meanings can at times be obscured, as in (18), although none of the semantic developments are particularly surprising.

(18) *Mamuju*
syukur sanna=mo=tau' mako di puang Allataala
thanks INTNSV=EMPH=1PL TOWARDS PREP lord God
'We really thank God.'

- The difference between the usage of V-Deictics and N-Deictics is rather clear in (19). The former can function as independent predicates, as in (19a). The latter tend strongly to appear as complements of prepositions preceding the "lexical" PP, as in (19b). Locations are introduced as objects of V-deictics and referred back to as complements of N-deictics.

(19) *Mamuju* (MasaKecil)
a. **Dai**=a' ingkai di Mangkasar
UPWARDS=1.ABS 1P.EX PREP Makassar
'We went up to Makassar.'

b. Wattu su'be di mangkasar mas-sikola='a di **bao** di Mangkasar
time arrive PREP Makassar AV-school=1.ABS PREP UP PREP Makassar
'When I arrived in Makassar, I studied up there in Makassar.'

c. Wattu pension tobarabara-ku, me-lampa=mo iaku **sau** di Jawa
time pension parent-1S.GEN AV-go=EMPH 1S SEAWARDS PREP Java
'When my parents were on pension, I went to Java.'

d. *merantau di jawa.* Di **lao'**=a di jawa mas-sikola, ma'-jama
PREP OVERSEAS=1.ABS PREP Java AV-school AV-work
'*I travelled to Jawa for work.* There overseas in Java I went to school and worked.'

- Just as in A-T, locational/N-deictics can take genitive suffixes in a nominal context:

(20) *Aralle-Tabulahan* (McKenzie 1997:233)

a. yaling-na leäng ma-liling
upstream-3S.GEN cave STV-dark
'The inside of the cave is dark.'

b. Yaling di hoi'-na dasang aha ile
upstream PREP down-3.GEN house EXIS snake
'There's a snake under the house.'

- Speakers strongly reject V-deictics as complements of prepositions:

(21) *Mamuju* (Kalelelelenge)

a. Jaung di allung-na itte poong kaju…
DOWN PREP bottom-3.GEN that tree wood
'Down under that tree…'

b. *Di jaung itte poong kaju
PREP DOWN that tree wood

- There are few other obvious diagnostics for lexical category in Mamuju which can differentiate N-deictics and V-deictics.
- Both can take the future marker *na-*, as shown in (22a-b).
- This option is not available to bona fide nouns (22c) but is again possible with regular deictics, (22d).

(22) *Mamuju* (notes)

a. Na=jaling=a'
FUT=INSIDE=1.ABS
'I'll be inside.'

b. Na=naung=a'
FUT=DOWNWARDS=1.ABS
'I'll go downwards.'

c. Na=ditte=a'
FUT=there=1.ABS
'I'll be there'

d. *Na=guru=a'
FUT=teacher=1.ABS
(For, 'I will be a teacher.')

3.3 Pied-Piping with Inversion (PPI)

- The PPI pattern obtains when an entire interrogative PP or complex phrase is fronted after which the interrogative element inverts with a preceding preposition.
- This can only be seen marginally in English:

(23) ...and just [where$_i$ to t_i]$_j$ are they going to tow me t_j‼
www.plugincars.com/nissan-leaf-116-mile-range.html?page=1

(24) Why, and [where$_i$ to t_i]$_j$, are they scurrying t_j?
http://johnsonerik.blogspot.com/2010/05/korea-chronicles-volume-vii.html

(25) Wherever from, he asked his heart, [where$_i$ from t_i]$_j$ did you get this happiness t_j ?
Siddharth, Herman Hesse

- However, in many Meso-American languages it is the only way to form questions when the interrogative is a prepositional object.
- In Austronesian, this pattern has only been discussed for Sasak, by Austin (2006). It exists in Mamuju as well, as shown in (27)-(28).

(26) *Sasak* (Austin 2006)

a. bedait kance Siti
meet with Siti
'meet with Siti'

b. [Sai$_i$ kance=m t_i]$_j$ bedait t_j léq peken?
who with=2 meet LOC market
'Who are you meeting with in the market?'

(27) *Mamuju* (Manso'na)
...melo'=a' na=me-angka' siola ambe'-ku'
want=1.ABS FUT=AV-depart with uncle-1.GEN
'I am planning to leave with uncle.'

(28) *Mamuju* (Dialogues 4)
[Sema$_i$=ko siola t_i]$_j$ l<um>ampa ma-mekang t_j?
who=2.ABS with <AV>go AV-fish
'With whom are you fishing?' (Cf. Indonesian *(*Siapa) sama (siapa) kamu memancing?*)

- As we might predict, *siola* has strong verbal properties. For instance, *Siola* contains reciprocal *si-* and can be transitivized with an applicative as in (29).

(29) *Mamuju* (Dialogues 4)
Sema na=ni-siola-ang sau ma-mekang, Pua'?
who FUT=PV-with-APPL seawards AV-fish uncle
'Who are you accompanying to fish, Uncle?'

- Hypothesis: PPI is licensed by the fact that the deictics and prepositions that allow it are still partially verbal.
- This is not a stretch since the elements that allow PPI can function as unmarked predicates:

(30) *Mamuju* (Mamekang)

a. Siola=a' ambe'na Cicci
with=1.ABS uncle-3.GEN Cicci
'I went with Cicci's father.'

- Stranded elements in sentences like (28) are actually in predicate position. On this approach, (28) would be translated literally as (30), i.e. 'Who are you accompanying to fish'.

4 Conclusion

- The diachronic syntax of deictic agreement in Mamuju explains several of its outstanding features.
  - The apparent reverse ordering of the V-deictic elements in relation to better understood languages like Indonesian:

(31) **dai'** di Mangkasar
[$_{\text{DeicticVP}}$ Deictic [$_{\text{PP}}$ Prep [$_{\text{NP}}$ N]]]
'Up (to) there in Makassar'

(32) *Indonesian*
ke arah atas
OBL direction up
'upwards'

  - The double PP pattern with N-deictic elements

(33) di **bao** di Mangkasar
[$_{\text{PP}}$ Prep [$_{\text{DeicticNP}}$ Deictic [$_{\text{PP}}$ Prep [$_{\text{NP}}$ N]]]]
'Up there in Makassar'

  - The ban against V-deictics appearing as complements of prepositions
  - The unusual Pied-Piping and Inversion pattern with questioned PPs.
- Whether deictic agreement is part of an areal feature has yet to be explored. Foley (1986:149-152) notes that directional serial verb constructions are found throughout Papua. Abui, a Papuan language of Alor, offers a tantalizing hint that non-Austronesian influence may have played a rule.

(34) *Abui* (Kratochvíl 2007:363)
a. di=ng wahai mara
3A=see look go.up.CNT
'he looks up'
b. di ning ayoku di furai sei
3A be.QNT two 3A run.CNT come.down.CNT
'two of them ran down'

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