# Split agreement alignment in Bantu

Jenneke van der Wal

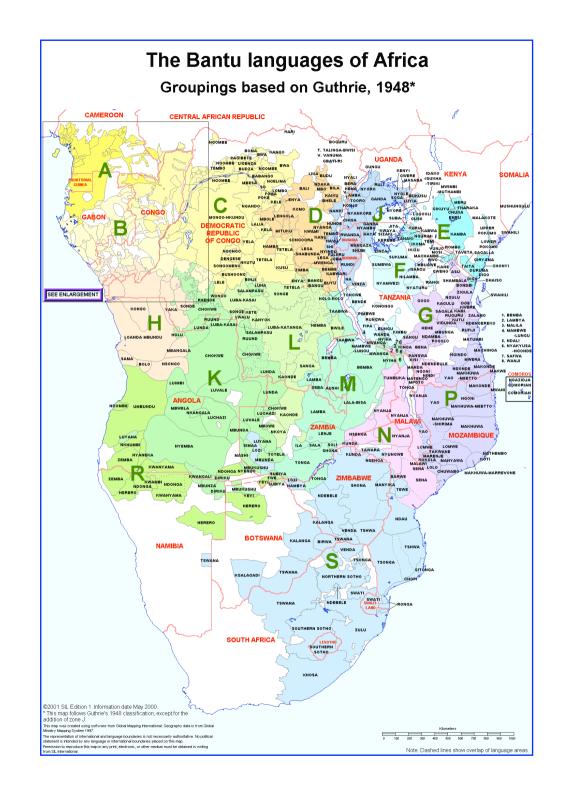






### **ROADMAP**

- Bantu basics
- Ditransitive alignment (secundative, indirective, split?)
- Monotransitive alignment (nominative, ergative, split?)
- Split alignment and topicality
  - Symmetric object marking
  - Subject inversion
- Implicational relation of lower clausal heads (FLUID)
- Conclusions



### **BANTU BASICS**

Bembe (Iorio 2014: 203)

(1) a. Baana b-a-kola bitabo. 2.children 2sm-n.pst-buy 8.books 'The children have bought books.'

b. Baana b-a-bi-kola.
 2.children 2SM-N.PST-8OM-buy
 'The children have bought them.'
 [class 8, the books]

### PUZZLE 1: DITRANSITIVE ALIGNMENT

#### **Secundative alignment**

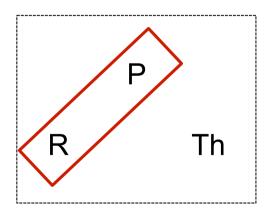
I equip [p the girl]

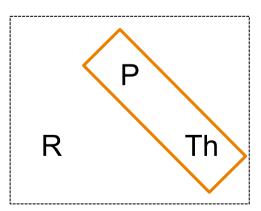
I equip [R the girl] [T with a book]

#### **Indirective alignment**

I donate [p the book]

I donate [T the book] [R to the girl]



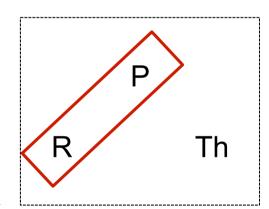


### **BANTU SECUNDATIVE**

#### Secundative alignment

Swahili (Riedel 2009: 80)

- (2) a. A-li-mw-ona Juma. 1SM-PST-1OM-see 1.Juma 'She saw Juma.'
  - b. A-li-m-nunulia (Juma) kitabu. 1SM-PST-1OM-buy.APPL 1.Juma 7.book 'She bought a book for Juma.'
  - c. \*A-li-ki-nunulia Juma (kitabu). 1SM-PST-7OM-buy.APPL 1.Juma 7.book int. 'She bought it/a book for Juma.'



## BANTU SPLIT ALIGNMENT?

Zulu (Adams 2010: 11)

- (3) a. Aba-ntwana ba-ya-si-thanda (lesi sikole). 2-children 2SM-DJ-7OM-like 7.DEM 7.school 'The children like it (this school).
  - b. U-mama u-ba-nik-e in-cwadi (aba-ntwana). 1a-mama 1SM-2OM-give-PFV 9-book 2-children 'Mama gave them a book (the children).'
  - c. U-mama u-yi-nik-e aba-ntwana (in-cwadi). 1a-mama 1sm-9om-give-PFV 2-children 9-book 'Mama gave the children it (a book).'

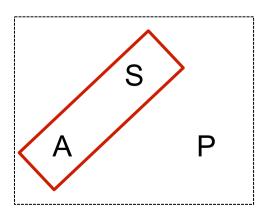
## PUZZLE 2: MONOTRANSITIVE ALIGNMENT

#### **Nominative alignment**

#### **Dutch**

[S Hij] ren-de. 3SG.M.NOM run-PST 'He ran.'

 $[_A Hij]$  zag  $[_P hem]$ . 3SG.M.NOM see.PST 3SG.M.ACC 'He saw him.'



#### **Ergative alignment**

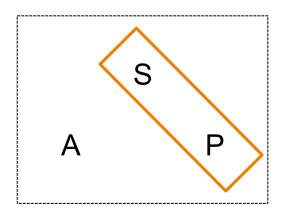
Chol (Coon et al. 2014:190)

(4) Tyi uk'-i-[s yety].

ASP cry-ITV-2ABS

'You cried.'

Tyi  $[_A y]$ -il-ä- $[_P yety]$ . ASP 3ERG-see-TV-2ABS 'She saw you.'



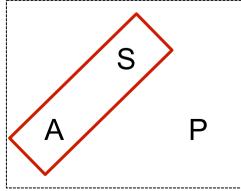
### **BANTU NOMINATIVE**

#### Makhuwa

- (5) a. [S Mwalápwá olé] o-hoó-wa.

  1.dog 1DEM 1SM-PST.DJ-come

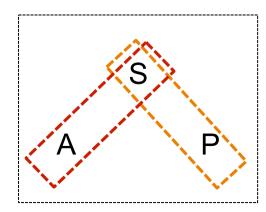
  'That dog came.'
  - b. [A Naphúl'uulé] oo-várá [P ephepéle].
     1. frog 1. DEM 1SM-PERF.DJ-grab 9. fly
     'That frog caught a fly.'
  - c. [P Enúpá] o-núú-téká [A Hasáani]. 9.house 1SM-PFV.PERS-build 1.Hasan 'The house, Hasan has built it.'



## **BANTU SPLIT ALIGNMENT?**

#### Dzamba

- (6) a. [s Ee-mva] e-wà-áki lɔɔme.
  9-dog 9sм-die-IPFV today
  'The dog died today.' (Bokamba 1976:34)
  - b. [A Omwana] a-tom-aki [P imukanda].
     1.child 1SM-send-PFV 5.letter
     'The child sent a letter.' (Henderson 2011:743)
  - c. [P Imukanda] mu-tom-aki [A omwana].
    5.letter 5SM-send-PFV 1.child
    'The child sent the letter.'



## INGREDIENTS FOR ANALYSIS

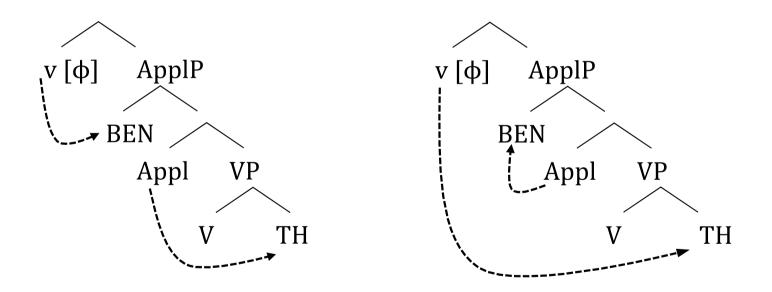
#### For ditransitives:

- A. In indirective alignment, the **Recipient is licensed by Appl** (Larson's 1988 "inherent case")
- B. Alternation between indirective and secundative alignment in Northern Khanty depends on the **relative topicality of R and Th**. (Dalrymple & Nikolaeva 2011)

**Proposal**: Bantu symmetric object marking shows split agreement alignment based on relative topicality.

### **PROPOSAL**

Low functional heads can be flexible in licensing complement or specifier



(cf. Haddican & Holmberg 2012, 2015; Van der Wal 2017)

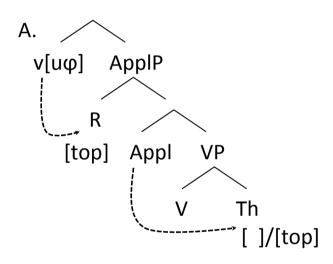
### RELATIVE TOPICALITY

Van der Wal (2017):

In languages with symmetric OM

- Appl's licensing abilities depend on the Topic features of its specifier
- Appl can only license arguments with the same or fewer features as the argument introduced in its specifier

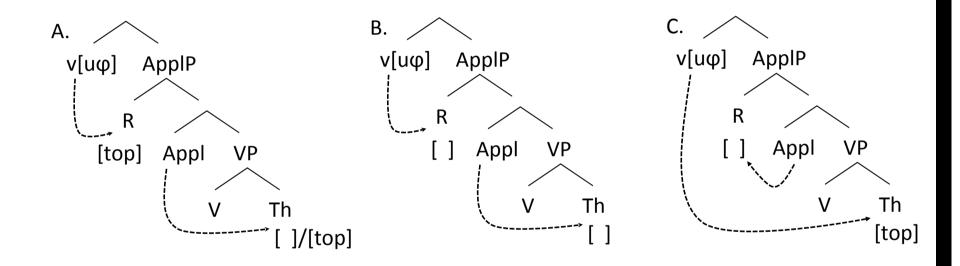
# APPL SENSITIVE TO [TOPIC]



#### *Zulu* (Adams 2010)

- (7) a. Ngi-ya-m-theng-el-a u-Sipho u-bisi. 1SG.SM-PRES.DJ-1OM-buy-APPL-FV 1a-Sipho 11-milk
  - c. \*Ngi-ya-lu-theng-el-a u-Sipho u-bisi 1SG.SM-PRES.DJ-11OM-buy-APPL-FV 1a-Sipho 11-milk 'I am buying milk for Sipho.'

# APPL SENSITIVE TO [TOPIC]

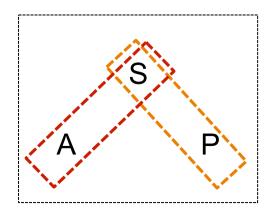


topicality	Appl	v (OM)	alignment
R > T	Th	R	secundative
R = Th	Th	R	secundative
Th > R	R	Th	indirective

### **PUZZLE 2 AGAIN**

#### Dzamba

- (6) a. [s Ee-mva] e-wà-áki lɔɔme.
  9-dog 9sм-die-IPFV today
  'The dog died today.' (Bokamba 1976:34)
  - b. [A Omwana] a-tom-aki [P imukanda].
     1.child 1SM-send-PFV 5.letter
     'The child sent a letter.' (Henderson 2011:743)
  - c. [P Imukanda] mu-tom-aki [A omwana].
    5.letter 5SM-send-PFV 1.child
    'The child sent the letter.'



## INGREDIENTS FOR ANALYSIS

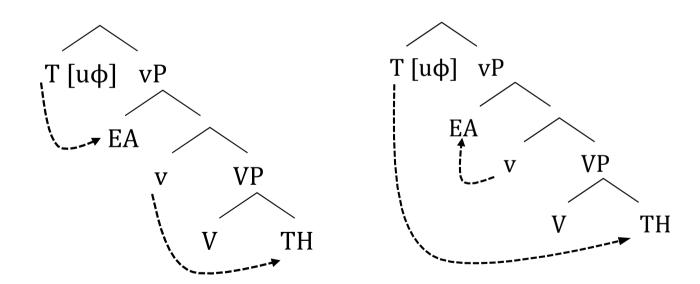
#### For monotransitives:

- A. In ergative alignment, the **EA is licensed by v** (i.a. Levin 1983, Woolford 1997, Aldridge 2004, Legate 2008, Assmann et al. 2015; see overview in Sheehan 2017).
- B. 'Optional ergativity' can be determined by focus (i.a. McGregor 2010, DeLancey 2011, Schultze-Berndt 2017). Direct-inverse alignment can -under a broad definition- be determined by relative topicality of A and P (Givón 1994, Thompson 1994; see Ura 2000, Morimoto 2006, Bostoen & Mundeke 2011 for 'inverse voice' in Bantu).

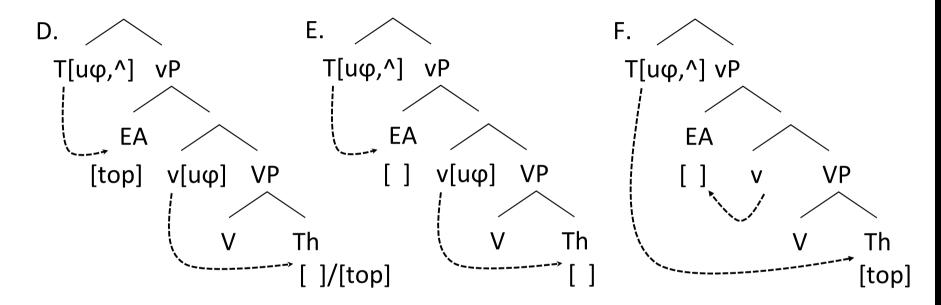
**Proposal**: Bantu locative and theme inversion shows split agreement alignment based on relative topicality.

### **PROPOSAL**

Low functional heads can be flexible in licensing complement or specifier



# LITTLE V SENSITIVE TO [TOPIC]



Omwana a-tom-aki imukanda. 1.child 1SM-send-PFV 5.letter 'The child sent a letter.' Imukanda mu-tom-aki omwana. 5.letter 5SM-send-PFV 1.child '*The child* sent the letter.'

### SUBJECT INVERSION

Locative Inversion (Otjiherero, Marten 2006)

(7) M-òn-djúwó mw-á hìtí é-rùngà 18-9-house 18SM-PAST enter 5-thief 'Into the house entered a/the thief.'

Instrument Inversion (Swati, Thwala 2006)

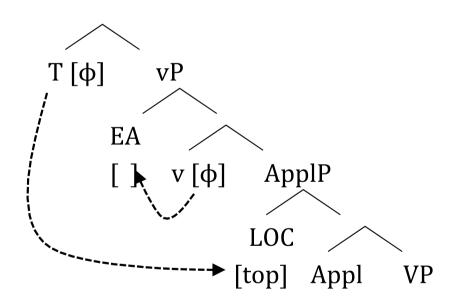
(8) Imali i-dlala bantfwana ka-Gates.
4.money 4sm-play 2.children Loc-Gates
'Children play with money at Bill Gates' home.'

### LITTLE V'S LICENSING

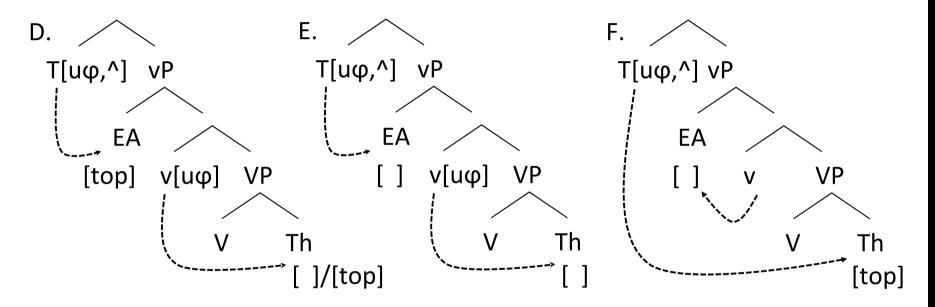
Kîîtharaka Locative Inversion (Buell & Muriungi ms.)

- (8) a. Tw-ana tûkûrû i-tû-ceth-ag-(ir-)a kî-eni-ni. 13-children 13-old FOC-12SM-play-HAB-(APPL-)FV 7-field-LOC 'Older children play in the field.'
  - b. Kî-eni i-gî-ceth-ag-ir-a tw-ana tû-kûrû. 7-field FOC-7SM-play-HAB-APPL-FV 13-children 13-old 'In the field play older children.' lit. 'The field plays old children.'
  - c. ??Kî-eni i-gî-ceth-ag-a tw-ana tû-kûrû. 7-field FOC-7SM-play-HAB-FV 13-children 13-old int. 'In the field play older children.'

### LITTLE V'S LICENSING



# LITTLE V SENSITIVE TO [TOPIC]



topicality	V	T (SM)	alignment
EA > IA	IA	EA	nominative
EA = IA	IA	EA	nominative
IA > EA	EA	IA	ergative

### **INTERIM SUMMARY**

In languages with symmetric object marking

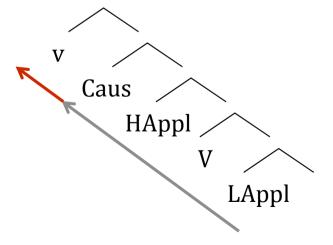
- Appl licenses downward ("secundative") unless the Benefactive is less topical than the Theme ("indirective")
- v licenses and agrees with the other argument

In languages with locative/instrument/theme inversion

- v licenses downward ("nominative") unless the EA is less topical than the locative/instr/theme ("ergative")
- T licenses and agrees with the other argument (and moves it)

# IMPLICATIONAL RELATION

Caus	HAppl	LAppl	languages
			Zulu, Shona, Kîîtharaka, Kikuyu, Bembe
			Otjiherero, Southern Sotho, Lubukusu
			Luguru
			Makhuwa, Matengo, Chichewa



#### **FLUID**

Flexible Licensing Up Implies Down

## IMPLICATIONAL RELATION

#### **FLUID Predictions (to be adjusted):**

- Languages fully symmetric object marking may or may not have subject inversion
- Languages with subject inversion also have symmetric object marking
- Languages with asymmetric object marking do not have subject inversion
- Symmetric OM Igs
- Asymmetric OM Igs 3 types

## ASYMMETRY + INVERSION

#### 1. Agreeing inversion

Makhuwa (Van der Wal 2009: 189)

(9) Válé ni-hoó-wá nláikha.

PM 5SM-PERF.DJ-come 5.angel

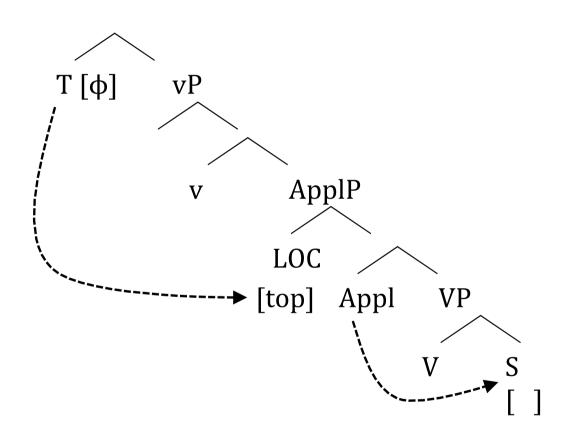
'Now there came an angel.'

#### 2. Locative inversion restricted

Chichewa (Bresnan & Kanerva 1989:16)

(10) M-chi-tsîme mw-a-gw-er-a /\*mw-a-kodz-a mbûzi. 18-7-well 18SM-PFV-fall-APPL-FV/18SM-PFV-urinate-FV 9.goat 'Into the well has fallen/\*urinated a goat.'

# ASYMMETRY + INVERSION



## ASYMMETRY + INVERSION

Swahili (Riedel 2009: 80, Whiteley & Mganga 1969: 111, Gibson 2008: 15)

- (11) a. A-li-m-nunulia Juma kitabu. asymmetric 1SM-PST-1OM-buy.APPL 1.Juma 7.book 'She bought a book for Juma.'
  - b. \*A-li-ki-nunulia Juma (kitabu). 1SM-PST-7OM-buy.APPL 1.Juma 7.book int. 'She bought it/a book for Juma.'
- (12) a. Mgeni a-li-pik-a chakula. theme inversion 1.guest 1sm-pst-cook-fv 7.food 'The guest cooked food.'
  - b. Chakula ki-li-pik-a mgeni.7.food 7SM-PST-cook-FV 1.guest'The guest cooked food.'

## IMPLICATIONAL RELATION

#### **FLUID Predictions:**

- Languages with [non-agreeing subject inversion in predicates that take an EA] also have symmetric object marking
- Languages with asymmetric object marking do not have [nonagreeing subject inversion in predicates that take an EA]

```
symmetric OM 🗸
```

1. only Al Makhuwa, Matengo

2. only unacc Chichewa, Lubukusu, Tumbuka?, Sambaa?

3. LI (+) Yao, Kagulu, Swahili

(unclear/no data on inversion for Ruwund, Kiyaka, Chingoni, Lika, Chimwiini)

## **FLUID**

	٧	Caus	HAppl	LAppl	languages
	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	Zulu, Shona, Kîîtharaka, Kikuyu
	Χ	<b>\</b>	<b>√</b>	<b>✓</b>	Bembe, Chaga?
		X	<b>√</b>	<b>✓</b>	Otjiherero, Southern Sotho, Lubukusu
U		X	Χ	<b>✓</b>	Luguru
	<b>✓</b>	Χ	X	X	Yao, Kagulu, Swahili
	Χ	X	X	X	Makhuwa, Matengo, Chichewa

Lubukusu (Diercks 2011: 703, 716)

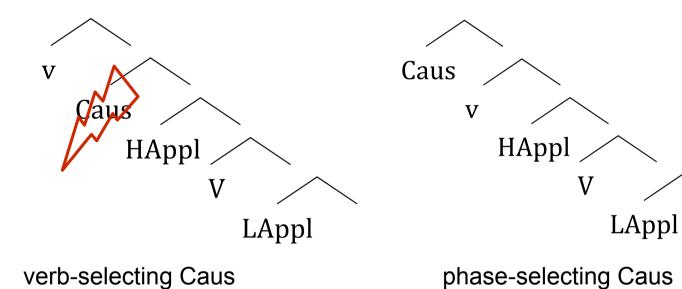
- (13) a. Mú-mú-siirú mw-á-kwá=mó kú-mú-saala. 18-3-forest 18S-PST-fall-18L 3-3-tree. 'In the forest fell a tree.'
  - b. \*Mw-i-duka mw-a-chekh-a=mo Moses. 18-9-store 18SM-PST-laugh-FV-18L Moses int. 'In the store laughed Moses.'

Otjiherero (Jekura Kavari, personal communication)

- (14) a. Ma-ve ve tjang-is-a om-bapira. caus asymm PRES-2SM 2OM write-CAUS-FV 9-letter 'They make them write a letter.'
  - b. \* Ma-ve i tjang-is-a ova-natje. PRES-2SM 9OM write-CAUS-FV 2-children 'They make the children write it.'

(Marten 2006: 113)

(15) Kò-mù-tí kw-á-pósé òzó-ndjìmá. *loc inversion* 17-3-tree 17sm-pst-make\_noise 10-baboons 'In the tree made noise (the) baboons.'



Otjiherero (Jekura Kavari, p.c.)

(16) Omítiri máí tjang-is-á ovanâtjé ombapíra wina. 1.teacher PRES-1SM write-CAUS-FV 2.children 9.letter intent'y 'The teacher intentionally caused the children to write a letter.' \*'The teacher caused the children to intentionally write a letter.'

## FLUID FAILED EXTENSION

V	Caus	HAppl	LAppl	languages
				Zulu, Shona, Kîîtharaka, Kikuyu
				Bembe, Chaga?
				Otjiherero, Southern Sotho
				Lubukusu
				Luguru
				Yao, Kagulu, Swahili
				Makhuwa, Matengo, Chichewa

N.B. Haspelmath (2005) on the basis of 100 languages: "no correlations between monotransitive alignment types and ditransitive alignment types are found"

### **CONCLUSIONS**

- Flexible licensing by low functional heads forms a plausible and unified analysis of both symmetric object marking and (some types of) subject inversion.
- The implicational hierarchy for low functional heads (FLUID), does not extend to little v; ditransitive and monotransitive alignment are independent.
- Bantu languages with symmetric object marking and/or subject inversion seem to have a sort of split alignment, determined by relative topicality.

### **FURTHER**

### **Empirically:**

- PCC
- Default Agreement Inversion
- Transitive predicates in inversion
- etc. etc.

### Theoretically:

- Case licensing separate from φ agreement
- Licensing determined by discourse features
- etc. etc.



### **THANKS!**

For input on the inversion part I would like to thank András Bárány, Eyamba Bokamba, Jean Chavula, Lisa Cheng, Thabo Ditsele, Andreas Joswig, Jean Paul Ngoboka, Ernest Nshemezimana, Ian Roberts, Michelle Sheehan, Hedde Zeijlstra.

Contact: jennekevanderwal@gmail.com

BaSIS project: https://bantusyntaxinformationstructure.com







## SUMMER SCHOOL 'LIMITS OF VARIABILITY IN LANGUAGE'





#### Summer School "Limits of Variability in Language" 18 - 22 June 2018

	Mo, 18.06.2018		Di, 19.06.2018		Mi, 20.06.2018		Do, 21.06.2018		Fr, 22.06.2018	
	Session A	Session B	Session A	Session B	Session A	Session B	Session A	Session B	Session A	Session B
	H.Burnett	L. Hyman	H.Burnett	L. Hyman	H.Burnett	L. Hyman	H.Burnett	L. Hyman	H.Burnett	L. Hyman
	Formal Approaches to	Morphophonemic	Formal Approaches to	Morphophonemic	Formal Approaches to	Morphophonemic	Formal Approaches to	Morphophonemic	Formal Approaches to	Morphophonemic
09.00 - 10.50	Social Meaning,	Variation in Bantu	Social Meaning,	Variation in Bantu	Social Meaning,	Variation in Bantu	Social Meaning,	Variation in Bantu	Social Meaning,	Variation in Bantu
	Variation and Identity		Variation and Identity		Variation and Identity		Variation and Identity		Variation and Identity	
	Construction		Construction		Construction		Construction		Construction	
10.50 - 11.10	.10 Coffee Break									
	S. Tagliamonte	J. van der Wal	S. Tagliamonte	J. van der Wal	S. Tagliamonte	J. van der Wal	S. Tagliamonte	J. van der Wal	S. Tagliamonte	J. van der Wal
	Linguistic Variation and	Morphosyntactic	Linguistic Variation and	Morphosyntactic	Linguistic Variation and	Morphosyntactic	Linguistic Variation and	Morphosyntactic	Linguistic Variation and	Morphosyntactic
11.10-13.00	Change in Social Context	variation in Bantu	Change in Social Context	variation in Bantu	Change in Social Context	variation in Bantu	Change in Social Context	variation in Bantu	Change in Social Context	variation in Bantu
13.00-14.00			<u> </u>		Lunch Brea	k (self-paid)				
	S. Ba	S. Barbiers S. Barbiers M. van Koppen &				Coppen &	M. van Koppen &		M. van Koppen &	
	Introduction to Macr	Introduction to Macroscale Microsyntactic Introduction to Macroscale Microsyntactic J. van Craenenbroeck		J. van Craenenbroeck		J. van Craenenbroeck				
	Variation	Research	Variation	Research	Discovering parame	ters: from micro- to	Discovering parameters: from micro- to		Discovering parameters: from micro- to	
from 14.00					macrovariation		macrovariation		macrovariation	
	including a short Coffee Break									
End of session	18.00 17.00		17.00		17.00		17.00			
	Buffet						Dinner (	self-paid)		

## (SOME) REFERENCES

Adams, N. B. 2010. The Zulu ditransitive verb phrase. University of Chicago. (PhD dissertation).

Aldridge, E. 2004. Ergativity and word order in Austronesian languages. PhD thesis, Cornell University.

Anagnostopoulou, E. 2003. The syntax of ditransitives: Evidence from clitics. Berlin: Mouton de Gruyter

Assmann, A, et al. 2015. Ergatives move too early: On an instance of opacity in syntax. Syntax 18(4): 343-387.

Bárány, A. 2017. Person, Case and agreement. The morphosyntax of inverse agreement and global case splits. OUP.

Bostoen, K. and L. Mundeke. 2011. Passiveness and inversion in Mbuun (Bantu B87, DRC). Studies in Language 35 (1). 72-111.

Bresnan, J. & J. M. Kanerva. 1989. Locative inversion in Chichewa: A case study of factorization in grammar. Linguistic Inquiry 20. 1–50.

Bresnan, J. and L. Moshi. 1990. Object asymmetries in comparative Bantu syntax. Linguistic Inquiry 21 (2). 147-185.

Coon, J., P. Mateo Mateo and O. Preminger. 2014. The role of case in A' extraction asymmetries. Linguistic Variation 14(2): 179-242.

Dalrymple, M. and I. Nikolaeva. 2011. Objects and information structure. CUP.

DeLancey, S. 2011. "Optional" "ergativity" in Tibeto-Burman Languages. Linguistics of the Tibeto-Burman Area 34(2): 9–20.

Diercks, M. 2011. The morphosyntax of Lubukusu locative inversion and the parameter-ization of Agree. Lingua 121(5).

Givón, T. 1994. The pragmatics of de-transitive voice: functional and typological aspects of inversion. In Givón (ed.), *Voice and inversion*, 3-44. John Benjamins.

Haspelmath, M. 2005. Argument Marking in Ditransitive Alignment Types. Linguistic Discovery 3(1).

Haddican, W. & A. Holmberg. 2015. Four kinds of object asymmetry. In L. Veselovská & M. Janebová (eds.), *Complex visibles out there*, 145-162. Olomouc: Palacky University

Henderson, Brent. 2011. Agreement, locality, and OVS in Bantu. Lingua 121(5). 742–753.

Holmberg, A., M. Sheehan, and J. van der Wal. To appear. Movement from the double object construction is not fully symmetrical. Linguistic Inquiry.

Iorio, D. 2014. Subject and object marking in Bembe. Newcastle University. (PhD dissertation).

Keine, S. 2010. Case and agreement from fringe to core: a minimalist approach. Berlin: De Gruyter.

Larson, R. 1988. On the double object construction. Linguistic Inquiry 19: 335–391.

Legate, J.A. 2008. Morphological and abstract case. *Linguistic Inquiry* 39: 55–101.

Levin, B. .1983. On the Nature of Ergativity. PhD thesis, MIT.

Marten, L. 2006. Locative inversion in Herero: More on morphosyntactic variation in Bantu. ZASPiL 43. 97–122.

Marten, L. and J. van der Wal. 2014. A typology of Bantu subject inversion. Linguistic Variation 14(2), 318-368.

McGregor, W. B. 2010. Optional ergative case marking systems in a typological-semiotic perspective. Lingua 120: 1610-1636.

Miyagawa, S. 2010. Why Agree? Why Move? Unifying agreement-based and discourse-configurational languages. Cambridge MA: MIT Press.

Morimoto, Y. 2006. Agreement properties and word order in comparative Bantu. ZASPiL 43: 161-88.

Müller, G. 2009. Ergativity, accusativity, and the order of Merge and Agree. In Explorations of phase theory: Features and arguments, ed. K. Grohmann, 269–308. Berlin: Mouton de Gruyter.

Ngoboka, J.P. 2016 Locatives in Kinyarwanda. University of KwaZulu Natal. (PhD dissertation).

Riedel, Kristina. 2009. The syntax of object marking in Sambaa: a comparative perspective. Utrecht: LOT.

Roberts, I. 2010. Agreement and head movement: Clitics, incorporation, and defective goals. Cambridge, MA: The MIT Press.

Schultze-Berndt, E.. 2017. Interaction for ergativity and information structure in Jaminjung (Australia). In Coon et al. (eds.), The Oxford Handbook of Ergativity. OUP. Retrieved March 2018, from http://www.oxfordhandbooks.com

Sheehan, M. 2017. Parameterizing Ergativity: An Inherent Case Approach. In Coon et al. (eds.), The Oxford Handbook of Ergativity. OUP. Retrieved March 2018, from http://www.oxfordhandbooks.com.

Sheehan, M. and J. van der Wal. Evidence for nominal licensing in caseless languages. Journal of Linguistics.

Thompson, C. 1994. Passive and inverse constructions. In Givón (ed.), Voice and inversion, 47-63. John Benjamins.

Thwala, Nhlanhla. 2006a. On the subject-predicate relation and subject agreement in SiSwati. Southern African Linguistics and Applied Language Studies 24(3). 331–359.

Ura, H. 2000. Checking Theory and Grammatical Functions in Universal Grammar. OUP.

Van der Wal, J. 2017. Flexibility in symmetry: An implicational relation in Bantu double object constructions. In Sheehan, M. and L. R. Bailey (eds.), Order and structure in syntax II: Subjecthood and argument structure, 115–152. Berlin: Language Science Press.

Van der Wal, J. To appear. The AWSOM correlation in comparative Bantu object marking. In K. Hartmann et al. (eds.), Agree to agree: Agreement in the Minimalist Program. Language Science Press.

Woolford, E. 1997. Four-way case cystems: Ergative, Nominative, Objective and Accusative', Natural Language & Linguistic Theory 15: 181-227.

(Please e-mail me for other references)

## PARAMETERISED TIMING

- Sensitivity of Appl and v to topicality of specifier can be seen as parameter on timing of the head's operations (Müller 2009, Assmann et al. 2015)
- Appl and v have 2 functions: merge specifier DP & license DP
- If merge spec > license, then licensing determined by the specifier's topicality
  - for Appl: symmetric object marking
  - for v: theme/locative/instrument inversion constructions
- If license > merge spec, then all licensing and agree will be downwards and insensitive to topicality.
  - for Appl: asymmetric object marking
  - for v: no subject inversion OR
  - subject inversion restricted to unaccusatives and passives (as in Chichewa) OR
  - subject inversion showing agreement of T with the postverbal subject (as in Makhuwa).

### **OTHER ERGATIVITY?**

The postverbal "ergative" subject cannot be extracted in Zulu:

- (17) a. Lesi si-kole si-fund-el-a a-ba-ntwana.
  7.DEM 7-school 7SM-study-APPL-FV AUG-2-children 'Children study at this school.'
  - b. \*Ngi-thand-a a-ba-ntwana [lesi si-kole esi-ba-fund-ela-a=yo].

    1sg.sm-like-fv Aug-2-children 7.dem 7-school 7rel-2om-study-APPL-fv=rel.dis
    int. 'I like the children who study at this school.'
  - c. \*Ngi-thand-a a-ba-ntwana [lesi si-kole esi-fund-ela-a bona]. 1SG.SM-like-FV AUG-2-children 7.DEM 7-school 7REL-study-APPL-FV 2.PRO int. 'I like the children who study at this school.' (Zeller 2013: 1130, 1131)

## SYMMETRY + INVERSION

Bembe (Iorio 2014: 329)

- (18) a. ?wa-a-chw-a baana. *unaccusative* 15EXPL-T-come-FV 2.child 'There arrived children.'
  - b. \*?wa-a-tend-a baana. *unergative* 15EXPL-T-speak-FV 2.child int. 'There are children speaking.'
  - c. \*?wa-a-som-a baana etabo. *transitive* 15EXPL-T-reading-FV 2.child 7.book int. 'There are children read books.'