

N/uu: moribund, around 10 speakers left,  
spoken around Upington, South Africa  
Jul'hoansi: not moribund, several thousand speakers  
Namibia, Botswana, related dialects in Angola  
#Hoan: moribund, around 200 speakers left,  
spoken (along with dialect Sas) in southern Botswana

1. Overview of Linkers

- (1) a. ku -a si hoo ku anki ŋ gi'ari (N/uu) (N/uu)  
3sg Decl Fut find 3sg father Lk Upington  
"He will find his father in Upington"

- b. Uto dehuun-a |Kaace ko n'ama n'ang (Jul'hoansi)  
car hit-Trans |Kaace Lk road in  
"A car hit |Kaace in the road."

- c. gya"msi "a--n'ta"m Jeto ki ikoa na (#Hoan)  
child prog-hit Jeff Lk house in  
"The child is hitting Jeff in the house"

2. Inversion

- (2) a. ha ku |ohm-a |aihn ko |ui  
3sg asp chop-Trans tree Lk forest  
"He was chopping the tree in the forest" (Dickens 1992)

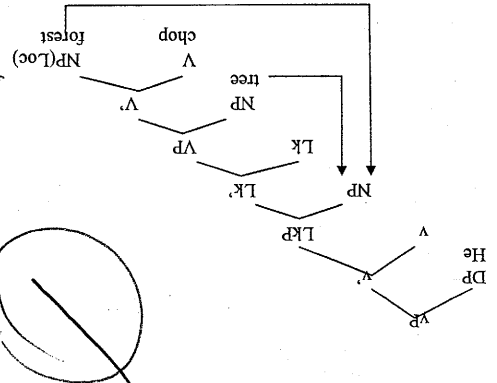
- b. ha ku |ohm-a |aihn ko |ui  
3sg asp chop-Trans forest Lk tree  
"I put the leg in the hole."

- b. mo-n-a-hir-tre omo-kihuna m'- okugulu  
AFF-1SS-T-put-Ext Loc.18-hole.7 Lk.18 leg.15  
"I put the leg in the hole."

(See Baker and Collins (2006) for an extensive comparison of linkers in Kinande and the Khoisan languages)

Vba LK DP

(4)



to say it  
lower  
adjoined?  
it was X

linker not  
restricted to  
local  
after seen as  
of causative  
no the whole sentence  
on the linker

- (5) a. mi |'an Maria ko ambere ko tzi  
I gave Maria Lk bucket Lk outside  
"I gave Maria the bucket outside"
- b. mi |'an tzi ko Maria ko ambere  
I give outside Lk Maria Lk bucket
- c. mi |'an Maria ko tzi ko ambere  
I give Maria Lk outside Lk bucket
- d. mi |'an ambere ko Maria ko tzi  
I give ambere Lk Maria Lk outside
- e. mi |'an tzi ko ambere ko Maria  
I give bucket Lk Maria Lk outside
- f. mi |'an ambere ko tzi ko Maria  
I give outside Lk bucket Lk Maria

any order, equidistance  
constraint here  
to skip stuff

Conclusion: No simple account in terms of equidistance of the specifier and the complement of VP will work.

- (6) a. ku -a si ||x'oo  
2sg Decl Fut chop  
"He will chop wood in the veld"
- b. \*ku -a si ||x'oo  
3sg Decl Fut chop  
"He will chop wood in the veld"
- (7) a. koloi gi|on-a #amkoe  
car hit-Perf person  
"A car hit a person in the road."

compared e2a in Hoan  
N-22 X modified  
|aihn, sigk'm parallels in Noma, & Verbaal  
domain

\* Vals loc likes from

difficult  
VAB

(±H<sub>2</sub>Oan)

ya 'a--||x'ao |on ki ||xao na  
3sg prog-chop tree Lk forest in  
"He/she was chopping the tree in the forest"

Uter Extracts  
has been full.

©oo-ke  
Wood-P1

juu-a he Griet si ||x'oo  
veld-dem rel Griet Fut chop  
"The veld where Griet will chop wood"

2sg Decl Fut chop "He will chop wood in the veld"

b.

(01)

## Extraction of Complements

V Lk DP is possible with structure V<sup>[pp]</sup> Lk DP ]  
No inversion (just like no inversion with PPs in English).  
a. John loaded the wagon with hay  
b. \*John loaded the hay with a wagon

Lk in #Hoan and N|u (and -a in Ju|hoansi) is more like a preposition taking a

- i. V Lk DP is a functional head taking a VP complement.
- ii. Inversion is allowed.

Analysis (to be rejected):

$(N|u)$        $(N|u)$   
 $(N|u)$        $(N|u)$   
 $(N|u)$        $(N|u)$

Conclusion:

tsi a-kyxai ki ioa na  
3pl Prog-dance Lk house in  
"They are dancing in the house."

Lena koh dyanra  
Lena Past dance-Trans house in  
"Lena danced in the house."

"He is dancing in his house."

†Hoan and N|uu do not allow inversion.  
 o. Ju|hoansi and K|ande do allow inversion.

"A car hit the person in the road."

\*koloi g||on-a gyeo na ki †amkoe

||a2e in  
(N|nu) after intrins verb  
(J|hoansi) not after intrins  
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8th Semantics  
50 Thurs after

a.	kiya xe	Griet si	k'o'o	○oo-ke	ɲlā	be loc
	where	Q	Griet	Fut	chop	
	"Where will Griet chop wood?"					
a.	*Uto	dehunn-a	Kaece	nāma nāng	road in	(Jul'hoans
	car	hit-Trans	Kaece			
	"The car hit  Kaece in the road."					
b.	Kaece	komm	Uto	dehunn-a	(*ko)	nāma nāng
	Kaece	Emph	car	hit-Trans	Lk	road in
	"Kaece, the car hit in the road."					
c.	Nāma	nāng	komm	Uto	dehunn-a	(*ko)
	road	in	Emph	car	hit-Trans	Lk
	"In the road, the car hit  Kaece."					
a.	koli	g on -a	†amkoe	ki	gyo na	(†Hoan)
	truck	hit-perf	person	Lk	path in	
	"The truck hit a person on the path."					

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b. \*ya 'a--||x'ao ||xao na ki |'on  
3sg prog-chop forest in Lk tree

c. ||xao na ya 'a--||x'ao \*(ki) |'on  
forest in 3sg prog-chop Lk tree  
"In the forest, he was chopping the tree"

(14) a. gya'msi 'a--|'i ki !koa na (#Hoan)  
child prog-cry Lk house in  
"the child is crying in the house"

b. !koa na gya'msi 'a--|'i \*(ki)  
house in child prog-cry Lk  
"in the house, the child is crying"

(15) a. ci 'a kyxai ki !koa na (#Hoan)  
3pl prog dance Lk house in  
"they are dancing in the house"

b. !koa na ci 'a--kyxai \*(ki)  
house in 3pl prog-dance Lk  
"in the house, they are dancing"

Conclusion: There is no constraint such as \*Lk <gap>

Conclusion: The linker in #Hoan is not a simple preposition taking a DP complement.  
Since it allows a limited form of inversion, the Lk in #Hoan must take a VP complement, as in Jul'hoansi and Kinande.

Analysis: inversion in #Hoan  
Extraction from VP must transit through a position preceding the linker (e.g., Spec vP, if vP is a strong phase)

(16) gyeo na koloi g||on -'a \*(ki) #'amkoe  
path in truck hit-perf Lk person

(17) Spec vP Lk person path in  
Wh-movement + Case

Problem: Why isn't N|uu like #Hoan??

(18) a. ku -a si ||x'oo Ooo-ke n |uu (N|uu)  
2sg Decl Fut chop wood-pl Lk veld  
"He will chop wood in the veld"

b. |uu-a he Griet si ||x'oo Ooo-ke n||a  
veld-dem rel Griet Fut chop wood-pl be.loc  
"The veld where Griet will chop wood"

Analysis: correlation of inversion with \*[V Lk DP]  
Jul'hoansi: inversion with ko, \*[V ko DP]  
Jul'hoansi: no inversion with -a, [V-a DP]  
#Hoan, N|uu: no inversion, [V Lk DP]

(19) a. Lk in all Khoisan languages (and Kinande) takes a VP complement (not a DP complement).

b. Lk has two functions:  
i. Lk checks the Case of following DP (in Spec VP)  
ii. Spec Lk is landing site for movement

c. Lk in #Hoan and N|uu has function (i) only.  
See (9) where Spec Lk can remain empty.

b. Lk (-a) in Jul'hoansi has function (i) only

d. Lk (ko) in Jul'hoansi has functions (i) and (ii) (accounting for inversion)

e. The order [V DP Lk Loc] in #Hoan and N|uu is the result of movement to Spec Agro (or whatever the accusative Case position is), not Spec Lk.

[ V DP LK <DP> Loc ]

4. Double Objects (see Collins 2005)

(20) a. Griet ke si 7aa ku-a donki-si (N|uu)  
Griet Decl Fut give 3sg-Dat donkey-Sg  
"Griet will give him the donkey"

Besa komm ||'ama-'an Oba ko tcisi (Jul'hoansi)  
Besa Emph buy give Oba Lk things  
"Besa bought Oba some things."

Ma 'a cu Jefe ki setinkane. (#Hoan)  
1sg Prog give Jeff Lk hand-harp  
"I am giving Jeff the hand-harp."

Show that  
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Not preposition taking adp complement.  
must also take vp comp like in Jul'hoansi & Kinande

locative post position in #Hoan  
assign genitive

will show that the definite is the first DP for case manner construction

- (21) a. n -a si gluu-a ku-a  
1sg Decl Fut lie-Appl 3sg-Dat  
'I will lie to him'
- b. n -a si sisən-a ku-a  
1sg -Decl Fut work-Appl 3sg-Dat  
'I will work for him'
- c. n -a si |qhō<sup>s</sup>-a Griet-a  
1sg Decl Fut dance-Appl Griet-Dat  
'I will dance for Griet'
- (22) a. ku si jee |x'oo | 000-ke  
3sg Fut how Mann chop Lk wood-Pl  
'How will he chop the wood?'
- b. ku si jee η fioo η ku anki  
3sg Fut how Mann find Lk 3sg father  
'How will he find his father?'

Conclusion: a linker must appear before the direct object in a manner-construction.

- (23) a. Griet si jee η |qhō<sup>s</sup>-a ku-a  
Griet Fut how Mann dance-Appl 3sg-Dat  
'How will Griet dance for him?'
- b. Griet si jee η gluu-a ku-a  
Griet Fut how Mann lie-Appl 3sg-Dat  
'How will Griet lie to him?'

Conclusion: No linker before the dative DP in a manner construction. (The dative -a checks Case of DP in its specifier).

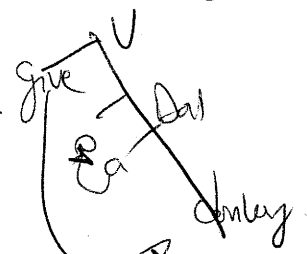
- (24) Griet ke si ?āa ku -a donki-si  
Griet Decl Fut give 3sg -Dat donkey-Sg
- (25) Ma 'a cu Jefe ki setinkane  
1sg Prog give Jeff Lk hand-harp

Analysis: In a DOC, the dative -a checks Case of first object. The transitive verb can check the Case of the other. There is no need for a linker.

(N)uu Can have the linker when added on applicable

(N)uu name for these linker after the verb to form a manner definition, this is the verb

try to make manner no linker be for IDO makes sense if a v a dative marker for case, don't need linker to check case of following object



### 5. Summary of Parametric Variation

Property	Hoan	Ju'hoansi	N uu
1. Lk	yes (ki)	yes (-a/ko)	yes (η)
2. Lk thematically unrestricted	yes	yes	yes
3. V Lk X	yes	yes (-a)	yes
4. V X Lk (Lk must precede X)	no	no	no
5. V DP Lk X	yes	yes (ko)	yes
6. V DP X Lk	no	no	no
7. V Lk DP X	no	no	no
8. Subj Lk X V	no	no	no
9. Lk in causative (V DP Lk DP)	yes	yes	yes
10. Trans suffix	no	yes (-a)	no
11. Inversion (V Loc Lk DP)	no	yes	no
12. Lk in DOCs	yes	yes	no
13. Dative	no	no	yes(-a)
14. Declarative	no	no	yes (-a/ke)
15. Lk-gap	yes (sometimes)	no (for ko)	no
16. "be.in" as Last Resort	no	yes (for -a)	yes

variation

### 6. Some Notes on Linguistic Theory and Endangered Languages

**References**  
 Baker, Mark and Chris Collins. 2006. Linkers and vP Structure. *Natural Language and Linguistic Theory*.  
 Collins, Chris. 2006. Inversion in Hoan. Manuscript, NYU.  
 Collins, Chris. 2005. The Absence of the Linker in Double Object Constructions in N|uu. *Studies in African Linguistics*, 33.2.  
 Collins, Chris. 2003. The Internal Structure of vP in Ju'hoan and Hoan. *Studia Linguistica* 57.1, 1-25.

Some functional heads will give as in the syntax that they want be allowed

first functional projection of a verb makes people give arguments of a little node caused no verb head. gives support for this paradigm. Rizzi's evidence for left peripheral key syntax. New Gumbie dissertation, systematic comparison of Italian & Gumbie

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vP takes a CP as a complement

Some predictions on languages

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result of diff sources