## Focus markers with $\phi$ -probes: the case of Lavukaleve

Johannes Mursell – Goethe-University Frankfurt j.mursell@lingua.uni-frankfurt.de

**Summary:** In this talk, I discuss focus marking in the Papuan language Lavukaleve. In this language, focus is marked by a focus particle adjacent to the focused constituent. Importantly for this talk, focus markers vary with the  $\phi$ -features of the focused constituent, with the focus marker showing sensitivity to person, number, and gender of the focused constituent. I argue that this dependence on  $\phi$ -features is best analyzed as viewing the focus marker as a bundle that consists of the actual focus feature and an additional set of  $\phi$ -features.

**Background:** Focus marking, and information structural marking in general, varies extensively across languages. While Germanic languages mostly use intonation, and dislocation only as a secondary means, other, especially (West-) African languages mark focus by dislocation to the left sentence periphery with the additional use of a focus particle. The examples in (1) and (2) show ex-situ focus marking in Dagbani, a Mabia language (Issah, in prep.). The focus marker varies, depending on the type of the focused constituent, with clause-mate subjects requiring the focus marker *n*, while all other constituents require ka.

- (1) Chentiwuni n/\*ka zaŋ buhi madd chaŋ mogi ni.
  Chentiwuni FOC<sub>s</sub>/FOC<sub>o</sub> take goats DEF go bush LOC
  'Chentiwuni sent the goats to the bush.'
- (2) **Buku** \*n/ka paya maa sa da book FOC<sub>s</sub>/FOC<sub>o</sub> woman DEF PST buy 'The woman bought **a book**.'

Very rarely, instances can be found, in which focus related particles seem to be sensitive to (parts of) the  $\phi$ -features of the focussed constituent. Hausa (Tchadic) has an exhaustive focus marker that can be argued to show gender agreement with the focussed constituent (Hartmann & Zimmermann 2007, Newmann 2000).

- (3) Dèelu cèe takèe sôn àgoogo.
  Deelu EXF.F 3SG.F.REL.CONT want watch
  'Deelu wants a watch.'
- (4) **Àgoogo nèe** Dèelu takèe sô. watch EXF.M Deelu 3SG.F.REL.CONT want 'Deelu wants **a watch**.'

Other languages show a much more intimate relation between information structural marking and  $\phi$ -feature agreement. Following the ideas of Chomsky (2008) and Miyagawa (2010;2017), this behavior is actually expected. All languages make use of the same sets of features ( $\phi$  and information structural features), and the features are initially always merged on the same head. I argue that focus marking in Lavukaleve supports the assumption that the features are not only introduced on the same head, but in some languages can be combined into one complex feature. **Data:** Lavukaleve (Terrill 2003) arguably shows a very close connection between focus and  $\phi$ -features. The language marks focus with a focus particle adjacent to the focused constituent, with the particle varying in  $\phi$ -features dependent on the focused constituent. The focus markers in Lavukaleve inflects for person, number, and gender, and even depend on the clause type. The focus marker can occur sentence medially for narrow constituent focus, but also sentence finally. In sentence final position, the focus marker either marks sentence focus (5), or predicate (VP) focus (6).

(5) *Ma-talu o-fi me-v fiv* 3PL.POSS-word.F 3SG.F-hear HAB-PL 3PL.F.FOC '**They would obey their work**'

(Terrill 2003:283)

(6) [Ali na]<sub>SUBJ</sub> [[aira la]<sub>OBJ</sub> o-le-a]<sub>PRED</sub> feo man DET.SG.M woman.F DET.SG.FOC 3SG.S-see-SG.F 3SG.F.FOC 'The man saw the woman.'

'The man **saw the woman**.' (Terrill 2003:277) The crucial difference between (5) and (6), besides the different focus domains, is the source of the  $\phi$ -features for the focus particle. While the object provides them in VP focus contexts (6), the subject provides the  $\phi$ -features in sentence focus constructions (5).

**Analysis:** To account for the behavior of the sentence final focus markers, I assume that they are the expression of a focus head, carrying an unvalued focus feature, bundled together with a set of unvalued  $\phi$ -features, (7).

Foc

[iFoc:  $\Box$ ] [ $u\phi$ :  $\Box$ ]

Foc<sup>0</sup>

Due to the unvalued features, this head acts as a probe and (7) searches its c-command domain for an appropriate goal. However, due to being a complex head, a bundle of  $\phi$ -features and a focus feature, the agreement goal has to fulfill the requirements contributed by all parts of the probe. Thus, the goal has to host a set of  $\phi$ -features as well as a focus feature (i.e. be part of the

focus domain, Selkirk 1995). For sentence focus, in which all the elements of the clause are part of the focus domain and therefore carry a focus feature, the closest suitable agreement goal is the subject, as it also hosts a set of valued  $\phi$ -features (8). In predicate focus constructions, the subject is not part of the focus domain and does not host an F-feature. Therefore, the focus head keeps probing, until it reaches the object, which is the highest element in the focus domain that hosts a set of  $\phi$ -features. Thus, the focus head agrees with the object in predicate focus constructions (9).

(8)  $\begin{bmatrix} SUBJ_{E,\phi} & V_F \end{bmatrix}_F FOC_{E,\phi} \end{bmatrix}$  (9)  $\begin{bmatrix} SUBJ_{\phi} & V_F \end{bmatrix}_F OC_{E,\phi} \end{bmatrix}$ 

**Discussion:** This account can derive the  $\phi$ -feature agreement of the focus markers in Lavukaleve. It also makes certain predictions for clauses besides the cases discussed above that seem to be confirmed by the data. First, in intransitive clauses, predicate focus is impossible as the only  $\phi$ -feature host will always be the subject which requires the whole clause to be in the focus domain (10). Second, if no appropriate overt  $\phi$ -feature host is available at all, it is expected that the focus marker shows a default value, which in Lavukaleve is 3SG.N. This holds for sentence-internal focus marking of, among others, adjuncts (11-a), but also sentential focus marking if no arguments are present (11-b).

(10)	0.	Tutu-m	hona-ri	fele-la-m	fin.	
	0	o grandparent-SG.M MOD.PROX.SG.M-PSNV return-NEG-SG.M 3SG.M.FOC				
	ʻOł	n. This old man l	nasn't returned		(Terrill 2003:286)	
(11)	a.	Ngai <b>kosora fi</b>	a-kiu-	re		
		1SG soon 3S	G.N.FOC 1SG.S	-die-FUT		
		<b>'Soon</b> I will die	.'		(Terrill 2003:292)	
	b.	Ngpa-nun ngpa-nun ngpa-nun ngpa-nun ta fi.				
		stay-DUR stay-	-DUR stay-DUR	stay-DUR just 3SG.N.	FOC	
		'Things went o	on and on.'		(Terrill 2003:508)	

Analyzing focus markers in Lavukaleve as a complex head consisting of an unvalued focus feature and unvalued  $\phi$ -features provides a simple explanation for their behavior. This analysis can also be applied to focus markers in a different Papuan language, Bilua (Obata 2003), in which the focus markers only show a gender distinction. In addition, it is in line with the more general assumption that information structure can have a significant impact on agreement processes in the syntax.

**Selected references**: Hartmann & Zimmermann (2007). Exhaustivity marking in Hausa. | Issah (in prep.). Wh-questions in Dagbani. | Newmann (2000). The Hausa language. | Terrill (2003). A grammar of Lavukaleve.