

# 1 Ngun and Munken


wu L L H	*FLOAT-L	NoCONTOUR
wu   L L H	*!*	
wu   L ⊙H	*!	
 wu ^ L ⊙H		*

Table 1: Munken Imperative forms: \*FLOAT-L ≫ NoCONTOUR


wu L L H	NoCONTOUR	*FLOAT-L
wu   L L H		**!
 wu   L ⊙H		*
wu ^ L ⊙H	*!	

Table 2: Ngun Imperative forms: NoCONTOUR ≫ \*FLOAT-L

## 2 Missong and Munken

	$\begin{array}{c} \text{ugbt} \\   \\ \text{H H L} \end{array}$	*FLOAT-L	UNIFORMITY-IO(TONE)	NoCONTOUR
☞	$\begin{array}{c} \text{ugbt} \\   \wedge \\ \text{H H L} \end{array}$			*
	$\begin{array}{c} \text{ugbt} \\     \\ \text{H H L} \end{array}$	*!		
	$\begin{array}{c} \text{ugbt} \\     \\ \text{H H} \textcircled{\text{L}} \end{array}$		*!	

Table 3: Missong: UNIFORMITY-IO(TONE) ≫ NoCONTOUR

	$\begin{array}{c} \text{ugbe} \\   \\ \text{H H L} \end{array}$	*FLOAT-L	NoCONTOUR	UNIFORMITY-IO(TONE)
	$\begin{array}{c} \text{ugbe} \\   \wedge \\ \text{H H L} \end{array}$		*!	
	$\begin{array}{c} \text{ugbe} \\     \\ \text{H H L} \end{array}$	*!		
☞	$\begin{array}{c} \text{ugbe} \\     \\ \text{H H} \textcircled{\text{L}} \end{array}$			*

Table 4: Munken: NoCONTOUR ≫ UNIFORMITY-IO(TONE)

### 3 Analysis of tone changes

#### 3.1 Citation and S-tone forms

$\begin{array}{c} \sigma \quad \sigma' \\   \quad   \\ H \quad H \quad L \end{array}$	*FLOAT-L	NoCONTOUR
$\begin{array}{c} \sigma \quad \sigma' \\   \quad \wedge \\ H \quad H \quad L \end{array}$		*!
$\begin{array}{c} \sigma \quad \sigma' \\   \quad   \\ H \quad H \textcircled{L} \end{array}$		
$\begin{array}{c} \sigma \quad \sigma' \\   \quad   \\ H \quad H \quad L \end{array}$	*!	

Table 5: S-tone stem-noun in citation form (Munken)

$\begin{array}{c} \sigma \quad \sigma' \\   \quad   \\ H \quad L \quad H \quad L \end{array}$	*RISE	*FLOAT-L	NoCONTOUR
$\begin{array}{c} \sigma \quad \sigma' \\   \quad   \\ H \quad \textcircled{L} \quad H \quad L \end{array}$		*!	
$\begin{array}{c} \sigma \quad \sigma' \\   \quad \wedge \\ H \quad L \quad H \quad L \end{array}$	*!	*	*
$\begin{array}{c} \sigma \quad \sigma' \\   \quad \wedge \\ H \quad L \quad H \textcircled{L} \end{array}$	*!		*
$\begin{array}{c} \sigma \quad \sigma' \\   \quad   \\ H \quad L \quad H \textcircled{L} \end{array}$		*!	
$\begin{array}{c} \sigma \quad \sigma' \\   \quad \wedge \\ H \quad \textcircled{L} \quad H \quad L \end{array}$			*

Table 6:  $\widehat{ML}$ -tone stem-noun in citation form (Munken)

$\begin{array}{c} \sigma & & \sigma & & \sigma \\   & &   & &   \\ H & L & H & L & H \textcircled{L} \end{array}$	GOCP( $\sigma$ )	*RISE	*FLOAT-L
$\begin{array}{c} \sigma & & \sigma & & \sigma \\   & & \wedge & &   \\ H & \textcircled{L}H & \textcircled{L}H & & H \textcircled{L} \end{array}$	*!		
$\begin{array}{c} \sigma & & \sigma & & \sigma \\   & & \wedge & &   \\ H & \textcircled{L}H & L & H & H \textcircled{L} \end{array}$		*!	*
$\begin{array}{c} \sigma & & \sigma & & \sigma \\   & & \wedge & &   \\ H & L & H & \textcircled{L}H & H \textcircled{L} \end{array}$			*

Table 7:  $\widehat{ML}$ -tone stem-noun followed by S-tone possessive pronoun (Munken)

$\begin{array}{c} \sigma & & \sigma & & \sigma \\   & &   & &   \\ H & H & L & H & H \textcircled{L} \end{array}$	GOCP( $\sigma$ )	*RISE	COINCIDE( $\hat{a}$ , $\neg$ CONTOUR)	*FLOAT-L
$\begin{array}{c} \sigma & & \sigma & & \sigma \\   & & \wedge & &   \\ H & H & L & H & H \textcircled{L} \end{array}$	*!			*
$\begin{array}{c} \sigma & & \sigma & & \sigma \\   & & \wedge & &   \\ H & H \textcircled{L} & H & & H \textcircled{L} \end{array}$			*!	
$\begin{array}{c} \sigma & & \sigma & & \sigma \\   & & \wedge & &   \\ H & H & \textcircled{L}H & & H \textcircled{L} \end{array}$				

Table 8: S-tone stem-noun followed by S-tone possessive pronoun (Munken)

### 3.2 L-tone forms

$\begin{array}{c} \sigma & & \sigma & & \sigma \\   & &   & &   \\ H & L & H & L & L \end{array}$	GOCP( $\sigma$ )	*RISE	NoCONTOUR	*FLOAT-L
$\begin{array}{c} \sigma & & \sigma & & \sigma \\   & & \wedge & &   \\ H & \textcircled{L}H & L & & L \end{array}$			*!	
$\begin{array}{c} \sigma & & \sigma & & \sigma \\   & & \wedge & &   \\ H & L & H \textcircled{L} & & L \end{array}$		*!	*	
$\begin{array}{c} \sigma & & \sigma & & \sigma \\   & &   & &   \\ H & L & H \textcircled{L} & & L \end{array}$				*

Table 9: S-tone stem-noun followed by L-tone possessive pronoun (Munken)

$\begin{array}{c} \sigma \quad \sigma \quad \sigma \\   \quad   \quad   \\ H \quad H \quad L \quad L \end{array}$	GOCP( $\sigma$ )	*RISE	NoCONTOUR	*FLOAT-L
$\begin{array}{c} \sigma \quad \sigma \quad \sigma \\   \quad \wedge \quad   \\ H \quad H \quad L \quad L \end{array}$			*!	
$\begin{array}{c} \sigma \quad \sigma \quad \sigma \\   \quad   \quad   \\ H \quad H \oplus \quad L \end{array}$				
$\begin{array}{c} \sigma \quad \sigma \quad \sigma \\   \quad   \quad   \\ H \quad H \quad L \quad L \end{array}$				*!

Table 10:  $\widehat{ML}$ -tone stem-noun followed by L-tone possessive pronoun (Munken)