## First Section.

## THE SOUNDS.

$\underline{4}$ $u$ System of the Vowels.
$a$


2 The quality of vowels is marked by signs below the letters; the quantity is marked by signs above the letters. Lomig vowels are marked by a line, thus $\vec{a}$ is long $a$. All vowels which have no mark above. are short.
$a$ is the short pure $a$, as that in French, Italian, and German; not quite the same as the $a$ in Engl. lad, which inclines rathor towards e.
$g$ is a sound between $a$ and 2 , like the English $u$ in but.
$\varrho$ like $o$ in pot, hot.
o like $o$ in note, alone, hut shorter and narrower; it has not the $u$-sound which follows the Enelish o.
$\underline{u}$ like $u$ in put.
$u$ like $u$ in root, but shortor.
$a$ is a narrow $a$.
$\varrho$ like $e$ in let, well, but a little broader; the somend tends somewhat ta $a$ or rather $a$.
$\theta$ like $a$ n haste, face, lut shorter.
$\underline{i}$ like $i i_{11}$ hit, fit.
$i$ like ee in keen, seen, lut shorter.
$\rho$ is an almost voiceless $e$-sound, like the $e$ in larder, or almost as $a$ in idea.
g. like the German $\ddot{o}$ in "hörte".
$\ddot{u}$ like the German $\ddot{\ddot{u}}$ in Hüte, but somewhat shorter. It is pronomed by forming the lips as if to pronounce an $t$ and then saying an $1:!$ and $u$ occur but in a few words, and even here it is doubtful, whether is is not a semivowel, and ought therefore to be written $w$.
$\check{o}:$ in pronouncing $\delta$ the lijs are but slightly rounded; the place of articulation lies before that of the usual $o$.

## Long Vowels.

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\overline{a}}\mathrm{ as in father.
\overline{\alpha}}\mathrm{ as }u\mathrm{ in further.
\) as aw awe. law.
p}\mathrm{ almost ils in careful.
\overline { e } \text { as in sive, bale.}
i as in feel, heel.
of as in hole, mole, but narrower.
\vec{u}}\mathrm{ as in cool, fool.
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Nasalisation of Vowots is seldom, but it sometimes orems; it is marked thus: $\bar{a}$ like the French an "year"; $\underline{\delta}$ like the French on "one", etc.

Diphthongs are frequent in the language.
ai as $y$ in spy.
$a_{u}$ as ow in fowl.
oa almost as French oi, p.g. roi "king".
oi $o+i$.
$\underline{o} i$ as $o i$ in oil.
ou o $+u$, almost as $o$ in note, but the $u$-sound following $o$ is more distinctly heard than in English.
$\underline{o} u \underline{\varrho}+u$.
$\underline{\varrho} a \underline{o}+a$.
There are still other combinations of two vowels, e. g. ia, ua, ete., these are not called diphthongs, because in them both sounds are pronomerd 'fuite distinctly, the connection between the two vowels not being so narrow as in the dijhthongs.

Combinations of Semivovel and Vowel with a preceding consonant also occur freguently. In these cases $w$ and $y$ are to be pronounced as a very short, non-syllabic $u$ and $i$.

7
The somuls $c h, j, s h$, and $\dot{n}$, when following a vowel, have a slight $i$-sound lufow them, which combines with the preceding vowel to a diphthong. This $i$-sound is, however, not expressed in writing, because it occurs regularty before the said consonants. lt is to be noted that even where the ch 'hanges into $h$, the $i$-sound is retained: boiloch pl. boiloiheni, a elass of bon-. Perhaps even the $i$ in $b_{2} i$ is caused by the $c h$ of the following syllahls. of the noun; these are not treated here; vide The Noun.
$a$ and $\underline{g}$ are often reduced to $e(e)$, chiefly when standing at the end of a word: $a$ "me, I ", $d a$ "my" is frecpuently pronounced $e$, $d e$.
chwo "and" is in fluent speech usually pronounced chwe, sometimes also chwo.

Change between $\underline{a}$ and $e: n a k h$ and nekh to kill; path and peth to swell; pal and pol to sparc.

Change between $a$ and $\underline{e}: k a$ and $k \underline{e}$ they; $k \bar{a} n$ and $k \underline{\underline{e}} n$ not yet; węya and wêye go! bēya and bêye come! jakh and jekh to send: jahal and jele walking; kan and ken to take. be near.

Change between $a$ and $\underline{o}$ : kwār and kwōr a certain tree: chou and chaq male; mwāl and mwōl to crawl; twoch' and twach' cloth.

Change between $\underline{g}$ and $\underline{e}$ : lai and lei game.
Change between $\underline{a}$ and $\underline{o}$ : chat and chot armilet; fgl and fol to be strong, healthy; you and you, and $y \bar{o}$ property.

Change between $\varnothing$ and $\ell:$ jy $\partial m$ and jyem cheek.
A semivowel and vowel are contracted into one (generally long) vowel: gwāa and gō good; pwāt and pōt to beat; pwär and pōr hushbuck; kwal and $k \bar{o} l$ to steal; chwol and chol to call: kwan and koni merisa; juoe and joe sickness; jwosh and josh to chase.

Two vowels are eontracted into one: müa and mō to sink; roam and rōm sheep; béal and bēel dura; ak@am and akōm chest; kwgar and kwär chief: kwear and kuegr to gather; gQal and gōl family; team and tēem to honour.

Two identical vowels standing beside each other are sometimes pronounced separate (with gradual glottid between each other), but they may also unite into one long vowel; in most of these cases an $h$ has originally stood between the two vowels, but has been dropped: door and dor bush; rión and oợn well.

The following changes are different in their origin; while those treated above are contractions of two vowels or of a semivowel and a vowel into one vowel, in the following examples the word with one vowel is probahly the original form, to which a second vowel has been added; this second vowel then caused in most cases the first vowel to be changed into a semivowel; or the two vowels were contracted into one:
$l \underline{u} k h$ and $l_{\underline{g}} k h$ to refuse; $l_{\underline{L}} k h<\underline{l} \underline{u} k h+a: l_{\underline{u}} k h h$.
kyr and kwor hundred; kuger<kur $+a: k \underline{u} a r$.
tukh and tugkh to finish; tuokh $<{ }_{k} n k k h+a$.
$p \bar{u} r$ and puar, pear; puar < pūr$+a$; in poar the $u$ has been assimilated to $a$ and thus changed into $\underline{o}$.

System of the Consonants.

|  | Mutes <br> voirelest roiced | Fricatives voieeless voiced | Mutes followed by an Aspirate or a Fricative voiceless voiced | Nasals | Liquids | Sernivowel |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Velar . . . . . . | $k$ | $h h \quad \gamma$ | kh | n | - | - |
| Palatal ..... | ch $\quad j$ | sh | - | n | - | $y$ |
| Dental.... | $t \quad d$ | - - | th | $n$ | $r l$ | - |
| Interdentals .. | d | - - | - - | n m | - | - |
| Dentilabial... | - - | $f$ | $p f \quad b v$ | - | - | - |
| Bilabial...... | $p \quad b$ | $\underline{f} \quad-$ | * | $m$ | - | $w$ |

The sounds $\dot{n}, n$, and $m$ may have the quality and function of vowels, they are in these cases marked thus:- $\boldsymbol{n}, \eta, m$.

Description of the Consonants.
$k$ before $a, \underline{\varrho}, ~ o, \underline{u}, u$ as $c$ in English coast, call.
$k$ before $\underset{e}{e}, e, i, i$ as $c$ in English cane, or $k$ in kitchrn.
$y$ always hard, as in English gold, garden, never as in George.
$c h$ is a palatal $t$, that is a $t$ not formed with the tongue's end, hut with the baek of the tongue.
$j$ is a palatal $d$.
$t$ is an interdental $\boldsymbol{t}$; thr sound is formed in putting the tonguc's cond between the teeth-rows, so that the tongue is visible from without, and then pronouncing a $t$.
$d$ is an interdental $d$.
$t$ and $d$ are as in English.
$p$ and $b$ are as in English.
$h$ is not quite the same sound as the English $h$. It is a velar frijcative sound with a light friction, but it is voiceless.
$h$ is the hard velar ch as in German "ach, doch."
$\gamma$ is the corresponding voiced sound; it is solter than $h ; \gamma$ stands in the same relation to $g$ as for instance $v$ to $l$.
$s h$ is not the English $s h$; it is a back-palatal $s$, almost like the German ch in "ich."
$f$ as in English.
$f$ is an $f$ pronomeed in pressing both lijs on each other (while in the pronunciation of the usual $f$ the lower lij is pressed against the upper teeth).
$k h$ is a $k$ followed by a strong aspiration.
th is a $t$ followed by a strong aspiration.
$p f$ is a $p$ followed by an $f$, as in German "Pferd."
$b v$ is a $l$ followed by a $v$.
$n$ is the velar $n$, like $n g$ in singer.
$\dot{n}$ like $\tilde{n}$ in cahom.
$n$ is an interdental $n$, prononnced corresponding to $d$ and $k$.
$m$ is an interdental $m$; while the lips are pressed together, the tongur is at the same time placed betwren the teeth-rows, sw that while the lip are being closed, the tongute is being put betwern the teeth.
$r, l$, and $w$ as in English.
$y$ as in English yes; it has never the vocalic quality, as for instanin spy. between two vowels, and when not followed by', frequently end in a stron": aspiration or affriction, so that after $k$ and $t$ a strong $h$ sound is heard. and after $p$ an $f$ sound. Sometimes, chicfly in fluent speech, the aspiration beomes so strong that the closing in the articulation is altogether dropued, and only an aspiration or friction remains; that is: $k$ turns into $h, h$ or $\gamma$. $t$ turns into $r$, and $p f$ into $f$. As a rule mark this: 1. if one of the said consonants is the final one of a word, and no other word follows, or the next word begins with a consonant, the pronunciation is generally kh, th, $p f$, seldonı $h, h, \gamma, r, f ; 2$. if one of the consonants stands between wo vowels of the same word, or it is final, but the next word begins wit : vowel, the prommeiation is generally $h, h, \gamma, r, f$.

Interchange of consonants. The cumonatits ch and $s h, p$ and $f, f$, may be interchanged at will, one individual preterring the one, another the other eonsonant.

Change between voiced and voiceless final comsonants. The consunauts $k, c h, t, t, p$, when standeng at the end of a word, may have two $\quad \cdots$ munciations. They are voiceless, that is a real $k, c h, t, t, p$, if 1 , the word stands alone, or at the end of a sentenec; 2. if it is followed by a voiceless consonant. They are voiced, that is, they are to be pronomnced $g, j, d$, ${ }_{d}$, $b, 1$. if the are followed by a voieed consonant; 2. if they are followed by a vowel; 3. in most cases they are pronounced voiced also if the vowel preceding them is long. But they are alvays written voiceless: $k$, ch, $t, t \cdot p$.

If two consonants unite, one word ending in and the next begiming
27 with, a consonant, one eonsonant is frequently dropped:-
$n \bar{a} \neq \frac{e}{a} n$ their people, hecomes $n \bar{a} k \underline{e} n$,
$n \bar{a}_{x} d \bar{o} r$ people of the hush, becomes $n \bar{a}$ dërr,
chak köt rat is often pronomencel:-cha k $\bar{o} n \bar{a}$,
chwok chwok an assembly assembled, is often pronounced: chuo chwok.

If $c h$ or $c h^{\prime}$ is followed by a consonant, it ehanges into $y, y^{\prime}$ : rwach 28 talk. roay näf talk of the people.

The plural-ending eni, $n i$ always affeets the preceding consonant, if 2 this is a mute; the changes oceuring here may lee threcfold:-1, the preeching comsonant, if woiceless, becomes voiced: but $c h, c h$ does not beome $j$, but $y$, and $j$ becomes $y$. 2 . the preeeding eonsonant is assimilated by the $n$ of eni and thas turns into the corresponding nasal consonant, or it is dropped altogether: 3 , the preeeding consomant is, as in the first case. retained, but is followed by a nasal somb corresponding to it, after which follows the ending eni.

Kramples.
1. jakök-jakogni cow maleet-malegini owl
gwak'-gwageni fox
kwach'-kekwaypni leopard
göjo-kegoyeni sword
2. jech-kejeneni belly
$k \underline{e ̄ t} t-k a k \underline{e} n i$ club
gwak'gwaṅeni fox
3. k $\ddot{a} p-k e k a \bar{a} b m e n i$ thongs
malcet-maleetini owl
kgat-kekodni ardeb-tree
kwat-kekwadni chai»
$k \underset{e}{t} t-k a k \underset{e}{e} d n i$ elnb
labit-labini fishhook
lēt-leni lion
manfalăk-manfalgeni hen
mańtap-mańtalmni maize.
I $h$ between two vowels is often dropped: ..... 30
jahal and jāl going jahan and j $\bar{a} \dot{n}$ Dinka yaheni and $y \bar{a} n i$ hyenas

    dohol and d্ঠol boy
    
        chahar and chär blaek
    
        kghakh and kökh grave
    $w$ and $\gamma$ change: ..... 31
wut and rut man
wum and yum nose
wet and $\gamma$ pet to move
wokh and yokh to push
$w$ and $r$ eliange: ..... 32
rwach and wuach' talk
$\gamma$ and $r$ clianqe: ..... 33
rum and rum, wum nose
$\gamma$ and $h$ change:
row and $h_{2} k$ cattle
$k$ and $g$ change:
for ke "they" $g \underline{e}$ is often heard, chiefly when a voiced consonant or a vowel precedes it.
An interdental consonant firequently assimilates other consonaut of the same worl; this beeomes probable from many words having two inter dental sounds:- duot to leave: dyët to bear.

A peculiar assimilation takes place in the following examples:
nyem "hair" is in the White Nile dialect ngyem,
nyam "face" " " . . . nyam.
Apart from these cases, in whieh $m$ is merely a transformation of $\mu$. the consonant dres not secm to oceur at all.

A $t$ scems to be dropped in lelet-keletlet duck.
Dialectical differences I have olserved but few. The people from the White Nile pronomeed kwan hear instead of kon: they always preferred $f$, $f$ instead of $p, p f, h$ instead of $h, k h$, and sh instead of $c h$; they used the assimilation shown in 37.

## Intonation.

The tones are marked thus:- $\dot{a}$ high tone, $\dot{a}$ low tone, $a^{1}$ middle tone, $\dot{a}$ ligh-tow (falling) tone, $\dot{a}$ low-high (rising) tone.

The language has etymological tones, that is each syllable or wort has its own tome, ly which it is distinguished from other words which have the same sounds, hut are of different meaning, as for instance: - kot God, kòt med. But in most worts these tones are distinctly heard only when the word is spoken separately: in combetion with other worls the tones are frequently ehanged. Besides the etymological tome there is a grammatical tone, certain eategories of the grammar having their own tomes, as for instance atl personal pronoms have high tone, the verts in the past and passive has high-low tone. In the course of speech neighbouring tomes unite by means of assimilation ind dissimilation (eontrast) into groups of tones; this may be called the renthmical intonation.

The stress tone lies on the stem-syllable. This is best observable in the phural of substantives, where the stem-sylahlo has a elearly distinguishable stress, as opponed to the pre- and suffixes.

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