

Noun Classes for the Heiban group of Languages

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Introduction

In this document we compare the noun classes of a group of languages: the Heiban group. The Heiban group of languages is one of 4 groups of the Kordofanian language group. Stevenson (Stevenson 1957) named these groups **Koalib-Moro, Talidi-Masakin, Lafofa and Tagoi**. Our Heiban group corresponds to the Koalib-Moro group. All these languages are part of the Niger Congo group of languages, and one of the distinguishing features of these languages is that they all have noun classes.

The languages of the Heiban group for which we have analysed the noun class structure are **Moro, Tira, Cwaya, Otoro, Kwalib, and Laro**. Other languages have not been included due to lack of data (which in many cases is because the phonology of the language has not yet been worked out). The analysis in this document is based very closely on that of Stevenson, and we will compare the findings now with what Stevenson discovered in the 1940's and 50's. On the whole the noun class systems have remained the same, but there seem to have been a few changes, mainly in the singular and plural prefixes.

Noun Classes

Noun classes divide the nouns of a language into a number of classes depending on their singular and plural prefixes. The nouns in each class generally have a common property such as shape (long and thin, or round), function (domestic animals), or type (people, trees). The Heiban languages have between 6 and 14 classes. On the whole, the semantic classification of the classes, of these languages, and in many cases the singular and plural prefixes are shared. Where languages have fewer than the maximum number of classes, some classes have merged and it is generally possible to tell which classes have merged.

However the class boundaries are not rigid and, in fact, there is surprisingly little correspondence in the individual members of a class across languages and often only a few words for a class can be found which are common to all languages (even after taking merging into account). For example 'bone', 'egg', and 'water' are always found in the same classes, but 'louse', 'chicken', 'tortoise', 'pot', and 'shoe' are found in up to 4 different classes. One reason for this is that there are many objects which do not fit clearly into any particular noun class. These objects can be placed in one of several classes. Other words may fit well in either of two classes. For instance, domestic objects fit equally well into both the 'common objects' and 'domestic animals and things' classes. Some words move classes because of a particular association. For example 'pig' in Moro is in the 'people' class because it is associated with marriage. In many cases, the words stay in their new class, even after the original association has been forgotten.

Even within a language dialects will place certain words in one of (normally) two possible classes. For example Moro places 'leopard' in either the 'common things' or 'people' class; Cwaya puts fingernail in either the 'nature' or the 'common things' class. However, there is generally a very close correspondence between the noun classes between different dialects of a language. The exception to this is Laro, where one dialect has a different noun class structure (in the number of noun classes and their prefixes) than the other dialects. Unfortunately, in this case, we only have data for the minority dialect.

Description of each Noun Class for each Language

The following analysis is limited due to lack of data for some languages. The number of words on which the analysis is based for each language is shown in the following table.

Moro	Cwaya	Heiban	Otoro	Kwalib	Laro
550	400	450	125	250	125

The analysis for Tira was done some time ago by Fajak, and I have used his analysis, although it is incomplete. A list of data will not be given in this document. Please refer to the individual noun class papers for a listing of the data, and a more detailed critique of the noun classes for each language. We will try to give a flavour of each class for each language where this seems helpful. In many classes, the list of words is so diverse that we would have to list most of the words.

In the following, the singular prefix is on the left of the '⇒' sign; the plural prefix (or suffix) is on the right. 'Φ' indicates that there is no suffix or prefix. 'j' always refers to the phonetic symbol 'J', and 'y' to 'j', other than this, phonetic symbols are used throughout. We have used Stevenson's noun class numbering throughout. In this system, odd numbers refer to singular noun class prefixes and even numbers refer to the corresponding plural prefix. We only mention Stevenson's analysis where this differs from our own. Note that in cases where we have little or no data, I have deferred to Stevenson's analysis.

Class 1 and 2 (People):

This class contains nouns descriptive of human beings. Often a number of animals are included, and sometimes some other objects.

Moro: w-, Φ ⇒ l- Includes people, tribes and some animals (worm, fish, pig, fly, hen, animal).

Tira: Φ ⇒ l-

Cwaya: x-, w-, m-, Φ ⇒ l- Includes people and some animals (leopard, pig, fly, frog, rabbit, rat).

Heiban: kw- / gw- ⇒ l- Includes people, some animals (gorilla, boa constrictor, buffalo, fly, hyena,
ku- / gu- ⇒ li- / lu- monkey, rat, horse), and a few trees.
Φ ⇒ li-

Kwalib: kw-, Φ ⇒ l- Includes people, some animals (fly, deer, cat, worm, lizard), and trees.

Otoro: g-, k- ⇒ l- (Stevenson: gw- ⇒ l, Φ ⇒ li-)
Φ ⇒ li- Includes people and some animals (ostrich, worm, fly, horse).

Laro: q- ⇒ ηw- Includes people, some animals (bat, chicken, fly, tortoise and others), some body parts, trees, and things found in big and harmful things class (11 and 12).

In addition, to these prefixes, the people class also contains words which have no prefixes, but do have a plural suffix: -ηa. This class contains close relatives such as 'mother', 'father', names of children (1st to 6th born boys and girls), and sometimes other relatives and a few other people (such as teacher). All languages except Moro have this class. However, Moro has a set of bound nouns (nouns which must be accompanied by a possessive pronoun suffix), which corresponds closely to the normal contents of this class. These bound nouns follow the normal singular and plural prefixes for the class.

Class 3 and 4 (Trees / Nature):

This class comprises trees and plants, and sometimes fruits. It is generally a small class and in some languages it is becoming merged with the people class (1 & 2).

Moro: δ - \Rightarrow w- Trees only.
 δ - \Rightarrow Φ Things made from trees.

The second set of prefixes has been included in this class, because it has the same concord agreement as the 1st set. Stevenson puts these words in the large and harmful things class (11 & 12), but I am reluctant to do this because the concord agreements are different.

Tira: δ - \Rightarrow Φ Trees, plants and plant products.

Cwaya: x-, w-, m-, Φ \Rightarrow y-

This is a large class in Cwaya and comprises trees, some animals (eg horse, ant, tortoise, snake, cat, chicken, sheep), some body parts (eg mouth, skin, finger nail, forehead), and some miscellaneous items (knife, lyre, name).

Heiban: gw-, kw-, gu-, ku-, Φ \Rightarrow j-, ji Trees and a few other miscellaneous words (ostrich, neck, cow dung).

Kwalib: kw- \Rightarrow y- 'Tree' only; the rest of the trees are in the people class (1 & 2).

Otoro: gw- \Rightarrow j- Stevenson's analysis.

Laro: In people class (1 & 2).

class 5 and 6 (Sets):

This class contains things found in sets or large numbers, such as 'finger', 'star', 'egg'. It also contains, some fruits and some body parts. In many cases it seem to contain a wide variety of objects which vary considerably between languages. I have followed Stevenson's analysis in naming it.

Moro: l-, τ - \Rightarrow η - Includes some hollow, deep and round things (class 13 & 14).

Tira: l- \Rightarrow η - (Stevenson: l-, τ - \Rightarrow η -, η w-)

Cwaya: l-, τ - \Rightarrow η -

Heiban: l- \Rightarrow η -, η w

Kwalib: l-, nd- \Rightarrow η w- Also includes 'rope' and 'scorpion' which are normally found in class 11 & 12.

Otoro: l- \Rightarrow η - (Stevenson: l- \Rightarrow η w-)

Laro: g- \Rightarrow y- Includes domestic animals (15 & 16) and common things (7 and 8) classes.

class 7 and 8 (Common Things):

Names of common objects, utensils, tools, weapons and nouns indicative of personal abnormality or bodily defect. Also a few names of animals and parts of the body. Again, this class contains a wide variety of objects which vary considerably between languages.

Moro: g-, w-, Φ \Rightarrow n- Includes some hollow and deep things (class 13 & 14).

Tira: $\Phi \Rightarrow n-$

Cwaya: $x-, w-, m-, \Phi \Rightarrow n-$ Includes hollow and deep things (class 13 & 14)

Heiban: $k- \Rightarrow j-, g- \Rightarrow \Phi$ (Abul dialect) (Stevenson: $k-, g- \Rightarrow j-, c-$)

Kwalib: $k- \Rightarrow y-$ Includes hollow and deep things (class 13 & 14).

Otoro: $g-, \gamma \Rightarrow j-$ (Stevenson: $g- \Rightarrow j-$)

Laro: In sets (class 5 & 6).

class 9 and 10 (Long Things):

This class contains long thin things, such as 'path', 'grave', 'tongue' and 'well'. There has been some exchange between this class and class 11 & 12, which causes more variation in the members of the class across languages than there otherwise would be.

Moro: $\delta- \Rightarrow r-$ (Stevenson: $\delta- \Rightarrow ar-$)

Tira: $\delta- \Rightarrow r-$

Cwaya: $\delta- \Rightarrow r-$

Heiban: $\delta- \Rightarrow d-, r-$ (Abul)

Kwalib: $\delta- \Rightarrow r-$ (Stevenson: $\delta- \Rightarrow d$)

Otoro: $\delta-, \delta- \Rightarrow d-$

Laro: $g- \Rightarrow \eta w-$

class 11 and 12 (Large and Dangerous things):

This is a small class containing a few large or harmful things. Common words are 'scorpion', 'locust', 'thorn', and 'elephant'.

Moro: $\delta- \Rightarrow y-$ (Stevenson: $\delta- \Rightarrow y-, \Phi$)

Tira: $\delta- \Rightarrow y-$

Heiban: $\delta- \Rightarrow j-$ (Stevenson: $\delta- \Rightarrow c-, j- / \delta- \Rightarrow c-$)

Kwalib: $\delta- \Rightarrow y-$

Otoro: $\delta- \Rightarrow j-$
 $\delta- \Rightarrow c-$

Laro: In people class (1 & 2).

class 13 and 14:

This is a small class containing names of hollow and deep objects. Common objects are 'cave', 'ear', 'pot', and 'shoulder'. Only Heiban, Otoro, and Laro have this class. Most of the objects in this class are found in the common things class (7 and 8) in all the other languages.

Heiban: g- \Rightarrow n-

Otoro: g- \Rightarrow n-

Laro: l- \Rightarrow nw-

class 15 and 16 (Domestic and Small Animals and Things):

Domestic or small animals, 'boy', 'girl', small or domestic things.

Moro: η - \Rightarrow n- Animals and 'girl' only.

Tira: η - \Rightarrow n-

Cwaya: η - \Rightarrow n-

Heiban: η - \Rightarrow n-

Kwalib: t- \Rightarrow n-

Otoro: η - \Rightarrow n-

Laro: In sets class (5 & 6).

class 15a and 16a (Diminutives):

This class is very closely related to class 15 and 16. The prefixes in this class can be applied to objects of other class to denote 'smallness'. Only Cwaya, Tira, and Kwalib have explicit diminutives.

Tira: s- \Rightarrow n- (Stevenson: t \Rightarrow n-)

Cwaya: t- (Singular prefix only)

Kwalib: t- \Rightarrow n-

class 17 and 18 (Augmentives):

Augmentive forms. Since we have no data for this, we follow Stevenson's analysis:

Kwalib only: η - \Rightarrow ny-

class 19 (Infinitive):

Noun forms of verbs. We only have data for Moro, Cwaya and Heiban, but this corresponds exactly with Stevenson's findings. These nouns have no plural.

Moro: δ - Also includes some nouns (cloud and smoke) (Stevenson: d-)

Tira: ð-, ði-

Cwaya: ða-

Heiban: d-, di-

Kwalib: ʈ-, ʈi-

Otoro: ð-, ði-

Laro: d-, di

class 20 (Liquids and Abstract Nouns):

This class contains many liquids, and some abstract nouns. Some languages put most of their abstract nouns in this class, but others don't. We have found many abstract nouns in this class for Moro and Heiban only; Cwaya seems to put few abstract nouns in this class.

Moro: ŋ-

Tira: ŋ-

Cwaya: ŋ-

Heiban: ŋ-

Kwalib: ŋ-

Otoro: ŋ-

Laro: y-

class 21 and 22 (Goat / Cow):

Contains either or both words for 'goat' and 'cow'. These are often irregular nouns, with plurals which follow no simple rule.

Moro: irregular cow, goat, eye, and other irregular nouns.

Tira: d- ⇒ Φ cow

Cwaya: irregular goat; cow in domestic class (15 & 16)

Heiban: g- ⇒ j- goat; cow in domestic class (15 & 16)

Kwalib: ŋ- ⇒ y- goat and cow

Otoro: y- ⇒ j- goat; cow in domestic class (15 & 16)

Laro: irregular goat; cow in sets class (5 & 6)

class 23 and 24 (Eye and Tooth):

Certain parts of the body, notably eye and tooth. Stevenson has the prefixes for Moro and Tira interchanged with each other.

Moro: l- \Rightarrow Φ tooth; eye in goat/cow class (21 & 22)

Tira: l- \Rightarrow i- tooth; eye in sets class (5 & 6)

Cwaya: l- \Rightarrow y-, Φ tooth, breast, and skin; eye in sets class (5 & 6)

Heiban: In common things class (7 & 8)

Kwalib: l- \Rightarrow y- eye, tooth, and claw

Otoro: l- \Rightarrow j- tooth; eye in common things class (7 & 8)

Laro: l- \Rightarrow y- heart; eye and tooth are in the hollow and deep things class (13 & 14)

class 25 and 26 (Nouns Beginning with a Vowel):

Miscellaneous nouns which begin with a vowel.

Moro: various, includes foreign words, some of which do not start with vowel.

Tira: a- \Rightarrow i- (Stevenson: a- \Rightarrow i-, e-)

Cwaya: none

Heiban: Φ \Rightarrow j- (Not found in Stevenson's analysis)

Kwalib: Φ \Rightarrow y-

Otoro: Φ \Rightarrow j-

Laro: none.

Class 27 and 28 (Flat, Thin Things)

This class is not found in the Heiban group of languages.

Class 29 and 30 (Various / Animals)

This class is not included in Stevenson's analysis. We have added the class because it doesn't seem to fit anywhere else. Only Moro, Kwalib, and possibly Otoro have this class. In Moro it is a quite a large class. In the others, it is probably small.

Moro: l-, r- \Rightarrow n-

Kwalib: l- \Rightarrow n-

Otoro: d- \Rightarrow d' Contains the words 'hand', 'neck', 'heart' and 'back', and may fit better in the long thin things class (9 & 10)

Summary

We now summarise all the above noun class information in a table (p 9). The first line of each cell in the table gives Stevenson's analysis (written in italics). Our analysis is on the second line of each cell and is in bold.

Further Work

In order to do a more complete comparison between all the noun classes, we need a more in depth analysis of Tira, Kwalib, Laro, and Othoro (along with any other Heiban group languages which are ready for analysis). It would be nice if dialect variations could be quantified, and it would be interesting to try to track words which appear in different noun classes.

Table showing noun classes for the Heiban group of languages

	Cwaya	Tira	Moro	Othoro	Heiban	Kwalib	Laro
1 People	w, $\Phi \Rightarrow l$	w, $\Phi \Rightarrow l$	w, $\Phi \Rightarrow l$	gw, $\Phi \Rightarrow l, li$	kw, gw, $\Phi \Rightarrow l, li$	kw, $\Phi \Rightarrow l, li$	$q \Rightarrow gw$
2	x, w, m, $\Phi \Rightarrow l$	$\Phi \Rightarrow l$	w, $\Phi \Rightarrow l$	g, k, $\Phi \Rightarrow l, li$	kw, gw, $\Phi \Rightarrow l, li$	kw, $\Phi \Rightarrow l$	$q \Rightarrow gw$
1a relatives	$\Phi \Rightarrow -\eta a$	$\Phi \Rightarrow -\eta a$	Bound nouns	$\Phi \Rightarrow -\eta a$	$\Phi \Rightarrow -\eta a$	$\Phi \Rightarrow -\eta a$	$\Phi \Rightarrow -\eta a$
2a	$\Phi \Rightarrow -\eta a$	$\Phi \Rightarrow -\eta a$		$\Phi \Rightarrow -\eta a$	$\Phi \Rightarrow -\eta a$	$\Phi \Rightarrow -\eta a$	$\Phi \Rightarrow -\eta a$
3 trees / plants	x, w, m, $\Phi \Rightarrow y$	$\delta \Rightarrow \Phi$	$\delta \Rightarrow w$	gw $\Rightarrow j$	kw, gw, $\Phi \Rightarrow j, ji$	kw $\Rightarrow y$	In people
4	x, w, m, $\Phi \Rightarrow y$	$\delta \Rightarrow \Phi$	$\delta \Rightarrow w, \Phi$	gw $\Rightarrow j$	kw, gw, $\Phi \Rightarrow j, ji$	kw $\Rightarrow y$	In people
5 sets	l, t $\Rightarrow \eta$	l, t $\Rightarrow \eta, gw$	l $\Rightarrow \eta$	l $\Rightarrow gw$	l $\Rightarrow gw$	l $\Rightarrow gw$	g $\Rightarrow y$
6	l, t $\Rightarrow \eta$	l $\Rightarrow \eta$	l, t $\Rightarrow \eta$	l $\Rightarrow \eta$	l $\Rightarrow \eta, gw$	l, nd $\Rightarrow gw$	g $\Rightarrow y$
7 common things	x, w, m, $\Phi \Rightarrow n$	$\Phi \Rightarrow n$	$\Phi \Rightarrow n$	k, g $\Rightarrow j$	k, g $\Rightarrow j, c$	k $\Rightarrow y$	In sets
8	x, w, m, $\Phi \Rightarrow n$	$\Phi \Rightarrow n$	g, w, $\Phi \Rightarrow n$	g $\Rightarrow j$	k $\Rightarrow j$ g $\Rightarrow \Phi$ (abul)	k $\Rightarrow y$	In sets
9 long things	$\delta \Rightarrow r$	$\delta \Rightarrow r$	q $\Rightarrow ar$	$\delta, t \Rightarrow d$	q $\Rightarrow d$	q $\Rightarrow d$	g $\Rightarrow gw$
10	$\delta \Rightarrow r$	$\delta \Rightarrow r$	$\delta \Rightarrow r$	$\delta, t \Rightarrow d$	q $\Rightarrow d, r$	t $\Rightarrow r$	g $\Rightarrow gw$
11 big/harmful	$\delta \Rightarrow y, \Phi$	$\delta \Rightarrow y$	$\delta \Rightarrow y, \Phi$	$\delta \Rightarrow j; t \Rightarrow c$	q, t $\Rightarrow c, j$	t $\Rightarrow y$	In people
12 things	$\delta \Rightarrow y, \Phi$	$\delta \Rightarrow y$	$\delta \Rightarrow y$	$\delta \Rightarrow j; t \Rightarrow c$	q $\Rightarrow j$	t $\Rightarrow y$	In people
13 hollow and deep	In common things	In common things	In common things	g $\Rightarrow n$	g $\Rightarrow n$	In common things	l $\Rightarrow gw$
14 things	In common things	In common things	In common things	g $\Rightarrow n$	g $\Rightarrow n$	In common things	l $\Rightarrow gw$
15 domestic animals	$\eta \Rightarrow \mu$	$\eta \Rightarrow \mu$	$\eta \Rightarrow \mu$	$\eta \Rightarrow \mu$	$\eta \Rightarrow \mu$	t $\Rightarrow \mu$	In sets
16 and things	$\eta \Rightarrow \mu$	$\eta \Rightarrow \mu$	$\eta \Rightarrow \mu$	$\eta \Rightarrow \mu$	$\eta \Rightarrow \mu$	t $\Rightarrow \mu$	In sets
15a diminutive	t (no plural)	t $\Rightarrow \mu$				t $\Rightarrow \mu$	
16a	t (no plural)	s $\Rightarrow \mu$				t $\Rightarrow \mu$	
17 augmentive						$\eta \Rightarrow \mu$	
18							
19 Infinitive	δa	$\delta, \delta i$	d	$\delta, \delta i$	d, di	t, μ	d, di
20 liquids and abstract nouns	η	$\eta, \eta a$	$\eta, \eta a$	$\eta, \eta a$	η	η	y
21 goat /cow	irregular	d $\Rightarrow \Phi$	d, t $\Rightarrow i$	$\eta \Rightarrow j$	$\eta \Rightarrow j$	$\eta \Rightarrow y$	y
22	irregular	d $\Rightarrow \Phi$	irregular	$\eta \Rightarrow j$	g $\Rightarrow j$	$\eta \Rightarrow y$	In sets
23 eye / tooth	l $\Rightarrow y, \Phi$	l $\Rightarrow \Phi$	l $\Rightarrow i$	l $\Rightarrow j$	In common things	l $\Rightarrow y$	irregular
24	l $\Rightarrow y, \Phi$	l $\Rightarrow i$	l $\Rightarrow \Phi$	l $\Rightarrow j$	In common things	l $\Rightarrow y$	l $\Rightarrow y$ (heart)
25 beginning with		a $\Rightarrow i, e$	various	$\Phi \Rightarrow j$	$\Phi \Rightarrow j$	$\Phi \Rightarrow y$	$\Phi \Rightarrow y$
26 vowel		a $\Rightarrow i$	various	$\Phi \Rightarrow j$	$\Phi \Rightarrow j$	$\Phi \Rightarrow y$	$\Phi \Rightarrow y$
29 various / animals			l, t $\Rightarrow \mu$	d $\Rightarrow d$		l $\Rightarrow \mu$	l $\Rightarrow \mu$

WordsByCategory

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EnglishWord	Category	Cwaya	Heiban	Abul	Heiban	Laro	Kwalib	Moro	
ash	nature	100	100	100	100	100	100	100	6
sand	nature	100	100	100	100	100	100	100	6
fire	nature	100	100	100	100	100	100	100	6
smoke	nature	100	100	100	100	100	100	100	6
bark [of tree]	plant parts	0	7	7	1	7	7	7	5
fruit	plant parts	0	100	100	0	15	1	4	4
tree	plant parts	3	3	3	1	7	7	7	3 (3)
sesame	plant parts	5	5	5	5	5	5	5	6
seed	plant parts	5	5	20	5	5	20	4	4
leaf	plant parts	7	13	13	1	7	9	2,2	2,2
root	plant parts	9	9	9	9	9	3	5	5
flower	plant parts	11	5	5	5	100	5	4	4
thorn	plant parts	11	11	11	1	11	9	4	4
grass	plant parts	100	100	100	5	100	20	4	4
man	relationships	1	1	1	1	1	1	6	6
day	time	5	100	5	100	0	29	2,2	2,2
year	time	100	13	13	1	7	7	2,2	2,2
night	time	100	100	100	1	7	100	4	4

EnglishWord	Category	Cwaya	Heiban	Abul	Heiban	Arak	Kwambi	Morol	
feather	animal parts	3	7	7	1	7	7	7	4
claw	animal parts	3	13	13	1	23	7	7	2
egg	animal parts	5	5	5	5	5	5	5	6
tail	animal parts	5	5	5	13	9	9	5	4
horn	animal parts	5	9	9	9	9	9	9	5
wing	animal parts	7	13	13	1	7	9	9	2,2
buffalo	animals	0	1	1	0	0	11	5	5
dove	animals	0	7	7	1	7	29	4	4
fly	animals	1	1	1	1	1	1	1	6
worm	animals	1	1	1	100	1	1	1	5
animal	animals	1	7	7	13	0	1	2,2	2,2
leopard	animals	1	9	9	5	1	7	2,2	2,2
louse	animals	3	5	7	1	5	7	2,2	2,2
chicken	animals	3	7	7	1	7	1	3 (7)	3 (7)
tortoise	animals	3	7	7	1	7	7	4	4
ostrich	animals	3	7	7	5	7	7	4	4
fish	animals	5	1	1	1	1	1	1	5
elephant	animals	9	7	11	1	9	11	2,2	2,2
scorpion	animals	11	11	11	1	5	29	3 (11)	3 (11)
snake	animals	11	11	11	1	7	21	3 (11)	3 (11)
bat	animals	11	13	7	1	7	0	8	8
bird	animals	15	15	15	5	3	7	3 (15)	3 (15)
dog	animals	15	15	15	5	15	15	5	5
bull	animals	15	15	15	5	15	15	5	5
cow	animals	15	15	15	5	21	21	3 (15)	3 (15)
sheep (goat)	animals	21	5	7	5	7	11	2,2	2,2
breast (woman)	body parts	0	7	7	13	25	25	2,2	2,2
skin	body parts	3	7	7	1	7	3	3 (7)	3 (7)
forehead	body parts	3	15	15	5	7	0	2	2
mouth	body parts	3	20	5	100	9	25	1	1
thigh	body parts	5	5	5	0	5	5	6	6
head	body parts	5	5	5	5	5	5	6	6
bone	body parts	5	5	5	5	5	7	5	5
knee	body parts	5	5	5	5	5	29	5	5
chin	body parts	5	5	5	5	5	29	5	5
eye	body parts	5	7	7	13	23	23	2,2	2,2
chest	body parts	5	100	100	5	1	5	3 (5)	3 (5)
nose	body parts	7	5	5	5	5	7	4	4
ear	body parts	7	13	13	13	7	7	3,3 (13) (7)	3,3 (13) (7)
belly (stomach)	body parts	7	13	13	13	7	7	3,3	3,3
neck	body parts	7	100	1	1	1	7	3 (1)	3 (1)
foot	body parts	9	5	7	1	7	9	2,2	2,2
leg	body parts	9	5	9	5	5	29	2,2	2,2
heart	body parts	9	9	9	0	9	9	6	6
hand	body parts	9	9	9	1	7	9	4	4
tongue	body parts	9	9	9	13	9	3	4	4
back	body parts	9	9	9	13	9	5	4	4
intestines (guts)	body parts	11	5	5	1	7	11	2,2	2,2
hair	body parts	11	7	25	13	25	3	2	2
liver	body parts	11	100	100	1	25	100	3 (100)	3 (100)