Plant Names in the Tanzanian Bantu Language Vidunda: Structure and (Some) Etymology

Karsten Legère
University of Gothenburg

1. Background

Vidunda (autonym: Chividunda) is a small Bantu language which in Guthrie's referential classification is identified as G38 (Guthrie 1970). This language was selected for a project which dealt with wild plant names and uses. The research project "Vilda växter i bantuspråk – namn och användning: en lingvistisk, kognitiv, folktaxonomisk och etnobotanisk jämförelse" (Wild plants in Bantu languages – names and uses: a linguistic, cognitive, folktaxonomic and ethnobotanial comparison, co-researcher Christina Thornell) was approved and funded for three years (2003-2005) by the Bank of Sweden Tercentenary Foundation.[1]

Several reasons triggered the decision to work on Vidunda such as

a) Vidunda like many other Tanzanian languages was assumed to be potentially endangered given the estimated below 20,000 speaker number (based on the 1967 population census [Tanzania 1971] and tendencies of ethnic growth and contraction).[2]

b) Prior to the project Vidunda has not been studied by linguists.[3] It is almost totally undocumented.[4]

c) Together with Bernd Heine the author of this paper had earlier worked on Swahili plant names. It turned out that this focus has much to offer for a linguist with regard to e.g. noun structure, noun classes and distribution, etymology and conceptualization. It was felt that the data for the lingua franca Swahili should be supplemented by material from another Bantu language which is spoken up-country in a remote area, thus expecting a rather low impact of Swahili.

In the course of the project work a total of approximately 650 plant names and specimens (for botanical identification) was collected. It is not possible to indicate the exact number of these lexical items, since varieties exist for a couple of plant names. The main resource persons were Peter Mkwan'hembo and Simon Maganga. At a later stage Nestorius Nikasi and Yusti Mayuga (all residents of Vidunda village) joined the research team. All were committed field assistants who personally identified themselves with the complex task of moving around searching for plants. This was a time-

[1] The author gratefully acknowledges the generous support for the project. University of Dar es Salaam kindly issued the research permit AB3/3(B) for conducting field research in Vidunda Ward (Kilosa District, Morogoro Region) which is the Vidunda core area.

[2] See more on this issue in Legère (1992, 2002).

[3] There is an end-19th century wordlist which includes 210 lexical items, clauses and sentences (although the title claims to present 250 entries) published by the lay missionary Last. The author of this Vidunda list and Last's resource person for the language was Kitindi, a hunter – Ziráha by birth (speaking a Sagala dialect, Last 1885:16). Despite various limitations and inconsistencies that are the result of the then state of knowledge for reducing languages to writing the material is quite reliable.

[4] So far a list of plant names collected by Frank Mbago (a botanist of the University of Dar es Salaam) among Vidunda people was traced (Mbago 2002). However, the lexical items were mostly Swahili names hence are irrelevant as a direct source of reference. Nevertheless, this list was thoroughly discussed with L1 speakers for identifying appropriate Vidunda equivalents of the species, subsequently revised and included in the author's data file which was established during the project period.

 Selected Proceedings of the 38th Annual Conference on African Linguistics, ed. Masangu Matondo et al., 217-228. Somerville, MA: Cascadilla Proceedings Project.

consuming job, since extensive farming in the area has contributed towards reducing the forest area to small pockets where the original vegetation still exists. It goes without saying that, as a consequence of this expansion of human activities, biodiversity has been widely affected. Accordingly, the field research was also an important initiative which resulted in establishing an inventory of which plants and names existed at this point in time. In addition, the elicitation of plant names went along with a detailed description (where possible) in Vidunda of how each plant is used.[5]

The objective of this paper is to present some linguistic aspects of the study on Vidunda plant names. In doing so, the complex character of the elicited data will be demonstrated. The data analysis which follows addresses various ways of naming plants in Vidunda ranging from single lexemes to complex plant names. The paper is inter alia a specific contribution to the academic discourse on nominal morphology and noun classes in Bantu languages, semantics of the latter as well as etymology and conceptualization.

2. The structure

As typical for the Bantu languages, Vidunda plant names as nouns whether derived or not, compounds or nouns as headwords in an adnominal phrase display the characteristic structure:

Noun class prefix (NCP) + Noun stem (NS)[6]

Accordingly, the noun consists of a specific noun class prefix which is either singular or plural (exceptions permitted) and the noun stem. Here are some examples which represent various types of plant names identified in Vidunda; the NCP is underlined on the left, the noun stem appears on the right separated by a hyphen from the NCP:

i-*dzoba* (*Acacia robusta)* -- simple lexeme singular, non-derived;
mi-*kangadzi* (*Khaya anthotheca)* -- complex lexeme plural, derived from the verb stem -*kangadza* 'be strong';
i-*chemandzuchi* (*Gloriosa simplex)* -- compound, compound members are the verb stem -*chema* 'call' and *ndzuchi* 'bee(s)';
n-*'hosa n'hulu* (*Plumbago zeylanica)* -- single lexeme as headword in an attributive phrase with the class 9/10 adjective *n'hulu* < --*kulu* 'big, strong, tall', where the adjective stem is modified by voiceless nasal formation;[7]
lw-*enya lwa kumuhulo* (*Cissus rubiginosa)* -- single lexeme as headword in an adnominal phrase with the class 11 concord morpheme *lu*- and the associative -*a* 'of' and the locative *ku*-*muhulo* 'in forest' meaning 'wild'.

As already partly exemplified above, the Vidunda plant names may be divided as follows:

[5] For details of the project see Legère, Mkwan'hembo and Maganga (2004) which also includes orthography matters.
[6] "Stem" understood in the sense defined by Brinton and Traugott (2005:34) as "a lexical form minus inflectional morphology".
[7] For a description of voiceless nasal formation which is peculiar to class 9/10 in Bantu languages in general and neighboring Kagulu see Petzell (2007: 33-34).

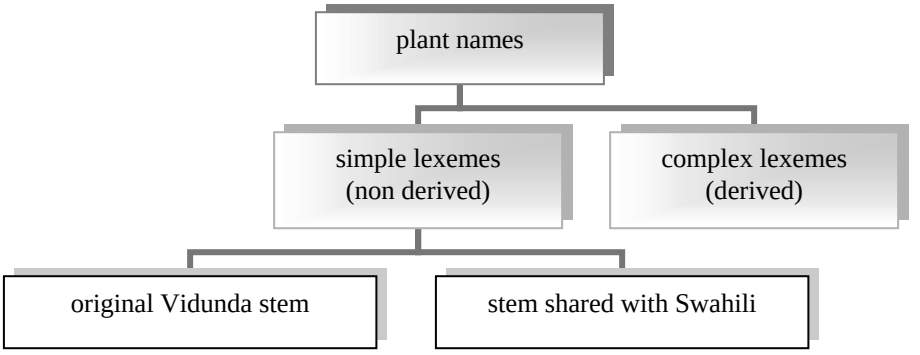

Figure 1: Structure and origin of Vidunda plant names

In addition, there are also complex plant names which are either the result of compounding or nouns which are modified by an adnominal expression. This is summarized in the following figure:

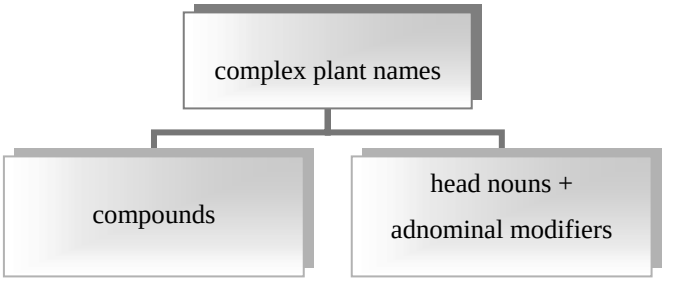

Figure 2: Complex plant names

The following part of the paper comments in more detail on the noun structure.

2.1. The noun class prefix (NCP)

The NCP is responsible for the noun class allocation of the plant name. In the project the following NCPs were identified as being relevant in constituting plant names:

Class 3 – *m-* (*mw-*),[8] such as in *msolo* (*Pseudolachnostylis maprouneifolia*) and *mwanakogose* (*Emilia coccinea*);
Class 4 - *mi-* (*my-*),[9] e.g. *mitunguludza* (*Cussonia spicata*), *myeledza* (*Elephantopus scaber*);
Class 5 – *i-*, e.g. *itotoka* (*Monechma debile)*;
Class 5a – *li-*, e.g. *lin'hi* (*Cyperus articulatus)*;
Class 7 – *chi-*, e.g. *chidago* (*Cyperus rotundus)*;
Class 8 – *vi-*, e.g. *vidzadzabi* (*Cayratia gracilis)*;
Class 9 and 10 – *N-*, e.g. *n'hosa (Ageratum conyzoides)*;
Class 11 – *lu- (lw-)*[8], e.g. *lwenya (Hyptis suaveolensis)*.[10]

The NCPs that were listed above constitute the following singular-plural pairs (also called genders):

[8] The graph *w* representing the non-syllabic /u/.
[9] The graph *y* representing the non-syllabic /i/.
[10] No plant name evidence for the *lu*-prefix could be found. But its existence is confirmed by e.g. the folk taxonomic term *ludzabi* ‘creeper, liana’ which otherwise means ‘rope’.

3/4 *mhaka – mihaka* (*Solanum nigrum*),
5/4 *itagata - mitagata* (*Psorospermum febrifugum*),
5a/4 *lin'hi – min'hi* (*Cyperus articulatus*),
7/8 *chinonile – vinonile* (*Oxalis corniculata*),
9/10 *mp'hudza – mp'hudza*[11] (*Cucurbita maxima*),
9/4 *n'halu – mitalu*[12] (*Hyparrhenia filipendula*),
11(/10 or 4) *lwenya* (*Hyptis suaveolensis*) – for this plant name no morphologically marked plural was traced.[13]

The overwhelming majority of the plant names are allocated to class 5 (NCP *i-*). It is fascinating to observe that, as indicated above, the plural NCP is that of class 4. This gender is only reported for Giryama (E 72a) for the augmentative 5a, (see Guthrie 1970:47)[14] and is, to the best of our knowledge, not found elsewhere in other Bantu languages, where in most cases class 3/4 pairs are the rule. Similarly, NCP 5 normally alternates with NCP 6, mainly for naming fruits, but also for plants. However, in Vidunda the pair NCP 5/6 is only relevant for names of fruits, where the singular form overlaps with that of plants. In addition, even for fruits and seeds a plural version which uses NCP 4 is recorded. However, in such a singular/plural pairing NCP 4 has a negative connotation implying that the fruits or seeds are not valuable, held in low esteem or likewise.

In addition to NCP 5, there is another NCP in this class, i.e. NCP variant 5a *li-*. This peculiar NCP creates augmentatives, thus emphasizing bigness as distinct from the default NCP 5. Its plural partner is again NCP4, as already mentioned above. In the case of vowel initial stems this NCP 5a seems to be the rule.

Excluding the specific class 5(a)/4 pairing, the other noun class pairs/genders display regularities and patterns that are characteristic of the Bantu languages.[15] Thus, the few lexical items as plant names which belong to class 7/8 reflect smallness that inter alia is a peculiar semantic attribute of this class. Another gender which denotes smallness is class 12/13. However, the NCP 12 and 13 were found being not relevant as constituting plant names by its own, but function as derivational morphemes which substitute NCPs such as of class 5/4 or even class 7/8 to indicate small/short varieties of plants. There is *kakungu* (singular) and *tukungu* (plural) 'small *Terminalia catappa*', which is derived from *ikungu* (the generally accepted plant name). Thus, a young or short version of a plant is sometimes named by using a diminutive prefix, which is *ka-* or *chi-* in Vidunda, e.g. NCP class 12 (*ka-*) and NCP class 13 (*tu-*) is used in naming small samples of a particular plant, but not elsewhere in a specific plant name. The status of *ji-* in *jimakutwi* as the plural of class 5a *limakutwi* (*Gunnera perpensa*) requires further evidence. The morpheme *ji-* is otherwise used as the verbal concord for class 4, but *jimakutwi* has definitely nothing to do with a verb form, since the remaining part of the noun is the plural form of the now archaic word *kutwi* 'ear'.

The folk-taxonomic categories that exist in Vidunda follow a similar NCP pattern. Thus, NCP 5 of *igodi* 'tree' (i.e. *i-*), also *ligodi* (NCP 5a *li-*) 'big, tall, valuable tree' has the plural marked by NCP 4, i.e. *migodi* 'trees'. NCP 11 *lu-* such as in *ludzabi* 'climber, liana' (sg.) alternates with NCP 4 *mi-*, hence *midzabi* 'climbers, lianas', etc.

The frequency of NCPs that were elicited in Vidunda and outlined above varies widely. This is summarized below by indicating concrete figures and percentages:

[11] Whether the noun is in singular or plural transpires either from the syntactic relations (the verbal concord is *i-* for singular and *dzi-*for plural) or when numerals are added to the headword, e.g. *mp'hudza dzidatu* 'three pumpkin plants (and fruits)' as opposed to *mp'hudza imwe* 'one pumpkin plant (and fruit)'.
[12] With a pejorative meaning of this plural form.
[13] But the noun in its singular form is countable (e.g. *ludatu* 'three') or combines with the adjectival stem *-inji* 'much, many', thus *lwinji*. The class 10 plural for a class 11 noun was traced in an example like *lusakwa lwa mgoha* 'spear shaft' as *sakwa dza mgoha* and class 4 for *lukuli* 'body' pl. *mikuli* respectively.
[14] This reference goes back to Maho (1998:302).
[15] Summarized with special reference to semantics by Katamba (2003:115).

NCP	frequency	percentage
class 3/4	10	1,7
class 5/4	497	86,7
class 5a/4	5	0,9
class 7/8	49	8,6
class 9/10	10	1,7
class 11	2	0,3
Total	**573**	**100,0**

Table 1: Frequency of NCPs in Vidunda plant names

The following figure illustrates graphically the distribution of NCPs in Vidunda plant names:

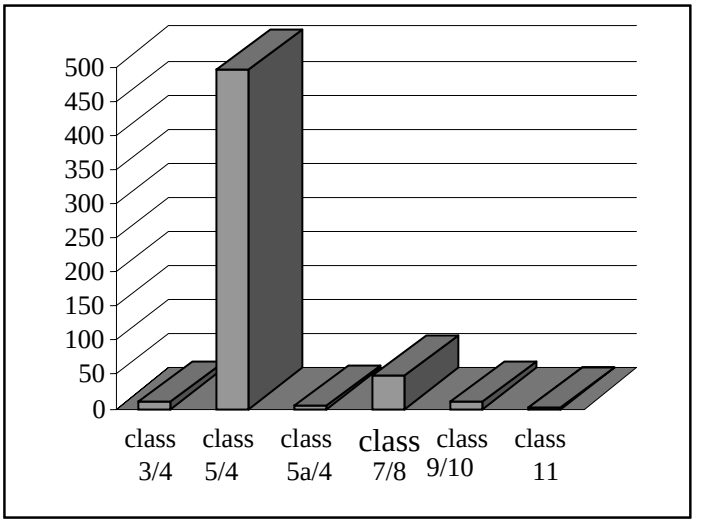

Figure 3: Frequency of noun class prefixes

2.2. The noun stem (NS)

As stated earlier, the stems of the plant names are either authentic (i.e. of Vidunda origin) or shared with Swahili (and probably other Bantu languages). Moreover, a good number of stems are derived from other word categories, almost exclusively verbs. Further a considerable amount of reduplicated noun stems was traced. The plant name analysis did not cover the whole range of collected lexical items. A selection of 513 examples was checked and taken into account. The various types of NSs are illustrated in the following figure which is an expanded version of figure 1 above:

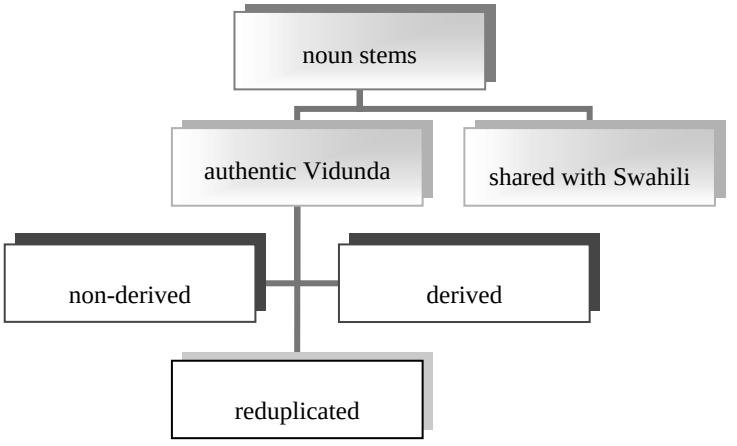

Figure 4: Stems of Vidunda plant names

Below are some NSs that are typical Vidunda. No similarity with Swahili could be found, but it might be possible that these stems exist in neighboring languages. This is in particularly likely in the case of Saghala which is described to be part of the dialect continuum in the area. Here are the examples, the stem follows the hyphen:

chi-kweme (Asystasia gangentica);
chi-m'hundi (Hyparrhenia rufa);
i-balabadya (Hallea rubrostipulata);
i-bóngoya (Macaranga kilimandscharica);
i-daka (Crinum kirkii);
i-dzoba (Acacia robusta);
i-guhu (Uapaca nitida);
i-lundu (Dombeya cincinnata);
i-sasu (Rumex usambarensis);
i-yumbu (Lannea humilis);
n-'halu (Hyparrhenia filipendula).[16]

Vidunda shares more than one hundred noun stems with Swahili. This etymological source is in particular plausible with regard to plants of foreign origin (especially cultigens) that have spread from the coast up country. It may further be assumed that a substantial number of these shared noun stems belongs to the common Bantu stock that is an inherent part of many other Tanzanian languages as well. Some examples of stems that are found both in Vidunda and in Swahili (the latter on the right hand side in the following overview) are listed below:[17]

i-dete (Phragmites mauritianus), Sw: *mu-tete*;
i-dza (mwidza, liidza) (Bridelia micrantha), Sw: *mw-iza*;
i-dzambalawe (Syzygium guineense), Sw: *m-zambarau*;
i-fenesi (Artocarpus heterophyllus), Sw: *m-fenesi*;
i-gimbi (Colocasia antiquorum), Sw: *m-jimbi*;
i-gude (Sterculia appendiculata), Sw: *m-gude*;

[16] From the stem *-talu* where in class 9/10 regressive nasal assimilation takes place; the phases of the assimilation process are displayed by Petzell (2007:33-34) for Gogo and neighboring Kagulu. Her summary is relevant for Vidunda too.
[17] For the Swahili names see Heine and Legère (1995).

i-halaji (Phaseolus vulgaris), Sw: *m-harag(w)e*;
i-hingo (Dalbergia melanoxylon), Sw: *m-pingo*;
i-kuti (Cocos nucifera), Sw: *mnazi* - comp. *(u-)kuti* 'palm leaf';
i-kuyu (Ficus mucuso), Sw: *mkuyu*;
i-mono (Ricinus communis), Sw: *mbono*;[18]
i-ng'ongo (Sclerocarya birrea), Sw: mng'ongo.

Some Vidunda stems are probably coined by Vidunda speakers using a Swahili loan word. Thus, the following examples do not refer to a particular Swahili plant, but to a lexical item which conceptualizes a specific function or behavior of the plant:

i-gugu (*Saccharum officinarum)* 'sugar cane', Sw: *gugu*, but different meaning, i.e. any weed;
i-gundi (Cycas revoluta), Sw: *gundi* 'glue';
i-halaka (*Boophone disticha),* Sw. *haraka* 'hurry'.

In the process of eliciting etymological information, the resource persons mainly referred to verbs that were described to underlie the conceptualization of various plant names. These derived (complex) NSs pertain to the use, habitat or behavior a plant is attributed to. Below is a selection of NSs which are obviously derived from other word categories (displayed on the right):

chi-nguji (Glycine wightii), verb: *ku-nguga* 'be(come) strong/hard';
i-bulwe (Milicia excelsa), verb*: ku-buluwa* 'be in trouble after giving birth' (plant is its medicine);
i-guluka (Sapium ellipticum), verb*: ku-guluka* 'fly' (to another plant, i.e. plant is a parasite);[19]
i-hodza (Crassocephalum bojeri), verb: *ku-hodza* 'alleviate, ease a disease';
i-homi (Imperata cylindrica), verb: *ku-homa* 'burn', i.e. the plant itches;
i-kwedzele (Dalbergia lactea), verb: *kw-edzela* 'climb with' (used as a rope for climbing up);
i-leuleu (Begonia meyeri-johannis), onomatopoea: *(ku-dita) leuleu* '(make) rustling noise';
i-nojela wose (Turraea nilotica), verb: *ku-nojela (<-noga) wose* 'please all' (a beautiful plant);
i-songo (Habenaria gonatosiphon), verb: *ku-songa* 'make fierce' (e.g. a dog);[20]
i-sopolo (Sterculia quinqueloba), verb: *ku-sopola* 'penetrate';
i-tiliwadza (Pentas bussei), verb: *ku-tiliwadza* 'lose appetite';
i-togo (Diplorhynchus condylocarpon), verb: *ku-toga* 'hollow out'.

A look at the final vowel of the stems above reveals that obviously four open vowels, i. e. [a], [ɛ], [i] and [ɔ], have a derivative function. For the time being, this function can not be described in detail for lack of appropriate feedback by Vidunda speakers. As the result of the derivation process, a change of word category (all but one from verb to noun) took place.

Finally, the existence of reduplicated stems has been observed. Reduplication transpires both as partial and complete, the latter being quite wide-spread, the former rather insignificant. There are also a couple of reduplicated stems which are similar to those in Swahili. These stems are obviously borrowed into Vidunda and reallocated especially to the 5/4 gender. The examples below illustrate these three types of reduplication.

a) Complete reduplication of the stem
chidenjedenje (Equisetum ramosissimum), see *idenje* ´bamboo';
chihakahaka (Phytolacca dodecandra), comp. *-haka* 'cause';
chikwemekweme (Adenia rumicifolia), see *chikweme (Asystasia gangentica)*;
chisakasaka (Sesbania sesbans), < *-saka* 'search';[21]

[18] Comp. Kwangali (K43) *ru-mono,* Ndonga (R22) *olu-mono,* Lozi (K21) *mubono-bono* 'castor oil plant'.
[19] Comp. *i-ngulichila* 'parasite', which is derived from the applicative *-gulichila* 'fly to'.
[20] By using *usongo* which is a kind of stuff prepared for this purpose and mixed under dog food, hence *isongo* is the tree where *usongo* comes from which in its turn is derived from the verb stem *-songa*.
[21] Explained as *Auno mkwandi wangusaka utamwa* 'This drug searches for a disease'.

chitogotogo (Ectadiopsis oblongifolia);
chiyoweyowe (Pycnostachys coerulea), < *(ma)yowe* 'groundnut(s)';
ibandibandi (Drynaria laurentii);
igondzogondzo (Marattia fraxinea);
ihembahemba (Rhus natalensis), comp. *uhemba* 'sorghum';
ifudzifudzi idala (Paederia foetens), < *ufudzi* 'fart';[22]
inung'hanung'ha (Vernonia cinerea), < *-nung'ha* 'stink'.

b) Partial reduplication of the stem
ilelewana (Ipomoea ficifoli);
idzadzawi (Albizia versicolor);
igagawi (Setaria homonyma), cf. *-gagawa* 'move around in an arrogant way';
imemena (Stereospermum kunthianum), cf. *-memena* 'swallow'.

c) Reduplicated stems of Swahili origin
ibunibuni (Polysphaeria browni), cf. Sw. *mbuni* 'coffee bush';
ichungwachungwa (Maytenus undata), cf. Sw. *mchungwa* 'orange tree';
idimudimu (Maytenus senegalensis), cf. Sw *mdimu* 'lime tree';
ifutafuta (Sesamum indicum), cf. Sw. *ufuta* 'sesame';
ipelapela (Carpolobia goetzei), cf. Sw *mpera* 'guava plant';
itongatonga (Strychnos mitis), cf. Sw *mtonga.*

For the Vidunda examples above the remarks in Heine and Legère (1995:45) about the meaning of reduplicated Swahili stems are relevant too. This type of plant name portrays inter alia a similarity to non-reduplicated names. Most reduplicated items have something to do with the plant morphology implying that a particular plant somehow resembles a plant with a non-reduplicated name, e.g. *chikwemekweme* shares similarities to *ikweme* besides being small. Or, with regard to the structure of the *chidenjedenje (Equisetum ramosissimum)* 'horse-tail' plant stem one certainly agrees that the morphology of this plant (especially the stem) resembles that of *idenje* 'bamboo' (only that the former is small). Similarly, it is said that *idimudimu (Maytenus senegalensis)* grows like *mdimu* 'lime tree'. Other examples derived from (already reduplicated?) verb stems, such as *inung'hanung'ha (Vernonia cinerea)* express the intensity.[23] This is also portrayed in the name *ifudzifudzi idala (Paederia foetens)* 'female *ifudzifudzi*' which is a reduplicated NS of *u-fudzi* 'fart' where intensity (here the penetrating smell) is referred to. Further, there is *i-leuleu (Begonia meyeri-johannis)* that is derived from an onomatopoeic expression (reduplicated): *(ku-dita) leuleu* '(make) rustling noise'.

An interesting case is *ndenjendenje (Brachiaria brizantha)* which is a class 9/10 noun resembling again *idenje* 'bamboo'. In contrast to all other examples where the stems are compounded, it seems that here a noun (i.e. including the NCP N- in the second part of the plant name) is reduplicated.

3. Complex plant names

In this section two more ways of naming plants in Vidunda are discussed. These are, on the one hand, compound plant names (55 entries were analyzed in this respect) consisting mainly of a verb-noun combination. On the other hand, a couple of adnominal constructions will be focused on. In the latter case, a head noun is qualified either by an adjective or a second noun (phrase) linked by the class concord plus the associative marker *-a*.

Here is initially a selection of compounds. The two compound members are separated by a hyphen. The initial vowel *i* is the NCP, as all examples belong to class 5. No other noun classes contained compounds as plant names.

[22] The plant has a fart like unpleasant smell.
[23] Comp. Katamba (1994:181): "In verbs, reduplication often indicates continuation, frequency or repetition of an event or action."

ichema-ndzuchi (Gloriosa simplex), -chema 'call', *ndzuchi* 'bee(s)';
ichimbila-mkwe (Mimosa pudica), -chimbila 'run to/away', *mkwe* 'mother-in-law';
idzinga-lwanda (ilwandalwanda) (Tectaria gemmifera), -dzinga 'surround', *lwanda* 'river':
ifunga-ng'ombe (Sporobolus pyramidalis), -funga 'tie, bind', *ng'ombe* 'cattle':
ihombo-swawi (Triumfetta annua), -homba > ihombo (vegetable), *iswawi* (a small plant);
ihongola-ndziko (Ochna mossambicensis), -hongola 'carve for', *ndziko* 'ladle, big spoon';
ilya-kasenga (Vitex mombassae), -lya 'eat', *kasenga* 'calf';
ilya-mp'hene (Rapanea melanophloeos), -lya 'eat', *mp'hene* 'goat';
inya-mbwa (Sabicea orientalis), -nya 'shit', *mbwa* 'dog';
inya-ng'hutwi (Centella asiatica), -nya 'shit', *ng'hutwi* (a kind of insect);[24]
isaka-mp'hondo (Mikania cordata), -saka 'chase, search', *mp'hondo* 'afterbirth';
isowa-lukolo (Cassytha filiformis) -sowa 'miss', *lukolo* 'relatives, family, clan';
isubula-nyabu (Dissotis aprica), -subula 'beat', *nyabu* 'baboon';
itanga-ladza (*Cussonia spicata*), *-tanga* 'help', *-ladza* 'lay down';
itunda-damu (Passiflora edulis), -tunda 'take care of', *damu* 'blood'.[25]

Almost all compounds of the type above (excluding *ihombo-swawi* and *itanga-ladza*) combine a verb stem (VS, as the initial compound member) with a noun, i.e.

NCP + VS + NCP-NS,

e.g.

i-dzinga-lw-anda
CL5-surround-CL11-river

In the given example, the verb stem *-dzinga* is transitive. Accordingly, in a phrase the noun member of the compound would be the direct object that can affix its object concord to the verb which can also be passivized. This observation coincides with Haspelmath's argument (Haspelmath 2002:223) that in compounds with a deverbal noun head (on the left) the underlying verb's valence requirements are inherited. In the case of *ihongolandziko* the verb stem is extended (applicative extension).[26] The meaning of the applied stem *-hongola* points to the fact that the tree is used for carving *ndziko* 'ladle(s)'. The latter noun is the second compound member. In this example the applied extension expresses an instrumental function.[27]

In compounds like *ilya-kasenga* the verb stem *-lya* is transitive. However, this transitivity does not make sense in the compound, as it would imply that someone (not specified) eats something (in this case a calf). The resource person's interpretation is that a calf (as agent) likes (eats) the plant. As a consequence, in this and other examples a right-positioned head operates as agent within the compound in analogy to a phrasal construction. The patient is not mentioned, but understood to be the plant (which is elliptic). Names of this kind are quite widespread in Bantu languages, cf. Swahili *mlandege(Ficus natalensis)* 'bird eat (it) plant', *mlangamia* (*Cassytha filiformis)* 'camel eat (it) plant', *mlanyuki* (*Ochna mossambicensis)* 'bee(s) eat (it) plant', or Ndonga/Kwanyama *okalyamusita/okalyamufita (Monechma divaricatum)* 'herdsman eat (it) plant', *oshilyangombe* 'cattle eat (it) plant' (Ndonga) and further Kwangali *mulyandimba (erarampi) (Schmidtia kalahariensis)* 'rabbit eat (it) plant', *mulyahefu* (*Baissea wulfhorstii)* 'kudu eat (it) plant' and other compounds which show a similar pattern.

In this context, the compounds which are a combination of the here intransitive verb stem *-nya* with various nouns are interesting. In the two examples above *inya-mbwa* and *inya-ng'hutwi*, *mbwa* 'dog' and *ng'hutwi* 'a kind of insect' are said to be the agent (grammatical and logical subject of an underlying sentence like 'the dog/insect shits'), thus probably conceptualizing a plant behavior.

[24] Comp. *inya-mwiko (ijendzi ikulu*), *mwiko* 'taboo', *inya-ng'hali, ng'hali* (class 9/10) < *-kali* 'strict, serious', *inya-mong'ho, mong'ho* 'health'.
[25] Further *itunda-chidunda*, where *chidunda* means 'mlima' (the tree is described to prevent erosion).
[26] The underlying (non-extended) form being '*-honga'*.
[27] Cf. Swahili *naandikia kalamu* 'I write with a pen' (applied verb *-andikia* 'write to/with' < *-andika*) for a similar pattern.

However, there could be another interpretation in addition to that given by resource persons. It could also be that *-nya* is associated to a verb stem by sheer coincidence, while it is a grammatical morpheme which is related to that used elsewhere e.g. in glossonyms/autonyms like *Nya**mwezi* 'Nyamwezi (language)' and *iki**Nya**rwanda* 'Rwanda (language)'.

According to the resource persons the N+N compound *ihomboswawi* could be understood as *ihombo* 'a kind of vegetable' qualifying *(i)swawi* (maybe also vice versa), thus meaning 'vegetable *iswawi*'.

All examples above and others not included here illustrate conceptualization in Vidunda. It is evident that these compounds describe in particular the way a plant is used (e.g. *itangaladza* is a plant the ropes of which make mats to be put down so that one could lay on, or *isakamp'hondo* which has an obstetric function in facilitating the afterbirth), its habitat (e.g. *idzingalwanda* - surrounds the river, i.e. grows close to rivers) and plant behavior (e.g. *isowalukolo* grows one by one, *ifungang'ombe* is said to be quite strong so that cattle cannot pass through, *isubulanyabu* has a similar effect on baboons which are otherwise hit by the branches).

In the second part of this section adnominal modifiers (121 entries were checked) are presented and commented on. Initially, some examples with adjectives in the attributive position are given:

chikalati chilume (Costus sarmentosus) 'male *chikalati*';
imoto idala (Pycnostachys meyeri) 'female *imoto*';
imoto ilume (Vernonia galamensis) 'male *imoto*';
isaji idung'hu/idzelu (Cassia siamea) 'red/white *isaji*';
iswawi ikulu (Triumfetta rhomboidea) 'big *iswawi*';
itogolo idodo (Ectadiopsis oblongifolia) 'small *itogolo*'.

As expected from the restricted number of adjectives in Bantu languages in general, only a few of them occur in Vidunda plant names. There are two color adjectives, two more for denoting gender and two again for size.

A fair amount of phrasal modifiers were recorded. The structure of these examples which modify the head noun via an adnominal NP2 is as follows:

$N_1 + CC_{N1}\text{-}a + N(p)_2$[28]

e.g.

CL5-tumbu CC5-a CL9/10-kuku > *itumbu lya ng'huku (Sabicea orientalis)*
'stomach of chicken'

This structure is illustrated in the examples below:

chidzogolo[29] *cha kuhani (Blumea solidaginoides), -a kuhani* 'of hot area';
ichima lya ng'huku (Clerodendrum myricoides), -a ng'huku 'of chicken';
ifulilambwewe lya chigongo (Indigofera hirsuta), -a chigongo 'of mountain';
igodi lya Wadzungu (Tectona grandis), -a Wadzungu 'of Whites';
ilyakatitu lya uhani (Combretum fragans), -a uhani 'of hot area';
imbindzali lya kisolo (Siphonochilus kirkii), -a kisolo 'of in bush', i.e. wild;
isasu lya idzabi (Trichilia emetica), -a idzabi 'of rope';
isele lya hagati (Dracaena usambarensis), -a hagati 'of middle', i.e. medium-sized;
isele lya mahamba madodo (Dracaena usambarensis), -a mahamba madodo 'of small leaves';
isopolo lya muhulo (Sparmannia ricinocarpa), -a muhulo 'of forest', i.e. wild;
itumbu lya ng'huku (Sabicea orientalis), -a ng'huku 'of chicken';
iwuwa la njano (Thevetia peruviana), -a njano 'of yellow color', i.e. yellow;
iwuwa lya saa ine (Portulaca oleracea), -a saa ine 'of four (i.e. ten) o'clock';
mp'hodza ya ujeni (Alchemilla sp.*) '-a ujeni* 'of foreign origin'.

[28] CC - the class concord.
[29] Derived from *dzogolo* 'cock'.

Most phrasal modifiers which are displayed on the right hand side of the examples above distinguish the species from plants whose names are identical for the headword which for its part is not modified. It is obvious that the adnominal phrase makes reference to

- the habitat such as *-a chigongo* 'of mountain', *-a (k)uhani* 'of (in) warm area', *-a kisolo* 'of in bush', *-a muhulo* 'of forest',
- the plant size and morphology, e.g. *-a hagati* 'of middle', *-a idzabi* 'of rope', *-a mahamba madodo* 'of small leaves',
- color, e.g. *-a njano* 'of yellow color',
- persons and animals, e.g. *-a Wadzungu* 'of Whites', *-a ng'huku* 'of chicken' and others.

Names like *chidzogolo cha kuhani* 'small cock (plant) of the warm area' refer to generics by drawing a comparison of the plant's physical appearance with animals or e.g. body parts of chicken, where *ichima lya ng'huku (Clerodendrum myricoides*) is 'thigh of chicken' and *itumbu lya ng'huku (Sabicea orientalis)* is 'stomach of chicken'. The resource persons argued that the latter two plants bear indeed resemblance to particular parts of a chicken's body. The adnominal phrase *-a saa ine* 'of four (i.e. ten[30]) o'clock' of the flowering plant *iwuwa lya saa ine (Portulaca oleracea)* reflects the plant behavior, where the flowers open in the morning around 10 o'clock.

Finally, some complex plant names that are interpreted here as a juxtaposition of two nouns without any linking element are presented below:

chikunde mbala (Macrotyloma axillare), mbala 'up-country' or short form of *mbawala* 'bushbuck';
ichenje ihamvu (Albizia adianthifolia), ihamvu 'manioc leave';
idzamvu mpira (Manihot esculenta), mpira 'rubber';
ikuyu mp'humba (Ficus vallis-choudae), mp'humba 'bran';
inuny'hila nechilo (Cestrum nocturnum), nechilo 'in the night';
iyembe mafuta (imavi ga wana) (Persea americana), mafuta 'oil'.

In these examples, the initial headword is, similar to the discussion in preceding paragraphs, modified by another noun. In so doing, a specific aspect of the plant is referred to.

The plant names *chikunde mbala* and *iyembe mafuta* mirror the Swahili background. The former is called in Swahili *mkunde bara/nyika*, where *mbala* 'up-country' is a loan word from Swahili, i.e. *bara* which names a species of wild peas. The complex noun *iyembe mafuta* is known as *mwembe mafuta* (or *mparachichi*) in Swahili resulting in a loan translation (or direct borrowing) in Vidunda. The plant *inuny'hila nechilo* blossoms at night; this is exactly what the name expresses where the headword is derived from the verb stem *-nuny'hila* 'blossom'. The remaining three lexical items probably name specifics (folk specific taxa), although, judging from the botanical identification, *ikuyu mp'humba* seems to be a generic which belongs to the super-generic *ikuyu* (*Ficus* sp.).[31]

4. Conclusion

In the foregoing parts of this paper, various strategies of naming plants in Vidunda were focused on. Supported by examples which reflect the rich database of approx. 650 lexical items, the paper discussed the structure of single and complex (derived) lexemes as well as the constituents of complex plant names. In addition, etymological and conceptual aspects were addressed. In this respect, the plant name distribution among the noun classes was discussed, where the gender/class pairing 5(a)/4 is of particular interest for Bantu linguistics for its unique character. This gender is also the most prominent one. The phenomenon of class 5(a)/4 pairing is not restricted to plant names, but is similarly relevant for many other lexical items, Another interesting aspect is the rather widespread use of reduplicated

[30] This is in analogy of the Swahili way of counting hours which begins with the first hour after sunrise, i.e. seven o'clock.
[31] For folk taxonomy see Heine and Legère (1995:36-39).

stems and plant names respectively. Furthermore, the general compound analysis and description should be aware of the valence specifics that are peculiar to Vidunda (and other Bantu languages, as shown above), where V+N compounds need further attention and subtle analysis of the syntactic role each compound member plays. It was argued that various plant names of the V+N type do not abide by the valence rule they are supposed to.

This paper drew attention to a selection of aspects which specifically pertain to plant names in the Bantu language Vidunda. It can be concluded from earlier experience in eliciting and analyzing plant names in Swahili and several Namibian languages (i.e. Kwangali, Kwanyama, Mbukushu, Ndonga) that the problems addressed herein are relevant for other Bantu languages too.

Finally, the analysis of the data that was accumulated in the plant project for Vidunda is an on-going process. Much more remains to be done in order for adequately taking the complex nature of plant names in this language into account. There is a rich historically grown heritage encapsulated in the plant names and the knowledge about plants and their uses that is unfortunately more and more forgotten in our days.

References

Brinton, Laurel J. and Elizabeth Closs Traugott. 2005. *Lexicalization and Language Change*. Cambridge: Cambridge University Press.

Crystal, David. 2003. *A Dictionary of Linguistics and Phonetics*. Malton: Blackwell.

Guthrie, Malcolm. 1970/1. *Comparative Bantu*, vol. 3/2. Farnborough: Gregg International.

Haspelmath, Martin. 2002. *Understanding Morphology*. London: Arnold.

Heine, Bernd and Karsten Legère. 1995. *Swahili Plants. An Ethnobotanical Survey*. Cologne: Rüdiger Köppe Verlag.

Katamba, Francis. 1994 (reprint of 1993). *Morphology*. Houndmills, London: Macmillan.

Katamba, Francis. 2003. Bantu nominal morphology. In Nurse, Derek and Gérard Philippson (eds.), 103-120.

Last, Joseph Thomas. 1885. *Polyglotta Africana orientalis: or a comparative collection of two hundred and fifty words and sentences in forty-eight languages and dialects spoken south of the Equator and additional words in nineteen languages; with linguistic map*. London 1885: SPCK.

Legère, Karsten. 1992. Language Shift in Tanzania. In *Language Death. Factual and Theoretical Explorations with Special Reference to East Africa*. (*Contributions to the Sociology of Language*, 64.), ed. Matthias Brenzinger, 99 - 115. Berlin: Mouton de Gruyter.

Legère, Karsten. 2002. The "Languages of Tanzania" project: Background, sources and problems. In *Africa and Asia*, 2:163-186.

Legère, Karsten. 2007. Vidunda (G38) as an Endangered Language? In *Selected Proceedings of the 37th Annual Conference on African Linguistics*, ed. Doris L. Payne and Jaime Peña, 43-54. Somerville, MA: Cascadilla Proceedings Project.

Legère, Karsten, Peter Mkwan'hembo and Simon Maganga. 2004. Vidunda people and their plant names. In *Africa and Asia*, 4: 115-141.

Maho, Jouni Filip. 1999. *A Comparative Study of Bantu Noun Classes* (*Orientalia et Africana Gothoburgensia*, 13). Gothenburg: Acta Universitatis Gothoburgensis.

Mbago, Frank. 2002. *Report on the botanical study on useful plants used by the Vidunda ethnic group in treating circumcision wounds*. Dar es Salaam: Woman's Research and Documentation Project.

Nurse, Derek and Gérard Philippson. 2003. *The Bantu languages* (*Routledge language family series*, 4). London, New York: Routledge.

Petzell, Malin. 2007. *A linguistic description of Kagulu*. Gothenburg: University of Gothenburg doctoral dissertation in African languages.

Selected Proceedings of the 38th Annual Conference on African Linguistics: Linguistic Theory and African Language Documentation

edited by Masangu Matondo, Fiona Mc Laughlin, and Eric Potsdam

Cascadilla Proceedings Project Somerville, MA 2009

Copyright information

ISBN 978-1-57473-429-4 library binding

Ordering information

Orders for the library binding edition are handled by Cascadilla Press.
To place an order, go to www.lingref.com or contact:

Cascadilla Press, P.O. Box 440355, Somerville, MA 02144, USA
phone: 1-617-776-2370, fax: 1-617-776-2271, e-mail: sales@cascadilla.com

Web access and citation information

This entire proceedings can also be viewed on the web at www.lingref.com. Each paper has a unique document # which can be added to citations to facilitate access. The document # should not replace the full citation.

This paper can be cited as:

Legère, Karsten. 2009. Plant Names in the Tanzanian Bantu Language Vidunda: Structure and (Some) Etymology. In *Selected Proceedings of the 38th Annual Conference on African Linguistics*, ed. Masangu Matondo, Fiona Mc Laughlin, and Eric Potsdam, 217-228. Somerville, MA: Cascadilla Proceedings Project.

or:

Legère, Karsten. 2009. Plant Names in the Tanzanian Bantu Language Vidunda: Structure and (Some) Etymology. In *Selected Proceedings of the 38th Annual Conference on African Linguistics*, ed. Masangu Matondo, Fiona Mc Laughlin, and Eric Potsdam, 217-228. Somerville, MA: Cascadilla Proceedings Project. www.lingref.com, document #2149.