Compiling Modern Bilingual Dictionaries for Bantu Languages: Case studies for Northern Sotho and Zulu

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Abstract
A new project sponsored by a dictionary publisher in South Africa is presented. The aim is to compile fully-corpus-based bidirectional bilingual dictionaries, with in each case one of the nine official Bantu languages and South African English as treated language pairs. As a trial, two small sample dictionaries, one focussing on Northern Sotho, the other on Zulu, were produced through a team effort, catering for mother-tongue speaker input, a linguistics check, as well as an attempt at being lexicographically sound. Among the outcomes of the study is the notion that, in order to honour the reversibility principle, some complexity and especially ingenuity in the presentation of the equivalents is required wherever single- or multi-words in one language do not map on single- or multi-words in another language. In order to contain the paradigmatic explosion of possibilities in such cases, the use of ‘grammatical formulas’ in the microstructure is suggested.

1 The reversibility principle

Although dictionaries for Bantu languages have been compiled for several centuries already, the field of Bantu metalexicography is only around fifteen years old. According to De Schryver et al. (2004: 36-40), the research during those fifteen years has primarily focussed on (a) corpus-based lexicographical studies, (b) concepts and tools for lexicography in the electronic age, and (c) the lemmatisation of the Bantu languages proper. They also point out that two crucial aspects have received very little if any metalexicographical attention so far, namely (d) the treatment of a Bantu language in the reverse side of a bilingual dictionary, and (e) the ‘paradigmatic lemmatisation’ of closed-class words in Bantu languages. They then proceed to analyse the latter (e); the focus in the present contribution is a variant of the former (d).

If one looks at the field of bilingual lexicography for the Bantu languages, one sees that the X-Y side of bidirectional bilingual dictionaries has so far always been compiled independently from the Y-X side. The reversibility principle – that is, the condition whereby all lexical items presented as lemma signs or translation equivalents in the X-Y section of a dictionary are respectively translation equivalents and lemma signs in the Y-X section of the dictionary (Tomaszczyk 1988: 290; Gouws 1989: 162; Gouws 1996: 80) – has thus remained an unapplied theoretical concept.
Already in Prinsloo & De Schryver (2002) it had been pointed out that problems peculiar to the Bantu languages would need to be ‘solved’ once one would attempt to reverse a Bantu-language dictionary. This prediction was borne out in a recent pilot study conducted in August 2005 for a dictionary publisher in South Africa. In an attempt to plan for the production of a new series of bidirectional bilingual dictionaries between all relevant language pairs in South Africa – which, with eleven official languages, is a daunting undertaking – two samples were prepared for a handful of lemmas. These samples, one for Northern Sotho, the other for Zulu, will now be presented, with particular attention to some of the problems that needed to be solved.

2 Pilot study: Basic translation problems

If the project as a whole materialises, the gist of the methodology will be to compile fully-corpus-based bidirectional bilingual school dictionaries, with in each case South African English as second language pair. Apart from top-frequency corpus data, curriculum words will need to be included as well, and the idea is further to honour the reversibility principle by making sure all microstructural material from each side is also covered in the macrostructures of the respective other sides. The professional dictionary compilation software TshwaneLex will be used to store all lexicographic data (Joffe & De Schryver 2004), while the Full Language Reversal and Linked View features of this program will be put to good use to first reverse the data and to then ensure continued reversibility (De Schryver & Joffe 2005a: 57-59).

Given the attention in this pilot study went to the lexicographic issues that revolve around the two Bantu languages, fourteen English lemma signs, together with definitions and examples, were selected and slightly adapted from existing resources at the publisher. In a first phase an attempt was made at simply ‘translating’ that material. The result, for Zulu, can be seen in Addendum A. In a second phase, all these data were reversed – including the example sentences, which is of course not how the envisaged bilinguals will be produced (as the Bantu examples will be drawn from Bantu-language corpora), this was only done to save time. The result of this reversal, for Northern Sotho, can be seen in Addendum B. One immediately notices that too many data were collected for any single dictionary (with for example definitions in the two languages and this for all lemmas), the reasoning being that one can easily extract what one needs with TshwaneLex. In this way the team was able to produce various types of sample dictionaries (super-hybrid, hybrid, semi-bilingual, bilingual, and pocket), which later helped them (through trials at schools) to discover what is really needed for the South African school market.

Of particular interest to the current discussion is that the curriculum meanings in the sample, which were both hard to translate and hard to define, truly produced several headaches for all involved – mother-tongue speakers, linguists, and lexicographers – and in some cases new words had to be coined. The difficulties were also more severe for Northern Sotho than for Zulu, indicating that, from a terminological point of view, the Zulu language is more ‘developed’ than Northern Sotho is. Northern Sotho will therefore be used for all further examples, but recall that most claims are, mutatis mutandis, valid for the Bantu languages at large.
To give an idea of what was involved in producing the samples, Addendum C shows excerpts from an e-mail exchange between a Northern Sotho linguist at the University of South Africa (UNISA) and one at the University of Pretoria (UP) regarding some of the terms needed for the translations, the examples, and/or for defining. If one compares their suggestions with what the mother-tongue lexicographer eventually opted for (cf. Addendum B), one notices both similarities and differences. One cannot really say that one set is correct and the other wrong. These words and their concepts have never really been translated into Northern Sotho before, and there simply are different ways to approach the task. The ideal is to be consistent, however (cf. below).

A thread was also started regarding the ‘translation of curriculum terms’ on an e-mail discussion list for Northern Sotho, most members of which are mother-tongue speakers. A comment by one of the participants, who advocates the use of transliterations, is shown in Addendum D.

What this exercise revealed is that, in addition to corpus data and the material found in existing reference works, it will be paramount to also regularly consult with colleagues and mother-tongue speakers if one wants to produce sound and useful dictionaries for South Africa.

3 Pilot study: Advanced translation problems

As it turns out, pinpointing the best translations for new concepts is not the biggest issue. Far more challenging are the (sometimes related) grammatical issues with lexicographic implications. Since one decade ago it has been known from the metalexicographical literature that it is simply inescapable for bilingual Bantu-language dictionaries to bring in substantial amounts of grammar into the dictionary articles themselves, if one wants learners of those languages to truly benefit from the presented material. In 1996, for instance, Prinsloo & Gouws introduced the ..ga/sa/se..~ convention for Northern Sotho, with which to better retrieve verbal information. In De Schryver & Kabuta (1997: xiii) it was further pointed out that inserting grammatical paradigms into the microstructure of a dictionary often needs to be accompanied by a marker to indicate that the resulting ‘constructions’ have lemma-sign status, and thus actually belong in the macrostructure. Even in the small sample of just fourteen (to be reversed) articles under discussion here, there were already several cases where such grammatical constructions were needed.

As an example, consider the adjective “liquid”, and the phrase “liquid honey” which is used in the example under “liquid”. The short answer in the quest for a translation of “liquid” in Northern Sotho is: there is none! Of course, this is always impossible, and here one means: there is no single one-word nor multi-word equivalent, and one needs a grammatical construction. This is normally known to anyone who has studied Northern Sotho, but less so to mother-tongue speakers. From Addendum C it can be seen that one linguist suggested to either use a ‘relative description’ or else a ‘qualifying possessive’ for the adjectival use of “liquid”. The options were discussed, after which the mother-tongue lexicographer opted for what is known as a ‘verbal relative’.

This is not the whole story, however. Given that this grammatical construction is in fact non-problematic for mother-tongue speakers, but highly important to learners of Northern Sotho, one
actually needs to follow a different approach depending on the side of the dictionary. Indeed, in the Northern Sotho to English side, which is aimed at mother-tongue speakers of a Bantu language learning English, it is enough to indicate that the adjectival “liquid” is *êlago*. They will know – and cannot use it in any other way, since they speak the language – that one cannot use this word on its own, and that something must precede that word. (The implicit hint to them is the relative suffix -go.) But why can one not simply show what precedes? Because like all Bantu languages, Northern Sotho is characterised by a nominal class system and concordial agreement. Thus, what precedes changes depending on the noun, in this case *mamapô* “honey”. In more technical terms, what precedes depends on the gender (i.e. singular and plural class) of the noun.

In the sample the phrase “liquid honey” has been translated as *mamapô aô a êlago*, thus what precedes here is *aô a*. Unfortunately, very few untrained mother-tongue speakers will be able to explain what these words before *êlago* are, although they will know that if the noun had not been in class 6 (as *mamapô* “honey” is), but say in class 3 (for say *moêlakgapêtla* “glacier”), it would have been *wô o êlago* instead of *aô a êlago*. Or rather, that is true for a so-called ‘position I’ demonstrative, it would have been *wôla o êlago* for the so-called ‘position III’, etc.

What is thus important to remember from this discussion is that showing *êlago* here for mother-tongue speakers of Northern Sotho (in the English to Northern Sotho side) is enough, but including a lemma sign for *elagô* on the reverse side would be very wrong. To begin with, there is no such word with a meaning on its own. One has added the relative suffix -go to the verb *êla* “flow”, and that is where the information on “liquid” also belongs, namely under the verb *êla*. In addition, for a learner it is imperative to also show or at least indicate how to use that *êlago*. Given there are too many possibilities to list them all, one is simply forced to resort to synthesise the ‘system’ in a ‘grammatical formula’, together with at least one example.

The construction in this case is: ‘demonstrative (DEM) of any kind, in concordial agreement with the noun’ plus ‘subject concord (SC), in concordial agreement with the noun’ plus ‘verb, followed by the attached relative suffix -go’. Thus, a lexicographically sound way to enter the translation equivalent “liquid” in the Northern Sotho to English side will be in the article for the verb *êla*, with an indication of the grammatical construction: [DEM + SC + ] -go = “liquid”. What one actually says is “that which flows”. An example of a bilingual Bantu dictionary with a high concentration of such linguistically encoded grammatical paradigms throughout the central section is De Schryver & Kabuta’s (1998) *Beknopt woordenboek Cilubà – Nederlands*.

One can now enter into (often futile) debates on the best way to represent these grammatical formulas, but an advantage of TshwaneLex is that one does not need to ‘solve’ this right from the start and/or that one can simply change this for different types of dictionaries – on the condition that one conceived these patterns as ‘selectable attribute lists’ (De Schryver & Joffe 2005b). Selecting grammatical patterns from attribute lists during compilation also means that the same patterns can simply be reused. See in this regard, in Addendum B, how this very pattern was also selected for the adjectival use of “variable” in the article of the verb *fêtoga* “change”, or how a different pattern, namely...
a straightforward possessive construction consisting of a ‘possessive concord (PC), in concordial agreement’ plus ‘noun’, was selected in the article for the noun lebelô “speed”.

Apart from being able to reuse patterns, another advantage of employing selectable attribute lists lies in the fact that, with a single instruction, one can change the appearance of those patterns throughout the entire dictionary. As such, in the export shown in Addendum B, instead of the set ‘[DEM + SC +]’, ‘[PC +]’, etc. the variant set ‘[yô o / sê se / tšê di / ... +]’, ‘[wa / sa / tša / ... +]’, etc. was selected – the idea behind the latter set being that one shows a few class prefixes, using overall corpus-derived occurrence frequencies to select those that one displays. Trials at various schools indicated that the use of prefixes was preferred over the more linguistically-oriented abbreviations. Furthermore, when using grammatical patterns which one selects from pre-prepared lists, one is forced to compile in a far more consistent way (cf. above).

Recall that to learners of Northern Sotho, all of this makes sense, as the nominal classes cum associated concordial agreement system is the first aspect of the language that they need to master, while all of this is of limited value to mother-tongue speakers of Northern Sotho who will primarily use the dictionary to decode English. Also observe that a non-typographical structural marker, namely a black square (■), was inserted to indicate that the various grammatical constructions actually have lemma-sign status. Comparing the use of this marker across Addenda A and B clearly indicates that it fulfils the same purpose.

4 Existing dictionaries

Currently, there are no school dictionaries in South Africa with any of the Bantu languages as treated language pair. Students have to make do with a few scattered and often dated general dictionaries, dictionaries which are known to be highly unfriendly, precisely as a result of the fact that no real efforts were made to deal with the issues discussed in §3. The treatment of “liquid” in the latest editions of the three desk dictionaries for Northern Sotho will serve as an example. All relevant articles in those reference works are reproduced in Figure 1 below.

In the Comprehensive Northern Sotho Dictionary (Ziervogel & Mokgokong 1975), a massive Northern Sotho to Afrikaans/English dictionary with over 1,500 pages, there is no equivalent for the adjectival “liquid” anywhere. The same is true for the Pukuntšu woordeboek (Kriel et al. 1989), where vloeibaar “liquid” simply has not been lemmatised in the Afrikaans to Northern Sotho side, while the adjectival “liquid” is missing from the Northern Sotho to Afrikaans side. In the English to Northern Sotho side of The New English – Northern Sotho Dictionary (Kriel 1976), finally, one reads “adj., seelago” in the article “liquid”. This, unfortunately, is very wrong. Firstly, it should have been se elago. Secondly, only part of the ‘formula’ (if that was the purpose!) is shown, as it should have been se se elago. Thirdly, this is only valid for nouns in class 7, and only for ‘position I’. In the reverse side of this dictionary, one once again cannot find the adjectival “liquid” in the article of éla; instead, one finds “seela go” (note the spelling!) under the article of the noun seela “liquid”. It is thus clear that a learner
simply cannot use any of these dictionaries successfully on this level, while all mother-tongue speakers consulted were unable to reanalyse or decode the information given in Kriel’s thirty-year old dictionary.

### Comprehensive Northern Sotho Dictionary, NS → A/E
(Ziervogel & Mokgokong 1975)

<table>
<thead>
<tr>
<th>EN</th>
<th>NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afrikaans → Northern Sotho</td>
<td>Pukuntšu woordeboek, NS → A, A → NS (Kriel et al. 1989)</td>
</tr>
<tr>
<td>English → Northern Sotho</td>
<td>The New English – Northern Sotho Dictionary, E → NS, NS → E (Kriel 1976)</td>
</tr>
<tr>
<td>vloëibaar</td>
<td>[not in dictionary]</td>
</tr>
<tr>
<td>liquid, n., seela; —s, diela; adj., seelago.</td>
<td></td>
</tr>
<tr>
<td>Northern Sotho → Afrikaans</td>
<td>Northern Sotho → English</td>
</tr>
<tr>
<td>'ela, v.i., pft., etše, flow, go for; go-sa ruri, leave for good; elela, flow towards, drop down, go on behalf of; sa elego, stagnant; go ikela, to leave; moikedi, one who leaves, one who goes away; moelana, small quantity of people or animals.</td>
<td></td>
</tr>
<tr>
<td>seela, n., se èla, liquid; — go, adj., liquid.</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 1.** The (non-)treatment of “liquid” in the three existing Northern Sotho dictionaries.

### 5 Conclusion

In this paper two pilot studies for a new series of bilingual bidirectional dictionaries, involving a South African Bantu language and South African English as treated language pairs in each case, were presented. It was first pointed out that numerous words for new (curriculum) concepts will need to be coined, and that a team of mother-tongue speakers as well as linguists should be involved to steer the process in the right direction. The second finding indicated that it will be imperative to introduce so-called ‘grammatical formulas’ into the central sections of the dictionaries, a feature existing South African dictionaries lack, but which could easily be realised using professional dictionary compilation software such as *TshwaneLex*.

### Acknowledgements

Many thanks are due to S. E. Bosch, M. Hall, D. Joffè, M. Lebotsa, B. Lepota, L. J. Louwrens, M. P. Mogodi, L. Mohlala and family, M. J. Mojalefa, M. C. Mpahlele, N. Pakeng, E. Taljard, and L. van Huyssteen, all of whom have helped with the preparation of the data for this paper.
References

A. Dictionaries


B. Other literature

Addendum A: Pilot study of an English – Zulu dictionary (“super-hybrid”)

**compare** verb [compares, comparing, compared] think about or look at people or things together so that you can see how they are different • cabanga nga, noma bhekha abantu noma okuthile ndawonye ubone ukuthi kwehlule kanjani ► qhathanisa Compare your answers with a partner's and discuss any problems. • Qhathanisa izimpendulo zakho nomlingani nixoxtisané nangoma yiziphi izinkinga.

**describe** verb [describes, describing, described] say what somebody or something is like or what happened • yisho ngendlela athile noma okuthile kungayo noma ukuthi kwenzekeni ► chaza Can you describe the result of the experiment? • Ungachaza umphumela walolu cubungulo? [Describe] the boy's feelings after he was chosen for the team. • Chaza imizwa yomfana ngemva kokukhethelwa egenjini.

**diameter** noun a straight line across a circle, through the centre of the circle • umunqaba ogondile onqama isivyini kabili, onqamula isivyini phakathi nendawo ► ububanzi Measure the diameter of the circle. • Lsinganisa ububanzi besivingi.

**kilometre** noun a measure of length. There are 1 000 metres in a kilometre. The short way of writing "kilometre" is km • isilinganiso sobude. Kukhona amamitha angu-1000 kwi-kilometre. Indlela yokuhala "ukilometre" ngokufinyeza ngu-km ► i-kilometre They live 100 km from Durban. • Bahlala ebangini elingama-100 km ukuqalini eThekwini.

**liquid** noun anything that is not a solid or a gas. Water, oil and milk are all liquids. Liquids flow and take the shape of their container • noma ngabe yini okungaqinile noma okungemoya. Amanzi, uwoyela kanye nobisi konke kwakaketshezi. Uketshesizile uyagobhoxa kanti luthatha isimo saloko okukhethelwa ► uketshesizile Pour the liquid into a bowl and stir it with a spoon. • Thela uketshesizile esithesheni bese ulugovuza ngokhezo.

■ **liquid** adjective ► -manzi We put the liquid honey into the fridge where it became solid because of the cold. • Sifaka uku olungamanzi kwisikwisisi besi buye ngemva yokukhanda.

**midnight** noun [No plural] twelve o'clock at night • ngehhora leshumi nambili ebusuku ► kwamabili My parents don't allow me to stay up later than midnight. • Abazali bami abangivumela nghihla isikhathi esingale kwamabili.

**minus** preposition 1 when you take away • uma ususa noma ukhipha ► susa, khipha Six minus two is four (6 – 2 = 4). • Ususa okubili koku yisiphupha kusile okane (6 – 2 = 4). 2 below zero • ngaphansi kwenzi laleghwa ► ngaphansi In Sutherland tonight the temperature will fall to minus ten degrees. • ESuthenland kusikhulwa amazinga okushisa azokwehla abe ngaphansi kwamabili alishumi.

**mouse** noun [plural mice] 1 a small animal with a long tail • isilwanyana esincane esinomsila omude ► igundane Our cat caught a mouse. • Ikati lakithi libambe igundane. 2 (Computing) a thing that you move with your hand to tell a computer what to do • okuthile okuhambisa ngesandla okutshela ikkompyutha ukuthi yenzeni ► i-mouse Move the cursor to the top of the e-mail with the mouse. • Hambisa isikhombi nge-mouse siye ekuqaleni kwe-e-mail.

**photosynthesis** (Biology) noun the way in which plants make food in their leaves • indlela izithsholo ezenza ngayo ukudla kumacabunga azo ► i-photosynthesis Describe how carbon dioxide and sunlight are used to make food in photosynthesis. • Chaza indlela i-carbon dioxide kanye nokuqinthiso kwelanga okusetshenziswa ngakho kwenza ukudla ku-photosynthesis.

**predict** verb [predicts, predicting, predicted] say what you think will happen • yisho ukuthi kwabazi lengazi kwenza • bikkelela She correctly predicted that the class would improve their marks if they worked together. • Ubikezele ngokwiyiko ukuthi kikilisi lizokwenza ngeno amamakide ala uma lisebenza ndawonye.

■ **prediction** noun ► isibikezele His predictions for the result of the soccer match were not correct. • Isibikezele sakhe ngomphumela webhola lezingayo waavungelona iqiniso.

**quick** adjective [quicker, quickest] fast; that takes little time • shesa; lokho kuthatha isikhathi esincane ► -shesa, -phuthuma it's quicker to travel by bicycle than to walk. • Kuvanishe ukuthi lapha ikuwile kungxa ikuwile ikuwile ikuwile. Can I make a quick telephone call? • Ngingashya ucingo oluphuthumayo? ► quickly adverb ► ngokusheza Come as quickly as you can! • Woza ngokusheza ongaphumelela ngekho! •

**table** noun 1 a piece of furniture with a flat top on legs • isiqhephu sempahla yasendlini esinengaphezulu eliyiscaba eliphezu kwemilenze ► itafula The book is on
the table. • Ibhuku liphezu kwetafula.
◊ set / lay the table put knives, forks, plates and other things on the table before you eat • beka imimese, izimfologo, amapuleti kanye nokunye ngaphambi kokuba udele ► endlala / deka itafula We quickly set the table, then started eating. • Sendlale / Sideke itafula ngokashasha, sawe siyadla.

2 a list of facts or numbers • uhlu lamaginiso noma lwezinombolo ► ithebula There is a table of irregular verbs at the back of this dictionary. • Kukhona ithebula lwe zeno eziwagweje ekucingeni kwalesi sichazamazwi.

variable (Mathematics) noun that varies or changes • okuthile okuphendukayo noma okugquguqukayo ► okugquguqukayo, okuphendukayo In this experiment, it is important to control the variables. • Kulolu cubungulo, kubalulekile ukulawula okugquguqukayo.

■ variable adjective ► -guquguquka In spring, the weather is veryvariable in Cape Town: sometimes it is hot, sometimes it is cold. • ENtwasahlolo, isimo sezulu siyagquguquka eKapa: kwenyini isikathi kuyashisa, kwenyini isikathi kuyabanda.

vertebrate noun an animal that has a backbone • isilwane esinomhlandla ▶ isiwlwane esinomhlandla Fish, birds, mammals and reptiles are all vertebrates, but snails are invertebrates – they do not have a backbone. • Inhlanzi, izinyoni, izlwane ezincelisayo kanye nezilwane ezihuquzelayo zonke zingezinomhlandla, kodwa iminenke avinamhlandla.

Addendum B: Pilot study of a Northern Sotho – English dictionary (“super-hybrid”)

bapētsa lediri go gopolka ka, goba go lebēlēla batho goba ditō mmōgō, go bōna gore ba / di ṣanaka bjang • think about or look at people or things together so that you can see how they are different ► compare Bapētsa dikarabō tša gago le tša modirišani le wėna gomme le bōlēdīšanē ka mathata aō le nago nawō. • Compare your answers with a partner’s and discuss any problems.

bjakō leina bo- ▶ speed ▶ ka bjakō lehlathi ▶ quickly Etla ka bjakō ka mō o ka kğōnag! • Come as quickly as you can!

bošegogare leina bo- iri ya lesompepē bošego ▶ twelve o’clock at night ▶ midnight Batswadi ba ka ga ba ntumēlēle go ētiša go fihla bošegogare. • My parents don’t allow me to stay up later than midnight.

ēla lediri ▶ flow ▶ [yĩ o / sē se / tō se / di / …] ēla ledirikamanyi ▶ liquid Re bea mamapō aō a ēla go ksetšifātišing fāo a ilēgo a kghala ka baka la go tōnya. • We put the liquid honey into the fridge where it became solid because of the cold.

fētoga lediri ▶ change ▶ [yĩ o / sē se / tō se / di / …] fētogago ledirikamanyi ▶ variable Seruthwane maēmō a bosō kapha aō a fētogago Kapa, ka nakō yē ngngē go a fīsā mōlā yē ngngē go tōnya. • In spring, the weather is very variable in Cape Town: sometimes it is hot, sometimes it is cold.

fōtōsintēses (Thutaphedi) leina N-/di- tšela yēō ka yōna dibjalō di itirēlagō dijō matlakalēng a tšōna ▶ the way in which plants make food in their leaves ► photosynthesis Hlalośa / laodiśa ka mokgwa wō kaphontaoksaete le mahlasēδi a letšatši di šomišwago go dira dijō ka go fōtōsintēses. • Describe how carbon dioxide and sunlight are used to make food in photosynthesis.

hlalośa lediri go bolēla ka faō motho goba selō se lego ka gōna, goba sē se hlagilēgo ▶ say what somebody or something is like or what happened ▶ describe Hlalośa diēmena tšē ka mantšu a gago. • Describe these idioms in your own words.

kēlōkgathô leina N-/di- ka tšale ga lefēla ▶ below zero ▶ minus Bošego bja lehōno thēmphēritša e tla ba digrata tšē 10 ka tšale ga kēlōkgathô kua Sutherland. • In Sutherland tonight the temperature will fall to minus ten degrees.

klōmetara leina N-/di- tekanyēṭšō ya botēlēlē. Go na le dimetara tše 1 000 ka go klōmetara. Khutsōfatšō ya go ngwala "klōmetara" ke km ▶ a measure of length. There are 1 000 metres in a kilometre. The short way of writing "kilometre" is km ▶ kilometre Ba dula dikilōmetara tšē 100 go tloga Polokwane. • They live 100 km from Polokwane.

laodiśa lediri go bolēla ka faō motho goba selō se lego ka gōna, goba sē se hlagilēgo ▶ say what somebody or
something is like or what happened • describe Fanyana o iîa a laodiša botse bja Sarona ka tsela yê. • Fanyana described Sarona’s beauty in this way.

laolêla pele lediri go bolêla sêô o gopolago gore se tlô hlagâ • say what you think will happen • predict O kgônê go laolêla pele gore baithutî ba ka kaonaftaša dipôêlô tša bôna ge ba ka ŋoma mmôgô. • She correctly predicted that the class would improve their marks if they worked together.

lebelô leina le-/ma- • speed ■ [wa / sa / tša / ... +] lebelô thuô phakiša; sêô se tšega nakô e nnyane • fast; that takes little time • quick, fast phôôfôlô ya lebelô • quick animal leina wa lebelô • fast car

legôtlô leina le-/ma- phôôfôlô è nnyane ya mosela o motêlêlê • a small animal with a long tail • mouse Legôtlô le šhâba katse. • A mouse is afraid of a cat.

lenanêô leina le-/ma- lenanêô la dintlha goba dinômôrô • a list of facts or numbers • table Go na le lenanêô la madiri ao e sego a tîwâlô ka morago ga pukunšu yê. • There is a table of irregular verbs at the back of this dictionary.

maose (Thutakhîmphutha) leina N-/di- sedirišwa sêô se šutiswago ka letsôgô go bondîpa khômputha gore e dirê eng • a thing that you move with your hand to tell a computer what to do • mouse Diriša maose go šutisëštä mosëbjanja bôgôdîmông bja i-mêîle. • Move the cursor to the top of the e-mail with the mouse.

molagare leina mo-/me- mothálô wa go loka thwii, wô o putlagô bogarêng bja sedikô • a straight line across a circle, through the centre of the circle • diameter Èla bogolo bja molagare wa sedikô. • Measure the diameter of the circle.

ntsha lediri go tloša selô sê se itšego go sê sengwê • when you take away • minus Tshela ntsha pêdi go šala nnê. • Six minus two is four (6 – 2 = 4).

pêba leina N-/di- • mouse Pêba e dula ka moletêng. • A mouse stays in a hole.

pela leina N-/di- • quick ■ ka pela lehlathî • quickly Etlâ ka pela ka mô o ka kgônago! • Come as quickly as you can!

phakiša lediri • do quickly Go a phakiša go sepela ka paesekela go ena le go sepela ka maoto. • It's quicker to travel by bicycle than to walk || Naa nka phakiša ka letša mogala? • Can I make a quick telephone call?

seëla leina se-/di- - sengwê le sengwê sêô e sego sê setshêla goba gase. Mêêtse, ôli le maswi ke diêla. Diêla di a êla gomme di kgônô go tšea sebôpêôgô sa setshêlô sêô di lego ka gare ga sôna • anything that is not a solid or a gas. Water, oil and milk are all liquids. Liquids flow and take the shape of their container • liquid Tšêla seëla kare ga sebîjana gomme o huduê ka lehwana. • Pour the liquid into a bowl and stir it with a spoon.

sefêtogi (Thutadipalô) leina se-/di- selô sêô se fêtogô • something that varies or changes • variable Mo boitékolông bja, go bohlôkwa go laola difêtogi. • In this experiment, it is important to control the variables.

semôkôkôtlô leina se-/di- phôôfôlô ya semôkôkôtlô • an animal that has a backbone • vertebrate Dihlapi, dinônyana, dîmusi le digagabi ke diphôôfôlô tša semôkôkôtlô, eupôs dikgopa ga se diphôôfôlô tša semôkôkôtlô. • Fish, birds, mammals and reptiles are all vertebrates, but snares are invertebrates – they do not have a backbone.

tafola leina N-/di- - fênsâra ya boqôdimô bja ga alêga gôdîmô ga maoto • a piece of furniture with a flat top on legs • table Puku e gôdîmo ga tafola. • The book is on the table.

◊ têka tafola lediri go bea ditîipa, difôrôkô, diplêiti le tšê dingwê tafolêng pele o e ja • put knives, forks, plates and other things on the table before you eat • set / lay the table Ka go pônya ga lehlî go gê re têka tafola gomme re thôma go ja. • We quickly set the table, then started eating.

taolêlo pele leina N-/di- • prediction Taolêlo pele ya gagwê ka ga dipôêlô tša papadi ya kgwele ya maoto e bilê yêô e fošâgêtšego • His predictions for the result of the soccer match were not correct.
Addendum C: Excerpts from an e-mail exchange between two Northern Sotho linguists

- cursor
  - Ek stel sešupo maar miskien eerder sešupetši of selfs beter nog tšhupetši voor.
  - Of wat van tšhupane wat 'wysvinger' beteken? Kyk bv. in Kriel & Van Wyk.

- liquid
  - Vir vloeistof sou ek seêla gebruik en vir omskrywings soos 'vloeibare ...' moet mens maar van die relatiewe omskrywing gebruik maak, bv. ... sê se êlago, of van die kwalifikatiewe possessief ... sa go êla.

- variable
  - Werk hier met -fetoga(go).
  - Ek sou byvoorbeeld 'variable number' vertaal met iets soos palôphetogi in plaas van die meer omslagtige palô ye e fetogago.

- vertebrate
  - Hier sal mens nie anders kan as om met die kernbegrip 'rug(-string)' (mokôlô; mokôkôtlô) en 'rugwerwels' (mašapô a mokôlô; mokôkôtlô) te werk nie.
  - Die Terminologie en Spelreëls gee vir vertebra (d.w.s werwelbeen) mokôlô aan, en vir vertebral column (ruggraat) mašapo a mokôkôtlô.
  - Gewerwelde diere sal dus kwalik iets anders kan wees as (diphôôfôlô; diphedi) tša mokôkôtlô/mokôlô.

Addendum D: Excerpt from an e-mail discussion list for Northern Sotho

... we should be less hostile to the use of transliterations. Even in English the word vertebrate comes from the Latin "vertebratus" which means "jointed". So why not just coin appropriate transliterations for prediction (pheredikhišene), vertebrate (betebreite), and variable (beribele). The obvious alternative for variable would be "sefetogago" – something which is changing. The opposite, a constant, could be "sesafetogago", but how acceptable would it be and to what degree would the "se" be interpreted as a negative? ...