The use of slashes as a lexicographic device, with special reference to the African languages[1]

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Lexicographers constantly strive to improve the quality of their dictionaries in respect of enhanced information retrieval strategies. The use of *forward slashes* is a powerful convention available to the lexicographer as — especially in paper dictionaries — a space saving device. It is however a prerequisite to good lexicography that the use of such a convention should: (i) be consistent, (ii) lead to unambiguous information retrieval, (iii) be clearly explained in the users' guide to the dictionary, and (iv) not exceed the decoding abilities of the target users of the dictionary. The aim of this article is firstly to give a perspective on the use of slashes as a dictionary convention, secondly to conduct a case study of the use of forward slashes in the central text of the *Northern Sotho Terminology and Orthography No. 4*, and finally to formulate a set of rules governing the use of forward slashes.

Senaganwa

Bangwadi ba pukuntšu ba leka ka maatla nako le nako go kaonafatša boleng bja dipukuntšu tša bona go ya ka mekgwa yeo tsebo ye kaone e ka humanwago ka gona. Bangwadi ba dipukuntšu, kudu bao ba ngwalago dipukuntšu tša matlakala, ba tlwaetše go šomiša leswao le (/) bjalo ka mokgwa wa go boloka sekgoba. Le ge go le bjalo, ge go ngwalwa dipukuntšu, setlwaedi sa tšhomišo ye bjalo se swanetše gore se: (i) be le maemo a tee, se se ke sa fetogafetoga, (ii) lebiše go khumano ya tsebo yeo e sa belaetšego, (iii) hlalošwe gabotse ka gare ga tlhahlo ya bašomiši ba pukuntšu, gape, (iv) se be ka godimo ga bokgoni bja bašomiši bao pukuntšu e ngwalelwago bona. Maikemišetšo a pele a sengwalwana se ke go fa ponelopele ka tšhomišo ya maswao (/) bjalo ka mokgwa wa tlwaelo go dipukuntšu, sa bobedi ke go laetša thuto ya tšhomišo ya leswao la (/) ka gare ga diteng tša *Sesotho sa Leboa mareo le mongwalo No. 4*, sa mafelelo ke go hlama melao yeo e laolago tšhomišo ya leswao le (/).

Brief theoretical conspectus

Metalexicographers such as Knowles (1990), Martin & Al (1990), Wiegand (1998), Prinsloo & De Schryver (1999), Gouws (2000), etc. emphasize time and again the importance of the user-perspective in modern dictionary compilation. In turn, dictionary makers are constantly striving to improve the quality of their reference works, above all in respect of enhanced information

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retrieval. Especially in paper dictionaries, where space is at a high premium, lexicographers strive to utilise all available strategies and modern technologies to present the dictionary text as user-friendly as possible. An essential aspect is the layout of a dictionary article where a variety of conventions, symbols, font types, font sizes, etc. are used to assist the user in obtaining or finding what he *or* she needs as quickly and easily as possible,[2] preferably at the first attempt and without having to read through a lot of information not required for a specific search.

In the following example, taken from COBUILD3 (Sinclair, 2001[3]), numerous conventions (such as the Extra Column for frequency and grammatical information) are employed to quickly guide the user to the data categories he *or* she is looking for:

(1) **payoff** / peɪɒf/ (**payoffs**) also **pay-off**. ◆◇◇◇◇

1 The **payoff** from an action is the advantage or benefit that you get from it. ❑ *If such materials became generally available to the optics industry the payoffs from such a breakthrough would be enormous... You're doing what you really love to do, which is making music — that's the payoff.* N-COUNT: oft N *from* n

2 A **payoff** is a payment which is made to someone, often secretly or illegally, so that they will not cause trouble. ❑ *Soldiers in both countries supplement their incomes with payoffs from drugs exporters.* N-COUNT: oft N *from* n

3 A **payoff** is a large payment made to someone by their employer when the person has been forced to leave their job. ❑ *The ousted chairman received a £1.5 million payoff from the loss-making oil company.* N-COUNT

If the user is interested in a definition and, say, a few examples of usage only, conventions such as Roman versus italics easily guide him *or* her to the desired information, enabling him *or* her to skip information on pronunciation, frequency and grammar in the process, as well as alternative senses of the lemma sign less relevant to a particular search.

In dictionaries like *Webster's Third* (Gove, 1976[3] [1961[3]]) a rather complex system of conventions is used. See the explanatory chart shown in Appendix A in this regard.

Although not explicitly explained as such in most dictionaries, the forward slash '/' convention is used instead of '*or*' as in the following extract from LDOCE3 (Summers, 1995[3]):

(2) **S 1** **W 1** **par . ty[1]** /ˈpɑːti || ˈpɑːrti/ *n plural* **parties** [C]

1 ▶ FOR FUN ◀ an occasion when people meet together, to enjoy themselves by eating, drinking, dancing etc: *a birthday party* | *a garden party* | *Want to come to a party on Saturday?* | *Let's have a party here before we move out.* | **give/throw a party** *Robin threw a party while his parents were away.* | **party dress/clothes/hat** (=worn at a party) | **party game/trick** (=played or done at a party) | **party animal** *informal* (=someone who enjoys parties) | **party house/school** *AmE informal* (=a place that often has noisy parties) —see also HEN PARTY, HOUSE PARTY, STAG PARTY

Hence, here **give/throw a party** stands for **give a party** *or* **throw a party** and **party dress/clothes/hat**... **party game/trick** etc. stands for **party dress** *or* **party clothes** *or* **party hat** ... **party game** *or* **party trick** etc. In (2) one also notices another function of forward slashes, namely as delimiters of the 'pronunciation slot'. Other dictionaries, like *Webster's Third* (cf. Appendix A), use backslashes for this purpose. Such a use of slashes, just as any other usage of slashes that does not clearly stand for '*or*', will not be discussed in the present study.

Rycroft, in his *Concise SiSwati Dictionary* (1981), consistently uses forward slashes to indicate 'or what follows (e.g. a plural prefix instead of singular)':

(3a) **si-hlabélelo /ti-** *n.* song, hymn, psalm.
(3b) **um-hlábeli /ba-** *n.* singer.

This convention should thus be interpreted as **sihlabélelo** for the singular *or* **tihlabélelo** for the plural, and **umhlábeli** for the singular *or* **bahlábeli** for the plural respectively.

In these examples the hyphen '-' and forward slash '/' conventions are sensibly combined so that the user can clearly see which part of the word, namely **si-** in (3a), has to be substituted by **ti-**, and will not conclude that **ti-** substitutes the entire string to the left of the forward slash. One clear disadvantage is that the user will not be able to distinguish between instances where the hyphen is inserted as a convention and words normally spelt with a hyphen. Different options are employed in current dictionaries to disambiguate such instances. Examples are hyphens which vary in length, e.g. hyphen '-' versus en dash '–' versus em dash '—' or even an equal sign '='.

Increased text density, which should obviously stand in relation to the decoding skills of the target user, can — especially in paper dictionaries — be a virtue as long as that user can unambiguously retrieve the information. Consider the use of the equal sign convention '=' in the following example from the *Reader's Digest Afrikaans — Engelse Woordeboek* (Grobbelaar, 1987):

(4) **le´lie** =*s* lily; wit ~ madonna lily. **le´lieagtig, =ag´tig** =*e* lily-like, liliaceous. **Le´lieagtiges, =ag´tiges** Liliaceae. ~**blank** lily-white. ~**(tjie)-der-dale, le´lie(tjie)-van-dale** *lelie(tjie)s* = lily of the valley, May lily. ~**vormig** =*e* lily-shaped, crinoidal. ~**wit** *vid.* **lelieblank**.

The =*s* encodes the plural form of the lemma sign, namely **lelies**. The section **le´lieagtig, =ag´tig** =*e* encodes firstly two alternatives for stress indicated by '´', namely **le´lieagtig** *or* **lelieag´tig**, and secondly the derived form for both, namely **le´lieagtige** *or* **lelieag´tige**. Although fairly complicated, it can be expected that the intended target users of this dictionary should be able to decode the dictionary text in an unambiguous way.

From a metalexicographic perspective, a dictionary article such as (4) is said to have a high degree of textual condensation. Wiegand (1996) proposed a theoretical draft for textual condensation in printed dictionaries. According to him, the complete theoretical draft, once completed, will: (i) enable the calculation of the degree of textual condensation in a strict mathematical sense of the word; this in turn will (ii) enable the development of a manageable formula by which the user-friendliness of dictionaries may be calculated; and this will, lastly, also (iii) make the writing of dictionary articles teachable in such a way that further correlations in the formulation of article texts will be recognised (Wiegand, 1996: 135). The present discussion of the lexicographic use of slashes, and more in particular the forward slash, could thus be seen as an application of one of the textual condensing operations. As far as the array of condensing operations is concerned, Wiegand notes:

> Despite the fact that there are common traditions of textual condensation, which correspond to the users reading habits within the framework of their general practice of dictionary look-up, the following is generally valid: the results of textual condensation have to be explained in one of the metatexts of the dictionary. (Wiegand, 1996: 140)

Indeed, good dictionaries normally clearly explain the use of all types of conventions in the users' guide. See for example the excerpts shown in (5) and (6).

(5) Excerpt from the *Concise SiSwati Dictionary* (Rycroft, 1981: xxix)

+	plus, adding
1/2,3/4	noun classes 1 &2, 3 & 4,&c.
˜	insert the given headword
/	or what follows (e.g. a pl. pfx. instead of sg.)
Ø	zero, absence of
<	derived from
>	becomes, produces
–	incomplete without an affix (or stem, &c.)
´ ˆ	high tone & falling tone
..	breathy voicing (depressor consonant, or imposed depression on vowel)

(6) Two excerpts from the *Beknopt woordenboek Cilubà—Nederlands* (BCN) (De Schryver & Kabuta, 1998[2]: xvii and xviii)

SYMBOLEN & VERWIJZINGEN

-	aanhechtplaats ander morfeem
+	aanhechtplaats als secundair morfeem; '+'
/	variante uitgang(en); andere mogelijkheid
˜	vervangt het lemma
⇒	dus, gevolg
▷	weg van knooppunt (afleidingen)
◁	naar knooppunt (afgeleid van)
□	samenstelling met lemma-status
◇	versteende uitdrukking met lemma-status
Ø	dit deel van het genus bestaat niet
x	dit deel van het genus kan eender wat zijn
X	eender wie of wat
...	"iets"
afk **X**	(lemma) **X** is een afkorting
ant **X**	(lemma) **X** is een antoniem
cf **X**	meer uitleg bij (lemma) **X**
syn **X**	(lemma) **X** is een synoniem
var **X**	(lemma) **X** is een variant
vgl **X**	vergelijk met (lemma) **X**
[X]	X: beknopte grammaticale informatie
<X>	X: bijkomende commentaar
X/Y	X en Y: klassenummers van het genus
X(Y)	X en XY mogelijk
(X)Y	Y en XY mogelijk

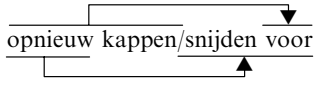
REDACTIONELE AFKORTINGEN

a/d	aan de
a/h	aan het
aub	alstublieft
bv	bijvoorbeeld
d.m.v.	door middel van
d.w.z.	dat/dit wil zeggen
e.d.	en dergelijke
enz	enzovoort
g	vorm van het werkwoord "gaan"
h	vorm van het werkwoord "hebben"
i/d	in de
k	vorm van het werkwoord "komen"
'n	een
't	het
t.o.v.	ten opzichte van
v	van
v/d	van de
v/e	van een
v/h	van het
w	word(t); worden
z	zijn
z'n	van haar/hem <possessief>
z/hij	zij of hij
z/w	zijn of worden

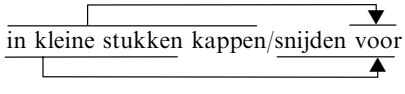
Note that if clearly defined and applied in an unambiguous way, a single convention can be used for more than one purpose, e.g. '/' in BCN for: (i) the separation of the classes of a gender, (ii) an abbreviation, (iii) an alternative word, and (iv) an alternative ending, such as in examples (7a), (7b), (7c) and (7d) respectively.

(7a) **baataatù** [1/2a] **1** cf ev **taatù**; **2** voorouders; **3** broers v vader
(7b) **bujì** [14/Ø ◁ **-jà**] de actie v/h dansen, 't uitvoeren v/e dans, de dans
(7c) **-kòsolwela** [tww, rep app **-kòsa**] opnieuw kappen/snijden voor; in kleine stukken kappen/snijden voor
(7d) ①**mwoyo/i** [3/4] **1** 't leven; **2** [vgl **mucìma**[1] 1] hart; ~ ***(wòmba) tukùtukù*** [ud; (VD)] *met 'n kloppend hart*; **3** groet; ***kwela*** ~ [ud] *groeten*

In (7a, 7b and 7d) the classes of the genders are separated by a forward slash, and this information is always to be found within the grammatical slot delimited by square brackets, i.e. '[' and ']'. In (7b) the user will have no difficulty, especially having read the section on editorial abbreviations, to interpret the forward slashes as a space saving device. In (7c) the section **opnieuw kappen/snijden voor**, where a 1 : 1/1 : 1 relation in terms of the word(s) preceding the convention and the word(s) following it exists, decodes easily to **opnieuw kappen voor** *or* **opnieuw snijden voor**. Schematically, this relation can be understood as:

(8) 

In the case of **in kleine stukken kappen/snijden voor** a 3 : 1/1 : 1 relation exists. Here, presumably still relatively easy, the user should decode it as **in kleine stukken kappen voor** *or* **in kleine stukken snijden voor**, thus combining the first three words and the final one alternatively with **kappen** *or* **snijden**. Schematically:

(9) 

In (7d) it is reasonable to expect from the user to realise that **i** can substitute **o** as the final vowel, i.e. **mwoyo** *or* **mwoyi** (and that it is not the whole word **mwoyo** being contrasted only with **i**).

The lexicographer should however be sensitive to the presumed 'limit' of the user's decoding abilities. BCN was written for advanced learners of Cilubà and at times the text condensation is rather high, especially when grammar was introduced into the central lemma-sign list. See for instance the following article, the second of two homographs, in this respect:

(10) **-mu/ù**[2] [SS18, PFb]
□ **...-il/el,in,en-FN-**~ [app; ~] **1** ernstig; ***enzèlàmu*** [IMP] *doe 't ernstig*; ***wambilamù anyi?*** [VD] *spreek je echt ernstig?*; **2** opzettelijk; ***ùdi wènzelamù*** [PDI VD] *z/hij doet 't opzettelijk*

If the target users (university students) keep their cool, they will still be able to interpret this article as a grammatical construction in which, to the right of a verbal root, an 'applicative' is followed by a 'final' and then the 'substitutive suffix from class 18'. The latter (known in the Lubà grammar books as Post-Final b) has two variants, one with high tone (**-mu**) and one with low tone (**-mù**). As a result of morphophonological changes the applicative verbal extension **-il-** also appears as **-el-**, **-in-** and **-en-**, hence **-il/el,in,en-**, where BCN only uses one forward slash and then commas for a series of alternatives. Doubtless, grammatical articles such as (10) are too complex, and the textual condensation too high, for elementary learners of Cilubà.

Lastly, an Afrikaans — English dictionary might contain the lemma signs shown in (11).

(11a) **kat/tte** cat(s)
(11b) **baan/ane** track(s)

In cases such as the plural forms for **kat** and

baan, namely **katte** and **bane** respectively, it could for example be argued that the target user will know that the (one) final letter in ka**t** needs to be substituted by the three letters following the forward slash, thus successfully rendering the plural form. In the case of (11b) however it might be expecting too much from him *or* her to know that the final **three** letters of the word are to be substituted. In the latter case it is probably wiser to enter the complete plural form separately as in (12).

(12) **baan** *bane* track(s)

In the following paragraphs it will be argued that compilers often exceed the 'reasonable decoding limit' when utilising the forward slash.

The importance of sound front- and back-matter guidance

Mindful of Wiegand's advice, dictionary compilers should be meticulous in the formulation of the guidelines to the dictionary. It often happens that the guidelines are not clear and consequently mislead the user. Even worse are cases where the guidelines are dead references in themselves.

In *A Learner's Chichewa and English Dictionary* (Botne & Kulemeka, 1995) for instance, the authors explain that a derived form of a verb was entered when ''the meaning is not readily ascertainable from the root + suffix combination. Thus, [...] *-mva* 'hear, understand' and its derived form *-mvana* 'get along together (lit. understand each other)' are both listed''. Unfortunately, the very examples used to illustrate this otherwise sound policy, were not treated as such: **-mva** can be found in the central text, but **-mvana** cannot. Learners — the prime target users of this dictionary according to its title — are derailed right from the start. As far as the lemmatisation of nouns is concerned, the authors claim that they entered the singular forms, with an indication of the plural *prefix* between brackets: ''the entries chipewa *n* [pl = zi-; agr = chi/zi] 'hat' and ndege *n* [pl = n-; agr = i-/zi-] 'airplane' indicate that the plurals are zipewa 'hats' and ndege 'airplanes', respectively''.[3] Regrettably, both the guideline and examples are misleading. Firstly, all nouns in the central text are entered in the format '**singular**/**plural**', thus with the *full* plural form following the full singular form, and a forward slash separating both. The first example from the front matter is thus to be found as **chipéwa**/**zipéwa** *n* hat [agr = chi-/zi-] in the central text, and not as **chipéwa** *n* [pl = zi-; agr = chi-/zi-]. The second example **ndege** 'airplane', is even nowhere to be found in the entire alphabetical stretch **N** — yet another dead reference. One cannot but deplore the fact that the target users have been misled by the very guidelines and examples designed to help them (cf. also Prinsloo, 1996).

Turning specifically to the forward slash, one can now look into the guidelines in this respect offered by 'the Big Four of 1995' (Bogaards, 1996; Herbst, 1996), i.e. the four eminently popular British English learners' dictionaries published in 1995: OALD5 (Crowther, 1995[5]), LDOCE3 (Summers, 1995[3]), COBUILD2 (Sinclair, 1995[2]) and CIDE (Procter, 1995). COBUILD2 does not make use of the forward slash at all. LDOCE3 and CIDE do use it throughout, yet *nowhere* is its function explained in the front or back matter. OALD5 also makes extensive use of the forward slash, and, although not very explicit, at least includes some guidance. In the 'Key to dictionary entries' the excerpt '*yellow*/*typhoid*/*rheumatic*/*scarlet fever*' in the article of **fever** is accompanied by the text box: 'examples of words often used with the headword, separated by special symbol /'. Obviously, there are many more types of uses for the forward slash in the central text. Furthermore, in OALD5's back matter, in a section on how to use punctuation in written English, one finds:

(13) Slash (/)

A **slash** or **oblique** is used

- to separate alternative words or phrases: *have a pudding and/or cheese*
  single/married/widowed/divorced (delete as applicable)
- to indicate the end of a line of poetry where the lines are not set separately: *Wordsworth's famous lines, 'I wandered lonely as a cloud / That floats on high o'er vales and hills ...'*

Here, to say the least, the examples for the first use are not really well-chosen, as only the word-level is illustrated. In OALD5's article of **out**, for instance, one finds **Let's go out this evening/have an evening out**. Although technically correct that the forward slash can separate 'phrases' (cf. the first use), it is not clear whether one should read this as **Let's go out this evening** *or* **have an evening out**, as **Let's go out this evening** *or* **Let's have an evening out**, as **Let's go out this evening** *or* **Let's go have an evening out**, etc.

Given the fact that the front- and back-matter guidance (as far as the use of the forward slash is concerned) is so poor in the Big Four, could it be that heed was given to Kirkpatrick's observation?

> If all publishers and lexicographers acknowledge the fact that their gems of wisdom placed at the beginning of reference books will be for the most part ignored, why do they bother to go on providing prefaces and introductory material? Why not grasp the nettle of realism and plunge straight into *a* for *aardvark* or whatever *a* stands for in the relevant dictionary?
>
> Perhaps we are all either cowards or optimists; cowards because we are afraid to do what none of our competitors dares do — admit that no-one reads the preamble; optimists because we feel that someone somewhere may read the preamble and appreciate the finer points of lexicography. (Kirkpatrick, 1989: 755)

Plunging straight into the central text, a user might perhaps hope to find guidance at the article of **slash** itself. In OALD5 the second sense of the noun **slash** tells the user that it is a countable noun and means the same as oblique in this case. This is followed by a cross-reference to the third appendix, one section of which is precisely (13) shown above. The appropriate central-text excerpts from LDOCE3, COBUILD2 and CIDE are shown in (14a), (14b) and (14c) respectively.

(14a) **2** also **slash mark** a line (/) used in writing to separate words, numbers, or letters

(14b) **4** You say **slash** to refer to a diagonal line that separates letters, words, or numbers. For example, if you are giving the number 340/21/K, you say 'Three four zero, slash two one, slash K.'

(14c) • A slash is also a sloping line used in printing or writing to separate letters or numbers: *You often write a slash between alternatives, as in and/or.* ° *My reference number is 10/T.*

Except for (14c), these entries will be of little help to the users trying to decode the function of the forward slash as a lexicographic device. Fortunately, CIDE also includes a 'Language Portrait' for **slash mark** as an inserted text accompanying the article **slash**. This text box is reproduced in (15).

(15) CIDE's ''Language Portrait'' accompanying the article **slash**

SLASH MARK [/]
The slash mark is also called the stroke or (*Br*) oblique. It is used:

- **to mean 'or'**
  On Tuesdays Kay/Colin will open the mail.
  A doctor gets to know his/her patients quite well.
  Payment by cash/cheque/credit card only.
- **to show that two expressions mean the same**
  Add 8oz/225g sugar and bake at 200°C/400°F.
- **as one way of separating the numbers when writing dates**
  (Br) 16/7/75 (= 16 July 1975)
  (Am) 10/22/90 (= October 22 1990)
- **to mean 'for each' when talking of amounts, prices** (This is spoken as 'per' or 'a'.)
  Standard rates $20/hour or $100/day.
  My car doesn't use much petrol. It does about 40 miles/gallon.
- **to separate lines of poetry when they are not written on different lines**
  The stars must make an awful noise / In whirling round the sky ...

Even with such a full 'portrait' users will not be able to unambiguously decode the actual implementation of the forward slash in CIDE's central text. In the article of **deposit**, for instance, one finds the following example:

(16) *"If you* **leave** *a deposit* **of** *£10*/**leave** *£10* **as** *a deposit, we'll keep the dress for you," said the shop assistant.*

Technically, it is correct that the forward slash means *or*, yet how exactly *learners* — after all the target user group of this dictionary — should know that the forward slash means 'the five words preceding the forward slash *or* the five words following it' (**leave a deposit of £10** *or* **leave £10 as a deposit**) is not clear. To give two more examples, (17a) is an excerpt from the article **deep**, (17b) from the article **number**.

(17a) *The water's only* **ankle/knee/waist-***deep, so we'll be able to get across the river easily.*

(17b) *This is story-writing/painting by numbers — there's nothing original here.*

In (17a) **ankle/knee/waist-deep** stands for **ankle-deep** *or* **knee-deep** *or* **waist-deep**. Yet, how exactly the users should know that **story-writing/painting** in (17b) stands for **story-writing** *or* **painting** and not for **story-writing** *or* **story-painting** is again not clear.

All in all, it should thus be clear that, even in the acclaimed Big Four, not only is the guidance for the forward slash poor, but also that the actual use of it is rather haphazard.

As a next illustration, one can consider the guidelines revolving around the use of the forward slash in the Departmental Northern Sotho Language Board's *Northern Sotho Terminology and Orthography No. 4* (1988[4]), henceforth T&O.[4] T&O being a trilingual wordlist (English — Afrikaans — Northern Sotho), it is satisfying to see that the front matter has sections in each language. Also, unlike the Big Four, the compilers attempted to provide some 'forward slash guidance'. The relevant excerpts describing the use of the forward slash are shown in (18).

(18a) ***Guidelines — English*** (p.2)

8. In the case of the Afrikaans and Northern Sotho equivalents of the English term, the following method is used:
   (a) Between synonyms or suitable alternative forms commas are used.
   (b) Where part of a term in the alternative form is repeated, that part is left out and an inclined stroke (/) is used to indicate the omission, e.g.:
      (i) *abstract proper noun, derived proper noun* are indicated thus: *abstract*/*derived proper noun*,
      (ii) *abstract education, abstract instruction* are indicated as– *abstract education*/*instruction*,
      (iii) motorist is shown in Northern Sotho as *mootledi*/*monamedi wa mmotoro*, and
      (iv) first aid: *thuš*otšhoganetšo/potlako.

(18b) ***Guidelines — Afrikaans*** (p.28)

[...]
   (i) *abstrakte selfstandige naamwoord*, *afgetrokke selfstandige naamwoord* word so aangedui: *abstrakte*/*afgetrokke selfstandige naamwoord*,
   (ii) *abstrakte onderwys*, *abstrakte onderrig* word so aangedui: *abstrakte onderwys*/*onderrig*,
   (iii) motoris word só in Noord-Sotho aangedui: *mootledi*/*monamedi wa mmotoro*, en
   (iv) noodhulp: *thušo ya tšhoganetšo*/*potlako*.

(18c) ***Guidelines — Northern Sotho*** (p.54)
[...]
(i) Leinainakgopolo, leinainaletšo a laetšwa ka tsela ye:
leinakgopolo/letšo,
(ii) Thutokgopolo, thutišokgopolo di laetšwa ka mokgwa wo–
thuto/thutišokgopolo,
(iii) 'Motorist' ka Sesotho sa Leboa e bontšhwa ka mokgwa wo:
mootledi/monamedi wa sefatanaga, gomme.
(iv) 'First aid': thušo ya tšhoganetšo/ tlhaganelo.

Guidelines 8(b)(i) and 8(b)(ii) are examples of dead references: there are no articles for **abstract proper noun**, **derived proper noun**, **abstract education** nor **abstract instruction**. The closest matches in the central text are shown in (19).

(19a) abstract noun
abstrakte naamwoord, afgetrokke selfstandige naamwoord
leinakgopolo
(19b) abstract teaching
abstrakte onderwys
thutogopolwa

Further, a large number of discrepancies are immediately noticeable when the guidelines are viewed together. In the case of Guideline 8(b)(iii), for example, the Northern Sotho **sefatanaga** is inconsistent with **mmotoro** given in English and Afrikaans. The real article in the central text is shown in (20).

(20) motorist
motoris, motorbestuurder
mootledi/monamedi wa mmotoro

The guideline in the Northern Sotho section is thus not a true reflection of the actual translation equivalent paradigm. This in itself can be criticized and viewed as another dead reference. Furthermore, an inconsistency in the use of italics versus Roman typeface can be noted, but at least the example given in the guidelines illustrates the envisaged application of the convention correctly. The 1/1 : 2 relation can easily be decoded as **mootledi wa mmotoro** *or* **monamedi wa mmotoro**, hence schematically:

(21) mootledi/monamedi wa mmotoro

The example given to illustrate Guideline 8(b)(iv), **first aid**, is even more confusing. Compare (22) where the three sections have been brought together.

(22a) English:
(iv) first aid: *thuš*otšhoganetšo/potlako.
(22b) Afrikaans:
(iv) noodhulp: *thušo ya tšhoganetšo/potlako*.
(22c) Northern Sotho:
(iv) 'First aid': thušo ya tšhoganetšo/ tlhaganelo.

The actual article is shown in (23).

(23) first-aid
eerste hulp, noodhulp
thušo ya potlako/tlhaganelo

The following inconsistencies between the guidelines themselves and the guidelines versus the actual article in the central text are evident. Firstly the lemma sign is hyphenated in the central text but not in the guidelines for English nor Northern Sotho. Secondly *not a single guideline* corresponds with any from another language or with the actual article in the central text. In fact *four* different translation equivalent paradigms are given.

The forward slash used in ***thuš*otšhoganetšo/ potlako** is in itself very user-unfriendly. One interpretation could be that **first aid** has the translation equivalents **thušotšhoganetšo** *or* ***potlako**. However, in order to use this dictionary the user has to know that the *thušo*-section (and not the part in italics, i.e. *thuš*) of the first word should be separated and then joined to *potlako* in order to generate either **thušotšhoganetšo** *or* **thušopotlako**, thus schematically:

(24) thušo|tšhoganetšo/potlako

In our representation in (24), a vertical slash '|' marks the place where the alternatives have to be connected. The alternatives themselves are separated by forward slashes.

The other translation equivalent paradigms are far more acceptable since misinterpretation of the forward slash is unlikely. All three instances are straightforward 2 : 1/1 relations, as shown schematically below:

(25a) thušo ya tšhoganetšo/potlako
(25b) thušo ya tšhoganetšo/tlhaganelo
(25c) thušo ya potlako/tlhaganelo

At best, the 'forward slash guidance' is thus only partly successful in T&O. In the following paragraphs a detailed analysis of the use of forward slashes in T&O will be presented.

Case study: Forward slashes in the central text of the *Northern Sotho Terminology and Orthography No. 4* (T&O)

A careful analysis of the *Northern Sotho Terminology and Orthography No. 4* (T&O) revealed that forward slashes are used in 441 Northern Sotho translation equivalent paradigms. As T&O's central text contains 273 pages, this means that every page has an average of 1.6 Northern Sotho equivalents with one or more forward slashes. The use of forward slashes in T&O can justifiably be divided into eight categories. As a case study with theoretical implications, each of these categories will now be discussed in some detail.

Type 1 — α : X/Y/Z/... : β

The most typical use of the forward slash (344 times; 78.0%) is in those instances where two or more alternatives are given separated by forward slashes, say X/Y/Z/..., and are preceded and *or* or followed by one or more words, say α and β respectively. Thus schematically as shown in Table 1.

The examples given in (26) illustrate the formula in cases where a number of words *precede* the alternatives that are separated by forward slashes.

(26a) Atlantic Ocean
Lewatle la Atlantika/Atlantiki
(26b) atmospheric pressure
kgatelelo ya lefaufau/atmosfere
(26c) basic knowledge
tsebo ya tlhago/motheo/mathomo
(26d) profit and loss
poelo le tahlegelo/tobo/timelo/tshenyegelo

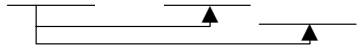
These are instances where α is present but β is absent. In (26a) and (26b) only two alternatives are offered, representing X/Y in the proposed formula, and in the case of (26c) the three alternatives correspond with X/Y/Z in the formula. In principle such a series can of course contain many more alternatives but in T&O the maximum number of alternatives given in a single series is four (26d). From a user-perspective, decoding examples such as (26a-d) is non-problematic. The number of alternatives generated by (26c) for example, where the abstract α : X/Y/Z/... : β is simply 2 : 1/1/1, is given in (27) and schematically in (28).

(27) **tsebo ya tlhago** *or* **tsebo ya motheo** *or* **tsebo ya mathomo**

Table 1 Type 1 — α : X/Y/Z/... : β

T	Formula	Description	#	%
1	α : X/Y/Z/... : β	Two or more 'groups of words' (**X**, **Y**, **Z**, ...) separated by forward slashes, preceded by 'a group of words' (**α**) and *or* or followed by 'a group of words' (**β**).	344	78.0

(28) tsebo ya tlhago/motheo/mathomo



In the following examples no words precede the alternatives but they are followed by a number of words; thus β is present but α is absent:

(29a) abridged scheme of work
tlhakatiro/peakanyo ye e khutsofaditšwego

(29b) arterial sclerosis
thibano/thibalo ya seišamadi

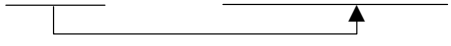
(29c) Bible drama
tiragatšo/terama ya Bibele

(29d) Bible reference
tšhupišo/tšhupetšo Bibeleng

Decoding is similar to the examples in (26). (29a), for example, where the formula α : X/Y/Z/... : β is 1/1 : 3, is exemplified in (30) and (31).

(30) **tlhakatiro ye e khutsofaditšwego** *or* **peakanyo ye e khutsofaditšwego**

(31) tlhakatiro/peakanyo ye e khutsofaditšwego



Decoding paradigms of the type α : X/Y/Z/... : β is only successful *or* acceptable when each of the alternatives consists of a *single* word, or thus when X, Y, Z, ... are = 1. Numerous problems, where X, Y, Z, ... are not all = 1, are to be found in T&O in this regard. (32) lists just a few examples, each preceded by its concrete formula.

(32a) 2 : 1/2 election date
tšatšikgwedi la kgetho/go bouta

(32b) 2 : 1/3 public road
tsela ya setšhaba/mang le mang

(32c) 2/1 facing
go kgabiša/kgabišo

(32d) 1 : 2/2 general rule
molao wa kakaretšo/o akaretšang

(32e) 1 : 2/3 Feast of Tabernacles
Monyanya wa Tabernakele/wa ka Mešašeng

(32f) 3/1 source of origin
mothopo wa tlholego/mothopotlholego

(32g) 1 : 3/3 fast colour
mmala o sa galogego/o sa tšwego

(32h) 2 : 1/1/2 folk-tale
nonwane ya kgogamašego/ketišo/go etiša

(32i) 1 : 2/2/3 frayed edge
morumo o hlafilego/o hlarologilego/wo o hlarolotšwego

Learners, and even advanced users, will have a hard time decoding these translation equivalents. Only when one already knows the various translation equivalents, will one be able to successfully decode them. This obviously jeopardises the very function of a reference work such as T&O. In addition to the need for X, Y, Z, ... to be = 1, for the current layout of T&O (i.e. English → Afrikaans → Northern Sotho), alternatives should also at least be preceded or followed by one or more words. Consider for example:

(33a) bridesmaid
lekgetla/phelesi

(33b) chemist
mokhemisi/rakhemise

(33c) competent authority
setsebi/sekgoni

In cases such as (33), where both α and β are absent and only X/Y/Z/... is present, even though X, Y, Z, ... = 1, forward slashes should *not* be used. A relation of *synonymy* exists between these alternatives and this relation should therefore be marked by *commas* which is the standard convention in most dictionaries of the world. The respective articles in T&O should therefore have been:

(34a) bridesmaid
lekgetla, phelesi

(34b) chemist
mokhemisi, rakhemise

(34c) competent authority
setsebi, sekgoni

This latter erroneous use of the forward slash instead of the comma occurs 66 times in T&O,

Table 2 Type 2 — C : α : X/Y/Z/...

T	Formula	Description	#	%
2	C : α : X/Y/Z/...	A concord (paradigm) (**C**) and 'a group of words' (**α**) precede two or more 'groups of words' (**X**, **Y**, **Z**, ...) separated by forward slashes.	13	2.9

which corresponds to 15.0% of all Northern Sotho equivalents containing one or more forward slashes. Especially in view of the other haphazard uses of the forward slash in T&O this is, to say the least, confusing indeed.

Type 2 — C : α : X/Y/Z/...

The second type of environment (13 times; 2.9%) in which forward slashes are used is where a concord precedes the alternatives. Thus schematically as shown in Table 2.

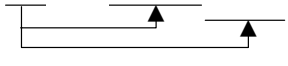
Examples of this formula include:

(35a) community hygiene
(tša) maphelo a setšhaba/motse
(35b) dogmatic
(ya) thuto/borapedi/tumedi
(35c) equatorial
(sa) ekhweita/mogarafase
(35d) regional
ya selete/tikologo

In (35) the possessive concords **tša**, **ya** and **sa** (possibly followed by 'a group of words' α) precede a set of alternatives. The users will have no difficulty in decoding, for example, (35b) as (36) or schematically as (37).

(36) **(ya) thuto** *or* **(ya) borapedi** *or* **(ya) tumedi**

(37) (ya) thuto/borapedi/tumedi



In these cases the possessive concords in T&O are given in brackets but not consistently, compare **ya** (as in (35d)) versus **(ya)** (as in (35b)). The fact that the compilers present the possessive concord in *brackets* indicates their awareness of a lexicographic problem. Indeed, an extensive range of possessive concords can be used with the alternatives given in (35), namely **wa**, **ba**, **ya**, **la**, **a**, **sa**, **tša**, **bja** and **ga**. However, presenting **tša**, **ya**, and **sa** in such an arbitrary and inconsistent way without even explaining this 'bracket convention' is unacceptable and confusing to the users of T&O.

An ad hoc effort to address this problem can be detected in the translation equivalent paradigm of **external** in T&O:

(38) external
(sa/ya) ka ntle

Using forward slashes between the possessive concords **sa** and **ya** in (38) can be regarded as a step in the right direction in designing an acceptable convention for the representation of the possessive concords, and similar paradigms for subject concords, object concords, relative pronouns, etc.

The **(sa/ya)** in (38) can firstly be improved by removing the brackets, since the use of a possessive concord is not optional but a required condition in this translation equivalent paradigm. Secondly, a standard convention suggesting 'continuation', namely a number of dots '...', should be added in order to ensure the unambiguous conveyance of the linguistic fact that several different concords are applicable. Sorting the possessive concords in terms of frequency of use could be a third way to improve representativeness. As a result, this could render a convention such as **ya/tša/wa/...** with which the complete paradigm (**C** in the formula of Type 2) is covered.

This is therefore another example of the versatility of 'slashes as a lexicographic device', namely suggesting a range of alternatives if used in combination with other conventions. A

detailed discussion and ditto design of such paradigms, however, lies beyond the scope of the present article and will not be attempted here. See Prinsloo & Gouws (1996), Prinsloo & Sathekge (1996), Prinsloo *et al.* (1997), Kriel *et al.* (1997[4]) and Prinsloo & Gouws (*forthcoming*) for detailed discussions (and actual compilation examples) of lexicographic conventions for complex series of concords for Northern Sotho.

Yet another approach to the lexicographic treatment of possessive concords has been proposed by De Schryver in the *Lexicon Cilubà—Nederlands* (LCN) (De Schryver & Kabuta, 1997) and in the *Beknopt woordenboek Cilubà—Nederlands* (BCN) (De Schryver & Kabuta, 1998[2]). In LCN the abbreviation 'cn' was suggested for the entire possessive concord paradigm and in BCN this was refined to the symbol '-à'.

Note also that, just as in the case of Type 1 above, decoding Type 2 (C : α : X/Y/Z/...) will only be successful *or* acceptable when X, Y, Z, ... = 1. α may or may not be present.

The focus of the discussion of Type 2 has been on possessive concords preceding α : X/Y/Z/... The arguments considered here are of course equally applicable to other concords, pronouns, etc. such as demonstratives, qualificative particles and relative pronouns, e.g.:

(39) light (not heavy) (adj.)
(ye) bohwefe/bofefo

Type 3 — X/Y/Z/... : *C : β

A third use of forward slashes (12 times; 2.7%) is in those instances where a partly erroneous concord (in most cases again a possessive concord) follows the alternatives. Thus schematically as shown in Table 3.

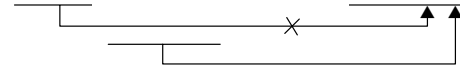
A few representative examples are shown below:

(40a) adjusting nut
sekurufi/mmuru wa go lekanyetša
(40b) board of directors
boto/lekgotla la balaodi
(40c) member of the staff
leloko/setho sa badirišani
(40d) sand-dune
ntotoma/sethotobolo/setotomane sa mohlaba

In (40) possessive concords **wa**, **la** and **sa** follow a set of two or more alternatives. Just as was the case for Type 2, the users will have no difficulty in decoding, for example, (40d) as (41) or schematically as (42).

(41) **ntotoma *sa mohlaba** *or* **sethotobolo sa mohlaba** *or* **setotomane sa mohlaba**

(42) ntotoma/sethotobolo/setotomane sa mohlaba



Unfortunately, even though the user followed the rules the result is incorrect. In fact this convention can only be used if the different alternatives X/Y/Z/... generate the *same* concord. **Sekurufi**, **boto**, **leloko** and **ntotoma** all generate incorrect phrases when the forward slash convention is applied:

(43a) sekurufi *wa go lekanyetša
(43b) boto *la balaodi
(43c) leloko *sa badirišani
(43d) ntotoma *sa mohlaba

The translation equivalent paradigm for **telephone wire** indicates that the compilers probably

Table 3 Type 3 — X/Y/Z/... : *C : β

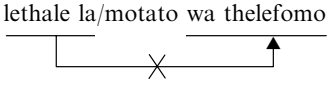
T	Formula	Description	#	%
3	X/Y/Z/... : *C : β	Two or more 'groups of words' (**X**, **Y**, **Z**, ...) separated by forward slashes, followed by a partly erroneous concord (***C**), followed by 'a group of words' (**β**).	12	2.7

attempted to rectify this problem by introducing additional possessive concords:

(44) telephone wire
lethale la/motato wa thelefomo

This attempt is not successful. In (44) the Y-alternative **motato** successfully decodes (in case anything preceding the forward slash is ignored) into **motato wa thelefomo**. However the X-alternative **la** erroneously decodes into **lethale la *wa thelefomo**. This is wrong since *two* possessive concords are generated. Schematically:

(45) lethale la/motato wa thelefomo



As in the case of Types 1 and 2 above, it is sensible to assume that decoding paradigms of Type 3 (X/Y/Z/... : *C : β) is only successful *or* acceptable when each of the alternatives consists of a *single* word, or thus when X, Y, Z, ... are = 1, *and* when X, Y, Z, ... all take the same possessive concord. β is always present.

Type 4 — α : Bx/y/z/...

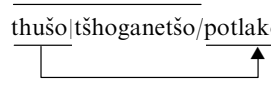
A fourth use of the forward slash (19 times; 4.3%) occurs in those instances where the first part of a word is to be combined with alternative continuations. Thus schematically as shown in Table 4.

Examples from T&O include:

(46a) abstract art
bokgabogopolwa/naganwa
(46b) combined school
sekolo se kopantšweng/go
(46c) creative work
mošomokakanyo/nywa
(46d) music manuscript book
sengwalelamoopelo/koša

The compilers attempted to guide the users in the English guidelines towards the decoding of such examples. Unfortunately, since, as indicated above, the guidelines themselves are for the most part intrinsically wrong, users have no chance of knowing how to successfully decode such instances of the forward slash. Recall (24) above, where we suggested to insert a vertical slash '|':

(24) thušo|tšhoganetšo/potlako



Without such a vertical slash, a user who is not familiar with the relative suffix **-ng** (as an alternative to **-go**) would for instance be entitled to try to decode (46b) as **sekolo se kopantšweng** *or* ***sekolo se go** (where the latter is only meaningful as part of a larger construction). Actually, in (46) it is expected from the users that they can unambiguously determine the border between **B** and **x/y/z/...** This border is indicated by a vertical slash '|' in (47), thus rendering (48).

(47a) abstract art
bokgabo|gopolwa/naganwa
(47b) combined school
sekolo se kopantšwe|ng/go
(47c) creative work
mošomokaka|nyo/nywa
(47d) music manuscript book
sengwalela|moopelo/koša
(48a) **bokgabogopolwa** *or* **bokgabonaganwa**
(48b) **sekolo se kopantšweng** *or* **sekolo se kopantšwego**
(48c) **mošomokakanyo** *or* **mošomokakanywa**
(48d) **sengwalelamoopelo** *or* **sengwalelakoša**

Being able to unambiguously generate (48) from (46) is expecting too much from the users. The compilers could have adopted one of the

Table 4 Type 4 — α : Bx/y/z/...

T	Formula	Description	#	%
4	α : Bx/y/z/...	The beginning of a word (**B**) combines with various parts (**x**, **y**, **z**, ...) separated by forward slashes, preceded by 'a group of words' (**α**).	19	4.3

following solutions. An extra non-typographical structural marker such as the vertical slash '|' suggested above could have been introduced. Alternatively, **B**-sections could have been given *with* each alternative (**x**, **y**, **z**, ...) separately as in (48), and separated by *commas*, except for instances such as (49b) that can better be condensed as Type 1:

(49a) abstract art
bokgabogopolwa, bokgabonaganwa
(49b) combined school
sekolo se kopantšweng/kopantšwego
(49c) creative work
mošomokakanyo, mošomokakanywa
(49d) music manuscript book
sengwalelamoopelo, sengwalelakoša

Type 5 — α : x/y/z/...E

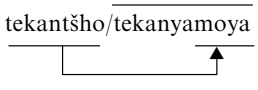
A fifth use of the forward slash (6 times; 1.4%) occurs in those instances where the end of a word is to be combined with alternative onsets. Thus schematically as shown in Table 5.

Examples from T&O include:

(50a) air-conditioning
tekantšho/tekanyamoya
(50b)[5] eyeshade
seširetša-/sešireletšamahlo
(50c) glazier
modira/motsenyadigalase
(50d) group endowment fund
sekhwama sa pušetšo sa se-/dihlopha

(50a), for instance, should be analysed as:

(51) air-conditioning tekantšho/tekanyamoya



In (50) it is thus expected from the users that they can unambiguously determine the border between **x/y/z/...** and **E**. (The attempt to introduce an extra non-typographical structural marker, namely the dash '-' in (50b) and (50d), does not help at all in this regard.) The correct border is indicated by a vertical slash '|' in (52), thus rendering (53).

(52a) air-conditioning
tekantšho/tekanya|moya
(52b) eyeshade
seširetša/sešireletša|mahlo
(52c) glazier
modira/motsenya|digalase
(52d) group endowment fund
sekhwama sa pušetšo sa se/di|hlopha

(53a) **tekantšhomoya** *or* **tekanyamoya**
(53b) **seširetšamahlo** *or* **sešireletšamahlo**
(53c) **modiradigalase** *or* **motsenyadigalase**
(53d) **sekhwama sa pušetšo sa sehlopha** *or* **sekhwama sa pušetšo sa dihlopha**

Being able to unambiguously generate (53) from (50) is again expecting too much from the users. Just as for Type 4 the compilers could have adopted one of the following solutions. An extra marker such as the vertical slash '|' suggested above could have been introduced. Alternatively, **E**-sections could have been given *with* each alternative (**x**, **y**, **z**, ...) separately as in (53), and separated by *commas*, except for instances such as (54d) that can better be condensed as Type 1.

(54a) air-conditioning
tekantšhomoya, tekanyamoya
(54b) eyeshade
seširetšamahlo, sešireletšamahlo
(54c) glazier
modiradigalase, motsenyadigalase
(54d) group endowment fund
sekhwama sa pušetšo sa sehlopha/dihlopha

Table 5 Type 5 — α : x/y/z/...E

T	Formula	Description	#	%
5	α : x/y/z/...E	The end of a word (**E**) combines with various parts (**x**, **y**, **z**, ...) separated by forward slashes, preceded by 'a group of words' (**α**).	6	1.4

Table 6 Type 6 — A special case

T	Formula	Description	#	%
6	special	A special case.	1	0.2

Type 6 — A special case

T&O contains one special (correct) use of the forward slash which warrants a separate discussion, cf. Table 6.

(55) stop/go control ahead
taolo ya ema/sepela pejana

The forward slash convention in (55) decodes into **taolo ya ema pejana** *or* **taolo ya sepela pejana** which respectively means 'stop control ahead' and 'go control ahead'. From a grammatical point of view this is a very interesting construction since verb stems normally do not form part of a possessive construction if not preceded by the infinitive prefix **go-**. However, here one is dealing with a *lexicalised meaning* of a *specific type of signpost*, i.e. a signpost which incidentally has **stop** written on the one side of it and **go** on the other side. This is thus not an alternative in the normal sense of '*or*' which is marked by the forward slash convention. The true meaning is not literally a stop sign ahead *or* a(nother) go sign ahead, but rather a road sign ahead which will indicate **go** if one is lucky enough, yet most probably **stop**.

Type 7 — Forward slashes and commas are used without any logic

Then there are also many instances where the use of the forward slash, especially as compared to the use of the comma in the same paradigm, is simply wrong, cf. Table 7.

Examples from T&O include:

(56a) brothel
bogwebakathobalano/ngwako wa kgwebo ka thobalano, brothele

(56b) draft questions
dipotšišo/kakanywa

(56c) life insurance
inšorense/ya bophelo

(56d) waiting room
boletelo, kamora/phapošitetelo

(56e) games/adding
dipapadi/tlhakanyo

(56f) games/multiplication and division
dipapadi/katišo le karolo

(56g) games/rhyme, snap
dipapadi/diretwana

(56h) games, spelling
dipapadi/mopeleto

In all these examples the use of the forward slash makes *no* sense and can even be misleading to the target user. In (56a), for example, the user might suspect that part of the complex word **bogwebakathobalano** should be isolated and combined with *ngwako* as he *or* she is instructed to do in the guidelines to the dictionary (cf. Guideline 8(b)(iv) in (18) above), and as has to be done in fact for some similar equivalent paradigms (cf. Type 5). Actually, the forward slash should simply be a comma. In (56b) the Northern Sotho equivalent should have been a single compound without a forward slash, the forward slash in (56c) should have been a space, and the forward slash in (56d) should have been a comma:

(57a) brothel
bogwebakathobalano, ngwako wa kgwebo ka thobalano, brothele

(57b) draft questions
dipotšišokakanywa

Table 7 Type 7 — Forward slashes and commas are used without any logic

T	Formula	Description	#	%
7	error	Forward slashes and commas are used without any logic.	41	9.3

(57c) life insurance
inšorense ya bophelo
(57d) waiting room
boletelo, kamora, phapošitetelo

All the entries for games (56e-h) are particularly confusing. Firstly, the lemma signs themselves surely are not intended to be **games** *or* **adding**, **games** *or* **multiplication**, etc. on both the English and Northern Sotho sides. Furthermore, the semantic connotation of **snap** 'kgafetša-kgafetša' is absent in the translation equivalent paradigm of (56g). In (57e–h) an attempt is made to address these problems.

(57e) games, addition ~
dipapaditlhakanyo
(57f) games, multiplication and division ~
dipapadikatišo le karolo
(57g) games/rhyme, snap ~
dipapadithetwana kgafetša-kgafetša
(57h) games, spelling ~
dipapadimopeleto

***Type 8* —** Impossible to decode

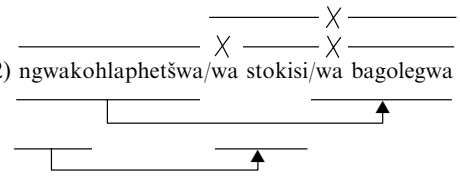
Finally, some uses of the forward slash are simply impossible to decode, cf. Table 8.

Examples include:

(58a) guardroom
ngwakohlaphetšwa/wa stokisi/wa bagolegwa
(58b) inside-left right
moraloka-/mmapala gare-nngeleng, go ja
(58c) scrap yard
sekrepe/dikgerekgereng

Decoding the forward slash convention here will be almost impossible for any user and will lead him *or* her to incorrect conclusions. Compare (59a) to (59c) respectively.

(59a1) ***ngwakohlaphetšwa stokisi bagolegwa** *or*
***wa stokisi bagolegwa** *or*
ngwakohlaphetšwa wa bagolegwa *or*
ngwako wa stokisi *or*
etc.



(59b) **moraloka gare-nngeleng, go ja** *or*
mmapala gare-nngeleng, go ja

(59c) **sekrepe** *or*
dikgerekgereng

(59a) and (59b) reflect some of the phrases generated by the forward slash convention which are mostly uninterpretable. In (59b) the source language concept is difficult enough to interpret and gains in complexity in the Northern Sotho translation equivalent paradigm. In the case of (59c) the decoding is apparently non-problematic but the first alternative means simply '(a piece of) scrap' with the 'yard'-part totally missing.

Collapsing the types

From the discussion of T&O so far it should be clear that one is actually dealing with five main types (Types 1 to 5). If one would wish to further rationalise the types, one also sees that Types 2 and 3 could be collapsed with Type 1, since the former two can be considered special cases of the latter. Furthermore, Types 4 and 5, as should be clear from the symmetrical discussion above, can also be collapsed into one new type. Types 4 and 5 deal with forward slashes on word-level, whilst Types 1 to 3 deal with forward slashes on multi-word level. It was pointed out that a correct use of slashes for Types 4 and 5 could be to utilise both

Table 8 Type 8 — Impossible to decode

T	Formula	Description	#	%
8	?	Impossible to decode.	5	1.1

vertical and forward slashes, or else to separate the alternative words with commas; an unambiguous use of slashes for Types 1 to 3 requires that the forward slashes separate single words only.

Nonetheless, keeping the five different types (and not two 'bigger' types) was not only relevant for the discussion above, but also with reverse purposes in mind (see Prinsloo & De Schryver *forthcoming*).

Summary and conclusion

In this article it was shown that the use of the seemingly-trivial forward slash '/' can be seen as an application of one of Wiegand's textual condensing operations. As such the innocent-looking forward slash is one of the parameters with which the degree of user-friendliness of a particular reference work may be measured. Surprisingly, the guidance for the forward slash is inadequate in all but a few of the studied dictionaries, including the Big Four (OALD5, LDOCE3, COBUILD2 and CIDE). This situation is often aggravated as a result of the occurrence of ghost cross-references between the users' guide and the reference work's central text. It was furthermore shown that the actual implementation of the forward slash in the central text is rather haphazard. If the symbol '/' is taken to mean '*or*' without any other type of guidance, then the compilers often assume too many decoding abilities on the part of the user. Only for the more advanced users can 'groups of words' successfully be separated by forward slashes, and only for the more advanced learners can extra non-typographical structural markers such as '|' be used in combination with '/' within various options for single words.

These metalexicographic issues were tested against a full-scale case study. Indeed, the entire Departmental Northern Sotho Language Board's *Northern Sotho Terminology and Orthography No. 4* (1988[4]), for short T&O, was thoroughly analysed with regard to the use of the forward slash both in the front matter and in the central text. As far as the front matter is concerned, it was pointed out that the guidelines themselves are for the most part intrinsically wrong. Turning to the central text, it was shown that the uses of the forward slash may be grouped into eight different types. The five main types were given an abstract formula, the details of which are shown in Table 9.

Table 9 Types of forward slash uses (in T&O's Northern Sotho equivalents)

T	Formula	Description	#	%
1	α : X/Y/Z/... : β	Two or more 'groups of words' (**X**, **Y**, **Z**, ...) separated by forward slashes, preceded by 'a group of words' (**α**) and *or* or followed by 'a group of words' (**β**).	344	78.0
		*Only acceptable when **X**, **Y**, **Z**, ... = 1 AND* **α** *and* or *or* **β** *is (are) present*		
2	C : α : X/Y/Z/...	A concord (paradigm) (**C**) and 'a group of words' (**α**) precede two or more 'groups of words' (**X**, **Y**, **Z**, ...) separated by forward slashes.	13	2.9
		*Only acceptable when **X**, **Y**, **Z**, ... = 1 AND a convention for the 'concord paradigm' is developed;* **α** *is or is not present*		
3	X/Y/Z/... : *C : β	Two or more 'groups of words' (**X**, **Y**, **Z**, ...) separated by forward slashes, followed by a partly erroneous concord (***C**), followed by 'a group of words' (**β**).	12	2.7

T	Formula	Description	#	%
		*Only acceptable when **X**, **Y**, **Z**, ... = 1 AND when **X**, **Y**, **Z**, ... all take the same concord; **β** is present*		
4	α : Bx/y/z/...	The beginning of a word (**B**) combines with various parts (**x**, **y**, **z**, ...) separated by forward slashes, preceded by 'a group of words' (**α**).	19	4.3
		*Unacceptable, unless extra marker (e.g. '|') indicating the place to append end of word; **α** must be present*		
5	α : x/y/z/...E	The end of a word (**E**) combines with various parts (**x**, **y**, **z**, ...) separated by forward slashes, preceded by 'a group of words' (**α**).	6	1.4
		*Unacceptable, unless extra marker (e.g. '|') indicating the place to append beginning of word; **α** must be present*		
6	special	A special case.	1	0.2
		OK, yet include enough extra contextual information		
7	error	Forward slashes and commas are used without any logic	41	9.3
		Correct the mistakes and handle as one of the main types (Types 1–5)		
8	?	Impossible to decode.	5	1.1
		Simplify the paradigms (potentially following extra fieldwork) and handle as one of the main types (Types 1–5)		
SUM			**441**	**99.9**

For each of the types, as can be seen from Table 9, conditions were stipulated beyond which the use of the forward slash cannot really be considered user-friendly anymore.

Be the obvious practical relevance of this case study as it may for Northern Sotho lexicography, the outcome of the exercise has much wider theoretical implications. Indeed, the different types and corresponding formulae listed in Table 9 obviously govern the use of forward slashes in dictionaries at large. Not only can the derived formulae thus be used as a point of departure for analogous studies, it is already clear at this stage that without an insightful treatment of the various concords, and thus the creation of a sound approach to concord paradigms, any use of the forward slash for African languages will be seriously jeopardised.

Notes

1 Since this article is being submitted for publication in a South African journal, necessary sensitivity with regard to the term 'Bantu' languages is exercised in the authors' choice rather to use the term *African* languages. Keep in mind, however, that the latter includes more than just the 'Bantu Language Family'.

2 Where 'or' replaces the forward slash '/', it is printed in italics.

3 Note that the compilers wrote ***chipewa** and ***zipewa** instead of **chipéwa** and **zipéwa** in the

guidelines, and also forgot the dashes for the agreement markers **chi-**/**zi-**.

4 The authors are grateful for Ms Salmina Nong's help with the decoding of various translation equivalents from the *Northern Sotho Terminology and Orthography No. 4* (T&O).

5 Incorrectly spelt in T&O as ***sesireletšamahlo** instead of **sešireletšamahlo**.

References

(Where applicable, superscripts at publication dates indicate the edition number of the mentioned dictionary.)

Bogaards, Paul. 1996. 'Dictionaries for Learners of English', *International Journal of Lexicography*, 9(4): 277–320.

Botne, Robert & Kulemeka, Andrew T. 1995. *A Learner's Chichewa and English Dictionary* (Afrikawissenschaftliche Lehrbücher 9). Cologne: Rüdiger Köppe.

Crowther, Jonathan. ed. 1995[5]. *Oxford Advanced Learner's Dictionary of Current English*. Oxford: Oxford University Press.

Departmental Northern Sotho Language Board. 1988[4]. *Northern Sotho Terminology and Orthography No. 4 / Noord-Sotho terminologie en spelreëls No. 4 / Sesotho sa Leboa mareo le mongwalo No. 4*. Pretoria: Government Printer.

De Schryver, Gilles-Maurice & Kabuta, Ngo S. 1997. *Lexicon Cilubà—Nederlands, Een circa 2500-lemma's-tellend strikt alfabetisch geordend vertalend aanleerderslexicon met decodeer-functie ten behoeve van studenten Afrikaanse Talen & Culturen aan de Universiteit Gent*. Ghent: Recall.

De Schryver, Gilles-Maurice & Kabuta, Ngo S. 1998[2]. *Beknopt woordenboek Cilubà—Nederlands & Kalombodi-mfùndilu kàà Cilubà (Spellingsgids Cilubà), Een op gebruiksfrequentie gebaseerd vertalend aanleerderslexicon met decodeerfunctie bestaande uit circa 3.000 strikt alfabetisch geordende lemma's & Mfùndilu wa myakù ìdì ìtàmba kumwèneka (De orthografie van de meest gangbare woorden)*. Ghent: Recall.

Gouws, Rufus H. 2000. 'Toward the Formulation of a Metalexicographic Founded Model for National Lexicography Units in South Africa'. In Wiegand, Herbert E. ed. 2000. *Wörterbücher in der Diskussion IV. Vorträge aus dem Heidelberger Lexikographischen Kolloquium* (Lexicographica Series Maior 100): 109–33. Tübingen: Max Niemeyer Verlag.

Gove, Philip B. ed. 1976[3] [1961[3]]. *Webster's Third New International Dictionary of the English Language* (Unabridged third edition with supplement.). Springfield: Merriam-Webster.

Grobbelaar, Peter. ed. 1987. *Reader's Digest Afrikaans — Engelse Woordeboek / English — Afrikaans Dictionary*. Cape Town: The Reader's Digest Association South Africa.

Hausmann, Franz J., Reichmann, Oskar, Wiegand, Herbert E. & Zgusta, Ladislav. eds. 1989–91. *Wörterbücher / Dictionaries / Dictionnaires, Ein internationales Handbuch zur Lexikographie / An International Encyclopedia of Lexicography / Encyclopédie internationale de lexicographie* (Handbücher zur Sprach- und Kommunikationswissenschaft 5.1–3). Berlin: Walter de Gruyter.

Herbst, Thomas. 1996. 'On the Way to the Perfect Learners' Dictionary: A First Comparison of OALD5, LDOCE3, COBUILD2 and CIDE', *International Journal of Lexicography*, 9(4): 321–57.

Kirkpatrick, Betty. 1989. User's Guides in Dictionaries. In Hausmann, Franz J. *et al.* eds. 1989–91: 754–61.

Knowles, Francis E. 1990. The Computer in Lexicography. In Hausmann, Franz J. *et al.* eds. 1989–91: 1645–72.

Kriel, Theunis J., Prinsloo, D.J. & Sathekge, Bethuel P. 1997[4]. *Popular Northern Sotho Dictionary, Northern Sotho — English, English — Northern Sotho*. Cape Town: Pharos.

Martin, Willy & Al, Bernard P.F. 1990. 'User-Orientation in Dictionaries: 9 Propositions'. In Magay, Tamás & Zigány, J. eds. 1990. *BudaLEX '88 Proceedings, Papers from the*

EURALEX Third International Congress: 393–9. Budapest: Akadémiai Kiadó.

Prinsloo, D.J. 1996. Review: Robert Botne and Andrew T. Kulemeka. 1995. *A Learner's Chichewa and English Dictionary* (Afrikawissenschaftliche Lehrbücher 9), *Journal of African Languages and Linguistics*, 17(2): 199–202.

Prinsloo, D.J. & De Schryver, Gilles-Maurice. 1999. 'The lemmatization of nouns in African languages with special reference to Sepedi and Cilubà', *South African Journal of African Languages*, 19(4): 258–75.

Prinsloo, D.J. & De Schryver, Gilles-Maurice. *forthcoming*. 'Reversing an African-language lexicon: the *Northern Sotho Terminology and Orthography No. 4* as a case in point', *South African Journal of African Languages*.

Prinsloo, D.J. & Gouws, Rufus H. 1996. 'Formulating a new dictionary convention for the lemmatization of verbs in Northern Sotho', *South African Journal of African Languages*, 16(3): 100–7.

Prinsloo, D.J. & Gouws, Rufus H. *forthcoming*. Formulating dictionary conventions for concordial paradigms in Northern Sotho.

Prinsloo, D.J. & Sathekge, Bethuel P. 1996. *New Sepedi Dictionary, English — Sepedi (Northern Sotho), Sepedi (Northern Sotho) — English*. Pietermaritzburg: Shuter & Shooter.

Prinsloo, D.J., Sathekge, Bethuel P. & Kapp, Lizeth. 1997. *Nuwe Sepedi Woordeboek, Afrikaans — Sepedi (Noord Sotho), Sepedi (Noord Sotho) — Afrikaans*. Pietermaritzburg: Shuter & Shooter.

Procter, Paul. ed. 1995. *Cambridge International Dictionary of English*. Cambridge: Cambridge University Press.

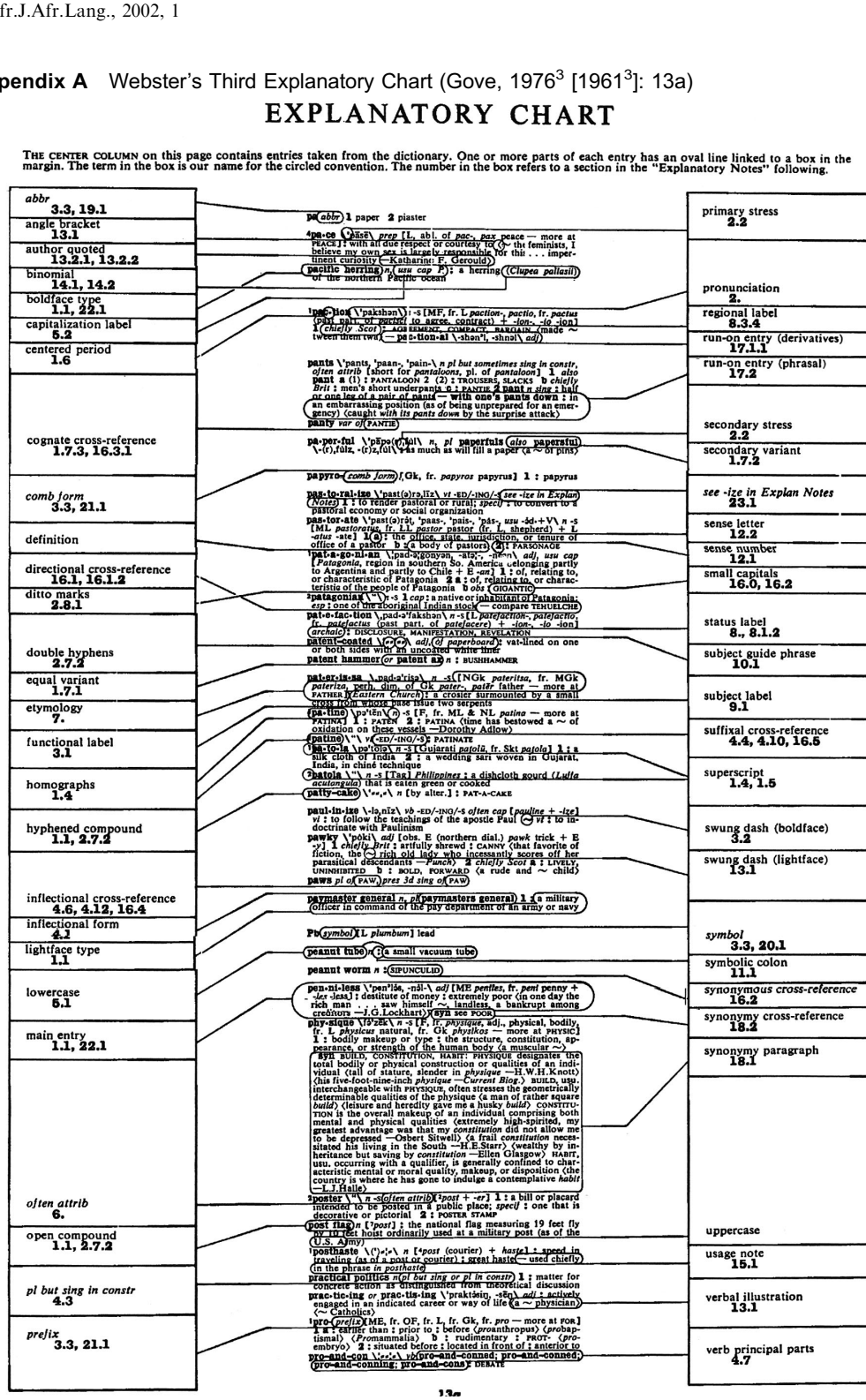
Rycroft, David K. 1981. Concise SiSwati Dictionary. SiSwati — English / English — SiSwati. Pretoria: J.L. van Schaik.

Sinclair, John M. ed. 1995[2]. *Collins Cobuild English Dictionary*. London: HarperCollins Publishers.

Sinclair, John M. ed. 2001[3]. *Collins Cobuild English Dictionary for Advanced Learners*. London: HarperCollins Publishers.

Summers, Della. director. 1995[3]. *Longman Dictionary of Contemporary English, Third Edition*. Harlow: Longman Dictionaries.

Wiegand, Herbert E. 1996. 'Textual Condensation in Printed Dictionaries. A Theoretical Draft', *Lexikos*, 6 (AFRILEX-reeks/series 6: 1996): 133–58.

Wiegand, Herbert E. 1998. *Wörterbuchforschung: Untersuchungen zur Wörterbuchbenutzung, zur Theorie, Geschichte, Kritik und Automatisierung der Lexikographie. 1. Teilband*. Berlin: Walter de Gruyter.

Appendix A Webster's Third Explanatory Chart (Gove, 1976[3] [1961[3]]: 13a)