

**MACROSTRUCTURAL AND MICROSTRUCTURAL
STRATEGIES TO ENHANCE REFERENCE QUALITY OF
*THANODI YA SETSWANA***

SUBMITTED BY

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“Declaration

I the undersigned hereby declare that the work contained in this thesis is my own original work and has not previously in its entirety or part been submitted at any university for a degree.



ABSTRACT

Ineffective treatment procedures of lexical items and inadequate information in the macrostructure and microstructure reduce the value of the reference quality of *Thanodi of Setswana*. This prompted an attempt at suggesting improvements with regard to the treatment and information retrieval of lexical items.

This dictionary is not consistent in its use of structural markers/reference symbols to mark vital lexicographic information and reference addresses. Homonyms are not given the comprehensive lexicographic treatment, that would enable the user to access all relevant linguistic and semantic information. Another shortcoming is the lack of the use of labels on some headwords in this dictionary.

The treatment procedure given to synonyms in this dictionary fails to provide the relevant information that the user needs. There is a lack of semantic linking among synonyms, because of the inadequate use of cross-reference symbols and reference markers. Loan-words are not marked to indicate their linguistic origin and to recognise them as being part of the Setswana lexicon and conveying lexicographic information. The unavailability of usage notes as part of the treatment of *Thanodi ya Setswana*, reduces the reference quality of the dictionary as a source of linguistic information. The use of this semantic information as part of the definiens is important to avoid unclear lemma definitions.

The treatment procedure given to certain lemmas in this dictionary, suggests that the space saving principle is ignored. There are repeated definitions in the articles of synonymous lemmas and this creates redundancy. It is suggested that synonymous lemmas be treated by a cross-reference depending on their usage frequency. The more frequently used lemmas should be given full lexicographic treatment and the less frequently used lemmas be given a partial treatment.

The treatment of nouns in this dictionary also reduces its reference quality. Singular nouns are lemmatized but plural nouns are not lemmatized. The exclusion of these plural nouns in the macrostructure of this dictionary disadvantages an inexperienced user, especially in cases where these plural forms are more frequently used than the singular forms. A strategy to lemmatize both singular and plural nouns can maximise the usefulness of the dictionary.

There are sublexical lexical items that are part of the Setswana lexicon but are not lemmatized in this dictionary. These sublexical lexical items should be lemmatized to recognise their status as lexical items. The treatment procedure given to inflectional and deficient verbs is a cause for concern in this dictionary. Instead of semantic information being provided, a derivation process is shown in the dictionary's article. This poor treatment given to these lexical items, leads to

other senses of the lemma being left out and not being found by the dictionary user.

The suggested strategies in the treatment of lexical items and the making available of lexicographic information, would make this dictionary more user-friendly. With such improvements, this dictionary would benefit the dictionary user.

OPSOMMING

Die waarde en kwaliteit van *Thanodi ya Setswana* word verminder deur oneffektiewe prosedures in die behandeling van leksikale items en onvoldoende informasie in die makro- en mikrostruktuur van die woordeboek. Hierdie tesis kan beskou word as 'n poging om verbeteringe voor te stel vir die behandeling van leksikale items en die inwin van informasie daaromtrent.

Die woordeboek is nie konsekwent in sy gebruik van struktuurmerkers en verwysingsimbole ten einde belangrike leksikografiese informasie en verwysingsadresse te merk nie. Homonieme kry nie die volledige leksikografiese behandeling wat dit vir die gebruiker moontlik sou maak om alle relevante taalkundige en semantiese inligting te bekom nie. 'n Ander tekortkoming is die gebrek aan etikette by sommige lemmas in hierdie woordeboek.

Die wyse waarop sinonieme in die woordeboek behandel word, is ook gebrekkig: dit verskaf nie die relevante inligting wat die gebruiker benodig nie. Daar is onvoldoende inligting betreffende die semantiese verband tussen lemmas wat as sinonieme beskou word, vanweë die onvoldoende gebruik van verwysingsimbole en -merkers. Leenwoorde word nie gemerk ten einde hulle linguistiese oorsprong aan te dui, en duidelik te maak dat hulle deel van die Setswana leksikon is nie.

Daar is 'n gebrek aan aantekeninge of voorbeelde betreffende die gebruik van woorde en dit verminder die nut van *Thanodi ya Setswana* as naslaanwerk en bron van taalkundige inligting. Sulke semantiese inligting as deel van die definisies is belangrik omdat dit onduidelike definisies help voorkom.

Die manier waarop sekere lemmas behandel word, maak dit duidelik dat die beginsel van die ekonomiese gebruik van spasie hier geïgnoreer is. Definisies in die artikels van sinonieme word telkemale herhaal, en dit lei tot oortolligheid. Daar word voorgestel dat sinonieme liever behandel moet word by wyse van kruisverwysings, afhangende van hul gebruiksfrekwensie: lemmas wat meer dikwels gebruik word, behoort 'n volle leksikografiese behandeling te kry: die wat minder dikwels gebruik word, kan dan 'n gedeeltelike behandeling kry.

Die wyse waarop selfstandige naamwoorde behandel word, verminder ook die verwysingskwaliteit van die woordeboek. Die enkelvoudvorme van selfstandige naamwoorde word gelemmatiseer, maar nie die meervoudvorme nie. Die weglating van die meervoudvorme van selfstandige naamwoorde in hierdie woordeboeke benadeel die onervare gebruiker, veral in die lig van die feit dat sommige meervoudvorme meer dikwels gebruik word as die enkelvoudvorme. Deur meervoudvorme sowel as enkelvoudvorme te lemmatiseer, sal die waarde en nuttigheid van die woordeboek verhoog word.

Voorts is daar sekere subleksikale leksikale items wat deel is van die Setswana leksikon, maar wat nie in hierdie woordeboek gelemmatiseer word nie. Sulke subleksikale items behoort gelemmatiseer te word, ten einde erkenning te gee aan hulle status as leksikale items. Die behandeling van infleksie-werkwoorde en “negatiewe” werkwoorde (“deficient verbs”) in hierdie woordeboek is gebrekkig. Insteede van semantiese informasie te verskaf, word slegs die afleidingsproses aangetoon. Die gebrekkige behandeling van hierdie leksikale items veroorsaak dat sekere betekenis van die lemmas weggelaat word – betekenis wat vir die gebruiker van die woordeboek relevant mag wees.

Indien die voorgestelde strategieë in die behandeling van die leksikale items toegepas word, en meer leksikografiese inligting verskaf word, sal die woordeboek meer gebruikersvriendelik word. Dit sal ook van groter nut en waarde vir die gebruiker wees.

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GOD IS GREAT INDEED!

ABBREVIATIONS USED IN THIS THESIS

Afr.	Seaferikanse	Afrikaans
Eng.	Seesimane	English
G	Segalo-godimo	High tone
kgnts	Kganetso	Negative
Inkgts	Lekganetsi	Negative
lItl	Lelatlhelwa	Interjective
In	Leina	noun/name
sk	Sekao	Example
T	Segalo-tlase	Low tone
t	tiri/lediri	verb
tg	tiregi	Neuter
tpd	tiri-pheteledi	intransitive verb
tpt	tiri-phetelela	transitive verb
trd	tiredi	Applied
ttd	tiri-tlhaedi	Deficient verb
TS	Thanodi ya Setswana	Dictionary of Setswana

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CHAPTER 1

INTRODUCTION

1.1 AIM

A monolingual descriptive dictionary should ensure that lexicographic information is provided in a detailed but also in the simplest possible way, in order to meet the user 's needs. Disappointingly *Thanodi ya Setswana* does not satisfy the most basic requirements of the dictionary user. This prompted an attempt at suggesting improvements to the treatment given to lexical items and to ensure the provision of adequate data presentation in the macrostructure and microstructure of this dictionary.

The macrostructure fails to make lexical information easily accessible to the user. The absence of certain lexical items and the unmarked presentation of homonyms confuse the user, and detract from the value of this dictionary as a useful linguistic tool. Changes should be made in order to make the lexicographic information more easily accessible, thereby making this dictionary user-friendly.

The inadequate treatment of inflectional and deficient verbs, make it difficult for the user to find the desired lexicographic information. A proper treatment should be considered to ensure that the user finds what he/she wants from the dictionary. The Setswana lexicon includes loan-words which are widely used in communication but their treatment in this dictionary makes it difficult to establish their proper lexical meaning. To ensure the proper transfer of lexical meaning of these items, their treatment should include procedure of a labeling.

The insufficient use of reference markers and reference entries in this dictionary's microstructure devalues its reference quality, i.e. making adequate lexicographic information unambiguously available to the user for a sounder lexicographic treatment of lexical items in the macrostructure and microstructure to ensure user-friendliness, accessing and effective use of a descriptive monolingual dictionary. To enhance the reference quality of this dictionary there should be reference markers and entries to facilitate the information retrieval process.

Inadequate lexical information in the microstructure of *Thanodi ya Setswana*, makes it a less useful linguistic tool for maximum information retrieval/conveyance. Ideally, a lexicographer

should ensure that lexicographic information found in the articles of every treated lemma is presented in such a way that the user's needs are met. This can be done by ensuring that the usage of lexical items in everyday natural communication is conveyed in the article of a lemma sign representing the lexical item as a treatment unit, in order to give the user a clear idea of the meaning of the lemma.

1.2 SOME MACROSTRUCTURAL AND MICROSTRUCTURAL ASPECTS DEALT WITH IN THIS THESIS

The use of structural markers as a means of conveying semantic information as part of the microstructural elements is a cause for concern for both the lexicographic community and dictionary users at large. The use of structural markers such as commas and semi-colons in the dictionary's articles should be clear and functional so that the user can realize semantic relationships existing between lexical items regarded as absolute and partial synonyms. Furthermore, a descriptive monolingual dictionary should also be consistent in the use of structural markers to mark optional elements and reference addresses.

It is difficult for a user to recognize semantic differences between homographs and homonyms that are unmarked in a descriptive monolingual dictionary particularly between those that have similar tonal marks. This difficulty is even more pronounced when these lexical items are individually lemmatized to achieve the desired information retrieval and with the aim of providing a better lexicographic treatment. Gouws (1991: 75) states that to ensure a sound treatment of all lexical items found in a dictionary, a traditional word-based approach should be replaced by a broader lexicon-based approach that offers a more comprehensive reflection of the lexicon. A good descriptive monolingual dictionary, should also be characterized by this type of approach.

It is advisable, therefore, for lexicographers to consider compiling their dictionaries according to the needs and research skills of a well-defined target user group. With this in mind, lexicographers should be made aware that a good descriptive monolingual dictionary does not only show a linguistically sound treatment of specific selected lexical items, but is also compiled in such a way that it is eventually accepted as a good linguistic instrument by the target user groups.

The treatment of synonyms is also a cause of concern to users of a descriptive monolingual dictionary. In the dictionary under study, there is a lack of text cohesion and semantic linking among lexical items given as synonyms. This is further worsened by the fact that some of these lexical items do not appear as lemmas in the macrostructure although they are given as part of synonym paradigms in the microstructure.

Loan-words, too, are not given a proper lexicographic treatment indicating their historical origin as not being part of the Setswana lexicon although this does not mean they should substitute or oust existing Setswana words (forms). Therefore, it is suggested that the loan-words be marked by labels indicating their English or Afrikaans origin. Lexicographers should recognize the fact that dictionaries should be descriptive rather than prescriptive, even though according to Hartmann (1983:116), dictionaries and their compilers play a vital role in the standardization of a language.

Cross-referencing in a descriptive monolingual dictionary should be used in the article to help the user to access needed information on the cross-referred lemma. One can hold the view that cross-referencing should be reversibly applied to ensure text cohesion. A dictionary should be practical, user-friendly, and consciously be adapted to serve the specific reference needs and skills of the user.

This can be achieved if the lexicographer empowers the user by using a clear-cut principle for accessing and making use of the information it contains. It becomes a problem to the user when a lemma, which is referred to in a dictionary for further information and semantic relationship does not link with the lemma that was used within an article of the reference position.

The unavailability of usage notes in the microstructure as part of the treatment procedures in a descriptive monolingual dictionary reduces the dictionary's article as a source of linguistic information. Usage and semantic notes have to be included, especially in a dictionary like TS, and be marked by stylistic labeling to enhance the communicative and pedagogical function of the descriptive monolingual dictionary. However, the lexicographer should not allow semantic information, a category most commonly looked up in a dictionary, to have a detrimental influence on the extent and nature of other linguistic information types that should be accounted on the microstructural level.

The descriptive monolingual dictionary should aim at meeting the needs and aspirations of the Batswana in schools (both junior and senior education levels) and laymen in various sectors of life, including learners in foreign languages who are keen to learn and know more about Setswana. For school children and students, a descriptive monolingual dictionary should provide basic information as well as pragmatic data in terms of example sentences as context entries, the idea being to improve the learner's grasp of the basics of the language.

If it does this, this type of a dictionary will have attempted to present what Widdowson, quoted in Nesbitt (1994:308), describes as value rather than mere signification, by providing contextualized examples of use for every entry. Not surprisingly, obvious constraints on a dictionary of this kind and scope make it impossible to provide a full set of contexts for all communicative situations. What is unacceptable, however, is the kind of dictionary where almost all articles fail to offer usage examples especially for lemmas that differ semantically in a contextual and behavioural sense. It is against this background that lexicographers should be encouraged to present the user with more detailed information and more explicit information.

A good lexicographic theory ensures a good reference quality i.e. the making available of adequate lexicographic information needed by the users and good lexicographic treatment of lexical items in the macrostructure and microstructure, to ensure user-friendliness, accessing and the effective use of a descriptive monolingual dictionary. The presentation of a language in a monolingual dictionary must reflect that which is common and collective to the language of all speakers of that particular language.

Lombard (1994:208) believes this can be done if the lexicographers are aware of the findings of socio-linguistic theory and language practice, and take cognizance of the lexicon of a language in applying them. The fact that Setswana has a large speaker population among the indigenous languages in South Africa makes Setswana a catalyst that can play a pivotal role in the standardization process.

Most importantly, dictionary users often consult dictionaries to ascertain the correct spelling and usage or to inquire whether a specific form receives lexicographic approval and recognition.

It is against this background that Gouws (1990:60) states that the dictionary user needs the assurance that the information offered in the dictionary is correct. It is important, therefore, for lexicographers to ensure that the information needed by the user is given, in all cases, as part of the treatment procedure in the dictionary. If lexicographers bear this in mind, they can produce an improved dictionary that will benefit users.

CHAPTER 2

REFERENCE QUALITIES OF THE MACROSTRUCTURE

2.1. THE ABSENCE OF ALL MEMBERS OF A SYNONYM PARADIGM IN THE MACROSTRUCTURE

It is very important for the user of a descriptive monolingual dictionary to find the needed information as well as good lexicographic treatment of lexical items that will enable him to make effective use of the dictionary. There are certain lexical items which are given as part of the definiens of a lemma and also form part of the synonym paradigm in the dictionary's article but are not entered in their alphabetical position in the macrostructure. The following article from this TS confirms this:

thala TT *ln./9.* di-. *nngwe ya dikgolokwe tse pedi e go dirêlwang morotô wa bongjwa botonanyana mo teng

lê•sôtlhō TTT !thala; mophatlosô ma-. kgetsanyana ya dithala tsa phôlôgôlô e e fagotsweng

The treatment of the lemma **lesôtlhō** implies that the lemma can substitute **thala** and **mophatlosô** as implied by the symbol ! defined in the front matter, as implying that the lemmas can substitute each other in context. But the definition given for **thala** shows that **thala** cannot be substituted by **lesôtlhō** and **mophatlosô** in context. If it is semantically important that **lesôtlhō** and **mophatlosô** can help to convey meaning as part of the treatment unit, so should it be with **lesôtlhō** and **mophatlosô** in the treatment of **thala**. But, disappointingly, the lexical item **mophatlosô** does not appear in this dictionary as a lemma. We may examine the following extracts:

mo•phatō TGT *ln./3.* me-. 1. setlhôpha sa batho ba ba lekanang ka matsalô kgotsa ba alogile ka nakô e le nngwefêla 2. kêmô ya dithutô tsa sekole
mophatong TGGT *lls.* >mophatô+n
mo•phekodi TGGG *ln./1.* ba-. >mo+pheko+ola

The absence of the lemma **mophatlosô** in the macrostructure impedes the user from accessing the meaning of the lexical item. Furthermore, the user will not know about the semantic relationship this lexical item **mophatlosô** has with other members of the synonym paradigm such as **lesôtlhô** and **thala**. This type of a lexicographic treatment will make it difficult for the user to achieve an optimal retrieval of information. The user expects to find **mophatlosô** in the macrostructure as a lemma because it is entered as a synonym in the article of the lemma **lesôtlhô**. However, the lemmatization is not determined by its membership of the synonym paradigm but on account of its occurrence as member of the lexicon of the language.

This type of treatment creates a non-existence reference entry because the lemma does not exist in the central list. It would have been better if the lexicographer had included the lemma **mophatlosô** in the central list and the lemma had been treated by cross-reference. On the other hand, in the treatment of the lemma **thala** there is no inclusion of the lemmas **lesôtlhô** or **mophatlosô** as part of the definiens either. Instead, a definition is given. The extract below confirms this:

thala TT *ln./9.* di-. *nngwe ya
dikgolokwe tse pedi e go dirêlwang morotô
wa bong jwa botonanyana mo teng

The absence in the macrostructure of lexical items given as synonyms seems to be common in this descriptive monolingual dictionary. We may examine the following article:

m•hêrô TTT |mofêrô *ln./3.* mc-.
tlhaga e e tswang mo go lemilweng teng, e
kgoreletsa dijalo

On account of this treatment the synonym with the highest usage frequency should receive a full lexicographic treatment, including enlisting of the other member(s) of the synonym paradigm. These other synonyms should also be lemmatized but their treatment regarding this polysemous

sense should be restricted to a cross-reference guiding the user to the lemma with the full lexicographic treatment. However, the articles of synonyms with a restricted treatment do not have to enlist the members of the synonym paradigm.

The lemma **mofêrô** that is being used to show that it can substitute **mhêrô**, creates a non-existence reference entry because the lemma **mofêrô** does not exist in the central list; in spite the fact that the symbol indicates that it can be used interchangeably with the lemma **mhêrô**. The extract below confirms this absence:

mo•phatô TGT *ln./3.* me-. 1.
 setlhôpha sa batho ba ba lekanang ka
 matsalô kgotsa ba alogile ka nakô e le
 nngwefêla 2. kê mô ya dithutô tsa sekole
 mophatong TGGT *lls.* >mophatô+ng
 mo•phekodi TGGG *ln./1.* ba-
 >mo+phcko+ola

The absence of a lemma **mofêrô** in the central list may frustrate the user, especially if he/she comes across this lexical item and would like to know its meaning without realizing its relation with **mhêrô**. This type of treatment devalues the reference quality i.e. the making available of lexicographic information (lemmas and lexical items) in the article of this dictionary.

2.2. UNMARKED HOMONYMS IN THE MACROSTRUCTURE

This descriptive monolingual dictionary does not give homonyms a proper lexicographic treatment for information retrieval to make information easily accessible. According to Feinauer (1998:12) homonyms are different words that coincidentally look and sound identical, but are totally unrelated with regard to meaning. Homonymy is founded on the way speakers understand and interpret the meaning or the senses of identical forms (Zgusta, 1971:74). Nowhere in the macrostructure of this descriptive monolingual dictionary is the user made aware of the fact that, although words can have the same spelling and pronunciation, they can have different meanings.

The presentation of homonyms in the macrostructure of TS makes it difficult for the user to grasp semantic differences between or among these lexical items, where they are macrostructurally unmarked. This failure to give homonyms proper lexicographic treatment would impede information retrieval for the dictionary user. This dictionary does not treat

homonyms by marking them with index (superscript) numbers, although such a system of marking these headwords in the macrostructure would enhance access to the correct member of a homonym pair, since it would create a better reference possibility by allowing a more precise indication of a reference address.

Hence, this type of lexicographic treatment impedes easy access to the correct member of a homonym pair. We can examine the following:

ana GG {kana *lkpn.* lekôpanyi le le
kayang fa mmui a batla go gakololwa
kgotsa go tlhômamisediwa sengwe:
Ana ga twe o mang?
ana GG *lsp.* lesupi la maina a a
simololang ka tlhōgō ya ma-, go supa fa
sesupiwa se le gaufi le mmui: *Magodu*
ana a diphatsa thata.

boga GT *tpt.* -ile. utlwa botlhoko
kgapetsakgapetsa ka ntlha ya sengwe:
tshwenngwa ke sengwe
boga GT *tpt.* -ile. baya dikala tsa
setlhare mo godimo ga metsi gore a sa
tshologê

dika GT *tpt.* -ile. thusana sengwe ka
maikaêlêlô a go se fenyâ
dika GT *ttd.* -ile. sebaka sengwe mo
ngwageng

duma TT *tpt.* -ile. dira modumô ka
kodu
duma TT *tpt.* -ile. sala sengwe
morago ka maikutlô

These articles, denoting words that are homonyms, illustrate how difficult it can be for the user to make the correct choice of the word information, especially when these words have a similar tonal transcription. The dictionary user may also not grasp the semantic differences existing between these words because of the absence of index (superscript) numbers on homonyms in the dictionary's macrostructure.

The treatment procedure shown earlier on homonym articles is unlikely to guide the user to make a correct choice, especially in cases of derivation where lexical items are used as a component or a base for the formation of other words. We may examine the following treatment procedure from *Thanodi ya Setswana* on the word **dikile**:

dikile GGG - tpt > dika + - ile

Assuming a user picks the word **dikile** from a text and finds himself referred to **dika** with the **tpt** (i.e. transitive verb), as appears in this dictionary, this may give the impression that **dikile** is a derivative word from **dika** with **tpt** (i.e. transitive verb) and not **dika** with **ttd** (i.e. deficient

verb). But if one looks at the homonym pair **dika**, one finds that both may take the suffix – **ile**, which would then imply that the treatment of **dikile** from **dika ttd** (i.e. deficient verb) has been ignored for definition purposes.

From the article shown here, it seems likely that the user will fail to attach the desired homonym correlation and meaning of the used word **dika** in the article of the word **dikile** owing to the absence of an index (superscript) number. The problem is aggravated by the fact that the article does not provide the definition of the word **dikile**; instead only the derivation process is shown.

Nowhere in the macrostructure of this descriptive monolingual dictionary is the user shown that although words can have same spelling and pronunciation they can differ in their meaning. This type of lexicographic treatment impedes access to the correct member of homonym pair especially in derivations where lexical items are used as a component or base for the formation of other words. The user will fail to attach the desired morphological correlation and meaning to the referred lemmas because of the absence of the superscript number in the macrostructure. The following example shows this:

dikile GGG - tpt > dika + - ile

This poor lexicographic treatment is worsened by the fact that the lemma **dikile** is given no definition or meaning. There is no doubt that this article will not meet the needs of the dictionary user. The use of the superscript number in the derivation process on the lexical item **dika** would give the user a clear choice of the lexical item used.

2.3. LEMMATIZATION OF VERBS

2.3.1. INFLECTIONAL VERBS

The inflectional verbs in Setswana are excluded from the macrostructure of this descriptive monolingual dictionary. The fact that negation in Setswana is a common feature in communication wherein inflectional and deficient verbs are used shows their importance in communication. It is not clear, then, why these lexical items are not lemmatized in this descriptive monolingual dictionary.

According to Dembetembe (1985:1) from a linguistic point of view negation is a feature of a predicate, the nucleus of which is the verb whether this is expressed overtly or latently in African languages, of which Setswana is not an exception. It may be noted that most of these inflectional verbs are variants that did not develop independently from original verbs by mutual re-negation through incorporation and / or reduction of morphological items such as subjectival morphemes and auxilliary verbs. Inflectional verbs include word such as: **tsamaye**, **bolele**, **rute** etc.

Gouws and Prinsloo (1998:22) have noted that in African languages (including Setswana) alphabetical ordering of the macrostructure has serious detrimental consequences for semantic relations. Grammatical cohesion is sometimes too important to be broken by vigorous alphabetical ordering. The following words illustrate this:

bogola	-	to bark
(se) bogole	-	(not) to bark
bogole	-	deformity
jala	-	to plant
(se) jale	-	(not) to plant
jalo	-	indeed

Gouws and Prinsloo (1998:22) suggest that the mediostructure of a dictionary has to be used as a powerful mechanism to re-establish some of the semantic opposition and lexical relations. The words above show that there is a semantic relation between **bogola** (to bark) and **bogole** (not to bark) but it is not the case between **bogola** (to bark) and **bogole** (deformity) although they depict, an alphabetically macrostructural ordering. This shows that inflectional verbs are variants that did not develop independently from original verbs although they suit the alphabetical ordering of a macrostructure even though there is a semantic oppositeness between lemmas.

The other moods in which inflectional verbs apply are indicative, imperfect, situative, imperative and habitual, while negation is also used in tag questions. Considering these syntactic occurrences of inflectional verbs, it is hard to understand why these words are not lemmatized in spite of their grammatical importance. The following sentences illustrate this:

Ga o je nku, ga go jalo? (You don't eat mutton, do you?)

Ga a je nku. (He / She doesn't eat mutton)

It appears as if the compilers of TS dictionary have assumed that verbs ending in – e are “ with a few exceptions”, inflectional forms which can easily be looked up under the positive forms. It is true that in Setswana the majority of verbs, end with the vowel – a in the positive and – e / - e in the negative. Yet, only original verb forms are included in the macrostructure of the dictionary.

This is an unfair treatment of inflectional verbs, given the role they play in syntax and communication. The lexicographer should rather include the inflectional verbs in the macrostructure and cross-refer the user to the original verb forms for a full lexicographic treatment. One would expect that the inflectional verb **tsamaye** should appear after the original verb form **tsamaya**, while **lele** would appear after **lala** in the macrostructure. The following extracts indicate the exclusion of the negative forms in the macrostructure:

bolêla GGG *tpt.* -itse. ntsha kitsô ya gago; umaka
bolêlang GGTG *lmn.* >bolêla+ng
bo•lêlê TGT *ln./14.* ma-. mo go tala mo go ikalang mo metsing a a sa bolong go nna golo go le gongwe

le•la TT *ln./5.* ma-. mo go telele mo mpeng mo go tshwaraganeng le mogodu, tirô ya lônê ke go tsamaisa dijô tse di sidiweng go tswa ko mogodung go ya kwa ntle
lela TT *tpt.* -ile. ntsha dikeledi mo matlhông fa go utlwilwe botlhoko ♣ go lela dikeledi tsa mathe = go itira yo o utlwileng botlhoko ntswa o itumetse

ratang GTG *tpt.* >rata+ng
rataro GGG *td.* boraro ga bedi
ratêga GGG *tpt.* -ile. >rata+ega
ratêla GGG *tpt.* -itse. atamêla go se na mokgwasa. ♣ go ratêla phiri ka matlhowa = go sekisa motho mme o tla o mo thusa gore a dirê jang
ratêla GGG *tpt.* >rata+ela

tsamaya TTT *tpt.* -ile. 1. fapaanya maoto go ya kwa lefelong lengwe 2. bêrêka ga sedirisiwa se se nang le maoto kgotsa maotwana ♣ tsamaya le letlhale o tlhalefê, le lesilo o silofalê = motho o ithuta mekgwa mo go ba a tsamayang le bônê

tsamma TTG *ln./9.* di-. thôbane e

The absence of these inflectional verbs in the macrostructure impedes the reflection on the lexicon in this descriptive monolingual dictionary. To show the importance of these inflectional verbs in the macrostructure of this descriptive monolingual dictionary, the following sentences may be considered:

Imperative mood

e.g. Mo rute ! (Teach him / her!)

Indicative imperative mood

e.g. Molemi ga a dire (A farmer does not work).

Situative imperfect mood

e.g. Fa marutabana a sa rute bana
(If the teacher does not teach kids)

Habitual mood

e.g. Lekau le bolele setho
(The gentleman should talk humanely)

Infinitive mood

e.g. Go se bolele batho (Not to inform people)

Participial mood

e.g. Ga a ke a tla (He / She never came)

It will be difficult for a user to understand the meaning of these sentences given earlier in the moods tag questions and negation because the meanings revolve around the inflectional verbs. The absence of these lexical items in TS 's macrostructure thus fails the user in this regard. These lexicographic shortcomings can only be solved if the sublexical lexical items such as inflectional verbs are recognized as lexical items that deserve inclusion in the macrostructure of this descriptive monolingual dictionary. Kruger (1989:140) acknowledges that depending on the cause of the modal categories the negative application can be the main verb.

The exclusion of such lexical items in the dictionary as is indicated by the extract given earlier is also a proof that lexicographers give invalid account of linguistic reality. Hartmann (1984:44) believes that a separate entry for a derivative (in this case the inflectional verbs on negation and moods) should only be used if the kind of meaning, spelling, pronunciation or method and information differs from the base (original). This could have been done in TS on the inflectional verbs referred to earlier.

2.3.2 DEFICIENT VERBS

Deficient verbs are also lexical items not lemmatized in TS. However, they are frequently used in negative syntactic occurrences. The absence of these lexical items (some being sublexical lexical items) in a dictionary like TS disfavours the Setswana lexicon. Furthermore, it detracts from the dictionary as a linguistic reference tool. The following extract from TS shows that the sublexical lexical items such as **ka**, **ke**, **nkitla** were left out.

Negative formatives involving verbs **ka** / **ke** / **ka ke** depending on the modals are also inserted after the complementary verb in the consecutive appearance to denote emphatic negative for example:

Ga a **ka** a lwa (He / She did not fight)

Ga ise re **ke** mmone (We have not yet seen him / her)

Re ne re **ka ke** ra bua (We could not have spoken)

The **ka** can also be used in the negative structures of the future and potential aspects, although this depends on the context of the sentence. For example:

Nka se **ka** go thuse (I will never help you)

A **ka**_se se go thuse (He / She won't help you)

The examples given above prove the contribution made by deficient verbs in speech. This warrants their inclusion in dictionaries. Lexicographers should not rely on the presumed intuition of their users but should instead, provide them with information reflecting the practical reality of the language.

2.4. LEMMATIZATION OF FREQUENTLY USED PLURAL NOUNS

Compilers of dictionaries have to decide on a system of lemmatization. In choosing a certain lexicographic tradition they should consider the practicality and nature of the language and the possibilities to enhance the reference quality of a dictionary. There is a lexicographic tradition to lemmatize the singular noun forms and not regular plural forms in descriptive monolingual dictionaries; unfortunately this impedes reference possibilities. It would be better to reconsider this principle and to lemmatize regular plural noun forms, to enhance the reference quality i.e. making available lexicographic information needed by the user. Some of the regularly used plural noun forms which are not lemmatized in TS's, include the following:

mabele (maize crops)

madi (money / blood)

mariki (breaks)

mathata (problems)

The macrostructural treatment of plural forms of most nouns displayed in TS reduces the accessibility of information (lemmas in particular) for the user. Only the singular forms **lebele**, **ledi**, **leriki**, **bothata** of the nouns are lemmatized in the macrostructure with plural forms being treated only by indicating their class prefixes. Lemmatization of plural nouns using this traditional approach was analyzed in the descriptive monolingual dictionary without the background of the user perspective and enhancement of the reference quality.

As far as the lemmatization of plural nouns on the macrostructural level is concerned, compilers generally failed in their efforts to lemmatize them satisfactorily within the physical limitations of a printed dictionary and to render a user-friendly product (Prinsloo & de Schryver, 1999:258).

The common plural noun forms are not lemmatized in this monolingual descriptive dictionary, while the majority of the lemmatized nouns are singular noun forms. Some of these singular noun forms are seldom used compared to their plural noun forms that are given an insufficient treatment in TS 's articles.

The exclusion of these plural noun forms in the macrostructure of this monolingual descriptive dictionary disadvantages an inexperienced user especially in cases where these plural forms are more frequently used than their corresponding singular noun forms. It is rather counter-productive to enter the less frequently used singular forms for the sake of being consistent. This type of an approach also promotes the idea that a dictionary should prescribe and not describe to the user, a practice that does no good to information conveyance. It also does not consider the nature of a particular language in use, so that this becomes the guiding principle in formulating lemmatization rules. As Prinsloo and de Schryver (1999:269) puts it "the diligent application of this approach also results in the formulation of rules of which the relevance is so limited that the compiler could have entered such words as separate lemmas".

According to Prinsloo & de Schryver (1999:209), as far as the lemmatization of plural noun forms is concerned, it must be done in such a way that it succeeds in combating redundancy, so that unrealistic claims are not made on the knowledge of the inexperienced user. It would appear that the compilers of *Thanodi ya Setswana* failed to seek an approach that would ensure that the practical realities of the language are taken into account when lemmatizing nouns. Prinsloo & de Schryver (1999:270) raises the question whether it is perhaps not possible to formulate a

lemmatization strategy for nouns (particularly plural nouns) to avoid shortcomings and pitfalls of the traditional approaches.

Perhaps, such a strategy could exploit the virtues of lemmatizing both singular and plural noun forms for a user-friendly dictionary in which no previous in-depth knowledge of the grammar is required and minimizes cases of consulting guidelines to the use of the dictionary. Finally, this can solve problems of lemmatizing singular noun forms by giving only plural noun class; instead, plural noun forms could be given a full lexicographic treatment as it is more likely to be looked up than the singular noun form. Considering the following lemmatized singular noun forms: **sejo**(food) and **kgomo**(cow), one realizes that not all senses of the lemmas are covered by the singular noun forms. For instance the definiens addressed at the lemma exposes this:

*Sejo TG In. / 7. di -. se se tsenang mo
 leganong go ya ko mpeng go ota mmele
 sejo sennye, ga se fete molomo =
 motho fa a fiwa le fa go le go nnye ga a
 shwanela go galala ... (any substance that is put in the
 mouth to the stomach to maintain body).*

This definition only covers a singular noun sense while other senses carried by plural noun form **dijo** are left out such as e.g.:

- dijo** (food)
1. something that can be eaten.
 2. anything that gives body and a soul strength.

The singular noun sense does not involve substances such as water, minerals etc. contained in the soil which are responsible for the survival and growth of plants, which could be covered by the plural noun sense, but implies meaning beyond the common materialistic or physical sense and therefore regularly used in religious context.

A similar shortcoming, which amounts to depriving the user of information, is the exclusion of the plural noun form **dikgomo** (cows/cattle) in this monolingual descriptive dictionary. The plural noun form **dikgomo** (cows/cattle) implies senses such as **lobola** (which is a price paid in

cows by the bridegroom to the bride's parents), which is not covered by the singular noun form **kgomo** (cow). The exclusion of the following plural noun forms deprived the user of the following senses associated with them:

- mabele (grinded maize crops)
- mabele (maize plants or stalks)
- mabele (porridge made from grinded maize grains)
- madi (money / currency)
- madi (blood)
- mathata (life's challenges)

These examples illustrate some of the problems faced by the user of this monolingual descriptive dictionary. It is only the singular noun forms **ledi** (money), **lebele** (maize crops, maize plant) that are lemmatized, although these are rarely used in daily communication compared to their plural forms. The use of a representative corpus should help the lexicographer to identify these frequently used forms. The system used in a dictionary should compel him to lemmatize these forms. The articles below illustrate the exclusion of these plural nouns from this monolingual descriptive dictionary:

*Ma •thamo TIT In. / 6. O molato o
Motona thata*

*Ma •the TG In. / 6. O mo go
Tshwanang le metsi mo go tswang mo
kganong*

*ma •thosi TTG In. / 6. O mabele a a sa
melang mo tshimong yotlhe*

*maburabura TTTT In./6. botona
jwa diparo mo mmeleng*

*ma dila TGG In./6. O masi a a
remisitsweng a bo a ntshiwa tlhowa a sa
go tlhanya*

*madimabe TGTG In./6. Mokgwa wa
go tlhoka lesego*

*ma • beleakgomo TGGGTG In./6. O
dithupa tse nne*

*ma • beleapodi TGGGGT In./6. O
dithupa tse pedi*

*ma • betwapelo TGTGTG In./6. O
mokgwa wa go tenega that*

ma • bifi TGT In./6. O go sa

In the following phrases the plural noun forms have specific senses not occurring in the use of the singular noun forms:

madi – a utswitse (money which is stolen)

- a tshologile (blood spill)

- a a diriswang (currency used).

mathata – a botshelo (life's problems)

- a khemo (breathing problems)

-a thipa e sa segeng [literally : problems of a blunt knife;
figuratively : a reference to (sex) arousal problems in men].

mabele - a a sitsweng (grinded maize crops)

- a gaitswa ke sefako (maize plants destroyed by hail)

- bogobe jwa mabele (porridge made from maize grains)

The specific senses associated with these plural noun forms offer a proof of how a lot of information related to the plural noun forms can be lost if lemmatization of commonly used plural noun forms is ignored in a monolingual descriptive dictionary like TS. The absence of the plural noun forms in the macrostructure impedes the user's ability to access needed information about these lexical items, especially given the high usage frequency of these plural nouns. Singular noun forms that are lemmatized do not have these senses and are not so frequently used as the respective plural noun forms. This clearly illustrates the need for lexicographers to decide practically on an inclusion policy, specifically on how to treat lexical items in the macrostructure of the dictionary for the benefit of the user.

The way in which it is done should be based on the nature of a particular language, so that the integrity of language is kept intact. Zgusta (1971:15) advocates the notion that lexicographers must take into consideration the whole structure of the language. To ensure that this is achieved regarding the collection of data, an unbiased approach has to be adopted for a comprehensive and inclusive treatment of lemmas in dictionaries. The meanings associated with the plural noun forms (referred to earlier) are not covered by the treatment of the singular noun forms.

Hence, this type of an approach minimizes the information retrieval in this dictionary. Such lexicographic shortcomings can be addressed once practical, accommodative and sound lexicographic principles are considered. Similar shortcomings that signify deprivation of information for the user are also noted on the lemma **kgomo** (cow) shown above, which does not cover broadly enough all senses carried in its plural form.

For instance, the definition of the lemma **dikgomo** (cattle / cows) that carries the meaning that one is a farmer or rich, can also mean a price paid to parents of the bride by the bridegroom when marrying which is a custom of the Batswana. Although this custom might have changed in its semantic terms owing to colonization, Batswana still value their price in terms of **dikgomo** (cows / cattle).

Furthermore, the majority of singular nouns do not have as many senses as their plural forms. This type of lexicographic tradition minimizes the information retrieval in descriptive monolingual dictionary. For instance, the definition given for the lemma **sejo** (food) only covers a limited scope of information while other senses (such as the one implying a different food composition like carbohydrates, vitamins, fats etc. which is not necessarily consumed through the mouth path), have been left out.

2.5. THE ABSENCE OF SUBLEXICAL LEXICAL ITEMS

The Setswana lexicon contains a substantial number of small lexical units such as affixes, combining forms and stems, which are vital components in word formation processes. In TS, some of these lexical units are not accorded their legitimate lexical status. This results in an inadequate treatment given to them. It should not be forgotten that words are not the only elements in the lexicon but multiword units and morphemes should be accorded a lexical status. One such sublexical lexical item is **n-** which is a nasal consonant used as a prefix in some of the reflexive verbs. The fact that the sublexical lexical item **n-** in verbs carries the core of meaning in Setswana lexicon makes all relevant information in connection with verbs important to be included in dictionaries.

The lemmatization of sublexical lexical items would give this descriptive monolingual dictionary greater comprehensiveness, in recognizing these sublexical lexical items of the Setswana

lexicon. The availability of these sublexical lexical items in the macrostructure would restore user confidence that would eventually enhance the reference quality of the dictionary. The following reflexive verbs associated with the usage of this nasal consonant as a prefix are naturally common in Setswana lexicon:

- **nkamogela**(accommodate/accept/welcome)
- **nteba**(look at me)
- **nthuta**(teach/educate me)

The absence of this sublexical lexical item in the macrostructure of this dictionary creates a problem for the user who would like to know the grammatical implication of the prefix **n-** on various verbs when it is attached to them. Zgusta (1971:139) advocates this, by stating that distinctive grammatical properties must be indicated in detail because they are important if the lexicographer has to compile an encoding dictionary that is to be used in producing sentences. A suggestion for dealing with such lemmas is presented in Chapter 4.

Noun class prefixes are also excluded from the macrostructure in this monolingual descriptive dictionary. It can be argued that they are included as part of this dictionary's front matter, but nowhere in the dictionary's central list is a cross-reference to the front matter. In addition, the function of noun class prefixes in word formation warrants an explication in this dictionary's articles. The articles below reflect this shortcoming in the dictionary's macrostructure:

nkâlê TTT *ln./la.* seboko se se
tshwanang le nōgana
nketsa TTT *ipt.* >nna+etsa
nketshane *ln./la.* bó-. segodi se se
boramaga jwa botlhabana

nkgwê TG *td.* mmala o mosweu mo
mokatleng le ka fa tlase mo
diphôlôgôlông tse di tonanyana
nkô TG *ln./9.* di-. serwê sa mmele se
se diphôtlha tse pedi fa godimo ga molomo,
se tsenya phefô mo mmeleng le go utlwa
menkô. * *nkô ga e dupelele = motho
ga a ka ke a dupêlêla se se builweng a
seô*

Another weakness in this monolingual descriptive dictionary is the inadequate treatment of reflexive verbs that have the reflexive prefix **i-**, expressing the idea of -self or -selves in English. This reflexive vowel prefix **i** - indicates that the action is reflected or directed back upon the subject of the verb.

Here are examples of reflexive verbs from this monolingual descriptive dictionary's macrostructure:

itshegisa GGGT tpt.-itse.>i+tshega+isa.

ithobalela GGGTT tpt.-itse>i+robala+ela

itsamaela GGGT tpt.-itse>i+tsamaya+ela

According to Cole (1952:233) these verb forms acquire a specialized significance in their meaning when incorporating the reflexive. For instance, to some extent polysemy is created. We may examine the following article from this monolingual descriptive dictionary:

itsamaela GGGT tpt. – itse.>i+tsamaya+ela

Only one sense is conveyed by this treatment, namely, that the action is being directed back upon the subject, while the other sense that implies a polite way of saying a person has died, has been left out. Yet another sense carried by this verb may imply that the subject left angrily. But, due to the absence of the definition in this article one cannot confirm this. We may examine the treatment of another two articles in this descriptive monolingual dictionary:

itshegisa GGGT tpt. –itse>i+tshega+isa

ithobalela GGGTT tpt. –itse.>i+robala+ela

In these treatments of the lemmas **itshegisa** and **ithobalela**, only one common sense is being explicated, namely the literal meaning at the expense of other senses, specifically the figurative sense, that can be conveyed by these reflexive verbs if different polysemous senses were included in the treatment. The figurative meaning of the lemma **ithobalela** is a polite way to say **a person died peacefully**, while **itshegisa** has another sense namely **to pretend by hiding behind laughing**. The treatment given in this monolingual descriptive dictionary prevents the user to get to know other meanings related to these lemmas.

Ilson (1987:123) supports the notion that dictionaries should in principle give every sense of a lexical item and this epitomizes the opinion that the more meaning (senses) a dictionary gives, the better it becomes. One could consolidate this view by suggesting that a descriptive

monolingual dictionary has a strong obligation to accord words the most generally used senses reflecting / exhibiting the greatest variety of uses in a detailed treatment.

One gains the impression that the structure of words are shown in dictionaries has the sole purpose of conveying meaning and syntactic behaviour rather than the morphology of word(s). However, this does not mean that lexicographers should include the structure of words unnecessarily, thereby swelling their dictionaries to unmanageable sizes with material much of which would be of little or no practical use. Again, lexicographers are not bound to show everything that can occur provided that the only semantic qualities that need to be included are those that are attested with some frequency.

However, Cole (1952:233) agrees that when these reflexive verbs are used with applied forms of intransitive verbs, the reflexive prefix sometimes conveys the idea of doing or acting **by oneself** usually with the added implication that the action is done casually or unconcernedly. This is illustrated by the phrasal usages below:

Go **itsamaela** (to go by yourself)

Go **ithobalela** (to sleep by yourself)

This usage also occurs in cases where the objectival concord of the first person singular is interposed between the reflexive prefix and the stem. For example:

Go **ipolaya** (to kill oneself / to commit suicide)

Go **ipolaela** (to kill yourself for another person)

Go **itumedisa** (to please oneself)

Go **intumedisa** (to please me)

The phrasal senses carried by the reflexive verbs above highlight the importance of providing definition to inflectional / reflexive verbs instead of their derivational forms in the dictionary articles. This is acknowledged by Mischke (1993:79) who claims that, the shades of meaning that the verb acquires, through extension are so numerous and so subtle that appropriate treatment is warranted in dictionaries. This is the reason why treating reflexive / inflectional verbs with a definition as part of the treatment unit is important.

Although no dictionary can be comprehensive enough to contain the complete lexicon of a particular language, lexicographers should endeavour to meet the demands of their target users, and this includes treating as many lexical items as possible. Each dictionary has to reflect the actual lexicon of the language. These lexical items have to be included as lemmas in the macrostructure of a descriptive monolingual dictionary like TS, wherein each lemma has to be seen as a treatment unit. Hausmann and Wiegand (1989:328) regard a treatment unit (a basic unit of a dictionary) as a result when form and information are brought together. Form and information are brought together by means of an addressing procedure that makes the lemma the most important address in an article. Other sublexical lexical items ignored in TS are the particle verb **ka** and locative particles **ga**, **fa**, **go**, **mo**, **kwa** and **ka**. However these particles are sublexical lexical items that function as words. The particle verb **ka** is used commonly in natural speech as shown by the phrases below:

- **ka** rona o leboge (through us you should say thank you)
- **ka** sona o reme (with it you should chop)
- **ka** rre *ka* ikana (I swear by my father)

The locative particles are used to construct locative phrases and convey locative sense in speech exercises. The phrases below highlight this point:

- **ga** gagwe (at his / her place)
- **kwa** tshimong (at the field)
- **go** mme (to mom / mother)
- **mo** gae (at home)
- **fa** gaufi (next to)

Locatives are defined as structures that are employed in language to denote the position or location of an object or objects (cf. Ziervogel 1971:371, Harries 1977; 171, Louwrens 1991:112). Locative particles fall within this definition. These occur in word groups in which the first member can be any one such particle. These particles may also be used together with nouns which have mostly the feature [+ human] or with pronouns of the first, second and third person. In instances where **go** precedes nouns in Setswana, they mark a very specific locative relationship since they indicate that the act which is performed is directed towards a uniquely identifiable individual or location (place) whose physical presence is presupposed.

It marks the locality possessed by a particular individual whereas the individual is of less or no importance. The locative particle **mo** expresses either the locative relationship **on** or the relationship **in**. From the phrases used earlier, it seems justified to conclude that this particle refers to localities that can be identified as surface of some sort, e .g. a field or a bush. It is important to note that such surface are not perceived as enclosures, since their boundaries are not physical structures. We may examine the following phrasal examples in which locative particles are used:

- fa* tlung (in the house)
- ga* rre (at the father's place)
- mo* tshimong (in the field)
- kwa* nageng (in the bush)
- go* mme (to mom / mother)
- go* ena (to her / him)

The notion of enclosure is only relevant in the locative particle **fa** as in this example:

- fa* sekolong (in the school)
- fa* ntlung (in the house)

It is clear from these phrasal usages that the exclusion of such sublexical lexical items constitutes a serious reduction of the Setswana lexicon, depriving the user of basic elements of the language. In principle, all types of lexical items should be included in dictionaries, because of the fact that a lexicon does not only consist of words but should also include lexical items smaller and bigger than words. Therefore, the macrostructure of a dictionary should reflect the true nature of the lexicon of a particular language. It has been argued that dictionaries are much older than lexicographical theory and have for ages developed in a pre-theoretical environment (Prinsloo & Gouws 1995:100). However, today this may no longer be used as an excuse for ignoring a well-developed consideration and its influence on the compilation of all dictionaries.

Prinsloo and Gouws (1995:100) point out "that the selection of lexical items to be included as lemmas, as well as the choice of information types and the addressing procedure may therefore not be done in an arbitrary way but have to comply with lexicographical standards rooted in a sound theory." In this regard lexicographers have to rely on insights from the field of

metalexigraphy so that the dictionary can convey enough information to satisfy the needs of the user. In his presentation of the information, the lexicographer should ensure that the relevant linguistic patterns and peculiarities of the particular language are exposed and emphasized. In an attempt to compile a user-friendly type of a dictionary, it is recommended that all the sublexical lexical items from the Setswana lexicon be lemmatized.

CHAPTER 3

REFERENCE QUALITIES IN THE MICROSTRUCTURE

3.1. THE USE OF REFERENCE ENTRIES

The dictionary uses various kinds of reference entries in the microstructure to convey information to the user. However, there is often a lack of interconnection between the reference entries and the information it is intended to convey to the user. The interconnection of microstructural components in dictionaries should be used in such a way that the information needed by the dictionary user is given without ambiguity. In a situation where cross-referencing is used by the lexicographer to refer the dictionary user from a reference position to a reference address, the use of a reference entry has to be clear and explicit.

This could be achieved by means of a reference marker that gives the user an access to the referred relevant lexicographic data. In this way, a relation can be established between the reference entry and the reference address to make information retrieval easy. We may examine the use of the reference marker **!** in the article of the lemma **kgarebê** in TS.

kgarebê TTT **!**lekgarebê *In./9.* ma-
mosetsana yo o godileng mme a ise a
nyalwe

le•kgarebê TTTT *In./5.* ma- 1.
mosetsana yo o lekaneng go nyalwa 2.
mosetsana yo o itlhôkômêlang a apara
sentlê

In the article of the lemma **kgarebê**, the structural marker **!** implies that **lekgarebê** can replace **kgarebê**. But since no similar meaning is given to **kgarebê** and **lekgarebê** in both articles, the structural marker **!** misleads the user. The meaning of **kgarebê** implies **grown up girls who are not yet married** and the meaning of **lekgarebê** implies **girl suitable for marriage**, which semantically are not identical. In the article of the lemma **kgarebê** the meaning is more focused on maturity than it is on marriage while in the article of the lemma **lekgarebê** the meaning is on marriage than it is on maturity.

The structural marker † used suggests that **kgarebê** and **lekgarebê** can be used interchangeably because according to the meaning given by the definiens in both articles **kgarebê** can in no way substitute **lekgarebê** in the context. In fact this structural marker † should not have been used because it does not convey correct information to the user during retrieval process. It can also be argued that a wrong structural marker is used. Another similar irregularity in the use of structural markers can be observed in the following articles from TS:

m•hele TGT *ln./3.* me-. phôlôgôlô ya naga e e dinaka di phatlaletseng di ôbêga kwa godimo, e mogatla mokhutshwane; sebugatla; motsosa

mo•tsosa TGG *ln./3.* me-. phôlôgôlô ya naga e e lekanang le photi e e dinaka di phatlaletseng di ôbêga kwa godimo, e mogatla mokhutshwane BONA sebugatla/mhele

se•bugatla *ln./7.* di-. phôlôgôlô ya naga e e dinaka di phatlaletseng di ôbêga kwa godimo, e mogatla mokhutshwane BONA mhele/motsosa

In the article of the lemma **sebugatla** a cross-reference is made to the lemmas **mhele** and **motsosa** through the reference marker BONA (i.e. see) which tells the dictionary user that he / she can get an additional information, in the articles of the lemmas **mhele** and **motsosa**. But in the article of the lemma **mhele** there is an inconsistent application of an explicit cross-reference whereby the reference marker BONA is not used to show that additional information on lemmas **sebugatla** and **motsosa** can be found. The reference symbol BONA is not used to show that additional information on the lemmas **sebugatla** and **motsosa** can be found.

Therefore, this absence of the reference marker BONA gives an implicit reference between the lemma **mhele** and **sebugatla / motsosa**. But, there is a similarity between a definition given in the articles of the lemmas **sebugatla** and **mhele** although there was no reference marker BONA given in the article of the lemma **mhele**. This type of a treatment procedure confuses the user and makes encoding of information in this dictionary a nightmare.

In fact, a full treatment was not supposed to be given in the article of the lemma, instead a cross-reference could have been used to show that **sebugatla** and **mhele** are synonyms. And the lemma **motsosa** should only appear in the articles of the lemmas **sebugatla** and **mhele** with the cross-reference marker BONA where the user is shown that there is added information. In terms of cross-referencing the article of the lemma **sebugatla** is a reference address of the entry **mhele** or vice-versa. The availability of similar definitions in the articles of the lemma **sebugatla** and

mhele, and the lack of the cross-reference marker BONA in the article of the lemma **mhele** makes a poor treatment procedure that would impede information retrieval. Such lexicographic ills are most regrettable.

The reference symbol BONA is not consistently used in the three articles of the lemmas **sebugatla**, **mhele** and **motsosa**. The fact that this reference marker BONA is not used in the article of the lemma **mhele** while **mhele** and **sebugatla** have similar definitions is also unacceptable. Furthermore, the lemmas **mhele** and **motsosa** are cross-referred in the article of the lemma **sebugatla** but the lemma **motsosa** does not form part of the article of the lemma **mhele**. Therefore, this implies that there is a lexicographic inconsistency in the use of the reference marker BONA.

3.2 REDUNDANCY IN THE MICROSTRUCTURE

This descriptive monolingual dictionary also shows an element of redundancy in its treatment of certain lemmas. Here, the lexicographer seems to have ignored the space saving principle. The following articles attest this:

mahumapelo TGTGGG ln./6. Ø
 kutlôbotlhoko c tona
 ma•hutsana TGTG ln./6. Ø
 kutlôbotlhoko c tona

From these articles it is clear that these lemmas are absolute synonyms. Therefore, there was no need whatsoever to treat both lemmas fully as their definiens is the same, except for phonetic stress markings that do not make any semantic difference. A suggestion for dealing with such lemmas is presented in Chapter 4.

3.3 THE TREATMENT OF LOAN-WORDS

According to Janson & Tsonope (1991:55), the main areas for lexical loans are religion, domestic life and technology. It has been noted that these loanwords occur as denotations of new things and concepts taken from the loaning language's lexicon but never as substitutions of existing words. This linguistic phenomenon occurs when different cultures are in close contact with each other, which leads to borrowing and loaning of words to name objects and concepts, that were previously unknown to the speakers of the borrowing language. The process has

occurred between Setswana and Afrikaans and English, which are in close contact, and this has led to words being adopted from English and Afrikaans into Setswana to fill a gap created by cultural differences between these languages.

The newly adopted words in the areas referred to above are not only numerous, but also very commonly used. Generally, loanwords are completely adapted to the phonology and morphology of Setswana. This benefits the language in question as it expands its lexicon and vocabulary through the introduction of a large number of new words. The new vocabulary contributes to the formation of technical terms in Setswana's lexicon. Besides the morphological change occurring in loanwords, semantic change also takes place. Lourens, (1993:13) quoting Stern (1931:163) states that the change of meaning in loanwords occurs when a word is employed to designate an object or to express the concept that has not previously existed in the borrowing language.

A morphological change of this type warrants labeling in the article, as this morphological change of lexical items is important in helping to convey e.g. etymological information to the user. Zgusta (1971:117) subscribes this view, stating that these changes should be registered and indicated by the lexicographer. This treatment procedure on loan-words offers explicit information helping the user to retrieve information, conveniently. It may be that the information of morphological change is not indispensable, but it helps one to understand the morphological change brought about by the borrowing of lemmas. It is appropriate to mention that a morphological change caused by borrowing of lexical items seldom leads to a semantic change as is shown by the lemma **mrs**. The registering or labeling of loan-words is necessary to highlight the morphological change and also to indicate the origin of the loan-word.

It is therefore very important for the lexicographer to take cognizance of the loan-words and their treatment in dictionaries so that the intended meaning is not lost. For instance, **mrs** (mistress, pronounced "missus") is a title for any married woman in English while its loanword in Setswana, **mmisisi**, is used with reference to any white woman as a sign of respect regardless her marital status. We can have a look at the following definition given by this descriptive monolingual dictionary:

mmisisi TGGT *ln./la. bó-*. mosadi yo
o nyetsweng

The meaning of the word **mmisisi** in this monolingual descriptive dictionary does not include the etymology of the word in the South African context. This is what Lourens (1993:9) refers to as direct borrowing. In the treatment of many loan-words in this monolingual descriptive dictionary, the etymology is not presented. This has a definite influence on the transfer of semantic information. These loan-words are e.g.

le•khalate TGTG *ln./5.* ma-. motho
wa mmala o o tlhakaneng ka lotsô

mmasepala TGTGT *ln./1a.* hó-.
lekgotla le le tsamaisang ditlamêlô le
ditlhabololô tsa motse

le•tamô TGT *ln./5.* ma-. fa
êpilweng gore go kganêlê metsi

phathi GG *ln./9.* di-. lekôkô lā
dipolotiki

These loan-words above highlight the effect of social and historical factors on speech communities as a result of their interaction. The main idea behind labeling or registering these lexical items is to identify loan-words which mainly refer to Anglicisation and Afrikaansisation of a modern Setswana in a monolingual descriptive dictionary like TS, to make meaning more clear and precise to users. The influence of English and Afrikaans on contemporary Setswana is mainly the result of colonialism.

However, one has to acknowledge that the influence (both driven by popular and official means) of these former official languages on Setswana has played a crucial role in accepting loan-words in Setswana. This occurs as a result of Anglicisation, which according to Pratt (1990:515) is a process whereby a given English structure gives rise to neological lexical elements indicating a different word class. For an example:

le•khalate TGTG *ln./5.* ma-. motho
wa mmala o o tlhakaneng ka lotsô

le•tamô TGT *ln./5.* ma-. fa
êpilweng gore go kganêlê metsi

It is important to indicate this neologism in the treatment procedure to acknowledge this morphological change of words existing between the borrowing and the loaning languages. This will also disambiguate meaning associated with these loanwords in dictionaries.

3.4. THE TREATMENT OF SYNONYMS

Another lexicographic concern which needs to be considered, is the treatment given to synonyms and their use as part of the treatment of lemmas. It is regrettable that synonyms, especially those with low frequency of use, are given full treatment without indicating their synonymy to other lexical items within the dictionary. Leech (1981: 61) defines synonyms as words that have their meanings identical in all contexts. The full treatment given to all members of a synonym pair as is done in TS, consumes a lot of space and leads to redundancy in a dictionary. We may examine the following synonyms from TS:

atla TT *tpt.* -ile. go baya molomo mo lerameng kana mo molomong go supa leratô; suna

nona TT *tpt.* -ile. tshêla metsi mo godimo ga sengwe go se kae. ▲ go nona pelo ka mathe = go itsholofetsa thata

nyôba TT *tpt.* -ile. 1. kolobetsa kgotsa nona ka metsi 2. *tsenya serwê sa bong jwa botonanyana mo go sa bonamagadi ka maikaêlêlô a thôbalô

sana TT *tpt.* -ile. kolobetsa diaparô pele ga di gatsiwa kana mmu pele ga o fêelwa; nona; nyôba

suna GT *tpt.* -ile. baya molomo mo go wa yo mongwe kana mo letlhaeng go supa leratô; atla

In these articles the lemma **atla** (to kiss) is a synonym of the lemma **suna**, a loanword from Afrikaans **soen** (to kiss). The loan-word **suna** (to kiss) is more frequently used in both spoken and written language than the lemma **atla** (to kiss). The same applies to **sana** (to dampen) that is more frequently used than **nyôba** (to dampen) or **nona** (to dampen). It would be better if the lemmas **suna** (to kiss) and **sana** (to dampen) were given full treatment; the lemmas **atla** (to kiss) and **nona** (to dampen), **nyôba** (to dampen) could be treated by a cross-reference, so that space is saved and redundancy be avoided in this dictionary.

To enhance reference quality in this dictionary, lexical items regarded as synonyms should be included in the microstructure as part of the treatment unit. The use of a structural marker denoting that a lexical item is a synonym should be used to enable the user to realize the

semantic relations between lexical items. This type of a treatment procedure also broadens the scope of conveying information and meaning, and can address the needs of the dictionary user.

Leech (1981:205) points out that, native speakers of a language consult a dictionary to continue the process of acquiring vocabulary throughout their lives. This view confirms the reality that a dictionary plays a vital role as a linguistic tool to meet the language needs of a dictionary user. Furthermore, this view also confirms the importance of synonymy in a semantic relation in the dictionary 's article. By marking an item as a synonym it necessarily indicates a semantic relation. This type of a treatment shows an explicit relation marker in this dictionary.

3.5. THE TREATMENT OF ANTONYMS

A more thorough consideration should be given to the treatment of antonyms in TS. Antonyms are defined as a certain type of oppositeness of meaning. (cf. Lyons, 1977: 270 –1). The use of antonyms as part of the definiens to convey meaning in dictionary articles can enable the user to get the meaning quicker and even easier, particularly in cases where the definiens have inadequately supplied the desired meaning.

Given the above definition, one may conclude that for two lexemes (lexical) to qualify as antonyms, they should have much in common. In the words of Lyons (1977:286), “when we compare and contrast two objects with respect to their possession or lack of one or more properties, we do so generally on the basis of their similarity in other respects”. This analysis implies that lexical items like antonyms can help in defining lemmas. We may examine the following articles defining antonyms:

bolelô TTT *td.* seêmô sa go fisa ga sengwe se se besitsweng

tsididi GGG *ln./9.* Ø seêmô se se sitisang; seramê

bo•sigo TGT *ln./14.* ma-. lebaka le le simololang ka maabanyane go fitlhêlêla phakêla ♣ *bosigo ga bo akele opê = ditirô tse di maswê di dirwa gantsi bosigo*

motshegare TGTG *lts.* nakô e meruti e nnang mekhutshwane. ♣ *motshegare mofolo: = bolwetsi bo gakala bosigo, mme motshegare bo nne botoka*

reka GT *tpt.* -ile. ntsha madi go rua kana go bapala sengwe

rekisa GGG *tpt.* -itse. 1. rêka+isa 2. dirisa yo mongwe phôsô ka boferefere

roka GT *tpt.* -ile. dirisa lemaô le tlhale go tshwaraganya sengwe

rokolola GGGT̄ *tpt.* -itse. >roka+olola

The lemmas in the articles above are antonym pairs that have a common feature for instance **bosigo** (night) and **motshegare** (day) have their common feature as the time of the day, while **tsididi** (cold) and **bolelô** (hot) have temperature in common. As Wiegand (1996:207) puts it “a language dictionary is a work for a non-linguistic world”. This reminds one that a lexicographer has to compile a dictionary with a target group in mind, so that a broad scope of information needed by the users, can be covered.

Ullman (1971:82) says that every word is surrounded by an associative field, a network based on relations, between names, senses and also between both. This view confirms the fact that the use of antonyms can help to convey meaning more broadly, quickly and even more easily in a dictionary article. Lyons (1977:270) refers to Trier, who has as far back as 1931, expressed the view that every word uttered by the language user calls to mind its direct opposite. For instance, one cannot use a word such as “big” without thinking of the word “small”. Ullman (1970:82) states that structural linguistics regards language as a highly organized totality where the various elements are interconnected and derive their significance from the system as a whole.

Therefore a lexicographer should realize that antonyms are semantically related in one way or another. This implies that the meaning or sense of a word can never be analyzed and described in isolation. Lyons (1977:204) agrees that analyzing or describing the sense of a word, it has to be understood in terms of the sense relations which it contracts with other words. Against this background, it is clear that the use of antonyms as part of the definiens can help to enhance the reference the quality of a dictionary.

3.6. THE ABSENCE OF USAGE EXAMPLES

The absence of usage examples in the microstructure of this monolingual descriptive dictionary is a weakness that reduces the value of the information transfer and retrievability. Contextualized examples need to be quite revealing and need to provide implicit information that only authentic usage will yield. The definition alone is not enough to satisfy the user’s lexicographic needs to recognize a semantic difference between the two senses of a lexical item. The definitions often are unable to convey a comprehensive meaning to the user. We may examine the following articles:

owai! TTG *lll.* modumô wa fa go
nyadiwa

oho! GG *lll.* modumô wa fa go
thethiwa kana go nyadiwa

It is obvious from these two articles that the user might find it difficult to grasp the real meaning conveyed by these two exclamation words unless contextualized examples are used. This notion is advocated by Bergenholtz & Tarp (1995:141), who believe that the inclusion of one or more examples may, at least to some extent, compensate for the low information value of an otherwise deficient microstructure. Perhaps one can say that the inclusion of examples in the microstructure may ensure that the user is given a certain minimum of valuable linguistic information.

Both definitions of the lemmas **owai!** and **oho!**, has the phrase **modumo wa fa go nyadiwa**, which complicates their meanings, especially without contextual guidance. Another factor that makes the definitions in both articles difficult to differentiate (i.e. semantic differences) is the fact that the word **nyadiwa** (i.e. **to be undermined**) does not appear in the macrostructure of this dictionary in the sense that is conveyed here in this article. For instance, the sense **being married (nyadiwa)** does not appear in the wordlist of this dictionary although it has nothing to do with this **nyadiwa**.

This may confuse the user even further whilst he / she is trying to find the real meaning of the two exclamation words in this dictionary. The absence of a definition for the lemma **nyadiwa** can complicate the decoding process. Furthermore, the word **thethiwa** in the definition of the lemma **oho!** also does not appear in the macrostructure, which could deepen the ambiguity of the two meanings associated with the lemmas **owai!** and **oho!** The following extract from TS shows this absence:

nyadiwa GGG *tpt.* >nyala+iwa

thêthêkêla GGGTT *tpt.* -itse. ya
kwa le kwa ka ntlha ya go pala go
tsamaya ka tlhamalalô
thethetse TTT *tpt.* >thetha+ela+itse
thetlwa GT *ln./9.* di-. leungô le le

Cowie (1989:55) confirms H.W. & F.G. Fowler's views on the vital need for examples in a monolingual dictionary, when he states that even in an abridged one for native speakers, examples are important to clarify sense distinctions between related senses. Even advanced native speakers of a language often fail to master the correct usage of words in sentences. There are a number of key functions associated with the usage examples in monolingual dictionaries,

particularly to supplement the information in the definition by showing the entry word in context.

The lexicographer in this monolingual descriptive dictionary appears not to have been sufficiently concerned with the inclusion of this important element of the microstructure to convey meaning unambiguously. It is clear from the two articles of the lemmas **oho!** and **owai!** that the user may find it difficult to grasp the real meaning conveyed by the definitions unless these lemmas are contextualized.

3.7. THE TREATMENT OF VERBAL DERIVATIVES

Setswana verbal derivatives result from simple verb stems mainly by the addition of various suffixes or prefixes. The use of these verbal suffixes in the formation of verbal derivatives has a bearing on the meaning of the verbs' semantics. For instance:

Passive verb form, has a verbal suffix **-wa** or **-iwa**.

Neuter verb form, has a verbal suffix **-ega**, **-la**, **-esega** etc.

Causative verb form, has a verbal suffix **-isa** or **-ya**.

Applied verb form, has a verbal suffix **-ela** or **-etsa**.

Extensive verb form, has a verbal suffix **-ika**.

Reciprocal verb form, has a verbal suffix **-ana**.

Reversive verb form, has a verbal suffix **-ola**, **-olola** etc.

The frequent verb form is produced by the reduplication of the verb stems, e.g. **ragaraga** (kick-kick). The reflexive verb form, prefixes the vowel **i-** or **n-** as in the following:

Passive verb form, e.g. **ithutiwa** (taught by oneself)

Applied verb form, e.g. **ithutela** (learn / study) that shows intransitivity.

Causative verb form, e.g. **ithutisa** (teach oneself)

Past tense verb form, e.g. **ithutile** (studied / learned)

Perfect tense verb form, e.g. **ithutetse** (studied)

Relative verb form, e.g. **ithutang** (studying)

or **nthuta** (taught by)

Unfortunately the majority of these verbal derivatives are not given a definition in the microstructure of this monolingual descriptive dictionary; instead, only the pattern of these verbs is shown as part of the treatment unit. The absence of these definitions or even the lemmas in the microstructure or macrostructure creates a difficult situation for the user in information retrieval while on the other hand the user-friendliness of the dictionary is compromised. We may examine the following articles to verify this point:

<i>ratileng</i> GGTG <i>tpt.</i> >rata+ile+ng	<i>ithuta</i> GGT <i>tpt.</i> -ile. >i+ruta
<i>ratilwe</i> GGG <i>tpt.</i> >rata+iwa+ile	<i>ithutang</i> GGTG <i>tpt.</i> >i+ruta+ng
<i>ratisa</i> GGG <i>tpt.</i> -itse. >rata+isa	<i>ithutêla</i> GGGG <i>tpt.</i> -itse. >i+ruta+ela
<i>ratiwa</i> GGG <i>tpt.</i> >rata+iwa	<i>ithutetse</i> GGGG <i>tpt.</i>
<i>ratana</i> GGG <i>tpt.</i> -ile. >rata+ana	>i+ruta+ela+itse
<i>ratanang</i> GGTG <i>tpt.</i> >rata+ana+ng	<i>ithutile</i> GGGG <i>tpt.</i> >i+ruta+ile
<i>ratane</i> GGG <i>tpt.</i> >rata+ana+ile	<i>ithutiwa</i> GGGG <i>tpt.</i> -ile.
<i>rutana</i> GGG <i>tpt.</i> -ile. >ruta+ana	>i+ruta+iwa
<i>rutane</i> GGG <i>tpt.</i> >ruta+ana+ile	<i>ithobalêla</i> GGGTT <i>tpt.</i> -itse.
<i>rutang</i> GTG <i>tpt.</i> >ruta+ng	>i+rôbala+ela
<i>rutêga</i> GGG <i>tpt.</i> -ile. >ruta+ega	<i>ithobaletse</i> GGGTT <i>tpt.</i>
<i>rutegile</i> GGGT <i>tpt.</i> >ruta+ega+ile	>i+rôbala+itse
<i>ratileng</i> GGTG <i>tpt.</i> >rata+ile+ng	<i>ratwa</i> GT <i>tpt.</i> >rata+iwa
<i>ratilwe</i> GGG <i>tpt.</i> >rata+iwa+ile	<i>ratwang</i> GTG <i>tpt.</i> >rata+iwa+ng
<i>thintsê</i> TTT <i>tpt.</i> >thinya+itse	<i>itsamaela</i> GGGTT <i>tpt.</i> -itse.
	>i+tsamaya+ela

The absence of a paraphrase of meaning for these verbal derivatives remains a cause of concern in this dictionary, since this component of the microstructure might be sought urgently by the user. Of course, there are more senses than meets the eye. For instance, the lemma *thintse* (implies not to turn up) stresses a tense with the grammatical abbreviation *tpt* denoting transitive verb. Yet, it also means *muscle injury* or *joint dislocation* that is not given in this article.

Another reflexive verb form *itsamaela* (to go by yourself) has more than one sense; one sense shows the transitive nature of the lemma, while the other sense shows the intransitivity, but both senses cannot be accessed. The first sense denotes the notion of the *-self / -selves*. The needs of the user demand that such definitions or meanings should be given in the dictionary.

CHAPTER 4

STRATEGIES TO IMPROVE THE REFERENCE THE QUALITY OF THE MACROSTRUCTURE AND MICROSTRUCTURE IN *THANODI YA SETSWANA*

4.1 MACROSTRUCTURAL STRATEGIES

The lemmatization of lexical items and their treatment has a bearing on the user-friendliness of this dictionary. The compilation of a dictionary by using practical lexicographic theories (e.g. paying attention to the needs and research skills of a well defined target user group) forms a base to ensure that user's needs are met. The macrostructure as part of the dictionary's instrumental component to provide lexicographic information has to be used in such a way that information retrieval becomes easy. This is advocated by Gouws (1990:52) when he states that it is very important for a lexicographer to rely on a representative and functional selection of lexical items to display the core vocabulary of a language.

The lexicographic theories of ordering lemmas in a dictionary's macrostructure need to be reviewed to suit the nature of the language and the users it serves. According to Gouws (1993a: 32), the macrostructural ordering of information should be done in such a way that a user can find the answers to most of his/her questions in the convenient manner. Furthermore, Gouws (1993a: 33) agrees with Hansen by stating that to achieve maximum information retrievability, the macrostructure of a descriptive monolingual dictionary has to include outer access structures to overcome possible hedges in search for a specific lemma.

4.1.1. LEMMATIZING THE MEMBERS OF A SYNONYM PARADIGM

Lexical items presented in the microstructure as part of a synonym paradigm should be lemmatized in the macrostructure because of their occurrence as members of the lexicon. The macrostructure should reflect this lexicon. To emphasize lexical cohesion and show semantic relation among these synonym paradigm members, these lemmas should appear in the central list of this dictionary.

The following article depicts how the treatment should look like:

lesôtlhō TTT ln / 9 di- † thala; kgetsana ya dithala tsa phologolo e
e fagotsweng; BONA mophatlosô

mophatlosô TTTT ln / 3. me - † lesôtlhō BONA thala.

thala TT † mophatlosô ln / 5 di- nngwe ya dikgolokwe tse pedi
e go direlwang moroto wa bong
jwa botonanyana mo teng;
BONA lesôtlhō

The semantic relation of synonymy in the articles above, is shown by the use of the structural marker † which implies that the lemmas (viz. **lesôtlhō**, **mophatlosô** and **thala**) can substitute each other. The use of the reference marker BONA in this case explicates an added information of the cross-referred lemmas. The lemmatization of the lemma **mophatlosô** (compared to the treatment shown in Chapter 2 earlier) broadens the search path to help the user access additional information. The fact that the lemmas **lesôtlhō** and **thala** are given full treatment compared to the lemma **mophatlosô**, is because of the difference in definition and the semantic link of the lemma **mophatlosô** with these two lemmas. This type of treatment procedure conveys information that includes a reference entry and reference address that explicates the semantic link among lexical items.

The same proposal for the improvement of the treatment of the lemmas **lesôtlhō**, **mophatlosô** and **thala** could be deployed for the lemma **mhêrô** without compromising retrievability and accessibility in this dictionary. The treatment that should be given to the lemma **mhêrô** as a way to improve reference quality in this descriptive monolingual dictionary's macrostructure should be as follows:

mhêrô TTT † mofêrô ln / 3. me- tlhaga ee tswang
mo go lemilweng teng, e kgoreletsa
dijalo.

mofêrô † TTT ln / 3. BONA mhêrô

It is better to lemmatize **mofêrô** but it needs only to be treated by means of a structural marker and a cross reference word BONA to the lemma **mhêrô** due to its common use in speech exercises. In this way, the user will be shown that the meaning of the fully treated word is the same as the partially treated word, which conveniently enables the user to access the needed information. As Louw (1998:1) puts it, "on a structural level changes can be made to the access structure to ensure that they act as more effective guides to the user on his / her search path (i.e. the search up to the desired lemma)". Therefore, the availability of macrostructural and microstructural entries as part of the outer access structure respectively enhances efficiency of the dictionary.

4.1.2. BETTER LEXICOGRAPHIC TREATMENT OF HOMONYMS

The most important obligation of the lexicographer should be to ensure that the dictionary user gets to the information he needs. The manner in which lexical items are treated in a dictionary should help to ensure that this goal is achieved. Gouws (1996c: 19) explains that the component of the dictionary structure known as the access structure (branched into the inner and outer access structure) should be used to guide dictionary users up to lemma (i.e. lexical items selected to receive a lexicographic treatment) and should also help the user to reach the specific information category within the article.

Gouws (1991a: 75) states that to ensure a sound treatment of all lexical items found in a dictionary, the traditional word-based approach should be replaced by broader lexicon-based approach that offers a comprehensive reflection of the lexicon. This view suggests that a comprehensive descriptive monolingual dictionary should be characterized by this kind of approach that will give true status of a language in question, and *Thanodi ya Setswana* should not be an exception.

Therefore, lexicographers are advised to consider compiling their dictionaries according to the needs and research skills of a well-defined target user group. With this in mind, lexicographers could be made aware of the fact that comprehensive descriptive monolingual dictionaries should not only show a linguistically sound treatment of specific selected lexical items, but should also show a comprehensive compilation which eventually can ensure that a dictionary becomes a useful linguistic instrument for the target user group.

In order to give homonyms a proper lexicographic treatment, an index (superscript) number should be used in the macrostructure as an ordering marker to mark these words, and to guide the dictionary user to know that the specific lemma is a member of a homonym group. This index (superscript) number, which Louw (1998: 4) refers to as an element of the standard outer access structure, could also ensure explicitness in the dictionary article. The following articles display the suggested treatment on homonyms in the *Thanodi ya Setswana*:

ana¹ GG |kana *lkpn.* lekôpanyi le le kayang fa mmui a batla go gakololwa kgotsa go tlhômamisediwa sengwe:

Ana ga twe o mang?

ana² GG *lsp.* lesupi la maina a a simololang ka tlhôngô ya ma-, go supa fa sesupiwa se le gaufi le mmui: *Magodu ana a diphatsa thata.*

boga¹ GT *tpd.* -ile. utlwa botlhoko kgapetsakgapetsa ka ntlha ya sengwe; tshwengwa ke sengwe

boga² GT *tpt.* -ile. baya dikala tsa setlhare mo godimo ga metsi gore a sa tshologê

dika¹ GT *tpt.* -ile. thusana sengwe ka maikaêlêlô a go se fenya

dika² GT *ttd.* -ile. sebaka sengwe mo ngwageng

dumã¹ TT *tpt.* -ile. dira modumô ka kodu

dumã² TT *tpt.* -ile. sala sengwe morago ka maikutlô

~~dikile~~ GGG *tpt.* >dika¹+ile, *tpd.* >dikile

This suggested treatment in the articles of this dictionary is more likely to help the user to choose the correct word. Gouws (1996c: 22) points out that the inclusion of additional access structure in the article increases the functionality of the dictionary and leads to quicker and less ambiguous retrieval of the desired information. According to Bergenholtz and Trap (1995:30) the introduction of an internal cross-reference should be employed for quick reference. Therefore, the use of the index (superscript) number on words and also in the reference position regarding the entry indicating the reference address in the dictionary's article will ensure that this cross-referencing is enhanced.

Gouws (1996c: 20) points out that one of the possibilities a lexicographer should consider to enhance, the user-friendliness of his dictionary, is to improve the quality of the access structure in such a way that the search path can lead to an instant retrieval of information. This reference entry should include the index (superscript) number of the relevant word to help the user associate the right lemma with the correct meaning.

4.1.3. LEMMATIZATION OF VERBS

4.1.3.1. DEFICIENT AND INFLECTIONAL VERBS

The use of inflectional verbs and deficient verbs in speech is a clear proof of their importance. Their contribution to communication warrants their being given full lexical status. The use of these lexical items in the various grammatical moods such as the habitual and infinitive reflects the need for including the inflectional and deficient verbs (sublexical lexical items) in the central list of this descriptive monolingual dictionary.

Dictionary users would definitely benefit if these lexical items were included in the macrostructure and are given comprehensive lexicographic treatment, enabling dictionary users to cultivate the skills necessary for the practical use of the lexical items in communication. Gouws (1993a:34) believes that where the macrostructure offers the user access to a selected part of the vocabulary, the microstructure offers access to the linguistic characteristics of those items.

The sentence examples given (in Chapter 2) have shown how the inclusion of deficient verbs (i.e. negative verbs and negative morphemes) in the descriptive monolingual dictionary's macrostructure, could improve the reference quality of the dictionary. Deficient verbs can be treated in the following way:

ka *lgkgnts* ledirilethlaedi le eleng popi ya kganetso go supa go

kgatelela.(auxilliary verb which is a negative morpheme to show emphatic negative)

sk Ga a **ka** a lwa (e.g. He /She did not fight)

This treatment has given meaning to this sublexical lexical item in an unambiguous way to provide the easiest possible transfer of information. The lexicographer should not rely on the linguistic intuition or any presumed dictionary using skills of the target user.

4.1.4. LEMMATIZATION OF MORE FREQUENTLY USED PLURAL NOUNS

The lemmatization of plural nouns in TS should be done in such a way that the user can easily find these lexical items in this dictionary's macrostructure, and access the information associated

with them. At present information associated with the plural nouns is not sufficiently presented under the treatment of singular nouns.

This type of lemmatization, that includes plural nouns, will improve the accessibility, reliability and user-friendliness of the dictionary. Inclusion of these words, which are most likely to be searched for by the dictionary user shows the modern trend in lexicography to ensure that user-friendliness will be accomplished.

A different but convenient approach to the treatment of plural nouns would be to lemmatize them to ensure that more frequently used plural nouns are lemmatized instead of their less frequently used singular counterparts. Therefore, a full treatment has to be given to plural nouns frequently used in spoken and written language, as in the articles below:

ledi TG In / 5.ma- BONA madi.

madi TG In / 6. mofuta wa ditshipinyana kana dipampitshana

tse di diriswang jaaka tlhwatlhwa go ananya le go reka dithoto mo dinageng.(a type of coin or papernote used as a value in exchange for something in a country)

dijo TG In / 8 1.tse di tsenang ka legano la diphologolo le

batho go ya kwa mpeng go fepa mmele

kgotsa tse di anyiwang ke dimela ka medi go tswa mmung go di tshedisa.

(Substances that people or animals eat or drink through the mouth to the stomach to maintain life or that plants absorb through roots from soil to maintain life and growth)

2. tse di kgonang go tlisa nonofo mo

mmeleng : sk dijo tsa mowa = thapelo

that which gives strength to a human, so that he / she can face life's challenges, e.g.

spiritual food = prayer

sejo TG In / 7.di- BONA dijo

lebele TTG In / 5.ma- BONA mabele

mabele TTG In / 6 . ditlhaka kana dimela tse dipeo tsa tsona fa
di sitswe di dira bupi go apaya bogobe. (a
tall cereal plant that produces yellow /
white grains when grounded into
maize meal and used for cooking porridge).

ditaola TGT In / 10.di- marapo a a dirisiwang ke

dingaka tsa setso go laola (bone which
are used by traditional doctor to analyze
a patient's health condition)

taola TTG In / 9.di- BONA ditaola

bothata TGT In / 14.ma- BONA mathata

mathata TTT In / 15.ma- mokgwa o akaretsang ditshireletso tse di
goreletsang motho go se kgone sengwe.
(something characterizing stoppages that
makes an action impossible).

These suggestions on the treatment of plural noun forms clearly reflect the way the language is used, and that the best lexicographic principles should be used in lemmatizing lexical items so that the user's needs are met and the user-friendliness is enhanced.

4.1.5. LEMMATIZATION OF SUBLEXICAL LEXICAL ITEMS

There is also a need to include sublexical lexical items e.g. deficient verbs such as **ga / ka / ke** in the macrostructure. If we accept and acknowledge that language has in essence a pragmatic function and is not an inventory of component parts or a system of their operation or any other such abstraction, then language learning would mean simply the acquisition of functional capabilities. Learning a language signifies being able to use that language in a real life situation.

Dictionaries should cater for this specifically by contextualization, where ordinary language use is presented to indicate the precise meaning. Accordingly, contextualization can to some extent

help users of dictionaries to clear up ambiguity and define specific expressions once a context is available in the microstructure of a dictionary. The following treatment suggests a better way of treating these sublexical lexical items:

se T kgnts. tpt. modiriso-taelo. popi mo tirisong ya kganetso
le modiriso-tlwaelo. sk. *Se mo tsose* (Don't wake him/her up).

ga T kgnts. modiriso-tlwaelo popi mo tirisong ya kganetso le
modiriso-tlwaelo. sk. *Ga a je* (Let him / her eat)
Ga a je (He / she does not eat)

According to Prinsloo & Gouws (1995:105) including these sublexical lexical items as lemmas in the central list, would provide a landing site for those multiword lexical items preceded by *ga / se / sa / ka / ke kake*. This type of treatment will enable the lexicographer to give a balanced account of a representative selection of the lexicon, including sublexical lexical items in Setswana.

4.2 MICROSTRUCTURAL STRATEGIES

4.2.1 AVOIDING REDUNDANCY IN THE MICROSTRUCTURE

To avoid redundancy in the treatment of lemmas in the macrostructure, as was the case with lemmas **mahumapelo** and **mahutsana** referred to in Chapter 2 earlier, it would be better to treat **mahumapelo** fully and **mahutsana** partially by means of a cross-reference. Both lemmas must be included in the macrostructure to prove that their lexical status is recognized. The following treatment demonstrates how space could be saved in this dictionary:

mahumapelo TGTGGG ln/6| mahutsana. kutlobotlhoko e tona.

mahutsana TGTGTG ln/6| mahumapelo

The reason for this type of treatment is that these two synonyms have the same definition, belong to the same noun class, and have the same plural form. There is, however, a difference in tone between the two lemmas. The partial treatment given to the lemma **mahutsana** will uphold the space saving principle.

4.2.2 CROSS-REFERENCING THAT ENHANCES GOOD REFERENCE QUALITY

The complexity of the microstructure and the number of information categories that it includes, make the user's inner search path more difficult. A good cross-referencing ensures a good guide to the user to the inner search path. The consistent and unambiguous use of cross-reference markers can help to provide a rapid access to the correct meaning or other information that will lead to a successful dictionary consultation procedure.

The treatment of the lemmas **sebugatla**, **mhele** and **motsosa** as shown earlier in Chapter 2, is a cause for concern in this descriptive monolingual dictionary. To illustrate the semantic relationship that exists between these three lemmas, the treatment procedure should be as follows:

mhele TGT † sebugatla ln / 3.me- phologolo ya naga e e
dinaka di phatlhaletseng di
obega kwa godimo, e e mogatla
mokhutshwane.BONA motsosa.

motsosa TGG ln/3. me - phologolo ya naga e e lekanang le
photi e e dinaka di phatlaletseng di
obega kwa godimo, e mogatla
mokhutshwane. BONA sebugatla/ mhele

sebugatla TGTT † mhele ln / 3. me-BONA motsosa.

The use of the reference marker BONA (i.e. see) in these articles implies that the articles of the lexical items (**motsosa** or **sebugatla** /**mhele**) offer added information that brings difference in meaning to the lemmas **mhele**, **motsosa** and **sebugatla**. The use of the structural marker † implies that the lexical items **mhele** and **sebugatla** can substitute each other since their meanings are similar as shown by the treatment procedure above. This treatment procedure facilitates the quick and easy retrieval of information without ambiguity while space is saved. This treatment procedure also enhances the reference quality of a dictionary, compared to the treatment presently given to these lemmas as indicated in Chapter 2 earlier.

Furthermore, the reference marker † found in the articles of the lemmas **kgarebê** and **lekgarebê** does not convey its intended meaning i.e. that these lemmas are semantically interchangeable. The definitions given for **kgarebê** and **lekgarebê** suggest that the lemmas do not mean the same thing and therefore cannot be used interchangeably. The two lemmas should rather be treated separately by using the cross-reference marker BONA that implies that the article of the lemmas indicated by the reference address has added information. The treatment below is suggested to convey proper meaning information regarding the two lemmas:

kgarebê TTT ln / 5 ma- mosetsana yo o godileng mme a ise
a nyale. BONA lekgarebê (a girl who
is grown up but not yet married)

lekgarebê TTT ln / 6 ma - 1. mosetsana yo o lekaneng go
nyalwa. BONA kgarebê (a girl
who is ready for marriage)

2. mosetsana yo o itlhokomelang a
apara sentle. (a girl who takes
care of herself by dressing nice)

The separate treatment given for **kgarebê** and **lekgarebê** is a clear indication that the two lemmas are semantically different. Therefore the reference marker † which implies interchangeability of the two lemmas (as shown earlier in Chapter 2) does not concur in the articles. With this suggested treatment, the ambiguity will disappear.

4.2.3 LABELING LOAN-WORDS

To help the user to recognize loan-words in the macrostructure of a descriptive monolingual dictionary like TS, it seems important that Anglicisms and Afrikanisms in the Setswana lexicon should be identified. This would help to illustrate neologisms (i.e. new-word or expressions used) in Setswana. It would also help to complement the semantic information as part of a more comprehensive treatment in TS. The following treatment is suggested in this regard:

letamo (Δ Eng 'dam') TTG ln / 5. ma - felo fa go epilweng go

kgamela metsi. (a place where one digs and builds a wall to stop water)

borukgwe (Δ Afr. 'broek') TGG In / 14. ma- seaparo

se se tswalwang kwa maotong se ema fa letheheng.
(an outer garment that reaches from waist to ankles to cover each leg separately)

mmisisi (Δ Eng. 'mrs') TGGT In / 19. bo- 1. mosadi yo o nyetsweng.

(a woman who is married)

2. lefoko le le neng le le

diriswa mo nako ya

tthaolele go tlotla mosadi

wa mosweu ke bantsho

ba Afrika Borwa.(a word

which was used during

apartheid by Batswana in

South Africa to refer to any

white woman as a sign of

respect of regardless of her

marital status.)

To help the user realize that lemmas such as **letamo**, **mmisisi** and **borukgwe** are loan-words, labeling can be used as part of the treatment procedure. Furthermore, this type of treatment provides, more information about the lemma, enabling the user to get the etymological background. This may be compared to the manner in which it was treated initially as indicated in Chapter 2, where the user did not get the etymology of the word. The etymology of the word gives the user a deeper understanding of the word.

4.2.4. BETTER TREATMENT OF SYNONYMS

To establish a semantic cohesion between lemmas and their synonyms, the structural marker = should be used in the microstructure of TS to explicate synonymy. To save space and avoid redundancy in conveying meaning in this dictionary, full treatment should be given to a synonym

member with high frequency of use while a low frequency synonym member should be treated by means of a cross-reference. The following treatment is suggested:

atla TT tpt.-ile = suna

sunaGT tpt. -ile = atla. baya molomo mo go yo mongwe kana mo letlhaeng go supa lerato/tumediso.

nona TT tpt. -ile = nyôba, sana

nyôba TT tpt. - ile = nona, sana

sana TT tpt = nona, nyôba. kolobetsa diaparo pele ga di gatsiwa kana mmu pele ga o feelwa.

This treatment ensures reliability for the dictionary by including all lemmas while on the other hand a larger scope of information needed by the user also is covered, with considerable space saving advantages. This treatment also complements a descriptive definiens of a treated lemma in this dictionary.

4.2.5. BETTER TREATMENT OF ANTONYMS

To ensure that the needs of a dictionary user are met, a structural marker \neq should be used for antonyms in the microstructure of this dictionary. Although these lexical items are included in the microstructure, they should not feature as the focal point, but complement the definiens of the treated lemmas. The opposite meaning of antonyms can also help in conveying the meaning of the treated lemmas. The following is a suggested treatment on antonym articles in TS:

reka GGGT.tpt \neq rekisa. kakanyo ya sengwe ka madi kana thoto

rekisa GGG tpt -itse. > reka + isa. \neq reka

roka GT tpt.- ile \neq rokolola. dirisa lemao le tlhale go tshwaraganya sengwe.

rokolola GGGT tpt -ile > roka + olola \neq roka

From the articles of the lemma **reka** and **roka** the inclusion of the lexical items **rekisa** and **rokolola**, may help to complement the definiens. The structural marker \neq denoting antonymy of lexical items may help to complement the treatment unit in the articles of the lemmas **rekisa** and **rokolola** because there is no definition given. This explicit information regarding antonyms is needed to add to the value and quality of information offered in the microstructure.

4.2.6. USING USAGE EXAMPLES TO COMPLEMENT SEMANTIC INFORMATION

To enhance reliability, the presentation of semantic information and functionality in this descriptive monolingual dictionary, it is suggested that usage examples should be used in the microstructure. Usage examples in dictionaries contribute to the user's understanding of the grammar and meaning by showing the word in context. However in the process of implementing this, Al-Kasimi (1977: 91) advises that illustrative examples should not take the place of grammatical or semantic statements but they should only illustrate them. In certain cases, usage examples are more elucidating than a definition. For example, function words such as interjections, exclamations etc. with little actual lexical meaning in referential sense, are better handled with an explanatory note.

The following articles suggest the treatment of the lemmas **oho!** and **owai!** with inclusion of usage examples in the macrostructure :

owai! TTG lltl. modumo wa fa go nyadiwa sk. Owai ! o ne a
ke o itumedisa ditsala, rraagwe a mo swabisa.
(an expression to show contempt e.g. Owai !.
He / she was trying to make show off,
unfortunately his / her father disappointed him/her)

oho! GG lltl. modumo wa fa go thethiwa kana go nyadiwa. sk
*oho! Mmapula o ithaya a re o apere sentle. (an
expression to show contempt eg. Oho! Mmapula thinks she looks stunning
in her dress).*

It becomes clear through the use of usage examples that **oho!** and **owai!** differ semantically in contextual and behavioural sense. In this way, it becomes easier for the user to understand the definitions. In addition, the two example sentences have shown a central meaning or focus of the lemmas **oho!** and **owai!** because it was not just a random instance of usage.

This suggested that a treatment procedure of any dictionary that is to show the true language learning process, would therefore differ markedly from the type of treatment shown earlier in Chapter 2. Contextualized examples may be used to show the meaning of the word, and not merely to prove that the word exists in the language as pointed out by Al-Kasimi (1977: 90): "Contextualisation is regarded as a necessary condition for making vague expressions more precise. Thus, usage examples help to detect different contextual nuances, its application, the attributive combinations, the typical objects of verbs, the adverbial combinations and the applicational differences of synonyms or near- synonyms".

The suggested articles given for the treatment of the lemmas **oho!** and **owai!** show that illustrative examples can flesh out a range of sentence patterns or point up stylistic contrasts. In a sense, matching the contextualized word with an appropriate context in the dictionary helps the user to get an exact meaning of the treated lemma.

4.2.7 BETTER TREATMENT OF VERBAL DERIVATIVES

In addressing inadequacies surrounding the treatment given to all verbal derivatives, polysemy of the concerned verbs will be considered if a treatment has to be given. A definition of the lemma will be given in the dictionary 's microstructure instead of the derivational pattern as it is done in TS and the user will be referred to the back matter where derivational patterns of the verbs are shown.

This will avoid redundancy and at the same time be space-saving .In cases where these verb derivatives carry polysemous sense(s), a full treatment will be given. According to Cole (1952: 233) when these verb derivatives incorporate the reflexive aspect they acquire specialized significance, which to some extent create polysemy.

The following articles illustrate the improved treatment of verbal derivatives with polysemous and monosemous senses could be improved in TS:

ithuta GGT *tpt – go oketsa kitso ka bowena.* (to increase one's knowledge. See ruta.)

rutega GGG *tg – go amogela kitso.* (to receive knowledge)
BONA *ruta le tsebe ...*
(See ruta and the back matter page...)

itsamaela GGG TTT *trd 1. Go tloga o ya felo gongwe.* BONA *tsamaya tsebe...*

(to move by oneself to another place see tsamaya and the back matter...)

2. *(botho) go swa*
(polite) to die

In showing the verb derivatives in the back matter the following pattern will be employed:

SEE ANNEXURES 1 AND 2 attached.

ANNEXURE 1

Present Tense Paka – jaanong	Past Tense Paka – fetileng	Continuous Tense Paka – tsweledi	Passive Tirwa	Reciprocal Tirana	Neuter Tiregi	Extensive Tiraka
aba	abetse > aba + ela + itse abile > aba + ile abetswe > aba + ela + iwa + itse	abang > aba + ng abelwang > aba + ela + iwa + ng	ajiwa > aba + iwa abiwa > aba + iwa	abelana > aba + ela + ana	abega > aba + ega	abaka > aba + aka
abola	abotse > abola + itse	abolwang > abola + ela + iwa + ng abogang > aboga + ng	abolwa > abola + iwa	_____	abolega > abola + ega	abolaka > abolataka
aboga	abogile > aboga + ile	abolwang > aboga + ela + iwa + ng + abogang > aboga + ng	abogiwa > aboga + iwa	_____	abogega > aboga + ega	abogaka > aboga + aka
ala	adile > ala + ile	alatsweng > alatela + iwa + ng alang > ala + ng	adiwa > ala + iwa	_____	alega > ala + ega	_____
adima	adimile > adima + ile	adimilweng > adima + ela + iwa + ng adimang > adima + ng	adimiwa > adima + iwa adingwa > adima + iwa	adimana > adima + ana	adimega > adima + ega	_____
aga	agegile > agga + ile agile > aga + ile ageletse > agelela + itse agetse > aga + itse agisane + agisana + ile	agilweng > aga + ela + iwa + ng agang > aga + ng	agiwa > aga	agana > aga + ana	agega > aga + ega	agaka > aga + aka
ruta	rutile > ruta + ile	rutilweng > ruta + ela + iwa + iwa + ng rutang > ruta + ng	rutiwa > ruta + iwa rutwa > ruta + wa	rutana > ruta + ana	rutega > ruta + ega	_____

ANNEXURE 2

REVERSIVE TIRILOLA	APPLIED TIREDI	CAUSATIVE TIRISA	TRANSITIVE TIRI PHETELA	REDUPLICATED TIRATIRA	INTENSIVE TIRISISA
abolola > aba + olola	_____	abisa > aba + isa	abilwe aba + iwa + ile	ababa > aba + aba	abisisa > aba + sisa
abolola > abola + olola	abolela > abola + ela	abodisa > abola + isa	abotswe > abola + iwa + ile	abolabola > abola + abola	
abologa > aboga + olola	_____	abogisa > aboga + isa	abogetswe > aboga + iwa + ile	abogaboga > aboga + aboga	_____
alolola > ala + olola	alela > ela + ela	adisa > ala + isa	aletswe > ala + iwa + ile	_____	_____
_____	adimela > adima + ela	adimisa > adima + isa	adimilwe > adima + iwa + ile	adimadima > adima + adima	_____
agolola > aga + olola	agela > aga + ela	agisa > aga + isa	agettswe > aga + iwa + ile	agaaga > adima + aga	agisisa > aga + isa
rutolola > ruta + olola	rutela > ruta + ela	rutisa > ruta + isa	rutetswe > ruta + iwa + ile	rutaruta > ruta + ruta	rutisisa > ruta + isa

CHAPTER 5

CONCLUSION

A lexicographic review of aspects of this dictionary's components structure, e.g. macrostructure and microstructure, the use of the definitions and the ineffective treatment procedures of lexical items, brings into focus, the notion that lexicographers should bear in mind the needs of the user if a user-friendly and reliable dictionary is to be produced.

However, in the process of compiling this type of dictionary, lexicographic principles have to be used as practical guidelines to ensure that a balance is struck between the needs of the dictionary user and the principles to be observed in compiling a good dictionary. These lexicographic principles include considering the target users' group, the typology of the dictionary and the nature of the language in question.

The treatment of loan-words may be improved in this dictionary by acknowledging their status as lexical items and their contribution to the Setswana lexicon. This gesture by lexicographers benefits the language in question, since it acknowledges the way in which the language in question was enriched through the introduction of a large number of new words, both borrowings and loan translations. Lexicographic strategies that have been suggested to improve the treatment of loanwords in this dictionary reflect the belief that dictionaries should cover a broader scope of information in their treatment of lexical items for both spoken and written language.

The proper use of reference entries and markers as part of the treatment unit enhances the reference quality in a descriptive monolingual dictionary, resulting in and ensuring user-confidence. The transfer of meaning through the use of structural markers such as semi-colons and commas is an achievement for a dictionary, as an emphasis of coherence of microstructural entries becomes apparent. In addition, it also promotes interaction between structural markers and lexical items to achieve specific lexicographic needs. Under no circumstances, however, should the lexicographer take for granted that the user would understand the implications of the structural markers and reference markers in the article without explicit glosses.

The need for the lemmatization of sublexical lexical items in this dictionary has reaffirmed the status of these lexical items in the Setswana lexicon. Not only their lemmatization, but also the treatment procedure leaves room for improvement, in order to create a more user-friendly dictionary. If the lexicographer had cast his net wider and deeper, he might have ensured that his compilation met the needs of the greater section of the target users' needs, even though it is admittedly difficult to define a "pure" target user group.

The suggested strategies for the treatment of homonyms shed some light on challenges facing lexicographers to ensure that user needs remain a priority. At the same time, this also highlights the plight of dictionary users searching for information. Furthermore, the treatment procedure by which these homonyms are macrostructurally and microstructurally handled, should also be seen as a means to ensure information explicitness in articles. A dictionary as a linguistic tool should convey lexicographic information in a clear and convenient way to the user with the aim of providing a better reference quality.

The fact that this dictionary fails to provide sensible and meaningful definitions on inflectional verbs is a cause for concern. The suggested treatment procedure for all inflectional verb articles will provide semantic data in a clearer and more convenient way. The presentation of information in the articles of a dictionary makes sense if it is made easy for the user to retrieve information without demanding special skills from him. But if a proper strategy is used as part of the treatment procedure, this may enhance the reference quality.

Inadequacy in the lemmatization of plural nouns in this dictionary reflects the scant attention that certain lexical items receive within dictionaries in spite of the functional role they perform in communication. Prinsloo & de Schryver (1999: 9) comment wryly, on lexicographers who "so painfully stumbled into major pitfalls in compiling dictionaries". The evidence suggests that the compilers of TS, too, were not always successful in implementing theories of lexicography in practical terms.

The use of contextual examples in articles illustrating defined words unambiguously, may be a solution to problems faced by users of this dictionary. The contextual meaning of words is among the sought after elements in dictionary articles. Without them, the dictionary articles lose the character to convey unambiguous information. Although a dictionary is regarded as a

linguistic reference tool, grammatical information should be limited in the treatment, as this could complicate and lengthen the information retrieval path.

Lastly, a dictionary should meet the needs of the user by being as accessible as possible. The main structural elements of a dictionary namely macrostructural and microstructural elements, should be used tactically in the compilation of a comprehensive dictionary. Although an absolute perfect dictionary cannot be compiled overnight, lexicographers should strive; if not for perfection, then at least to meet the needs of the dictionary users.

There is no doubt about it that the best dictionary is the one which enables the user to find the required information without difficulty in the first place where he / she looks. Should the suggested treatment procedures be adopted in a descriptive monolingual dictionary like TS, the dictionary's reference quality will be enhanced considerably, and dictionary users will be the ones to benefit.

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