# How Great is thy Dictionary?
# Cross-referencing as
# a Lexicographic Device in
# *The Greater Dictionary of (isi)Xhosa*

Dion Nkomo, *School of Languages and Literatures: African Language Studies, Rhodes University, Makhanda (Grahamstown), South Africa (d.nkomo@ru.ac.za)*

Bulelwa Nosilela, *School of Languages and Literatures: African Language Studies, Rhodes University, Makhanda (Grahamstown), South Africa (b.nosilela@ru.ac.za)*
and
Wanga Gambushe, *School of Languages and Literature: University of Cape Town, Cape Town, South Africa (w.gambushe@gmail.com)*

**Abstract:** Inspired by Willem Botha's reflections on the compilation of the multi-volume *Woordeboek van die Afrikaanse Taal* (WAT) in Botha (1994; 2005), this study offers a critical evaluation of cross-referencing in *The Greater Dictionary of (isi)Xhosa*, henceforth the GDX. The GDX is a tri-volume dictionary, possibly the biggest dictionary, not only in isiXhosa, but in African languages. The evaluation of the dictionary is guided by the notion of cross-reference conditions or cross-reference prerequisites to identify cross-references used in the GDX, analyse the relations revealed by cross-referencing and the effectiveness of the entire mediostructural organisation of the dictionary. The article notes that cross-referencing in the GDX seems to be guided by a generally well-conceived set of guidelines which were largely followed meticulously. Consistency generally prevails in the treatment of similar lexical items and even across the different volumes of the dictionary. Some cross-referencing aspects that could be improved were identified. However, it was noted that most of them would be easily addressed in the prospective digitisation project of the GDX.

**Opsomming: Hoe goed is die woordeboek (werklik)? Kruisverwysing as 'n leksikografiese tegniek in *The Greater Dictionary of (isi)Xhosa*.** Geïnspireer deur Willem Botha se gedagtes oor die samestelling van die meerdelige *Woordeboek van die Afrikaanse Taal* (WAT) in Botha (1994; 2005), word daar in hierdie artikel 'n kritiese evaluering van kruisverwysing in *The Greater Dictionary of (isi)Xhosa*, voortaan die GDX, aangebied. Die GDX is 'n driedelige woordeboek, waarskynlik die grootste woordeboek, nie slegs in isiXhosa nie, maar ook in die Afrikatale. Die evaluering van die woordeboek word bepaal deur die invalshoek kruisverwy-

singsvoorwaardes of -voorvereistes om kruisverwysings wat in die GDX gebruik word, te identifiseer, om verwantskappe wat deur kruisverwysings blootgelê word, te analiseer en deur die effektiwiteit van die algehele mediostrukturele samestelling van die woordeboek. In die artikel word aangedui dat kruisverwysing in die GDX klaarblyklik bepaal word deur 'n algemene goedontwikkelde stel riglyne wat meestal nougeset gevolg is. Gewoonlik geld konsekwentheid in die hantering van soortgelyke leksikale items en selfs oor die verskillende volumes van die woordeboek. Sommige aspekte rakende kruisverwysing wat verbeter kan word, word geïdentifiseer. Daar word egter aangedui dat die meeste van hierdie aspekte maklik in die toekomstige digitaliseringsprojek van die GDX aangespreek kan word.

**Sleutelwoorde:** KRUISVERWYSING, MAAK VAN KRUISVERWYSINGS, VOORWAARDES VIR KRUISVERWYSING, VOORVEREISTES VIR KRUISVERWYSING, DATAVERSPREIDING-STRUKTUUR, WOORDEBOEKSTRUKTUUR, ISIXHOSA-LEKSIKOGRAFIE, MEDIOSTRUKTUUR

## 1.     Introduction

*The Greater Dictionary of (isi)Xhosa*, henceforth the GDX, is a tri-volume dictionary conceptualised under the auspices of the Xhosa Dictionary Project of the then University College of Fort Hare in 1966. It sought to address "the need for a modern, scientific standard dictionary [that] was acutely felt by students of the language" (Pahl et al. 1989: xxxix). Albert Kropf's 1899 *Kafir–English Dictionary*, then the only standard dictionary in isiXhosa, and its 1915 second edition prepared by Robert Godfrey, had been sold out. The "the revision and standardisation of the [isi]Xhosa orthography in 1955", precluded the publication of the revised and expanded version of Kropf's dictionary which Godfrey completed in 1946 (Pahl et al. 1989: xxxix). Godfrey's latter effort is the basis of Volume 7 of the works published under the Publications of the Opland Collection of Xhosa Literature series (Opland 2019).

It took four decades to complete the GDX, thereby confirming De Schryver's (2005: 47) observation that "[w]ork on multi-volume dictionary projects is, almost by definition, long and drawn-out". A point was reached in the project when escalating costs, anxiety from the sponsors and the aging of the Editor-in-Chief, led to the discontinuation of research and data collection for the dictionary to focus preparing accumulated material for publication (Pahl et al. 1989: xliii). This culminated in the publication of the GDX in reverse order, starting with Volume 3, edited by H.W. Pahl et al. in 1989 covering the letters Q–Z, followed by Volume 2 in 2003 covering the letters K–P under the editorship of B.M. Mini et al., and then Volume 3 by S.L. Tshabe and F. Shoba in 2006 covering the letters A–J.

Although the GDX is generally regarded as a "fully trilingual" (Pahl et al. 1989: xxxix) dictionary, strictly speaking, it is a monolingual isiXhosa dictionary with a trilingual dimension or a trilingualised monolingual dictionary. As later shown by the screenshots from the dictionary, isiXhosa is the lemmatising language and more comprehensive comments are provided in this language while only brief paraphrases of meaning, occasionally supported by usage

examples, are provided in English and Afrikaans. Translation equivalents in the two languages are not always provided. This is remarkable of the GDX, given an original decision that "[isi]Xhosa entries [were to be] defined [only] in English and Afrikaans" (Pahl et al. 1989: xxxix) before the Dictionary Committee decided to also have isiXhosa definitions, which are not only more detailed but also the basis of English and Afrikaans paraphrases of meaning. Thus, while the dictionary might have been conceived to assist non-mother tongue speakers of isiXhosa, it is now a resource that also serves the needs of mother-tongue speakers.

In total, these volumes amount to over 3 000 A4 pages of dense text. Apart from its main text, the GDX contains rich extra-linguistic data especially in the back matter texts referred to as anthropological articles in Volume 3. In terms of stature, it is arguably the biggest dictionary in isiXhosa or even possibly in an African language. Yet it has not received the metalexicographical attention that its stature and richness deserve. How its compilers managed to document and present complex linguistic and even cultural data to facilitate information retrieval is a story yet to be told. The GDX is foundational in the production of new dictionaries. Tshabe et al.'s (2008) *IsiChazi-magama SesiXhosa*, the first monolingual dictionary in the language, is largely a derivative of the GDX. The same applies to the forthcoming bilingual dictionary under preparation at the isiXhosa National Lexicography Unit. This, in addition to its contemplated revision and the initiative of making it available electronically, makes the GDX interesting for metalexicographical analysis to determine its strengths and possible areas of improvement.

The present article is the first in an envisaged series of publications from an ambitious study that seeks to evaluate the utility value and user-friendliness of the GDX guided by the overarching question "How great is thy dictionary?", with a subtitle indicating the specific focus of each critical evaluation. In the present article, the focus is on the dictionary's employment of cross-referencing as a lexicographic device. This study seeks to uncover the underlying cross-referencing plan for the GDX and determine how effectively the plan was executed to produce a cohesive text and user-friendly resource that facilitates data access and information retrieval across the three volumes.

## 2.    Some theoretical reflections on cross-referencing as a lexicographic device

Literature on cross-referencing is not as extensive as it is the case with the other type of dictionary structures. Over two decades ago, Tarp (1999) noted that theoretical lexicography was yet to establish a commonly accepted definition of cross-reference structures. At that time, Nielsen (1999) described discussions of *mediostructures*, a synonym of *cross-reference structures*, as very limited and sporadic. More than a decade later, Wiegand and Smit (2013) concurred with Nielsen (1999) and Tarp (1999), noting for example, the validity of Tarp's (1999)

observation regarding the definition of cross-reference structures (Wiegand and Smit 2013: 214). Wiegand and Smit (2013) proceed to offer more nuanced insights on mediostructures.

In the nomenclature of dictionary structures, *mediostructure* is used to refer to cross-referencing procedures that lexicographers deploy in the compilation of dictionaries. Consider the treatment of *mediostructure* in the *Dictionary of Lexicography* (DoL) below:

**mediostructure**
⇨    CROSS-REFERENCE STRUCTURE.

From the term *mediostructure*, a relationship may be inferred between the mediostructure and other types of dictionary structures, especially the macrostructure and the microstructure. Following the logic of system levels (*macro-meso/mezzo/ mid-micro*), the inference could be that the mediostructure occupies a level between the macrostructure, which deals with components of the wordlist and their arrangement, and the microstructure, which concerns itself with the inclusion and presentation of entries in a dictionary article headed by each lemma. However, existing literature based on a nuanced analysis of cross-referencing reveals that such an inference would only be partially true (cf. Gouws and Prinsloo 1998; 2005a; Nielsen 1999; Tarp 1999; Wiegand 2004; Wiegand and Smit 2013). Nielsen (1999) makes an important point that, "in contrast to the macrostructure and the microstructure, [the mediostructure] should not be viewed as an order structure proper" but rather a mediating structure "connecting data in different places" (Nielsen 1999: 272). It is on this account that although they recognise and use the terms *mediostructure* and *cross-reference structure*, Wiegand and Smit (2013: 216; 236) argue in favour of the *mediostructural organisation* of a dictionary. To understand aspects of *mediostructural organisation* of a dictionary, one needs to follow the cue from the DoL article presented above and look up the lemma **cross-reference structure**, which is treated as follows:

**cross-reference structure**
The network of CROSS-REFERENCES which allows compilers and users of a reference work to locate material spread over different component parts. There are many different types of cross-references and typographical devices to support them (between or inside ENTRIES, within or outside the WORD-LIST, alphabetical or numerical, by lettering or punctuation etc.), and a framework for their systematic study ('mediostructure') is still to be developed.
⇨    TEXT COMPRESSION.
📖    Wiegand 1996.

The complexity of the mediostructure and the relationships that it establishes manifests itself in the numerous terms that come up above DoL article. One such term is *cross-reference(s)*, which is written in uppercase. What one learns intuitively as an experienced dictionary user is that the use of uppercase in the DoL is itself a cross-reference, i.e., a "word or symbol in a REFERENCE WORK to facilitate access to related information" (Hartmann and James 1998: 32). This is confirmed when one looks up the term *cross-reference* in the same dictionary, which is treated as shown below.

**cross-reference**
A word or symbol in a REFERENCE WORK to facilitate access to related information. In this *Dictionary of Lexicography*, four such devices are used for this purpose: the right-pointing arrow (⇨) to refer the reader to relevant information covered in other entries; small capitals in the running text to highlight terms explained elsewhere; bibliographical references (📖) to cite published sources listed at the end of the book; and references to Panels where information is summarised in diagrammatic or tabular form.
⇨ CIRCULAR REFERENCE, CROSS-REFERENCE STRUCTURE.

Starting with the term *mediostructure* and following cross-references from one related article to another, further terms come up that refer to types, levels, and other aspects of mediostructures. It becomes apparent that the mediostructure is as complex as the network of relationships that it ideally seeks to re-establish in a dictionary in view of relationships that exist in linguistic and knowledge structures. These relationships transcend the macrostructure and the micro-structure. For example, the article for the lemma *cross-reference structure* ends by referring the user to academic works on this topic, namely, Wiegand (1996), as well as Gouws and Prinsloo (1998) while the article for the lemma *cross-reference* explains that bibliographical references and the computer icon serve to refer the user to external resources beyond the dictionary itself. This is in addition to the right pointing arrow and small capital letters in dictionary articles, both of which refer the user to other articles that serve as reference addresses. The cross-references used in the DoL are equivalents of hyperlinks in electronic dictionaries and other online resources.

The mediostructure or cross-reference structure may be better understood from Wiegand's (1996) perspective of dictionaries as careers of text types and text segments (cf. Wiegand and Smit 2013). This perspective regards different text types and text segments as constituting of data types through which lexicographers may address users' lexicographic needs for information. Thus, the data distribution structure recognises all the text types and text segments constituting

a dictionary as legitimate spaces in which the lexicographer may present lexico-graphic data. Within the data distribution structure, "textual cohesion [is] achieved by the interaction of the various structural components, … promoted by the use of a system of cross-referencing and improved by an innovative approach towards a mediostructure-orientated lexicography" (Gouws and Prins-loo 1998: 8).

While cross-referencing reveals relationships between text types and text segments in the context of a dictionary as a career of text types and text seg-ments, these relationships reflect extra-lexicographical structures from which they are derived. This means that although the relationships are established through cross-referencing as a lexicographic procedure within a particular dic-tionary, most of the relationships originate from the formal and semantic structures of languages or conceptual structures of knowledge systems treated in dictionaries (Wiegand and Smit 2013: 215). Trying to accommodate and manage extra-lexicographical information within the data distribution struc-ture gives rise to *cross-reference conditions* (Nielsen 1999; Tarp 1999) or the *pre-requisites for cross-references* (Wiegand and Smit 2013: 216). These derive from the heart of lexicography as a fully-fledged discipline that is independent from what Hartmann (2005) calls its mother and sister disciplines. For example, while the field of lexicology concerns itself with the formal, semantic and pragmatic aspects of languages, lexicography would utilise lexicological find-ings without necessarily constraining itself within the confines of lexicology. The utilisation of lexicological findings would need to be guided by user needs and functions of the relevant dictionary. In that endeavour, D. Bolinger, who is also quoted by Gouws and Prinsloo (1998), describes how destructive lexicog-raphy could be on the language concerned, when he writes:

> It consists in tearing words from their mother context and setting them in rows — carrots and onions and beetroot and salsify next to one another — with roots shorn like those of celery to make them fit side by side, in, an order determined not by nature but by some obscure Phoenician sailors who traded with Greeks in the long ago (Bolinger 1985: 69).

While the independence of the lexicographer permits him/her that in order to accomplish his/her mission, some of the relationships need to be retained in order to achieve specific dictionary functions. As such, Bolinger (1985: 69) pro-ceeds to note that "half of the lexicographer's labor is spent repairing this dam-age to an infinitude of natural connections that every word in any language contracts with every other word, in a complex neural web knit densely at the center but ever more diffusely as it spreads outward" (cf. Wiegand and Smit 2013). The numerous challenges of including different types of data against space constraints requires the lexicographer to be a man or woman with a plan, not just Samuel Johnson's harmless drudge. Cross-referencing is one such plan. Wiegand (2004) echoes this point in a much simpler way:

> Whoever compiles an alphabetical printed dictionary is forced to distribute the data to be presented along the provided text compound constituents. The close

> connection with regard to the contents can at the same time only be taken into account in a very restricted way. In order to uncover the connection, which is necessarily concealed by the data distribution along the different access positions, a mediostructural network of the lexicographically distributed data has to ensue (Wiegand 2004: 218).

Bolinger's reflections undergird the notion of cross-reference conditions as "mediostructurally relevant aspects" or "the reference prerequisites determined by the scope of the dictionary subject" (Wiegand 2004: 207). These conditions include the existence of items that could function as either cross-reference positions or cross-reference addresses. The former would typically be a lemma that the user looks up and, upon consulting it, gets referred to another by virtue of a specific relationship between the two and the treatment of the latter ideally offering more information in addition to what the user could retrieve from the former. A meticulously executed mediostructure is necessary for successful information retrieval on the part of the dictionary user. Not only does such a mediostructure recognise and respond to cross-reference conditions, it also avoids dead references, i.e., a cross-reference to a headword which does not occur in the dictionary (Hartmann and James 1998: 35), or reference circularity, which is ironically illustrated by the articles *reference circularity* and *circular reference* in the DoL. The scholarly works referenced in this section undergird the discussion of cross-referencing in the GDX.

## 3.     Cross-reference conditions in the GDX

The use of cross-referencing as a lexicographic device in the GDX would be better appreciated in the context of cross-reference conditions. It is important to highlight how and why cross-referencing is necessary in the dictionary. An endeavour to produce the GDX as a modern, scientific and comprehensive dictionary whose impact was envisioned to be greater than that of its predecessors laid the foundation for its cross-reference conditions. This is better captured in the GDX blurb, which states that the dictionary:

> … amasses an unexpectedly large volume of data on the lexicon of the Xhosa language including material not only of semantic, but also of syntactic, morphological, and phonological importance. The approach is wide, dealing with a comprehensive range of information of sociolinguistic importance against the background of Xhosa tradition and culture.

The GDX contents would, therefore, constitute elements of complex linguistic and sociolinguistic systems isolated by lexicographers and presented at different access positions using macrostructural and microstructural conventions within a data distribution structure following. The major macrostructural convention used is the alphabetical arrangement of lemmata, which is complex in Bantu languages such as isiXhosa because of the morphological structure of these languages (Gouws and Prinsloo 2005b; De Schryver and Wilkes 2008). This complex morphology has resulted in a situation that necessitates cross-refer-

encing from the alphabetically arranged lemmata, including sub-lexical items such as formatives, to addenda that deal with morphology in the outer texts (see 4.2.3 and 4.3). As for the microstructure, it is mainly the space-saving technique that results in economic treatment of certain lemmata and, instead, providing cross-references to related lemmata elsewhere in the dictionary. Within the wide scope of lexical items there exist semantic relations such as synonym and lexical variation especially at morphological level. Lexical variation is complex in isiXhosa owing to the wide geographical spread of the language speakers, the existence of dialects and the way the language was standardised through writing. Synonyms and numerous variants associated with the different dialects made cross-referencing necessary to reflect the relevant relationships within the dictionary's broad lexical coverage. Added to these is the prevalence of *isihlonipho* (euphemistic language) in isiXhosa, with the GDX establishing a relationship between this variety of the language with the ordinary language that either the whole spectrum of language speakers or some sections of the linguistic community such as (married) women or male initiates need to avoid according to certain cultural dictates.

Further, to the endeavour of making the vocabulary coverage of GDX broad, the depth of lexicographical treatment increases the types, quantity and density of data included under each dictionary article. For example, the GDX provides seventeen senses of the word *ukuva* (to hear/feel/taste/test/smell) spread over three pages, a feat attained by no other dictionary in the isiNguni Bantu languages. The seventeen senses in this article are supported by multiple idioms. Accordingly, it is not surprising that the GDX was published in three volumes, Volume 2 being the largest with 1 086 pages of the main text. Such treatment leads to textual condensation, which in turn necessitates cross-referencing. Seven explicit cross-references are made from the lemma **ukuva**.

The data distribution structure of the GDX is characterised by the encyclopaedic treatment of certain linguistic and extra-linguistic concepts in the outer texts in addition to their standard treatment within the main text. That a detailed grammatical description of the language is included in the form of front matter texts (in Volumes 1 and 2) and back matter texts in Volume 3, together with anthropological essays make the dictionary resourceful beyond its macro- and microstructural text segments. Indeed, the GDX is greater because its compilers conceived it as a container of knowledge (McArthur 1986) beyond the main text, i.e., the Aa-Zz section. However, since the topics of the outer texts are primarily treated as lemmata in the macrostructure, cross-referencing from the main text to the outer texts becomes an important procedure of guiding users to the powerful linguistic and extra-linguistic knowledge that could not be judiciously accommodated in the main text.

From the highlights provided in this section, the deployment of cross-referencing was a necessary procedure in the compilation of the GDX, and a useful guide structure for the user's optimal access to data and information retrieval. However, cross-referencing is a matter of detail that requires a close study for its efficiency to be appreciated. The remainder of the article focuses on different aspects of cross-referencing in the GDX.

## 4.    Cross-referencing in the GDX

The authors of this article are regular GDX users. Through regular use of the dictionary, they were already aware of its extensive use of cross-referencing. However, to perform a critical analysis of the dictionary's use of cross-referencing, the authors had to approach the task systematically. The point of departure was a careful reading of the front matter texts, particularly the introduction and user-guide, in search of explanations of how cross-referencing was used. This was done across the three volumes since outer texts differ slightly across the volumes. The exercise did not lead to any comprehensive insight into cross-referencing from the compilers' perspective since the dictionary contains no text that deals with the topic. After perusing through the main text of the dictionary, the authors proceeded to check if the prominently used cross-references are explained in the front matter text entitled 'Izifinyezo neempawu' in isiXhosa, 'Abbreviations and signs' in English, and 'Afkortings en tekens' in Afrikaans. The following were found to be the major cross-references:

— The equal sign (=)

— *kgl*, an abbreviated form of the isiXhosa word *khangela* (see/look/check) or *sien* in Afrikaans

— The sign < for derivational relations

— hlon: (hlonipha/euphemistic word)

The authors proceeded to determine the prevalence of these cross-references and extrapolate usage patterns of their before evaluating the general efficacy of this lexicographic procedure. Almost by definition, cross-referencing is an intricate guide structure that operates within and across different order structures, i.e., the macrostructure and the microstructure, and in some cases beyond a dictionary as a text compound. The authors drew from Swanepoel's (2017: 23) guidance that "a reviewer cannot read, analyze, describe and evaluate any dictionary from beginning to end". Any attempt of an exhaustive study of the GDX, let alone its cross-referencing, would be unfathomable. Accordingly, the authors conducted a manual identification and count of the prominent cross-references across alphabetical stretches Aa and Bb, which stretch up to page 256 of the 832 pages of Volume 1 excluding outer texts. Admittedly, the manual count of minute detail such as symbols in dense dictionary articles may not be accurate but it yielded a fair impression regarding the use of different cross-references. For example, notwithstanding the inevitable imprecisions, a minimum sample of approximately 580 instances ($\approx$ 300 *kgl* and 280 equal signs) of cross-references is deemed sufficient for the purpose of the study. This is particularly the case considering that the cross-references lead to reference addresses beyond the focal alphabetic stretch, including to the other two volumes. Furthermore, the authors went beyond the scoped alphabets to confirm

the observed patterns to assess consistency across the entire dictionary. In the case of cross-references related to derivation and *isihlonipho* (see 4.3 and 4.4 respectively), they also transcended the delineated scope for more examples. Ultimately, the authors are satisfied that this article fairly reflects on cross-referencing in the GDX based on sufficient data. In the remainder of this section, the use and purpose of different cross-references will be described and examined closely.

## 4.1     Cross-referencing 'equality'

The equal sign (=) is a widely used cross-reference in the GDX. Approximately 280 manual counts of its use were made within the delineated Aa and Bb lemmatic stretch. Table 1 below presents twenty of the randomly selected lemmata which serve as cross-reference positions, together with their cross-reference addresses, English and Afrikaans equivalents or glosses. Dictionary articles for some of the lemmata are used for further vivid illustration and discussion of the use of the equal sign as a cross-reference.

| Cross-reference position | Cross-reference address | English | Afrikaans |
|---|---|---|---|
| isabhobe | isabhobho | wide and deep place | plek of iets wat breed en diep is |
| isahlukahlukano | isahlukano | division/disagreement | onenigheid/verskeidenheid |
| ukwahlulahlula | ukwahlula 2 | separate/divide | skei/verdeel |
| isakho | isakhiwo | building | gebou |
| umalamane | isalamane | relation | aangetroude |
| isandekela | isanabe | one held in honour | iemand wat geëer word |
| isatyhenge | isadyenge | tear | traan |
| isagweba | isigweba | short throwing stick | kort kierie |
| ulwaphulelo | isaphulelo | discount | korting |
| isaqhakra | isaqhaga | poor milker | slegte melkkoei |
| iathalala | isidenge | idiot/deaf person/slow learner | idioot/doofstomme/hardleerse persoon |
| ububende | ubende | cooked animal blood | bloed in 'n vloeibare toestand |
| ukuthi bengebenge | ukubengezela | flash/glitter/sparkle | blink/skitter/skyn |
| ukubhavumla | ukubhavuma | growl (of a dog/lion) | grom (van 'n hond) |
| ibhenxa | ihodi | ant-bear | erdvark |
| ibhrorho | ibhulorho | bridge | brug |
| isibuzi | isibozi | milk calabash/skim-milk | melksak/afgeroomde melk |

**Table 1:**     The equal sign as a cross-reference in the GDX

The use of the equal sign for cross-referencing is not explained anywhere in the GDX, but its purpose of highlighting equivalence between lexical items is not expected to pose consultation problems for dictionary users. A closer look at the lexical items in the first two columns of Table 1 indicates that the relations established by the equal sign cross-reference are of two types. Firstly, some examples in the table and across the dictionary indicate that the cross-reference is used with respect to synonyms such as *iathalala* and *isidenge* (mentally retarded person/ idiot) or *ibhenxa* and *ihodi* (bellows). Secondly, the equal sign is also used for cross-referencing lexical items with slight variation in form. The first example, the final syllables mark the only difference between *isabhobe* and *isabhobho* (a wide and deep place), while the repetition of the stem in *isahlukahlukano* (division/ disagreement) and *ukwahlulahlula* (separating and dividing) makes these lexical items different from their related forms in the second column. Morphological differences, such as the use of different noun class prefixes (e.g., *umalamane* vs *isalamane*) or truncation as in the cases of *isakho* and *isakhiwo* or *ububende* and *ubende* are also noted, together with phonological differences involving *ibhrorho* and *ibhulorho*. Some differences are associated with dialectical or regional usages, a topic that is beyond the scope of this article. What is important for this study is that the equal sign cross-reference indicates shared meaning between lexical items, as illustrated in the third and fourth column for English and Afrikaans speakers.

As it is a common lexicographic practice for lexical items functioning as cross-reference positions, the comment on semantics in any dictionary article for lexical items in first column of Table 1 does not go beyond indicating the relevant lexical relation established through cross-referencing. It simply informs the user that the lexical items are semantically equal. This is illustrated below.

i·**athalala** b/n 5/6:
   = *isidenge 1, 2*:                           = *isidenge 1, 2.*                = *isidenge 1, 2.*

The need for meaning for a user who does not know the meaning of *isidenge* will not be satisfied within the confines of the above article. One would need to consult the article in which the lexical item at the reference address is the lemma, as illustrated below.

ísi·**dèngè** b/n 7/8:

| 1 umntu ongenangqondo ihlakaniphileyo; isihiba, isanyamtya; | 1 mentally retarded person; imbecile, idiot; | 1 'n geestelik versteurde persoon; 'n swaksinnige, idioot; |
| 2 umntu ongakwaziyo ukuthetha, isimumu; | 2 a deaf and dumb person; | 2 'n doofstomme; |
| 3 umntu othatha kade ezifundweni, isityhifili: | 3 a slow learner. | 3 'n hardleerse persoon. |

As can be seen above, the user will find a more comprehensive comment on the semantics of not only the lemma *isidenge* but also the related lexical item *iathalala*. Lack of cross-referencing from *isidenge* to *iathalala* suggests that the former is either the more frequent or the more preferred of the words from the lexicographers' perspective. This procedure enabled GDX lexicographers to

save space since the comprehensive comment on semantics is not repeated. However, the user can learn about the semantic relation between *iathalala* and *isidenge* only if the consultation is initiated by the former, but not the latter. Such unidirectional cross-referencing decreases the informativeness of the GDX regarding the synonymous relations that are established using the equal sign as a cross-referencing device.

## 4.2    When the user is asked to see

As indicated in the isiXhosa abbreviation list, the cross-reference *kgl* stands for *khangela*, an isiXhosa word for *see*, *look*, or *check*. In the GDX, it literally instructs or advises the user '*kgl naphantsi kuka-*' (also check/look/see under) or 'sien/ kyk onder' a particular cross-reference address. This is the most frequently used cross-reference in the GDX, as it will be illustrated in the three subsections that pertain to different cross-reference conditions.

### 4.2.1   Cross-reference relations between lexical items

One notable use of the *kgl* cross-reference pertains to relations between lexical items lemmatised in the GDX. This usage appears to be less prevalent compared to other instances such as those presented in par. 4.2.2 below. Table 2 approximates the instances of the *kgl* usage to highlight relations between lexical items throughout the alphabetic stretches Aa and Bb.

| Cross-reference position | Cross-reference address | English form | Afrikaans form |
|---|---|---|---|
| isangxa | umagoloda | steppe buzzard | jakkalsvoël |
| isabatha | isibatha | trap/snare | strik |
| isandiso | -kazi | augmentative suffix -kazi | augmentatief suffiks -kazi |
| ibhelese | imfutho | bellows | blaasbalk |
| ibhimbilithela | imbafula | glutton | gulsigaard |
| ubholrhathi | ingumbane | anus borer | anus-boorder |
| umbikanye | imbinini | very ugly person | uitermate lelike persoon |
| isibishibishi | imbishimbishi | well build person | groot sterk geboude persoon |
| isibophelelo | imbophelelo | string/contract | tou |
| ubotya | iketse | samp | stampmielies |
| imibuzwano | imbuzwano | mutual interrogation | wedersydse ondervraging |

**Table 2:**    The *kgl* cross-reference for related lexical items in the GDX

The lexical relations established by the *kgl* cross-reference are similar to those identified in 4.1 above regarding the equal sign cross-reference. Firstly, the examples in Table 2 and across the dictionary indicate that the cross-reference is used with respect to synonyms such as *isangxa/umagoloda* (steppe buzzard), *ibhelese/infutho* (bellows) and *ibhimbilithela/imbafula* (glutton). Secondly, the relations between some lexical items in the first two columns are that of variants, such as *isabatha/isibatha* (trap/snare), *isibophelelo/imbophelelo* (string/contract), *isibishibishi/imbishimbishi* (well build person) and *imibuzwano/imbuzwano* (mutual interrogation). Thirdly, beyond alphabetic stretches Aa and Bb, it is noted that the variants connected through the *kgl* cross-reference are mainly morphological and associated with regional and/or dialectical usage, as it is the case with the equal sign cross-reference.

While there are no discernible criteria for choosing between the *kgl* and equal sign cross-references for similar lexical relations, differences are notable in terms of the comments on semantics at the reference address. This can be illustrated by the treatment of *isangxa* and *umagoloda* (steppe buzzard), which are synonyms, below.

**ís·ángxà** b/n 7/8:

| | | |
|---|---|---|
| 1 uhlobo lwentaka enkulu engumzalwana wokhozi iphila kukutya inyama, *Buteo buteo* ihlala emathafeni nasezintabeni; kgl no- u*magoloda 1* (Qul 2): | 1 steppe buzzard, mountain buzzard, *Buteo buteo*; see also u*magoloda 1* (Vol 2). | 1 jakkalsvoël, *Buteo buteo*; sien ook u*magoloda 1* (Vol 2). |
| 2 indlandlokazi, *Buteo rufofuscus*: | 2 jackal buzzard, *Buteo rufofuscus*; | 2 jakkalsvoëls, *Buteo rufofuscus*; |
| 3 umntu odume kunene ngento entle ethile; isihandiba, isandekela, isikhulu, inganga, iham, isinxiba-mxhaka, isikhakhamela, isigagamela, isinonophu, ingingi, umfo ophakamileyo, indwalutho, isithwalandwe, inene, ingangamsha, isichulujeje: | 3 dignified, respectable, honourable person; | 3 waardige, eerbare, eerbiedwaardige persoon; |
| 4 umfo othanda amabhinqa novunywa lula ngawo; ulewu, udlalani, umfo okholwayo ngoomtitili: | 4 a don juan, womanizer. | 4 laventelhaan, vrouebekoorder. |

**ú·mágòlódà** b/n 1a/2a:

| | | |
|---|---|---|
| 1 uhlobo lwentaka enkulu engumzalwana wokhozi, ehlala emaweni, ephila kukutya inyama; isangxa, unogoloda, isagoloda, ugoloda, isigoloda, isagolokoda: | 1 jackal buzzard, steppe buzzard, mountain buzzard; | 1 jakkalsvalk; |
| 2 umntu obalaseleyo ngamandla: | 2 a very strong person; | 2 besonder sterk persoon; |
| 3 umntu osisityebi, isingqwinda, iham: | 3 a rich person. | 3 ryk persoon. |

It is in connection with the first sense of the word *isangxa* that the user is referred to *umagoloda*. This sense of the word is also given as the first sense of the latter. Both senses describe the size, habitat and feeding habits of the steppe buzzard. However, one notes the inconsistent treatment of the translation equivalents and the wordiness of the first explanation under *umagoloda*, which includes the word's variants such as *unogoloda*, *isagoloda*, *ugoloda*, isigoloda and *isagolokoda*. In addition to the variants, the explanation includes the synonym *isangxa*, yielding a case of implicit cross-reference circularity. Between the two articles, directing the user to additional information may not be the motivation for cross-referencing, and neither is saving space because the cross-reference position article contains more information and occupies more space than the cross-reference address article. What cross-referencing clearly does, is to affirm the relationship between the two synonyms, but it remains unclear why the

cross-reference is from one specific sense of *isangxa* yet the other senses are also shared. Of course, the comment on semantics for *isangxa* includes a fourth sense that is not given for *umagoloda*, a sense that is not captured in Volume 2, published earlier than Volume 1 in which *isangxa* is treated. Apart from this, cross-referencing between *isangxa* and *umagoloda* typifies the use of the *kgl* cross-reference between related lexical items in the GDX. It departs from cross-referencing where the equal sign is used, although the relations between the cross-referenced lexical items are similar.

### 4.2.2 The case of idioms

Most of the instances of the *kgl* cross-reference usage in the GDX are in respect of idioms. The presentation of idioms, which are so numerous that the user finds them on almost every page, makes the dictionary a rich resource and reference regarding the idiomaticity of isiXhosa. In the GDX, idioms are listed as sub-lemmata of two lexical items that constitute the composite idiomatic meaning. For example, the idiom '*Isabonkolo sitshelwe sisicheko*' is listed as a sub-lemma of both **isabonkolo** (tadpole) and **isicheko** (liquid/water), with the *kgl* cross-reference serving as a relational marker between the two entries as shown below.

| | | |
|---|---|---|
| ís·**ábónkòló** b/n 7/8: | | |
| intshontsho lesele xa lisekwimo yokuqala yobomi, libuntlanzirha; ngokwenkolo yamaXhosa ezinye izifo zomqala zibangelwa sesi silwanyana xa sukuba siginywe ngempazamo sisemanzini aselwayo: | tadpole; according to amaXhosa belief, certain throat and intestinal diseases can be caused by this animal if it is swallowed by accident in drinking water. | paddavis;volgens amaXhosa-geloof word sommige keel-en ingewandesiektes deur dié diertjie veroorsaak wanneer dit per ongeluk saam met drinkwater ingesluk word. |
| *isabonkolo sitshelwe sisicheko*: | | |
| kgl phantsi kuka-isi*cheko*: | see under isi*cheko*. | sien onder isi*cheko*. |
| | | |
| isi·**chêkò** b/n 7/8: | | |
| 1 ichatshazana okanye ithontsana lento engamanzi; Mbo isichèkú: | 1 a drop or small quantity of liquid; | 1 'n druppel of klein hoeveelheid vloeistof; |
| 2 intlenga, isichiki, isicheku, amashiqa, izibhidi, iintlelemu, iminyanyatho, intshela, isisalela, intsalela, isichòchò, isichóchwànà, isindyondyo, isindyondywana: | 2 the dregs in a vessel, lees, remnants; | 2 die droesem, afsaksel, moer, ens in 'n houer, oorblyfsel; |
| 3 isadungana samanzi: | 3 a small puddle of water. | 3 'n baie klein waterplassie. |
| ízi·**chêkò** b/n 7/8: | | |
| iintwana zezingxaza eziyintsalela ezishiyekileyo, ezingamathontsi: | remaining drops or quantities of liquid: | lekseltjie of laaste bietjie van 'n vloeistof: |
| ukutshelwa zizicheko/zizicheku: | lit: *to have the remaining drops of liquid all dried up for one*: | lett: *die laaste lekseltjie vir jou opgedroog te hê*: |
| ukuphelelwa licham obukade ulixhamla; ukonakalelwa sisisulu obusoloko usitya; ukutshelwa ngumthombo woncedo lwakho: | be deprived of one's former source of help, to be denied succour and aid, to lose support formerly enjoyed. | jou fonteintjie vir jou opgedroog hê. |

Certain isiXhosa words are highly productive when it comes to idioms, such that their inclusion under two lexical items in the GDX accounts for extensive cross-referencing. Of the sixty idioms listed under the lemma **isandla** (hand), twenty-three serve as reference positions. Some of them are listed for illustrative purposes below.

— *Ukubambana ngezandla* (To hold each other by hands) … kgl naphantsi kuka- uku**bamba**:

— *Ukubeka izandla* (To put hands) … kgl naphantsi kuka- *uku**beka***:

— *Ukucela izandla* (To ask for hands) … kgl naphantsi kuka- *uku**cela***:

— *Is**andla** semfene* (The hand of a baboon) … kgl naphantsi kuka- *im**fene*** (Qul 2):

— *Ukunika umntu umva wes**andla*** (To give a person the back of a hand) … (kgl naphantsi kuka- *umva* (Qul 3):

— *Ukunika is**andla*** (To give a hand) … kgl naphantsi kuka- *uku**nika*** (Qul 2):

— *Inqatha linqumele es**andl**eni* (Animal fat has stuck on the hand) … kgl naphantsi kuka- *in**qatha*** (Qul 2):

— *Umqa womele es**andl**eni* (Porridge has stuck on the hand) … kgl naphantsi kuka-*um**qa*** (Qul 3):

— *Ukuphuma iz**andla**:* (To come out with hands) … kgl naphantsi kuka-*uku**phuma*** (Qul 2):

— *Ukusonga iz**andla**:* (To fold hands) … kgl naphantsi kuka-*uku**songa*** (Qul 3):

While English translations, literal or figurative, accompany the above idioms to make the examples meaningful, it is important to note that English and Afrikaans equivalents are not always provided in the dictionary. This is most probably because of the difficulty of translating idiomaticity, which represents those instances where the popular isiXhosa dictum 'IsiXhosa asitolikwa!' (IsiXhosa is untranslatable) holds true. The case of cross-referencing from the idiom *isabonkolo sitshelwe sisicheko* under the lemma **isabonkolo** referred to earlier is a perfect example, where users who rely on the English and Afrikaans data columns for information only find the cross-references '*see under* **isicheko**' and '*sien onder* **isicheko**' where the needed information is found. Idioms such as *ukubambana ngezandla*, *ukubeka izandla* and *ukucela izandla* under the lemma **is**andla** are treated similarly. When one follows the cross-reference from the idiom *ukubeka izandla* as a reference position to the reference address under the main lemma **uku**beka**, more comprehensive treatment is found as illustrated by the article below:

*ukubeka izandla*:
  kgl phantsi kuka-uku*beka*:                    see under uku*beka*.                          sien onder uku*beka*.

*ukubeka izandla*:                               lit: *place hands*:                          lett: *hande plaas* (oplê):
  **(i)** okwabefundisi abazeleyo: ukumisela omnye umfu-   **(i)** ordain to the ministry with laying on of   **(i)** orden en bevestig met oplegging van
  ndisi kudidi lobufundisi:                       hands;                                       hande;
  **(ii)** okwebhishophu: ukwenza isakramente yoqiniso   **(ii)** of a bishop: administer the Sacrament of   **(ii)** van 'n biskop: die sakrament van
  kwababhabhatiziweyo ukubamisela kubulungu obuze-   Confirmation, confirm as a full member;      Bevestiging bedien aan nuwe lidmate;
  leyo enkonzweni:
  **(iii)** ukunyanga, ukuphilisa umntu ofayo ngokumbeka   **(iii)** lay hands on a sick person to cure him.   **(iii)** hande oplê ter genesing.
  izandla:

The above article is a perfect example where cross-referencing serves as an effective space-saving technique for the GDX lexicographers that translates into a rewarding information pursuit for dictionary users. Users who rely on English and Afrikaans columns do not only get literal translations of the idiom at the reference positions. Together with those users who rely on isiXhosa data, they also find three explanations of the idiom. The same can be said of the idiom *ukuphuma izandla* where only the sense of excelling is provided under the lemma *is*andla, while additional senses and slightly different senses are given under the lemma *uku*phuma (come out).

In the discussed cross-referencing instances, unidirectionality is observed. The user is not referred to the lemma *is*andla from the idiom *ukubeka izandla* under the lemma *uku*beka. The treatment of the idiom is richer under the latter lemma than under *is*andla. This makes sense from the perspective of dictionary space economy, especially given that the GDX is a bulky dictionary. It could be a challenge in cases where the cross-reference position and cross-reference address are not in the same volume and the user does not have access to the volume with a more informative article.

However, there are instances of bidirectional cross-referencing between idioms where cross-referencing from either side leads to basically similar explanatory information. This has been noted to be the case when the cross-referenced idioms appear in different volumes. For example, *is*andla is lemmatised under letter Aa in Volume 1 while *i*nqatha and um*qa*, under which two idioms treated under the lemma is**andla** appear in Volumes 2 and 3 respectively. Under the lemmata *is*andla and *um*qa (porridge), the explanations of the idiom 'umqa womele esandleni' describe the state of being in a difficult situation. The same is noted regarding a related idiom 'inqatha linqumele esandleni' under the main lemmata '*is*andla' and '*i*nqatha', rendered in the English explanation as "be dumbfounded, flabbergasted, at a loss, not to know what to do" (Tshabe and Shoba 2006: 33). In such cases, the cross-reference position becomes the entry of the idiom that the user looks up first. However, although the explanations are similar, their wording differs slightly. Further analysis indicates no discernible pattern regarding the differences in the wording of explanations across the volumes. Although some of the explanations are briefer in the volumes that were published later, the authors of this article may not generalise that Volume 1 editors were more economic with space. Volume 1 also has explanations that are more detailed than those found in Volumes 2 and 3. What can be generalised is that Volume 1 editors strove to improve their explanations in ways that either made some explanations more concise and others detailed on a case-by-case basis.

Across the three volumes, bidirectional cross-referencing characterised by similar but differently worded explanations of idioms appears to be an effective way of facilitating access to this important linguistic information. Having one volume of the dictionary would not be as disadvantageous as is the case of unidirectional cross-referencing where the idiom is treated more comprehen-

sively under one lemma and only treated by means of a cross-reference under the other, an approach that the editors seem to have astutely restricted to cases where both main lemmata are in one volume.

### 4.2.3    Cross-referencing for grammatical data

The first usage of the *kgl* cross-reference on the first page of Volume 1 pertains to grammar as shown in the article below. Extensive cross-referencing is utilised from the main text of the GDX to the outer texts that provide grammatical data as illustrated in the article stretch below, which is from page 3 of Volume 1.

**ábàló** mlb mn, umn hl 5, 11, okomn hl 2: abalunge kulo; kgl ne- *Add 9* (Qul 3):
*abalo ngamaXhosa (abemi belo zwe):*

poss pron, possr cl 5, 11, possn cl 2: his, her, its; see also *Add 9* (Vol 3).
*it's (that country's inhabitants) are the amaXhosa.*

poss pron, besitter, kl 5, 11, besitting kl 2: syne, hare, dit s'n; sien ook *Add 9* (Vol 3).
*syne (die inwoners van daardie land) is die amaXhosa.*

**ábáṁ** mlb mn, umn umntu I isinye, okomn hl 2; kgl ne- *Add 9* (Qul 3):

poss pron, possr 1st pers sing, possn cl 2: mine; see also *Add 9* (Vol 3).

poss pron, besitter 1ste pers sing, besitting kl 2: myne; sien ook *Add 9* (Vol 3).

**ábángèbà-** vml ntl esong sespl hl 2 bal kwisilandulo; kgl ne- *Add 1* (Qul 3):

aug adj cop SC cl 2 rel neg; see also *Add 1* (Vol 3).

aug adj kop SS van kl 4 rel neg; sien ook *Add 1* (Vol 3).

**ábányè** ispl okanye ismlb sokunye:

*abanye abantwana bakhuthele:*
*abanye abakho namhlanje:*

alternative adj or pron: some; some . . . others:
*some children are diligent;*
*some are absent today.*

alternatiewe adj of pron: sommige; party . . . ander:
*sommige kinders is fluks;*
*party is vandag afwesig.*

**úkù·àbásà** nz/v (dlul/perf -ábásilè, -ábásè; nzl/ap úkùàbá-sèlà; nzs/caus úkùàbásisà):
ukusebenza, ukuthetha, ukuhamba ngokuthandabuza, ngokunditha, ngokundindiza, njl, okomntu owenza engenzi xa esebenza, othetha ngento angaqinisekanga ngayo okanye ohamba nzima ngenxa yokubulawa ziinyawo:

work, speak, walk hesitatingly, waveringly, etc, eg a person who suffers from sore feet, speaking something about which one is not clear, etc.

weifelend, onseker, aarselend werk, praat, loop ens; bv soos 'n persoon met seer voete, om te praat van iets waaroor daar nie duidelikheid oor is nie, ens.

**ábàso** mlb mn, umn hl 7, okomn hl 2: abalunge kuso; kgl ne- *Add 9* (Qul 3):

poss pron, possr cl 7, possn cl 2: his, her, its; see also *Add 9* (Vol 3).

poss pron, besitter kl 7, besitting kl 2: syne, hare, dit s'n; sien ook *Add 9* (Vol 3).

**is·ábàthá** b/n 7/8:
kgl isi*batha:*

see isi*batha.*

sien isi*batha.*

**ábáwó** mlb mn, umn hl 3, 6, okomn hl 2: abalunge kuwo; kgl ne- *Add 9* (Qul 3):

*abawo (abaninimzi) bayathengisa ngawo;*
*abawo ngabeSuthu (abantu bamahashe):*

poss pron, possr cl 3, 6, possn cl 2: his, hers, its; theirs; see also *Add 9* (Vol 3):
*its (owners of the house) are selling it;*
*theirs are the Basotho(the people of the horses.*

poss pron, besitter kl 3, 6, besitting kl 2: syne, hare, dit s'n; hulle s'n; sien ook *Add 9* (Vol 3):
*syne (die eienaars van die huis) verkoop dit;*
*hulle s'n is die Basotho (die menses van die perde).*

**ábáyá** [a:baja:] lts esalatha phaya, kude hl 2 imo epheleleyo; kgl isa*lathisi* ne-*Add 10* (Qul 3):

cl 2 demo 3rd position, full form: yonder, those far away; see isa*lathisi* ne-*Add 10* (Vol 3).

dem van kl 2, 3de pos lang vorm: daardie(s), doeries; sien ook isa*lathisi* ne-add 10 (Vol 3).

**ábàyó** mlb mn, umn hl 4, 9, okomn hl 2: abalunge kuyo; kgl ne- *Add 9* (Qul 3):

*abayo babetha iqam emlanjeni (abalusi bemihlambi):*

poss pron, possr cl 4, 9, possn cl 2: theirs; his, her, its; see also *Add 9* (Vol 3):
*theirs (herdboys of the flocks) are swimming in the river.*

poss pron, besitter, kl 4, 9, besitting kl 2: hulle s'n; syne, hare, dit s'n; sien ook *Add 9* (Vol 3):
*hulle s'n (herders van die kuddes) swem in die rivier.*

**ábàzó** mlb mn, umn hl 8, 10, okomn hl 2: abalunge kuzo; kgl ne- *Add 9* (Qul 3):
*abazo abakafiki (abanini beenkomo ezo):*

poss pron, possr cl 8, 10 possn cl 2: theirs; see also *Add 9* (Vol 3):
*theirs (the owners of the cattle) have not yet arrived.*

poss pron, besitter kl 8, 10, besitting kl 2: hulle s'n; sien ook *Add 9* (Vol 3):
*hulle s'n (die eienaars van die beeste) het nog nie aangekom nie.*

In most of the instances, explicit cross-referencing is made to Addendum 9, which presents possessive pronouns, in the back matter of the GDX. By consulting this outer text, the user will understand the different possessive pronouns in terms of person (first, second or third), number (singular or plural)

and noun class prefix. They should therefore understand the morphology of the pronoun.

Apart from the explicit *kgl* cross-reference to the grammatical texts in the back matter, the condensed textual presentation of grammatical data in the dictionary articles implicitly compels the user to refer to the table that presents abbreviations in the front matter of the dictionary. Cross-referencing thus allows the lexicographers to present rich dictionary articles in terms of grammatical data but in condensed form, while at the same time enhancing textual cohesion between the front matter, Aa-Zz and back matter texts of the GDX. The endeavour to make the GDX a modern scientific dictionary as expressed in the original conceptualisation is realised. The GDX can serve as a one-stop resource for advanced students and users of isiXhosa with respect to their need for semantic, pragmatic and grammatical information. The only noteworthy challenge is that the user will need Volume 3 all the time as the only one that includes grammatical addenda to which all the other volumes refer with respect to any aspects of the grammar of the language. The editors of Volume 2 clearly indicate that their grammatical description is abridged and refer users to Volume 3 for certain grammatical aspects of isiXhosa.

### 4.2.4   Cross-referencing for cultural data

Gouws (2004: 84) compliments the GDX for its accommodation of cultural data included in the back matter as anthropological texts. This is indeed an outstanding feature of the GDX which facilitates the dictionary's cognitive functions. Across its three volumes, the dictionary contains 72 such texts (14 in Volume 1, 28 in Volume 2 and 30 in Volume 3). The texts cover a variety of topics such as marriage rites, burial rites, circumcision, cultural beliefs, etc. Gouws (2004) underscores the value of this cultural material mainly for dictionary users with cultural backgrounds that are different from amaXhosa. The texts open the user's world to amaXhosa's indigenous knowledge systems.

For this article, the focus is on the connection between these texts and the main text. The topics of anthropological texts such as *ukuthwala* (a marriage custom), *ukukhapha* (traditional practices of sending off the deceased), *ulwaluko* (male initiation), *usosuthu* (chief official for male initiation), *ukushwama* (ritual meat eating), *icamagu* (thanks-giving ceremony), and many others appear as lemmata in the main text. Their inclusion and treatment facilitate punctual data access and information retrieval especially in text reception contexts. Cross-referencing using the *kgl* cross-reference refers users from main text articles to the comprehensive information about the relevant cultural phenomena in the back matter texts. The procedure was performed with a high degree of consistency across the three volumes. It increases access to these anthropological texts by users who initially look up the relevant words in the main text of the GDX. That way, the outer texts are effectively integrated into the main text of the dictionary structurally and functionally.
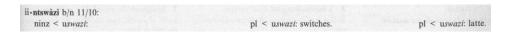
However, cross-referencing could have been improved. The comprehensive treatment of cultural phenomena and practices in the outer texts of the GDX inevitably refers to other cultural concepts using language that is embedded in the culture of amaXhosa. For example, in the text that explains male initiation, *ulwaluko* (Addendum 28), words such as *ukusoka* (gifting the newly initiated man), *esuthwini* (in the mountain), *ikhankatha* (the mentor of the initiate), *ingcibi* (circumciser), *ibhoma* (initiates' hut), *umgidi* (a ceremony to celebrate the return of initiates), among others, are used. These words are also included as lemmata in the main text but not linked to the addendum through cross-referencing. Linking these words to the comprehensive text would have increased the accessibility of this informative text. Just like the topic of the comprehensive outer text (*ulwaluko*), the other words would also have been provided with increased opportunities of being understood in the context of a more comprehensive discussion of the topic. Therefore, while cross-referencing from the main text to the back matter texts for cultural data is commendable, its functionality could have been further enhanced.

### 4.3    Cross-referencing derivational relations

As it was envisaged to be a rich scientific reference for isiXhosa, the GDX reflects complex linguistic processes and relationships of included lexical items. Diminutives, locatives, plurals and extended verb forms that are entered as lemmata in the dictionary have their derivational and inflectional relations established using the < sign as shown in the examples below.

— *ukwalanywa < ukwalama* (unusual sight)

— *ukuatyaswa < ukuabasa* (walk, speak or walk hesitantly)

— *ukubhajiswa < ukubhabhisa* (cause to fly)

— *ukubhejethwa < ukubhebhetha* (expel or reject rudely)

— *ibhojana < ibhobho* (a passage such as a tunnel, chimney, drainpipe or sewer)

— *intsinjana < intsimbi* (iron, iron ore, steel, bell, hour)

— *ukubotshelelwa < ukubophelela* (tie, fasten, restrict or bind)

— *ukucatshulwa < ukucaphula* (scoop out, extract)

— *emqaleni < umqala* (neck, throat, sore throat, greed)

— *iintswazi < uswazi* (switch, cane, punishment, tall slender person)

— *iintsuku < usuku* (day)

— *ukuqatywa < ukuqaba* (smear)

The primary function of the < in the GDX is explained as follows: "the form nearest the point is derived from the word nearest the open end" (Pahl et al. 1989: xlvi). In the above examples, all the lexical items on the left side of the < sign are derived from those on its right side. Abbreviations such as *dim.* (diminutive), *pass.* (passive), *loc* (locative) and *pl.* (plural), among others explained in the list of abbreviations describe the nature of the relationship between the derived form and its derivational base. For example, *iintswazi* is a plural form of *uswazi* as shown in the articles below.

ìí·ntswàzì b/n 11/10:
ninz < u*swazi*:                    pl < u*swazi*: switches.                    pl < u*swazi*: latte.

However, for the purpose of this article, the < sign is identified as a cross-reference in that, as shown above, the derived forms are not fully treated independent of those words from their derivational bases. The user who consults the articles headed by the derived forms may have to consult the article that affords the more comprehensive treatment of the derivational base as shown below.

ú·swàzì b/n 11/10 ninzi/pl *íìntswàzì*; ncp/dim *úswázànà*; ltd/loc *eluswázìnì*:

1  uluthi oluncinane olusetyenziswa ekohlwayeni:
2  isohlwayo, isenzo sokuvisa ubuhlungu kumntu owonileyo:
*ndiza kukuvisa uswazi olubuhlungu:*
3  umntu onciphileyo othe ncothu; uzwâthi, utyingityingi; umntu oswazekileyo:
4  into erholwa ngumntu ofikayo emzini esenzela ukwamkeleka kwabo bantu ngokwesithethe sama-Xhosa; uswazi lunokuba yimali, utywala, inkcoyi (endodeni), okanye umbhako nekofu (ebafazini); injongo yeyokuhlala phakathi kwabo, abe ngummi walapha:
5  ibhotile ephathwayo xa uya komkhulu usiyela imicimbi oyifunayo; ikwasisithethe esi; injongo kukuvula amehlo enkosi nabantu bayo bakwazi ukukujonga bakuphendule ngomcimbi oze ngawo, okt ukuthambisa injeke:
6  isipho esiyibhotile esihamba nesiko lobulawu xa kwendiselwanayo; esi sipho singumqondiso wokuba iinkomo zekhazi zikho okanye ziyeza:

1  switch, cane;
2  punishment:
*I shall punish you severely;*
3  a tall, slender person;
4  a customary present proffered by a new-comer in a home or community to those with whom he is to live, as an indication that he would like to be regarded as welcome; such gift may consist of money, a bottle of brandy or a beer-party in the case of men, or of something baked or coffee in the case of women;
5  a bottle of brandy given as an ingratiatory gift to a chief when one visits the Great Place so that he and his counsellors will listen to one's petition sympathetically;
6  a bottle of brandy delivered by representatives of the suitor to the home of the bride-to-be as proof that the bride-price has been or is being delivered in full;

1  lat;
2  straf:
*ek sal jou swaar straf;*
3  lang, skraal persoon;
4  volgens Xhosa-gebruik: 'n geskenk wat 'n nuwe intrekker in 'n huis of omgewing aanbied vir diegene met wie hy moet saamwoon; die doel is dat hy welkom sal wees; dit mag bestaan uit geld, brandewyn of 'n bierpartytjie by mans of gebak en koffie by vroue;
5  bottel brandewyn, bedoel om 'n stamhoof of hoofman en sy raadgewers gunstig te stem wanneer iemand met 'n versoek na hulle gaan;
6  bottel brandewyn gegee deur die aspirant-bruidegom se verteenwoordigers aan die familie van die verlangde bruid as teken dat die bruidsprys ten volle betaal is of word;

A user who looked up the word *iintswazi* in the GDX will know from the first article that it is a plural for *uswazi*. To know its meaning, the user would need to proceed to the lemma *uswazi* where a comprehensive comment on semantics is provided. This is how cross-referencing is used with respect to all the examples of derivational and inflectional relations listed above and in the entire GDX.

### 4.4    Cross-referencing *isihlonipho*

*Isihlonipho*, also called the *hlonipha* language or simply euphemism, constitutes a vital sociolinguistic practice in isiXhosa (cf. Bongela 2001; Finlayson 2002;

Gunnink 2020, Makoni 2014) and other African languages (Chabata and Mavhu 2005; Ndhlovu and Botha 2017; Rudwick and Shange 2006). At its core is avoidance of certain linguistic forms in certain contexts or by certain members of the speech community. In isiXhosa, two varieties of *isihlonipho* are prominent, namely *isihlonipho sabafazi* (euphemistic language of women) and *isihlonipho sabakhwetha* (euphemistic language of male initiates). The treatment of such language has implications for lexicography. Chabata and Mavhu (2005) consider one of the *isihlonipho* dilemmas similar to either calling a spade a spade or calling it a garden tool. Focusing on *isihlonipho sabafazi* and *isihlonipho sabakhwetha*, Volume 1 of the GDX explains how the lexicographers navigated the euphemism through procedures that involve cross-references. The explanation is given in the languages, isiXhosa (Tshabe and Shoba 2006: xx), English (Tshabe and Shoba 2006: xxvi) and Afrikaans (Tshabe and Shoba 2006: xxxii). Included in the explanation are the following abbreviations:

— hlon: hlonipha (respect)
— f: abafazi (women)
— khweth: abakhwetha (male initiates)

The abbreviations, also explained in the abbreviation list, serve as cross-references between *isihlonipho* lexical items and their ordinary equivalent words. Some lexical items in which cross-referencing was used between *isihlonipho* and their ordinary equivalent words under the alphabetic stretches Aa and Bb are illustrated in Table 3 below.

| Cross-reference position | Cross-reference address | English | Afrikaans |
|---|---|---|---|
| isamkelo | isandla | hand | hand |
| ubade | indlovu | elephant | olifant |
| ukubakula | ukukha | fetch water | gaan haal water |
| ibalela | ilanga | sun | son |
| ibaso | iziko | fireplace | vuurherd |
| umbaso | umlilo | fire | vuur |
| ibetha | inja | dog | hond |
| ibazelo | igoqo | pile of wood | 'n stapel hout |
| isibham | ubuntombi | virginity | maagdelikheid |
| ibhengetho | inja | dog | hond |
| iboza | isiza | building site | standplaas |
| ubuyiso | ucango | door | deur |
| itamla | izembe | axe | byl |
| isigqwathikazi | umfazi | woman | vrou |
| ityhagi | inkwenkwe | boy | seun |

**Table 3:**    Cross-referencing *isihlonipho*

In the GDX, the semantic treatment of euphemistic forms is limited to cross-referencing them to ordinary words, as illustrated below using examples of *ibetha* and *inja*, as well as *ibuyiso* and *ucango*.

i·**béthà**¹ b/n 9/10:
    hlon f *inja*:                              hlon f dog: *inja*.                          hlon v hond: *inja*.

i·**njà** b/n 9/10 *-mbwa:
    1 isilwanyana sasekhaya esikhonkothayo, *Canis*        1 dog;                              1 hond;
    *Familiaris* esingumhlobo womntu, esindidi ninzi, umz.,
    ezincinci, eziphakathi, ezizigxuda, ezinomphakamo, njl:
    2 umntu owenza izinto angazithandiyo omnye, okanye     2 person who acts or behaves in a   2 mens wat hom op 'n wyse gedra wat
    ozenza ngendlela engamkelekanga komnye, echaseneyo     manner which is unacceptable to another  onaanvaarbaar vir 'n ander is of strydig
    nezimvo zomnye lo; umntu osimilo sibi, singathande-    or opposed to another's views; debased,  met sy sienswyse is; ontaarde, beginsellose,
    kiyo, simenze ajongeleke phantsi:                     unprincipled, despised person.      veragte persoon.

i·**buyísò** b/n 5/6:
    hlon f *ucango*:                            hlon f u*cango*: door.                       hlon v u*cango*: deur.

ú·**cângò** 11/10 ninzi/pl *iingcango*:
    1 isivalo, isivingca-mnyango, nokuba sesomthi okanye   1 door of a building, room, safe, etc;   1 deur van 'n gebou, kamer, brandkluis,
    esentsimbi:                                                                             ens;
    2 unobhala okanye umzakuzeli owalathisa abantu        2 the clerk who conducts one into the   2 die klerk wat iemand in die land-
    umnyango weofisi kamantyi:                            magistrate's office;                 droskantoor binnelaat;
    3 uhlango lwekhaphela:                                3 a cell in a honey-comb:             3 'n sel van 'n heuningkoek:

The comment on semantics in the two articles in which *ibetha* is a lemma does not go beyond providing the entries 'hlon: inja' which inform the user that the word is euphemistic for *inja* (dog). Apart from that information, the user is then referred to the articles for *inja* and *umpu* for comprehensive comments on semantics. The same applies to *ubuyiso*, where 'hlon: f *ucango*' refers the user to *ucango* (door) after indicating that *ubuyiso* is a euphemistic word used by women to avoid the ordinary word. This treatment of euphemistic words informs users about the *isihlonipho* dimension of lexical items in the first column, while referring them to the ordinary lexical items which are treated more comprehensively. Here cross-referencing facilitates access to the needed information while also providing pragmatic guidance around the language.

## 5.    Conclusion

This article sought to provide a critical analysis of cross-referencing as a lexicographic device in the GDX to determine how this device enhances the quality of the dictionary in terms of its utility value and user-friendliness. The undertaking was done against the background of the GDX's conceptualisation which strove to yield a modern scientific dictionary capable of addressing the unfulfilled user needs in earlier lexicographic projects and products. It drew insights from relevant theory of cross-reference structures or mediostructures, identifying the concept of cross-reference conditions (Nielsen 1999) or prerequisites of cross-referencing (Wiegand 2004; Wiegand and Smit 2013) as apposite lenses for viewing the need, use and efficacy of cross-referencing in a particular dictionary. A systematic approach was used to delineate the scope of identifying the relevant data for examination, in the light of the dictionary's size, while also

flexibly going beyond the scope to confirm that the observations made exhibit general consistency across the entire dictionary.

The purpose of this concluding section is to consolidate the reflections made regarding the use of different cross-references with respect to the identified data relations in the dictionary, the ways in which cross-referencing was deployed, and the possible implications for the user-friendliness of the dictionary. In this connection, a major determination pertains to the possible existence of guidelines regarding the use of cross-referencing as part of the dictionary's conceptualisation plan. Samuel Johnson's plan towards his historic *Dictionary of the English Language* underscores the importance of comprehensive planning in major lexicographic projects (Johnson 1747). Gouws and Prinsloo (2005a) accentuate how a plan serves as a blueprint that ensures efficiency and consistency in the execution of lexicographic tasks even by different members of an editorial team. This is applicable to the GDX whose editorial responsibilities were handed over from one editorial team to another over almost forty years of its production. In this connection, it is important to remember De Schryver's (2005) microscopic examination of the WAT, including in terms of consistent treatment of lemmata across its volumes, which also identified instances of dead cross-references. In the case of the GDX, general consistency seems to prevail regarding cross-referencing across the three volumes. Not only were the identified cross-references, namely the equal sign, *kgl*, < and *hlon*: used similarly across the three volumes, they are also effectively used such that not many dead cross-references worthy of reporting were found. This includes cross-referencing between the main text and the outer texts that provide grammatical and anthropological/cultural data. On this basis, it is clear that the GDX team had a plan that was diligently adhered to regarding cross-referencing.

However, a pattern was detected regarding the treatment of idioms that appears as an act of inconsistency at face value. While idioms at the cross-reference position are generally unexplained, it was noted that this was the case when both the cross-reference position and the cross-reference address occur in the same volume. Where this is not the case, the use of cross-referencing was not necessarily used to save space but to establish the relationship even where the idioms were explained at both the cross-reference position and at the cross-reference address. Whether this was an original plan or a reflexive procedure, the GDX compilers need to be commended as this optimises data access regarding idioms. While the importance of a dictionary conceptualisation plan may never be overemphasised, Botha (1994; 2005) taught us about the folly of what may be called lexicographic self-entrapment against changing linguistic realities and changing information needs of the users. Thus, lexicographers do not need only a plan, they also need gallantry to even take "an about-turn halfway" guided by the necessary practical and theoretical reflections. If the conceptualisation and application of cross-referencing of the GDX included such, then its editors deserve credit.

A few issues regarding cross-referencing were noted, especially in the case of cross-referencing involving lexical items that are treated in separate volumes, whose treatment is different from that of idioms that has just been reflected on.

Despite a few dead references, the judicious treatment of lexical items serving as reference addresses does not benefit users without access to the entire tri-volume set. Similarly, more cross-referencing from the main text to the anthropological essays would be helpful to facilitate encyclopaedic understanding of culturally embedded language that, while not topics in their own right in the back matter appear in some back matter texts. The digital affordances could be maximised in the contemplated digitisation of the GDX to address the issues and realise the possibilities fancied by Botha (2005) regarding the electronic WAT. The questions raised regarding the unclear choice between the use of the equal sign and *kgl* cross-references for synonyms and variants would also fall away. It can be recommended that while revising and exploiting the richness of the GDX for new dictionary products, isiXhosa lexicographers need to play an active role in the interaction between lexicographic theory and practice. Not only can the greatness of the GDX be maintained, but it can also be enhanced.

While this study intended to determine the greatness of the GDX with respect to cross-referencing, the general richness of the dictionary became note-worthy, which in turn calls for more studies that address other issues. The dictionary would be a useful resource in the study of, inter alia, grammar of the language, *isihlonipho*, *idioms* and linguistics from lexicographic and other per-spectives.

## References

**Bolinger, D.** 1985. Defining the Indefinable. Ilson, R. (Ed.). 1985. *Dictionaries, Lexicography and Language Learning*: 69-73. Oxford: Pergamon Press.

**Bongela, K.S.** 2001. *Isihlonipho among amaXhosa*. Unpublished Doctoral Dissertation. Pretoria: University of South Africa.

**Botha, W.** 1994. An About-turn Halfway through the Completion of a Multi Volume Overall-descriptive Dictionary — Gallantry or Folly. Martin et al. (Eds.). 1994. *Euralex 1994 Proceedings, Papers Submitted to the 6th EURALEX International Congress on Lexicography in Amsterdam, The Netherlands:* 419-425. Amsterdam: VU University Amsterdam.

**Botha, W.** 2005. Concurrent Over- and Under-treatment in Dictionaries. A Response. *International Journal of Lexicography* 18(1): 77-87.

**Chabata, E. and W.M. Mavhu.** 2005. To Call or Not to Call a Spade a Spade: The Dilemma of Treating 'Offensive' Terms in *Duramazwi Guru reChiShona*. *Lexikos* 15: 253-264.

**De Schryver, G.-M.** 2005. Concurrent Over- and Under-treatment in Dictionaries — The *Woorde-boek van die Afrikaanse Taal* as a Case in Point. *International Journal of Lexicography* 18(1): 47-75.

**De Schryver, G.-M. and A. Wilkes.** 2008. User-friendly Dictionaries for Zulu: An Exercise in Comp-lexicography. Bernal, E. and J. DeCesaris (Eds.). 2008. *Proceedings of the XIII EURALEX International Congress, Barcelona, 15–19 July 2008*: 827-836. Sèrie Activitats 20. Barcelona: Institut Universitari de Lingüística Aplicada, Universitat Pompeu Fabra.

**Finlayson, R.** 2002. Women's Language of Respect: *isihlonipho sabafazi*. Mesthrie, R. (Ed.). 2002. *Language in South Africa*: 277-296. Cambridge: Cambridge University Press.

**Godfrey, R. (Ed.).** 1915. *A Kafir–English Dictionary*. Second edition. Alice: Lovedale Press.

**Gouws, R.H.** 2004. Outer Texts in Bilingual Dictionaries. *Lexikos* 14: 67-88.

**Gouws, R.H. and D.J. Prinsloo.** 1998. Cross-referencing as a Lexicographic Device. *Lexikos* 8: 17-36.

**Gouws, R.H. and D.J. Prinsloo.** 2005a. *Principles and Practice of South African Lexicography*. Stellenbosch: SUN PReSS.

**Gouws, R.H. and D.J. Prinsloo.** 2005b. Left-expanded Article Structures in Bantu with Special Reference to isiZulu and Sepedi. *International Journal of Lexicography* 18(1): 25-46.

**Gunnink, H.** 2020. Click Adoption and Insertion in Xhosa: Revisiting the Role of *hlonipha. Research Seminar hosted by the Department of English Language and Linguistics, Abstracts, Rhodes University, Makhanda, 25 August 2020.*

**Hartmann, R.R.K.** 2005. Lexicography and its Interdisciplinary Contacts, with Special Reference to Linguistics and Onomasiology. *Lexikos* 15: 70-89.

**Hartmann, R.R.K. and G. James.** 1998. *Dictionary of Lexicography*. London: Routledge. Available at: https://nubip.edu.ua/sites/default/files/u5/r_r_k_hartmann_gregory_james-dictionary_of_lexicography-routledge_1998.pdf.

**Johnson, S.** 1747. *The Plan of a Dictionary of the English Language*. London: J. and P. Knapton, T. Longman et al.

**Kropf, A.** 1899. *A Kafir–English Dictionary*. Alice: Lovedale Press.

**Makoni, B.** 2014. Feminizing Linguistic Human Rights: Use of *isihlonipho sabafazi* in the Courtroom and Intra-group Linguistic Differences. *Journal of Multicultural Discourses* 9(1): 27-43.

**McArthur, T.** 1986. *Worlds of Reference. Lexicography, Learning and Language from the Clay Tablets to the Computer.* Cambridge: Cambridge University Press.

**Mini, B.M. et al. (Eds.).** 2003. *The Greater Dictionary of isiXhosa*. Alice: University of Fort Hare.

**Ndhlovu, K. and R. Botha.** 2017. Euphemism vs Explicitness: A Corpus-based Analysis of Translated Taboo Words from English to Zimbabwean Ndebele. *South African Journal of African Languages* 37(2): 235-243.

**Nielsen, S.** 1999. Mediostructures in Bilingual LSP Dictionaries. *Lexicographica* 15: 90-113.

**Opland, J. (Ed.).** 2019. *Lexicography: Notes on Xhosa Lore and Language (1909–1934) — Robert Godfrey.* Durban: University of KwaZulu-Natal Press.

**Pahl, H.W. et al. (Eds.).** 1989. *The Greater Dictionary of Xhosa*. Alice: University of Fort Hare.

**Rudwick, S. and M. Shange.** 2006. Sociolinguistic Oppression or Expression of 'Zuluness'? 'IsiHlonipho' among isiZulu-speaking Females. *Southern African Linguistics and Applied Language Studies* 24(4): 473-482.

**Swanepoel, P.** 2017. Methods in Dictionary Criticism. Bielińska, M. and S.J. Schierholz (Eds.). 2017. *Wörterbuchkritik — Dictionary Criticism*: 81-112. Berlin/Munich/Boston: De Gruyter.

**Tarp, S.** 1999. Theoretical Foundations of the So-called Cross-reference Structures. *Lexicographica* 15: 114-137.

**Tshabe, S.L. and F. Shoba (Eds.).** 2006. *The Greater Dictionary of isiXhosa*. Alice: University of Fort Hare.

**Tshabe, S.L., Z. Guzana and A.B.B. Nokele (Eds.).** 2008. *IsiChazi-magama SesiXhosa*. Pietermaritzburg: Nutrend Publishers.

**Wiegand, H.E.** 1996. A Theory of Lexicographical Texts. An Overview. *South African Journal of Linguistics* 14(4): 134-149.

**Wiegand, H.E.** 2004. Reflections on the Mediostructure in Special-field Dictionaries. Also According to the Example of the *Dictionary for Lexicography and Dictionary Research*. *Lexikos* 14: 195-221.

**Wiegand, H.E. and M. Smit.** 2013. Mediostructures in Printed Dictionaries. Gouws, R.H., U. Heid, W. Schweickard and H.E. Wiegand (Eds.). 2013: 214-253. *Dictionaries. An International Encyclopedia of Lexicography. Supplementary Volume: Recent Developments with Focus on Electronic and Computational Lexicography*. Berlin/New York: De Gruyter.