A BIBLICAL HEBREW LEXICON FOR TRANSLATORS BASED ON RECENT DEVELOPMENTS IN THEORETICAL LEXICOGRAPHY

by

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DECLARATION

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

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ABSTRACT

Two main problems that confront existing Biblical Hebrew (BH) dictionaries can be identified. Firstly, there is a lack of adequate semantic models for the analysis and description of lexemes. Secondly, data is structured in ways that do not enhance optimal retrieval of desired information from the dictionary. The failure to take cognizance of the insights from theoretical lexicography partly explains the state of BH dictionaries. This investigation hypothesizes that current insights from theoretical lexicography can improve existing lexica and create better ones.

Accumulated insights from the academic community have resulted in the formulation of a theory of lexicography or metalexicography. In this light, a general lexicographic theory of components and structures of dictionaries is selected and investigated in order to establish the aspects of BH that can be improved. The point of departure is the notion of "dictionary criticism", which focuses on the critical evaluation of existing dictionaries with the goal of improving them. Though there are other approaches to assess lexica critically, theoretical lexicography provides justified heuristics for an objective appraisal of BH dictionaries. These heuristic include notions of "frame structure", "lexicographic function," and "microstructure." The frame structure focuses on the structural components of the dictionary book. The lexicographic function places emphasis on the goals that the dictionary purports to fulfill in the light of its target users. The microstructure hosts the data that is provided as part of the lexicographic treatment of the lemma sign. In addition, it is the centre of user's look up activities, and it hosts other important structural components. The above selected notions directly affect the extent to which the user benefits from the dictionary and the success of the dictionary in general.

The criticism of selected BH dictionaries in the light of the above-mentioned reveals that most dictionaries fall short in certain critical areas. Data types that are provided are either unnecessary or are not structured in ways that allow optimal and successful retrieval of desired information. Such inadequacies present evidence that existing BH dictionaries can benefit from the insights of theoretical lexicography. A model that seeks to ameliorate BH dictionaries is developed primarily for Bible translators based on selected insights from theoretical lexicography. A trial of this model of BH lexemes that are selected from different lexical classes demonstrates improved lexica in terms of the lexicographic function, the selection, and the organization of data. The trial of the model also highlights areas that need further investigation in the light of current trends in theoretical lexicography in order to better the quality of BH dictionaries.

OPSOMMING

Twee probleme kan in die ondersoek van bestaande bybels-Hebreeuse leksika geïdentifiseer word. Eerstens is daar 'n gebrek aan voldoende leksikale semantiese modelle vir die analisering en beskrywing van bybels-Hebreeuse leksika, en tweedens word data op so 'n wyse gestruktueer dat dit die gebruiker se optimale verkryging van verlangde informasie belemmer. Hierdie probleme kan deels toegeskryf word aan 'n gebrek aan kennis oor die bydrae wat teoretiese leksikografie tot bybels-Hebreeuse leksika kan lewer. Die ondersoek veronderstel dat bybels-Hebreeuse leksikografie met behulp van die huidige insigte vanuit teoretiese leksikografie bestaande leksika kan verbeter en nuwes kan skep.

Insigte vanuit die akademiese gemeenskap het gelei tot die formulering van 'n teorie van leksikografie of metaleksikografie. In die lig hiervan word 'n algemene teorie van leksikografie met betrekking tot die komponente en strukture van woordeboeke geselekteer en ondersoek ten einde sekere aspekte van bybels-Hebreeuse leksikografie te verbeter. Die studie neem as sy vertrekpunt die idee van "woordeboek-kritiek" wat ten doel `n kritiese hersienning van bestaande woordeboeke in 'n poging om hulle te verbeter. Alhoewel daar verskeie benaderings tot leksika-kritiek bestaan, word teoretiese leksikografie verkies op grond van 'n beter heuristiese raamwerk wat 'n objektiewe hersienning van bybels-Hebreeuse leksika tot gevolg het. So 'n heuristiese raamwerk bestaan uit die volgende aspekte, naamliks die "raamstruktuur", "leksikografie-funksie" en "mikrostruktuur". Die raamstruktuur fokus op die strukturele komponente van 'n woordeboek. Die leksikografiese funksie beklemtoon die doelwitte van 'n woordeboek met betrekking tot sy teikengebruikers. Die mikrostruktuur bevat die data wat voorsien word as deel van die leksikografiese behandeling van lemma-teken. Benewens hierdie funksie, is dit die sentrum wat die gebruiker benut and bevat dit ander belangrike strukturele komponente. Die bogenoemde geselekteerde aspekte oefen 'n direkte invloed uit op die mate waarin die gebruiker voordeel trek uit die woordeboek en die sukses van die woordeboek in die algemeen.

Die beoordeling van geselekteerde bybels-Hebreeuse leksika in die lig van die bovermelde elemente lê die tekorkominge van die meeste leksika in kritieke areas bloot. Datatipes wat in bestaande leksika voorsien word is of onnodig of op 'n onvoldoende wyse gestruktueer wat die optimale en suksesvolle verkryging van verlangde informasie belemmer. Sulke tekortkominge toon aan dat die insigte vanuit teoretiese leksikografie met vrug op bestaande bybels-Hebreeuse leksika toegepas kan word. Met behulp van geselekteerde insigte vanuit teoretiese leksikografie is 'n model, wat die verbetering van bybels-Hebreeuse leksika ten doel het, vir bybelvertalers ontwikkel. 'n Proefneming van hierdie model op bybels-Hebreeuse lekseme vanuit verskillende leksikale klasse demonstreer

verbeterde leksika in terme van die leksikografiese funksie, die seleksie en die organisering van data. Die proefneming van die model beklemtoon ook die feit dat sekere areas verder ondersoek behoort te word in die lig van die huidige tendense in teoretiese leksikografie ten einde die kwaliteit van bybels-Hebreeuse leksika te verbeter.

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DEDICATION

This work is dedicated to my parents:

Fungai and Sylvanus Imbayarwo Tairovodza

ABBREVIATIONS

BDB	Brown-Driver-Briggs
BH	Biblical Hebrew
BW	Bible Works
BW	Brockhaus-Wahrig
CBHDT	Customized Biblical Hebrew Dictionary for Translators
CD/M	Contextual Domain and Meaning
CF	Comment on Form
CFS	Comment on Form and Semantics
COD	Concise Oxford Dictionary
CS	Comment on Semantics
CT	Citations
D	Derivation
DA	Dictionary Article
DGR	Duramazwi Guru RechiShona
EB	English Bible
EBD	Electronic Bilingual Dictionary
ED	Electronic Dictionary
GW	Groot Woordeboek
HSK	Handbücher zur Sprach- und Kommunikationswissenschaft
KB	Koehler-Baumgartner
LAN	Local Area Network
LD	Lexical Domain
LDLS	Libronix Digital Library System
LDOCE	Longman Dictionary of Contemporary English
LH	Langescheidt Handwörterbuch
LM	Lexical Meaning
LN	Louw & Nida
MT	Masoretic Text
NASB	New American Standard Bible
NIV	New International Version
NLP	Natural Language Processing
NRSV	New Revised Standard Version
NTCEID	NTC English Idiom Dictionary
OALD	Oxford Advanced Learner's Dictionary
OCR	Optical Character Recognition
ODGD	Oxford Duden German Dictionary
OT	Old Testament
PC	Personal Computer
PDA	Personal Digital Assistent
PED	Pocket Electronic Dictionary
POD	Pocket Oxford Dictionary
PS	Part of Speech
RE	Related Entry
SCS	Subcomment on Semantics
SDBH	Semantic Dictionary of Biblical Hebrew
TE	Translation Equivalent
TWOT	Theological Wordbook of the Old Testament
UBS	United Bible Society
URL	Uniform Resource Locator

CONTENTS

Chapter 1
Introduction

1.1   Problem statement and focus

Biblical Hebrew (henceforth BH) is a so-called dead language, not only far removed in time, but also in culture from contemporary Bible translators and others who have to rely heavily on dictionaries of the language when interpreting the Hebrew Bible. There is general agreement that the data provided by most of the existing BH dictionaries is of limited value for Bible interpretation and translation as a process of intercultural communication. Firstly, the data presented is based on theoretical frames of reference that assume translation glosses, grammatical, philological and etymological remarks are sufficient for the lexical description of BH lexemes. Secondly, the data is structured and presented in a format that indicates that BH lexicographers did not take recent developments in theoretical lexicography seriously. I hypothesize, therefore, that insights from recent developments in theoretical lexicography may play a pivotal role in the development of a more adequate bilingual dictionary of BH for Bible translators. On the one hand, these insights may provide a clearer picture of the type of data (i.e. data beyond the translation glosses and philological remarks, e.g. semantic definitions, syntactic and encyclopedic data) that is required for such a specific type of lexicon. On the other hand, theoretical lexicography may shed light on the way that available and newly generated data must be structured in order for the lexicon to fulfill its lexicographic function.

1.2   Preliminary study

Before proceeding any further, the author would like to make some concessions regarding the scope of this investigation. Firstly, the author has no practical experience in Bible translation and therefore does not claim to be an expert in this area. Furthermore, the author is still a student of BH and linguistics. However, he has considerable knowledge in theoretical lexicography. It is in the latter capacity he endeavors to contribute to BH lexicography. In addition, the author is going to criticize the work of those with expertise in BH (e.g. BDB, KB) and in Bible Translation (e.g. De Blois). This critical evaluation is conducted for the work that has already been done. Moreover, the author does not intend his proposal to be the

ultimate and authoritative BH dictionary but is an experiment that highlights and sensitizes BH scholars to what theoretical lexicography has to offer.

BH scholars widely acknowledge the inadequacies of existing BH dictionaries. It is mainly the type of data (i.e. translation glosses, philological remarks, irrelevant grammatical data) presented that have been severely criticized (Lübbe 1990, 1993, 1994; Clines 1993; De Blois 2000; O'Connor 2002; Van der Merwe 2004). Major BH lexicographical projects were launched to address some of these problems (e.g. Clines 1993; Swanson 1997; De Blois 2000).

However, a preliminary study of recent developments in lexicography, in particular the work of Hausmann & Wiegand (1989-1991); Wiegand (1989a-b; 1991; 1996a-c; 2001-2003); Bergenholtz & Tarp (2002); Gouws & Prinsloo (2005) and Zgusta (1971, 2006) to mention a few, prompted an investigation into the theoretical foundations of existing and recently launched projects of BH in the light of insights from theoretical lexicography. Through a critical and comparative study of the lexical description of verbs of movement provided by new and older dictionaries, I reached the conclusion that BH reference works fall short, not only in the type of data included, but in two other areas. The first concerns the lexical semantic models that are used for the analyses and description of BH lexemes.[1] In the second place, is the absence of any consideration and/or application of the perspectives provided by recent developments in theoretical lexicography, especially with regard to the components and structures of dictionaries.

Lexical semantic models are crucial for the analysis and description of lemmata to be included in any lexicographic work. They, among other things, determine the data types and the quality of explications entered in a dictionary. Moreover, such models

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[1] Lexical semantics is a subfield of linguistics, which studies how and what the words of a language denote. Lexical units may be taken to denote things in the real world or concepts in the minds of speakers and hearers, depending on the particular approach to lexical semantics. It covers theories of the classification and decomposition of word meaning, the differences and similarities in lexical semantics structure in different languages and the relationship in word meaning to sentence meaning and syntax (Cruse 2004, 1986; Pustejovsky 1995).

become even more relevant for the analysis and description of languages that are considered "dead", i.e. no longer spoken and that are remote in both time and culture. Lexical semantic models for BH lexicography have been investigated of late by Van der Merwe (2004); Lübbe (2003, 1994, 1990); Van Steenbergen (2002); De Blois (2000); Nissim (2000); and Richter (1985), among others. Of the aforementioned, Nissim (2000) and Richter (1985) propose a lexical semantic approach that makes the most of insights of valency grammar, i.e. a comprehensive description of the syntagmatic distribution of a lexeme (Croft & Cruse 2004; Langacker 1987). The others illustrate conclusively that cultural considerations, e.g. the worldview of the speakers of BH, are a prerequisite for the adequate lexical analysis and description of BH lexemes. The latter is in line with cognitive linguists who strongly believe that there is no distinction between lexical and encyclopedic knowledge; and that the meaning of a word is understood with reference to a structured background of experiences, beliefs or practices (Evans 2007; Geeraerts 2006).[2]

Whilst lexical semantic models that consider both the cognitive world and the syntagmatic distribution of a lexeme may be the way forward in the lexical analyses and description of lexical items, they can be highly technical and do not necessarily translate into a neat user-friendly dictionary in terms of its structural organization. The difficulties that often arise are these: after all the analysis of lexemes is completed, what data should constitute an adequate dictionary article, and what organizational structure should that data assume? The lexicographer is obligated to include data that is relevantly adequate for the description of any lemma sign. Additionally, this data should be structured in such manner as to facilitate optimal and successful retrieval of desired information from the lexicon.

Theoretical lexicography may help to address some of the above difficulties by offering heuristic tools, e.g. dictionary criticism, lexicographic function, frame structure, etc., that may improve existing BH dictionaries as well as create better ones. In order to investigate and apply some of these tools from theoretical lexicography, a consideration of Zgusta (1971-) and Wiegand (1980-)'s contributions to the field is of importance. Zgusta (1971) is regarded as the father of modern lexicography. To him

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[2] Cf. also Evans & Green (2006), Peeters (2000).

is attributed the establishing of theoretical lexicography as a research field and the bringing of lexicography into the linguistic fold. Zgusta (1971:15) argues that a "lexicographer needs to be familiar with linguistics in a much broader sense and has to take into consideration not only the whole structure of the language in question, but also the culture of the respective linguistic community." The latter clearly establishes the link between lexicography and linguistics (Gouws & Prinsloo 2005:2).

In the eighties and nineties, metalexicography (also referred to as theoretical lexicography) was dominated by the work of Herbert E. Wiegand, who set out to formulate a general theory of lexicography. According to Wiegand, the object of lexicography is not language but *dictionaries*, even though linguistics is an important influence in lexicography. Consequently, Wiegand focused his research not only on the contents of dictionaries and dictionary articles, but also on the structure of dictionaries. This research culminated in the publication of *An International Encyclopedia of Lexicography* (Hausmann et al 1989-1991), which focuses on a number of relevant topics in lexicography, e.g. dictionaries and their public, dictionary types, the history and theory of lexicography, components and structures of dictionaries, problems of description in the general monolingual dictionary, dictionary criticism, dictionary types, etc. Hausmann & Wiegand's (1989-1991) theory of lexicography is considered in academic circles as the most exhaustive and comprehensive model contemporarily. In fact, Hausmann & Wiegand (1989) claim that their theoretical framework is so constructed that it is able to put at the lexicographer's disposal the complete structural design (in testable variants) for each clearly stated information goal of a polyinformative dictionary. On such a basis, it is hypothesized that the lexicographical framework posited in Hausmann & Wiegand provides a promising point of departure, firstly to adequately select relevant data for a dictionary of BH with a defined lexicographic function, and secondly to re-structure already existing and newly generated data in a manner that is user-friendly, mainly for a specific audience, e.g. Bible translators.

1.3　Goals, theoretical points of departure and hypothesis(es)

The belief that constructive criticism is intended to bring about positive change forms the basis for the first goal of this investigation, namely, to explore the notion of "dictionary criticism" with the goal of formulating a well-justified framework upon

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which to criticize selected existing BH dictionaries in order to improve them. The formulation of such a framework is justified against a background that dictionaries in general have been and continue to be criticized both by qualified and unqualified users as well as from various perspectives.[3]

The second goal seeks to employ the established model of criticism to evaluate selected existing lexica, both general and those of BH. This is for assessing the extent to which these lexica have subscribed to trends in theoretical lexicography that enhance practical lexicography. The criticism takes into account key theoretical notions like lexicographic function(s), data typology and the structural components of dictionaries, e.g. frame structure, access structure, addressing structure, microstructure, etc.

The third goal develops a model for an effective BH lexicon based on a well-validated theory of lexicography that addresses some of the shortcomings that are consequential of the lexica critically evaluated. The proposed model includes, 1) the formulation of lexicographic function for a dictionary targeted for specific users, i.e. Bible translators, 2) data typology, and 3) structural components and a hypertext user-interface that is designed to accomplish the lexicographic function. In the last place, this investigation endeavors to illustrate the proposed model for the presentation and structuring of existing and newly generated data concerning BH lexemes.

Three theoretical points of departure are taken into account in order to accomplish the above goals. A theory of lexicography (accumulated insights from academic lexicography) and its selected notions, e.g. dictionary criticism, lexicographic function, frame structure, and microstructure are justified heuristic mechanisms for the evaluation of BH existing lexica and the creation of improved ones. Furthermore, the selection of components and structures for the improved lexica can accommodate data generated through lexical semantic approaches that take into consideration cognitive semantics and the valency of BH lexemes. Lastly, hypertext technology plays a critical role in further enhancing the creation of improved lexica, especially concerning data included, storage and access.

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[3] In other words, everyone seems to criticize dictionaries regardless of any knowledge of lexicography.

The above goals and theoretical points of departure emanate from the hypothesis that theoretical lexicography, if considered, can improve existing lexica and help to create better ones. In this regard the theory of Hausamann & Wiegand (1989) on components and structures of dictionaries (improved in subsequent publications, e.g. Wiegand (1991-2003)), Gouws & Prinsloo (2005), and Zgusta (2006), is comprehensive enough to deduce from it the lexicographic function, data types, and structural components required to develop a model for a BH lexicon for translators. Furthermore, it is largely artifactual (*made up*) to separate linguistic and encyclopedic data in a BH lexicon for translators. Hence, the only viable conception of linguistic semantics is one that avoids false dichotomies and adopts an unashamedly encyclopedic perspective. Therefore, a tailored model that improves on previously existing lexica will accommodate both linguistic and encyclopedic data that is organized in such manner as to enable the user to retrieve desired information successfully.

1.4   Outline of research

This investigation will commence by discussing the notion "dictionary criticism." Different approaches to criticizing dictionaries are critically explored in an endeavor to establish a justified approach to be employed in the evaluation of existing lexica (Chapter 2).

The preferred approach for criticizing lexica (i.e. theoretical lexicography) is then elaborately explored, focusing only on those notions perceived to contribute to the purpose of this investigation. The discussion of the selected concepts of a theory of lexicography is further narrowed to a selection of only a few, viz., frame structure, lexicographic function and microstructure that are pertinent to the critical assessment of existing lexica (Chapter 3).

Selected lexica, both printed and electronic, will be criticized within the framework of notions determined in Chapter 3. Two general bilingual dictionaries are singled out to demonstrate a good dictionary and a bad one. Existing BH dictionaries, both recent and old, are then selected for critical evaluation. The lemma sign "send" is the focus of critical analyses in all the selected lexica (Chapter 4).

A model that adequately addresses the shortcomings of existing lexica evaluated in Chapter 4 is developed. This model takes into consideration insights from theoretical lexicography discussed in Chapter 3. Since the model is intended for an electronic dictionary, a user-interface is also developed (Chapter 5). The model developed in Chapter 5 is tested on lemmata from each of the major word classes, viz. nouns, verbs, and particles (Chapter 6). The investigation will conclude with a summary of the findings.

Chapter 2

Criticism of dictionaries

2.1   Introduction

In order to improve the structure of BH dictionaries, a rigorous criticism of existing reference works is necessary in the light of current trends and insights from theoretical lexicography. Jackson (2002:173) points out that one of the crucial issues for dictionary criticism is to establish a sound and rigorous basis on which to conduct the criticism, together with a set of applicable criteria. A model will therefore be established in this chapter and will be used to criticise existing BH dictionaries with the goal of improving them. This chapter is structured as follows: discuss the notion dictionary criticism with regard to definition and its goals, **2.2**; assess different approaches that have been used to criticize existing lexica in general, **2.3**; discuss theoretical lexicography, (the preferred approach of our investigation), **2.4**; and the establishment of a preferred model for the criticism of existing BH dictionaries, **2.5.**

2.2   Dictionary criticism

2.2.1   Introduction

This section will define the notion "dictionary criticism", discuss its goal(s) and state some of the problems that beset it. The discussion is intended to lead us to an informed and justified decision on the model that will be employed to assess existing BH dictionaries later in our investigation.

2.2.2   Definition and goal(s)

Dictionary criticism is the process of reviewing existing dictionaries for various purposes.[4] The publication of dictionaries, especially of major ones, has spawned a multiplicity of reviews in all kinds of publications, e.g. daily and weekly newspapers, academic journals and on websites. These evaluations and assessments have been

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[4] Hartmann (1996: 241) defined dictionary criticism as "the time honoured activity of evaluating and assessing lexicographic products".

conducted with various goals in mind. For instance, reviews appearing in daily and weekly newspapers may have had the goal to *inform* the public of the *existence* of a new edition, usually of a well-known dictionary. In this regard, the content of the review often reflects the publisher's press release or the dictionary's attributes. In other cases, the review is directed at an interested public that may include teachers, students, etc., with the goal to inform them of the content of the dictionary and its ability to meet their needs.[5]

There is another goal that goes beyond merely informing the reader about the existence and the contents of the dictionary. Some critical assessments that appear in academic journals, e.g. *International Journal of Lexicography*, *Lexicographica*, *English Today*, to name but a few, are of an academic nature designed to make a contribution to academic lexicography. These are often more meticulous, pursue a more systematic methodology, and benefit from the accumulated wisdom and expertise of the academic community of lexicographers.[6] The ultimate goal of such academic critiques is often to propose ways in which dictionaries may be improved and better ones created. Academic lexicography (metalexicography) is often pursued in academic institutions, i.e. university departments. In this context, Hartmann (2001: 49) comments that metalexicography is concerned not primarily with the compiling of dictionaries… but with researching and teaching about the whole business of making dictionaries, i.e. their history, typology, structures, and users, etc. Wiegand (1993: 2-3) further notes that research into dictionary criticism wants to establish methodological instruments with which it is possible to analyze dictionaries critically, which would go beyond journalistic reviews,… it [dictionary criticism] should be productive in the sense that it should encourage new and improved dictionaries.[7]

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[5] Cf. Jackson (2002: 182).

[6] The accumulated knowledge may be drawn from an expert knowledge of dictionaries, which include dictionary making and dictionary use.

[7] Smit (1996: 29) notes that through dictionary criticism one can determine certain limitations and advantages of existing dictionaries, which may enable lexicographers to compile better and new dictionaries that fulfil the needs of potential users even better.

For our practical purpose, there is a need to evaluate existing BH dictionaries critically in order to improve them. As such, a scrupulous set of instruments to criticize BH dictionaries is necessary. However, coming up with such a model may be difficult due to a number of problems that impede the whole business of criticizing dictionaries.

2.2.3 Dictionary criticism: potential problems

Three major problems that inundate the criticism of dictionaries are identified as follows: 1) the nature of dictionaries; 2) who is qualified to criticize a dictionary; and 3) what criteria exist by which existing dictionaries can be criticized?

The *Hebrew and English Lexicon of the Old Testament* (Brown-Driver-Briggs 1974 *reprint*) has 1127 pages with the central word list making up the major part of the dictionary.[8] The critic is not expected to read every page and every word in order to review this particular dictionary. Dictionaries are not meant to be read like most other kinds of book publications, since they contain too much text to make it a feasible undertaking. This presents a difficulty when trying to come up with an adequate critical evaluation of the reference work for purposes of improvement.[9] Chapman (1977: 143-161) suggests that for a detailed assessment of the content of a dictionary, random sampling of entries should be used. In other words, open up to any page and randomly pick up lemma entries, and scrutinize each one for accuracy, completeness, clearness, simplicity and modernity.

Not only does the nature of dictionary text pose a challenge to critics, but the question of who is qualified for such a task may also be a hindrance. In different genres, e.g. books, plays, films and music, critics are chosen because of their knowledge or expertise on the subject matter or the techniques of whatever they are reviewing. The same is expected of dictionary critics. They are expected to be knowledgeable about

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[8] The central list is the component of the dictionary that hosts the lemma signs treated lexicographically. As such, it forms the core of the dictionary and is a compulsory component.

[9] If one were to criticize or review a normal book, the reviewer would be expected to read the whole text, and in some cases more than once. This is not possible with dictionaries.

lexicography. This, however, is not always so. In newspaper and magazine reviews, being a user of a dictionary appears to be a sufficient qualification, even though the same publisher would not think of asking just about any reader to criticize a novel or a book of poetry. This also applies to BH dictionaries, where the primary qualification seems to be knowledge of the BH language over knowledge of lexicography.[10] Steiner's (1984: 315-342) plea becomes more pertinent in this respect, i.e. a reviewer or a critic of a dictionary must be knowledgeable or have sound methodology for critically reviewing a dictionary.[11]

The difficulty of the task is further compounded by the fact that there are no clear guidelines or criteria to evaluate existing dictionaries critically. Swanepoel (2001: 171) echoed this sentiment when he noted that there is not yet in existence a comprehensive set of heuristics for either the formative or the summative evaluation of dictionaries.[12] Hartmann (2001: 49) also observed that anyone who has read (or written) a review of a particular dictionary will know that generally agreed criteria and standards for the assessment of quality and performance are still rare, if they can be said to exist at all. Earlier Hartmann (1996: 241) pointed out that the reason for the lack of guidelines is that dictionary criticism is an activity, which is beset by personal prejudice rather than noted for the application of objective criteria.[13] Despite the

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[10] It is recommended that the critic be knowledgeable in both the Hebrew language and lexicography.

[11] Knowledgeable here implies that one has to develop familiarity with the work that is being criticized. The front matter (texts that come before the central word list) is important in this regard since it gives a preliminary view of the scope of the dictionary, its target audience and the types of lexical data that are claimed to be included. Browsing through the central word list for a variety of lemma signs is also necessary for a glimpse of the degree of lexicographic treatment of lemma signs. Some dictionaries also have back matter (texts coming after the central word list) that contain additional information supporting the central word list. These features will help in the reviewing of a particular dictionary, cf. Jackson (2002); Hartmann (2001).

[12] For this reason, Swanepoel (2001: 171) outlines what still needs to be done within the field of lexicography: 1) a systematic description and assessment of the criteria or heuristics that dictionary critics themselves employ in the evaluation of dictionaries, and 2) a description and assessment of the functional quality of the design features, i.e. content, structure, style, layout, etc., that are incorporated into dictionaries of various kinds.

[13] Hartmann (1996) raises this concern in the context of a discussion of the value of learners' dictionaries as language learning tools explained under three headings, i.e. dictionary typology,

problems that beset dictionary criticism, a number of suggestions have been put forward, hence the focus of the next section.

2.3 Suggested guidelines

2.3.1 Introduction

This section will briefly discuss a few guidelines that have been employed in the criticism of dictionaries. The following are discussed: proposals for reviewing dictionaries, **2.3.2**; distillation of dictionary reviews, **2.3.3**; internal criteria for dictionary criticism, **2.3.4**. This discussion will enlighten us concerning the choice of criteria to be considered in the criticism of BH dictionaries.

2.3.2 Proposals put forward

In a bid to help dictionary reviewers do a better job of criticising dictionaries, some scholars (based on their involvement in and knowledge of dictionaries) have proffered guidelines that one may consider. For example, Steiner (1984: 315-342) put forward, "*Guidelines for reviewers of dictionaries*", in which he outlines a systematic format for reviews. It includes the following: degree of inclusiveness, substitutable translation equivalents, degree of meaning discrimination, appropriate equivalents according to established standards, reversibility, accuracy of grammatical information and idiomatic data, convenience and usability. There are others of this nature that have been put forward but I will not discuss them here because they, in one way or the other, resemble more or less the same features of criticism postulated elsewhere.[14] The important consideration, however, is the type of aspects emphasized as potential "look-outs-for" in reviewing dictionaries.

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dictionary reviews and criticism, and dictionary use by learners. Earlier, Osselton (1989: 229) noted that there is a surprising lack of interest in general principles (i.e. of criticizing dictionaries), with incidental sniping taking the place of any real exploration.

[14] Cf. Wiegand's (1994: 1-7) "*Ten commandments for dictionary reviewers*"; or Béjoint's (1978: 465-474), "*Seven criteria for English monolingual learners' dictionaries in his comparison of OALD, COD and LDOCE*", and Chapman's (1977: 143-161) "*Four proposals for a method of dictionary reviewing*".

2.3.3 Distillation of reviews

Another approach to criticizing dictionaries is to take a set of dictionary reviews from academic journals, e.g. "*International Journal of Lexicography*" or "*Lexikos Series*", and subject them to a rigorous analysis with the aim of discovering the enduring concerns of dictionary reviewers. The concerns are then distilled into a set of principles that one may focus on when criticising dictionaries. For example, Tomaszczyk (1988: 289-297) presents an overview of reviews of bilingual dictionaries over a twenty year period from the mid- 1960's. He divides his analysis of the reviews into critical commentaries on nine lexicographic categories: equivalents, directionality, reversibility, alphabetization, retrievability, redundancy, coverage, currency and reliability. Wiegand & Kucera (1981; 1982) also conducted a number of reviews. From these reviews, i.e. of "*German Brockhaus-Wahrig Deutsches Wörterbuch in sechs Bänden*", we can glean a number of lexicographic aspects, which can be focused on when criticizing a dictionary. For instance, one could focus on the: 1) history of the publisher, 2) the dictionary basis, 3) the macrostructure, 4) the microstructure, 5) the treatment of special field terms.[15]

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[15] When Wiegand & Kucera (1981; 1982) focused on these aspects, in their review of the *Brockhaus-Wahrig* (hence forth BW), they concluded the following: Rivalry between publishing companies can influence the type, quality and production of dictionaries. In this context, the *Brockhaus-Wahrig* publisher, as upcoming rival of the popular *Duden* dictionaries, may have wanted to compete by producing a lot of dictionaries in short span of time. This led to plagiarizing from their rival, Duden, cf. Wiegand & Kucera (1981: 6). Plagiarism is common among dictionary publishers. Landau (2001: 402-424) discusses the *legal and ethical issues in lexicography*, for example, plagiarism. The rivalry and the rush to produce more dictionaries may also explain why the BW lacked clear theoretical principles concerning the presentation of linguistic and subject information. The notion "dictionary basis" refers to the lexicographical corpus that constitutes the sum of all the primary, secondary and all other linguistic materials that contribute to the compilation of a dictionary. With regards to the dictionary basis, they discovered that the BW did not have a lexicographical corpus of its own, did not give credit to other dictionaries it had consulted, and did not indicate any sources for the examples presented. They [Wiegand & Kucera] also concluded that although the macrostructure (i.e. the sum of all the arrangement relationships between the different lemmata of a dictionary) of the BW was strictly alphabetical, it violated lexical-semantic relationships, e.g. *Action francais* placed before *Action-film*; *Angerdorf* placed before *Angerblümchen*. On the other hand, the BW did not comprehensively discuss all the aspects of the microstructure (i.e. the set of data classes and the set of the arrangement relationships in which data classes of a particular type of dictionary article are presented) in their

2.3.4   Internal criteria

Internal criteria derive from what the dictionary says about itself, or what the editor (s) claims for the dictionary. These can also be used as grounds against which lexica can be criticized.

Dictionary compilers, editors and publishers make claims in the front matter (i.e. texts coming before the central list) for a variety of reasons. In some cases, these claims are only to demonstrate the superiority of that particular dictionary over its rival publication(s). This kind of claim is largely commercial and is designed to convince and lure the potential user into buying a particular dictionary instead of that of the rival. Some claims, for example, include the mention of features pertaining to the presentation of data that may distinguish the publication of the current edition from previous ones and justify its publication. In some cases the dictionary boasts of its unsurpassed ability to meet the user's needs, e.g. the coverage, the quality of lexicographical treatment of lemmata and the easy retrieval of desired information. At times and in most cases, such claims may constitute the purpose or the lexicographic function of the dictionary, i.e. the reason and role that the dictionary seeks to fulfil. [16]

The critic can take the set of claims made in the front matter text and investigate whether they are borne out in the dictionary's practice. For example, Clines (1993: 14-15) makes some of the following claims that supposedly set his dictionary apart from other BH dictionaries:

> This dictionary differs from traditional Hebrew lexica in that it designates and defines a phase of the language as Classical Hebrew… unlike other dictionaries of the ancient Hebrew language, which cover only the texts of the

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introduction or front matter, e.g. it does not mention the treatment of idioms, cf. Wiegand & Kucera (1981:24-85). In the front matter of the BW, it is claimed that a great number of special-field terminology, e.g. from space technology, marine biology, etc., are included. Wiegand & Kucera (1981: 90) pointed out that BW made some mistakes with regard to the treatment of special-field terminology. For example, there were lexicographical gaps, i.e. the quality of work was not very high and there were mistakes in the categorization of special fields and markers. Smit (1996: 34) note that a comprehensive dictionary such as the BW should have approached specialists and experts in different fields to collaborate in their project.

[16] Lexicographic functions will be dealt with in Chapter 3.

Hebrew Bible, whether exclusively or principally, this dictionary systematically records the language of all texts written in Hebrew… Unlike previous dictionaries, the *Dictionary of Classical Hebrew* has a theoretical base in modern linguistics… The theoretical base comes to expression primarily in the overriding concern… for the uses of words in the language… we subscribe to the dictum that the meaning of a word is its use in the language. The focus… is not so much on the meanings, or the translation equivalents, of individual words as on the patterns and the combinations in which words are used… the priority given to the most commonly attested sense, the avoidance of historical reconstructions, of the evidence of cognate languages, and the marking of certain usages as "figurative" or "metaphorical."

The claims that Clines (1993) makes provide internal criteria for criticizing this particular dictionary because the statements are testable. One could for instance, test the *dictionary basis*, i.e. the collective sum of texts used to compile this dictionary, by asking questions relating to what texts are covered and what justifies their consideration in the compilation of the dictionary.[17] Furthermore, does the dictionary document and give credit where it is due? One could also test the claim of "the theoretical basis of modern linguistics" in terms of what it is and how it helps the function of the dictionary.[18]

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[17] Clines (1993) includes in its corpus, the Hebrew Bible, Sirach, the Dead Sea Scrolls, and the inscriptions down to 200 C.E., which Clines take as pre-Rabbinic ancient Hebrew. O'Connor (2002: 173-212) criticized the dictionary basis of Clines (1993). O'Connor believes that the decision, i.e. to include other corpora was wrong on the grounds of historical linguistics and of lexicographic procedure. On historical grounds, he advises the separation of BH and Ben Sira, which are undatable texts preserved in a manuscript tradition, from the inscriptions and from the Dead Sea Scrolls, which are to varying degrees archaeologically datable. The lexicographical procedure, according to O'Connor (2002: 195), is closely related to the scriptural quality the data, e.g. the texts of the Hebrew inscriptions, the Dead Sea Scrolls, and Ben Sira are much less thoroughly controlled and understood than the biblical text, and therefore including them at the same level of comprehension is simply not warranted.

[18] O'Connor (2002: 198) concluded that the application of these principles in Clines (1993) are narrowed to a small set of ideas and corresponding mechanical operations, i.e. the use of words, close

Many reviewers take a dictionary's claims as the point of departure for criticizing a dictionary, if not as the basis for the whole approach. Newspaper and magazine reviews regularly rely on what the editors or publishers say about their product, often with little attempt to test the sometimes exaggerated claims. Jackson's (2002: 176) caution that there is a danger that a critic that relies solely on internal criteria may be biased too much in favour of the dictionary, unless a radically critical stance is taken, is here appropriate.

2.4   Theoretical lexicography

2.4.1   Introduction

The discussion of section §2.3 made it clear that the approaches suggested are not sufficient for the criticism of BH dictionaries because they are not objective and coherent enough. In this section another approach will be considered, namely external criteria or theoretical lexicography. It is a more justified approach that promises better results.   For this reason, it is a more plausible option for the purposes of this investigation. In the discussion of this section, two prominent names, (Zgusta & Wiegand) associated with theoretical lexicography will be briefly discussed because of their remarkable contribution.

2.4.2   External criteria

External criteria provide the reviewer with different critical heuristics. Instead of looking solely at the claims that a dictionary makes, the reviewer looks outside the dictionary to criteria that are and have been formulated based on accumulated insights from the academic community. Such accumulated insights have resulted in the formulation of theoretical models for lexicography and have instituted lexicography

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attention to more common words, no cognitive evidence, no differentiation of metaphorical and figurative usage. Van der Merwe (2004: 124) also criticized Clines' (1993) theoretical approach, "this approach might eventually be useful to determine the meaning of lexemes, but it does not necessarily give insight into the lexical meaning of BH expressions themselves. Furthermore the exhaustive listing, e.g. of subjects, objects prepositions, etc. that may be in a syntagmatic relationship with a verb without considering the semantic features of these constituents… may give rise to data that are of little help or no help to the lexical semanticist." See also Lübbe (2002: 249) and Muraoka (1995: 87-101).

as an independent discipline. The main purpose of a general theory of lexicography is to guide lexicographers to practical lexicography, i.e. the act of compiling dictionaries. In light of the latter, it can be argued that if a theory of lexicography can offer guidelines for the compilation of lexicographic reference works, then it also implies that this theory can be used in the critical assessment of existing lexica. Two names that stand out, Zgusta and Wiegand are credited with the development and formulation of a general theory of lexicography. The consideration of Zgusta and Wiegand is justified for reasons that will become apparent as each one of them is discussed in the following paragraphs. Consequently, the model for criticising lexica will emerge from the discussion.

The field of lexicography has a twofold nature, i.e. a theoretical component and a practical component. The former focuses on research regarding, e.g., the form, contents and functions of dictionaries, whereas the latter leads to the compilation of dictionaries. According to Gouws & Prinsloo (2005: 1), lexicography has not always had this twofold character. The theoretical component can be regarded as a latecomer because lexicography was originally only associated with the practice of dictionary making. Up until the twentieth century, the practical component of lexicography was dominant.[19] The theoretical component only appeared in the second half of the twentieth century, heralding the advent of theoretical lexicography. The most important publication of the era was that of Zgusta (1971), "*Manual of Lexicography*", which is considered the cornerstone in the establishment of theoretical lexicography.[20]

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[19] Béjoint (2000: 92-94) documents the development of the practical component citing that one of the salient features of dictionaries throughout many centuries is their function to assist users with real problems. This tradition of practical assistance had already been introduced in the early dictionaries, e.g. those compiled on clay tablets by the Assyrians to assist children in understanding Sumerian writings, the early Egyptian dictionaries written on papyrus leaves and the Arabic dictionaries giving their users access to scriptures of Islam. As practical instruments these dictionaries were sources of knowledge, directed at the specific needs of specific user groups (Gouws & Prinsloo 2005: 1-8)

[20] Soon after publication, the influence of Zgusta's ideas was already noticeable, resulting in the rapid growth of theoretical lexicography, but also in an improvement of the quality of new dictionaries, Gouws & Prinsloo (2005: 2).

2.4.3   Zgusta

Zgusta (1971) was instrumental in: 1) linking lexicography with linguistics, 2) heralding a new approach to lexicography, i.e. that the dictionary needs to reflect the real language usage and not only the language of the ideal speaker-hearer, and 3) stressing that theoretical lexicography should have the purpose of enhancing practical lexicography, i.e. the process of dictionary-making.

Zgusta's (1971) book heralded a period, which ushered lexicography into the linguistic fold.[21] This was an important move since dictionaries developed at a much earlier period when linguistics was not that widely taught and practised for the benefit of practical lexicography. As such, it is a common observation that authors who are not linguists at all can compile dictionaries. Nevertheless, this does not mean that there is an absence of linguistic knowledge in a dictionary. Béjoint (2000: 173) rightly observes that all dictionaries necessarily adopt and transmit some points of view on language, even if the lexicographers are not aware of any. Quemada (1972: 427) echoed the same sentiment by stating that each lexicographical work reflects a linguistic theory, which the author more or less consciously applies. This is the reason why Zgusta (1971: 15) described lexicography as a very difficult sphere of linguistic influence. A lexicographer needs to be familiar with linguistics in a much broader sense and has to take into consideration not only the whole structure of the language in question, but also the culture of the respective linguistic community. [22] This

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[21] Zgusta's (1971) contribution should be understood against a background of the relationship between lexicographers and linguists. Before the late twentieth century, lexicographers had always been linguists of sorts, but they tended to be considered as non-linguists, and to be rejected by the academic world of linguistics, who perceived dictionaries as uninteresting because of their apparent unscientific nature and lack of linguistic theory. On the other hand, lexicographers and dictionary publishers did not particularly want the contribution of linguists in the compilation of dictionaries either. They failed to see what linguists could contribute to the practical task of dictionary making, i.e. they thought that academics would be of little use in lexicographical work, with all its practical and social constraints, to which linguistic theory is ill-adapted (Béjoint 2000: 170).

[22] The first four chapters in Zgusta's work (1971) are not primarily concerned with lexicography but rather with linguistics, focusing on topics like lexical meaning, formal variation of words, combinations of words and variation in language. According to Gouws & Prinsloo (2005: 2), the inclusion of chapters on formal variation of words and variation in language, Zgusta gave a clear signal

reasoning compelled lexicographers to keep abreast of the developments in linguistic theory and hence reflect these developments in the presentation of data in dictionaries.[23] Zgusta (2006: 100) however maintains that the immediate usefulness of linguistic theory to lexicography starts when it is applied to large masses of data.[24] In other words, a linguistic model(s) becomes useful when it is used to analyse and describe huge amounts of data.

Not only did Zgusta link lexicography with linguistics, but he (1971: 16) also indicated that the lexicographer is doing scientific work. As such, he or she publishes it for users whose pursuits are always more practical. Consequently, a distinction between the theoretical lexicographer and theoretical lexicography, practical lexicography and the lexicographic practice has to be negotiated. With respect to the distinction, Gouws & Prinsloo (2005: 2) note that theoretical lexicographers devise

that linguistic influence does not only, or even primarily, run along the lines of formal grammar but that the dictionary also needs to reflect the real language usage and not only the language of the ideal speaker-hearer.

[23] According to Béjoint (2000: 173), the main currents of theoretical linguistics have had echoes in practical lexicography, but mostly faint ones. This is because theoretical linguistics is not easily applied to lexicography, particularly new approaches, which are typically ill-fitted for a general-purpose dictionary that is meant to be used by the man in the street (Rey 1970c: 22). Different linguistic schools permeated through in dictionaries. For instance, the influence of Chomsky's transformational grammar on dictionary making was limited because many transformationalists perceived their theory as having little to offer to lexicography. Most recently, scholars e.g. Zgusta (2006: 111-115) and Geeraerts (2002: 285-292) claim that the prototype theory seems to be the most promising with regards to modern semantics for lexicography. A prototype is the model of all representatives of the meaning of a word or of a category. For example, a sparrow can be considered a prototype of the category "bird" because it possesses most features common to all members of that category (Geeraerts 2002: 285-292).

[24] Zgusta (2006: 100-140) makes a distinction between what he calls linguistic research and theoretical linguistics. Linguistic research can be useful to lexicography, however in a different way and to varying degrees in each area, i.e. morphology, syntax, etc. Theoretical linguistics, i.e. the construction of theories or models of language, helps linguists to better understand its functioning, development etc. With this distinction he places the emphasis more on linguistic research and its usefulness to lexicography, and less on linguistic theory.

theories aimed at enhancing the efforts of the practical lexicographer in his/her process of dictionary compilation.[25]

Zgusta (1971) initiated an era, i.e. during the seventies and eighties, which saw lexicography being performed and studied largely within a linguistic context. Many publications in the field of metalexicography focused on linguistic aspects of dictionaries resulting from a situation where many researchers working in the field of metalexicography were linguists by training (Gouws & Prinsloo 2005:4). Such an interaction between lexicography and linguistics also explains another approach that critically assesses dictionaries from a linguistic perspective, namely that of the semantic models subscribed to in the lexicographic process.[26] Today lexicography and linguistics are inextricably mixed. No modern lexicographer can afford to ignore what linguistics has to offer. Linguistic research cannot be ignored, even if it does not have all the answers (Béjoint 2000: 177). Geeraerts (1989: 287) states that, "the principles of language are merely one among a number of parameters that determine the actual shape dictionaries take."

2.4.4 Wiegand

Whilst Zgusta dominated lexicography in the seventies and eighties, Wiegand is seen as further dominating the lexicographic stage in the eighties and nineties. Among other things, he encouraged the formulation of a general theory of lexicography; made a clear distinction of the relationship between linguistics and lexicography; and researched and established the components and structures of dictionaries.[27]

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[25] Practical lexicography has its goal in the compilation of dictionaries and theoretical lexicography is concerned with dictionary research, cf. Hartmann & James (1998); Wiegand (1984; 1998) and Hausmann & Wiegand (1989).

[26] Cf. Weinreich (1962: 30; 1964); McCawley (1973: 167); Lakoff (1973: 151); Mel`cuk (1988: 172) and Hausmann (1990a: 225-235).

[27] In numerous articles, Wiegand developed a general theoretical framework for the systematic classification of lexicographic working processes and products as well as prerequisites for their reception. Such a general theory of lexicography, which in turn comprises several partial theories and is a central part of metalexicography or dictionary research, did not come about unexpectedly. It is a result of many years of critical analysis of the internationally pertinent literature of the past and the present, which has always reflected various types of lexicography, depending on the different details

Wiegand advocated the formulation of a general theory of lexicography.[28] In so doing, he defined the relationship between lexicography and linguistics. Lexicography is neither a branch of applied linguistics (investigates problems dealing with specific languages) nor a branch of lexicology and it is by no means theoretically determined by lexicology alone (Wiegand 1984: 13-15).[29] Metalexicography (the theoretical component of lexicography), according to Wiegand has four components, i.e. the history of lexicography, a general theory of lexicography, research on dictionary use and the criticism of dictionaries.[30] Furthermore, lexicography is a practice, aimed at the production of dictionaries in order to initiate another practice, i.e. the cultural practice of dictionary use (Wiegand 1989: 251).[31] Concerning linguistics, Wiegand considers linguistic lexicography as a scientific practice aimed at the production of reference works on language. As such, it has language as its study object, whilst the object of lexicography is not language but dictionaries.[32]

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under discussion (Wolski 1982). Prominent examples of this development are, among other works, a number of short articles written between 1976-1996 and which are compiled in the *Lexicographica* series 97 (1999). Most importantly, Wiegand developed alongside metalexicography, differentiated heuristics that are highly specialized in their components and metalexicographic terms. According to Wolski (1999: 3), part of this terminology has achieved a greater clarity of definition than some of the established disciplines among the social sciences and humanities. It offers appropriate ways of formal presentation for the various types of dictionary structures and dictionary look-up operations (Wiegand 1998).

[28] Cf. Wiegand (1983; 1983a; 1984).

[29] Lexicology is considered a subdiscipline of linguistics which focuses specifically on semantics. It investigates and describes the structure of the vocabulary of a language. It also examines the linguistic expressions for their internal semantic structure and the relationships between individual words or lexical units. Tauth & Kazzai (1996: 280) state that the findings of lexicology may be codified by lexicography (i.e. the technique of preparing dictionaries), although the relationship between both areas is not necessary.

[30] Cf. Wiegand (1998: 256) for further discussion of the different components.

[31] Cf. Gouws & Prinsloo (2005: 4).

[32] McCawley (1973: 165) emphasized that "the relationship of linguistic theory to lexicography… must be highly indirect if the lexicographer and the pedagogue are to accomplish anything. In other words, lexicography is to be regarded as an independent discipline, which is influenced among others by linguistics but not to such a degree that it should be still regarded as a subdiscipline of linguistics." This distinction is made clear in that, linguistics has *language* as its study object whilst the object of

Not only did Wiegand define the relationship between lexicography and linguistics, but also he made another important contribution in the formulation of a general theory of lexicography. In his numerous publications, he focused not only on the contents of dictionaries and dictionary articles, but also on the structure of dictionaries.[33] He pursued the identification of the different components of dictionary articles by a meticulous description of their specific structure and function.[34] These include, the access structures of the dictionary, data distribution structure, the frame structure, the macrostructure, microstructure, micro-architecture, search fields, medio-structure, and addressing structures.[35] The focus on the components and structures of dictionaries during the Wiegand era emphasized the fact that dictionaries are containers of knowledge. As such, the contents and the form of the container must be regarded as extremely important. Whilst linguists have little or no interest in the structural components of dictionaries, Wiegand has created awareness through his advocacy of a detailed general theory of lexicography, which focuses on the importance of components and structures of dictionaries.[36]

Wiegand's metalexicography has been widely received and recognized in lexicographic circles, to the extent that it has been regarded as both descriptive and prescriptive. It is descriptive in that it describes the state of affairs of dictionaries and their types, especially their structures, rather than their contents. It is prescriptive in

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lexicography is not language but *dictionaries*. Against this background lexicography cannot be regarded as a branch of linguistics, although it does overlap with various subdisciplines from the field of linguistics, i.e. syntax, pragmatics, etc., (Zgusta 2006: 100-140).

[33] In his research on dictionary structures, he also highlighted how they play a pivotal role in light of the needs and the reference skills of the target users of dictionaries.

[34] According to Gouws & Prinsloo (2005: 5), the fact that Wiegand investigated the structure of dictionaries, ascertains his approach that metalexicography is not a branch of linguistics. Furthermore, the description of the structure of dictionaries was not done in such a way that a theoretical model is formulated and then imposed on the lexicographic practice. Wiegand rather took a critical look at the existing dictionaries to identify and describe their structural features. He moved from the practice to the theory so that the theory could be applied to enhance the practice.

[35] These notions are discussed in Chapter 2, and therefore will not be expounded here.

[36] Cf. Swanepoel (2000: 403-419) for a discussion of how issues of design features are currently dealt with in dictionary criticism and in research on the content and structure of dictionaries as texts.

that it can be employed as a practical manual or guideline for any planned dictionary type, since it also aims at forming a structural design for each clearly stated information goal of a polyinformative dictionary. Because of its descriptive and prescriptive nature, Hausmann & Wiegand (1989:344) can confidently state that in principle their metalexicography is so "constructed and comprehensive that it is able to put at the lexicographer's disposal the complete structural design (in testable variants) for any dictionary type."

2.5   Conclusion: Model for criticising BH dictionaries

This chapter briefly discussed the notion of dictionary criticism. The focus was placed on its definition and goals, and the different approaches employed in criticising existing lexica. The following were noted:

1. Dictionary criticism is a task that seeks to critique and review existing lexica in order to improve them or create better ones.

2. There are no formulated criteria firmly in place, thus making the above task a challenging one.

3. Different possible approaches have been suggested and employed to meet this challenge. These include:

    - proposals that recommend different aspects to focus on when criticising dictionaries,

    - a distillation and accumulation of features that reviewers regarded as crucial in published dictionary reviews,

    - internal criteria that mainly look at the claims made by the dictionary, and

    - external criteria that take into consideration accumulated insights from academic lexicography or theoretical lexicography.

4. The internal criteria of a dictionary, as well as insights from theoretical lexicography, appear to provide the most justifiable foundation for a model for criticising BH dictionaries. Zgusta and Wiegand's contribution are pivotal to such a model. The former brought lexicography into the linguistic fold at a time when practical lexicographers and linguists did not see the need of each other. The latter went a step further in a) defining the

relationship between linguistics and lexicography, b) firmly establishing lexicography as an independent discipline, which benefits from linguistic research, and c) formulating a general theory of lexicography by identifying the components and structures of dictionaries.

Since theoretical lexicography is more objective, justifiable and coherent, it serves as a springboard for the formulation of a model that will be used in the rigorous and critical evaluation of BH dictionaries, which up until now have largely been criticized haphazardly. The first task will be to elaborate on the preferred model, namely, theoretical lexicography. This is the focus of the next chapter.

Chapter 3

Metalexicography: Components and Structures

3.1   Introduction

In the previous chapter the notion of dictionary criticism: a mechanism to criticize existing dictionaries with the goal of improving them and creating better ones was discussed. The discussion established that criteria for such criticism are not yet in place. Guidelines however, may derive from sources ranging from end-users, reviews, and dictionary claims and academic or theoretical lexicography. From these approaches, theoretical lexicography, which is designed to enhance practical lexicography, i.e. the compilation of dictionaries, may help us to assess the state of components and structures of existing BH dictionaries objectively with the goal of improving them.

The discussion in this chapter will focus on selected notions in theoretical lexicography.[37] The selection, arrangement and subsequent discussion of each one is undertaken based on their relevance for our purposes. It is also important to note now that not all the discussed notions will be used in the criticism of existing lexica. Their discussion is justified in that they provide grounds for a logical understanding of other key lexicographic notions that will form part of our critical criteria. The chapter is arranged as follows**:** the genuine purpose and lexicographic functions of dictionaries, **3.2**; the structure of dictionaries, **3.3**; the word book structure, **3.4**; the word list structure, **3.5**; the dictionary article, **3.6**; the access structure, **3.7**; the macrostructure, **3.8**; the microstructure, **3.9**; addressing structure, **3.10**; bilingual dictionaries, **3.11**; electronic dictionaries, **3.12**; and the conclusion, **3.13**.

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[37] The notions have mainly been drawn from an article by Hausmann & Wiegand (1989: 328-360). These have been adopted and adapted in various contexts. For instance, Gouws & Prinsloo (2005), employed some of the notions for further dictionary research and as a basis for producing different dictionary types. Smit (1996) used the theoretical framework to produce a multilingual, multicultural dictionary for music education in the South African context.

3.2 The genuine purpose and lexicographic functions of dictionaries

3.2.1 Introduction

No dictionary can begin to be compiled without considerable forethought and planning (Jackson 2002: 161). Dictionary planning involves many activities.[38] One of them, probably the most important is the identification and formulation of the *genuine purpose* and *lexicographic function(s)* of the intended dictionary, in order to ensure a firm and secure theoretical foundation for the compilation of the dictionary. The purpose and function(s) of dictionaries cannot be stressed enough, since they constitute the very essence and motivation of the compilation of any lexicographic reference work. The dictionary is compiled to meet specific needs or problems that weigh down upon the users. The genuine purpose and lexicographic function(s) are therefore formulated around the user's needs. Consequently, dictionaries usually include the lexicographic function (also serves as internal criteria §2.3.4) in the front matter to inform the user of the goals of the dictionary.[39]

According to Tarp (2000: 198), the functions constitute the leading principle of all dictionaries because everything in a dictionary is to a greater or lesser extent influenced by its respective functions and purpose, e.g. the components of a dictionary and the structure they assume. A brief look at the early dictionaries will establish that they were compiled around a practical component of functionality that always guided the lexicographic process.

3.2.2 Historical reflections on dictionary functions

A reflection on the historical functions of early dictionaries will reveal and confirm how paramount the lexicographic function is, for the compilation of any dictionary.

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[38] Cf. Gouws (2001b: 58-94).

[39] Gouws & Prinsloo (2005: 13-14) state that the identification and formulation of the purpose and of the specific lexicographic functions have to precede the compilation process because the compilation process should be steered by the purpose and functions of the specific dictionary project. Whilst the preceding emphasizes the function of the dictionary, Jackson (2002: 161-162) emphasizes the identification of the target user for whom the dictionary is compiled. Just as important is the decision on the size of the dictionary, since this will have a significant effect on a number of further issues, e.g. cost price of product, and staff, etc.

Béjoint (2000: 93ff) gives an overview of the historical origins of the general-purpose dictionary, i.e. from the pre-historic Sumerian lists (ca. 3000 BC) to our contemporary times. All societies with writing systems have produced dictionaries of various kinds and for various reasons. For example, the Sumerian early dictionary seems to have been produced with the purpose of instructing future administrators. In Egyptian society, they were produced for commercial or administrative relations with other communities. Some dictionaries were scholarly lists of the things that make up the world more than books about words. In Europe, "glosses" seem to have been the earliest versions of dictionaries compiled to help monks read important texts written in languages that they could no longer understand, e.g. Latin, Greek or Hebrew.

The general-purpose dictionary as it developed in the 18th century appeared at the same time as the middle classes emerged. As the bourgeoisie increased their wealth and power, they began to wish to talk like their superiors (McDavid 1979: 24). The dictionary was a great aid to the new bourgeoisie who had social and cultural ambitions. The function that the dictionary then performed was to democratize knowledge.[40] The social aspirations of the bourgeoisie coincided with the conservation of a particular language. Thus, lexicographers compiled dictionaries to educate the middle classes and to protect the standard of a language (Smith 1979: 47).

In the 19th century, dictionaries changed with regard to their functions. The dynamic transformations taking place in European societies, especially in France and England were a huge influence. Osselton (1983: 17) epitomized these changes in the following way:

> The century down to 1850 saw great changes in the notion of what a dictionary should be: it came to be seen as a scholarly record of the whole language; in method, it became inductive, i.e. based on or derived from a corpus; the

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[40] McDavid (1973a: 5) described the function as follows: "the response to the rise of the middle classes, the dissemination of knowledge and literacy, and the general ferment of intellectual curiosity arising from the Renaissance and the Reformation: to say nothing of the perhaps less admirable but thoroughly comprehensible ambitions of the newly risen and affluent to use without stumbling the kind of language to which the traditional upper classes had been accustomed. The need to provide information about the language for the uninformed and socially insecure underlies all subsequent lexicography."

emphasis came to lie far more that hitherto on the literary rather than the technical language; and the dictionary assumed an *authoritarian or normative function.* [my own italics for emphasis]

The first monolingual dictionaries from the Renaissance to the 20th century seem to have been dictionaries of difficult words designed to educate the public. Osselton (1983: 144) notes the following;

> The cultural and educational function of the earliest English dictionaries, down to 1750 at least, was to enable a wider, unlatined, reading public to understand and to learn to use the new technical and abstract vocabulary of learned words, which in many cases became less "hard" and were assimilated into the language.

It is evident from the above that dictionaries at the time functioned as instruments for self-instruction and for mastering the vocabulary of the language. This is also reflected in the titles of the dictionaries, e.g., *a dictionary interpreting the hard words…very useful for all such as desire to understand what they read and hear* (Blount 1961 cited in Béjoint 2000: 94).

Whilst the function of the first monolingual dictionaries described lexical usage, the ones in the 19th century became prescriptive, i.e. the dictionary came to indicate what good usage was and what bad usage was.[41] The goal of prescriptive dictionaries is to fix the language, in an effort to prevent it from changing. Change at this time was usually equated with deterioration (Zgusta 1989a: 75). The language that dictionaries tried to stabilize was the variety used, or at least admired, by a certain *élite*. It was the language used by the best writers, typically some time before the date of publication of the dictionary (Béjoint 2000: 100).

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[41] According to Rey (1972: 4-28) prescriptiveness and descriptiveness are based on two different norms: qualitative norm and quantitative norm. The latter norm is based on the observation of the linguistic usage of all the reasonably fluent users of the community. Any form is good as long as it is used by a certain number of speakers. The former is based on the usage and on the opinion of the "best" language users, as determined by a more or less clear consensus, often of educators and well-known writers.

The above briefly highlight that the function of the dictionary has always been an important consideration in the lexicographic process, even from the early versions of dictionaries. This has become even more pertinent in light of developments in metalexicography. Today dictionary research has identified and created a prescriptive taxonomy of lexicographic functions of dictionaries. Below is a discussion, first of the genuine purpose of the dictionary, and then of the lexicographic function.

3.2.3   The genuine purpose of a dictionary

Wiegand (1988: 729-790) argues that lexicographic reference works are utility products that are produced for specific purposes. On this basis, Wiegand ushers in the metalexicographical notion "genuine purpose" of a dictionary.[42] Tarp (1998: 121-137) defines the purpose of a dictionary as the effort and ability of the dictionary to cover the complex of needs that arise in the user in a given reference act. The genuine purpose of a dictionary derives from, among other things, the dictionary typology and its intended target user group.[43] The genuine purpose of a dictionary can be used to retrieve information from the lexicographic data supplied about the respective subject of a particular reference work. Gouws & Prinsloo (2005: 13) state that the genuine purpose of a dictionary is reached when all the functions of the dictionary have been achieved successfully. It follows by implication that during the planning stages of the dictionary, the genuine purpose of the dictionary has to be created to form a basis for the dictionary's conceptualization plan.[44]

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[42] Tarp (2000: 193) agrees to the notion "genuine purpose" of a dictionary though he argues that it is too general.

[43] Gouws & Prinsloo (2005: 13) cite that desk or standard bilingual or monolingual dictionaries, i.e. the typological categories with a high usage frequency, belong to the broader category of linguistic dictionaries, i.e. the general purpose dictionary. In this case the genuine purpose of the dictionary is to transfer, by means of lexical data, information regarding the set of lexical items included as treatment units in order to ensure the linguistic empowerment of the intended user.

[44] The conceptualisation plan of a dictionary is a term used to refer to the establishment of the dictionary project and lexicographic process. Wiegand (1998: 151), for example, divides the dictionary conceptualisation plan into five subdivisions, i.e. the general preparation phase, acquisition of material, preparation of this material, processing, and publishing.

3.2.4 Lexicographic functions

The metalexicographical term used to refer to the functions of a dictionary is lexicographic functions. Various scholars have attempted to capture the essence of the term "lexicographic function." Béjoint (2000: 108) explained in a most general way that the lexicographic function is when a dictionary answers all sorts of questions about everything in the culture.[45] McDavid (1979: 19-20) distinguished the following lexicographic functions:

1. The most important function (to scholars) of a dictionary is to record language, whether a diachronic statement of the development of words and their earliest records to the present, or the ordering of them in a contemporary context, by frequency or centrality of meaning…

2. To acquaint a user with a language or a variety of languages...

3. To supply incidental information, linguistic or otherwise, for the casual user…

4. To guide the user as to what one should say and especially to what one should not say.

Hartmann (1985: 5) identified seven functions of the general-purpose dictionary without reference to the user. The following list is a distillation of the dictionary functions from the early dictionaries to the present.

1. The dictionary as an authority on usage

2. The dictionary as a store of (difficult) vocabulary

3. The dictionary as a tool for improving communication

4. The dictionary as a means of strengthening the language

5. The dictionary as a stimulus to reflection on language

6. The dictionary as an aid to foreign –language learning

7. The dictionary as ideological weapon.

Tarp (2000: 196-198) classifies lexicographic functions into two major ones, namely, 1) communication-orientated and 2) knowledge-orientated.[46] Each of these major

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[45] Cf. Barnhart (1962: 161).

[46] Dictionary functions are closely linked to dictionary typology. Béjoint (2000: 36) indicates that some linguists have argued that a typology of dictionaries should be based not on the characteristics of dictionaries but on the linguistics operations that the dictionaries are designed for. Matoré (1968: 190) made a distinction between quantitative dictionaries, which are designed for a vast public that needs

functions can further be broken down into specific ones. Tarp identifies the following as the most important functions in each class of the distinction.[47]

3.2.4.1 Communication-orientated functions

Functions that are communicative in nature can essentially be identified for the purposes of text reception, text production and translation. According to Tarp (2000: 196-197), they can be summarized as follows:

    1. to assist the reception of texts in the native language

    2. to assist the production of texts in the native language

    3. to assist the reception of texts in a foreign language

    4. to assist the production of texts in a foreign language

    5. to assist the translation of texts from the native language into a foreign language

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quick and superficial information about many different sorts of things, and qualitative dictionaries, which are meant for people who want exact information about a language. The fundamental basis for classifying dictionaries is no longer the absolute knowledge of the lexicographer, but rather the relatively varying purposes achieved by the dictionary for the benefit of different groups of users. Consequently, dictionaries can have a comprehension, production, or translation function. Taxonomy of dictionaries in a way that would be both orderly and applicable to all societies is impossible (Rey 1970b: 64). Cf. Béjoint (2000: 37) who expresses a similar sentiment. According to Béjoint (2000), the following distinctions are broad but useful: general and specialized dictionaries, monolingual and bilingual dictionaries, encyclopaedic and "language" dictionaries, foreign learners' and native speakers' dictionaries, dictionaries for adults and dictionaries for children, and the monolingual general-purpose dictionary. Béjoint (2000: 40-41) describes the monolingual general-purpose dictionary as the prototypical dictionary, occupying a prominent position in all societies.

[47] Tarp (2000: 189-208) also notes that there may be a need to work out these functions in detail, especially when one deals with specialized and concrete dictionaries. For example, when one treats a subject that has developed in a different way from country to country, e.g. legal systems, or from culture to culture, then the dictionary should inculcate functions for the purpose of providing the user with sufficient data on the subject in both the user's own country or culture and in the foreign country or culture. Based on this and a further discussion, Tarp (2000: 198) re-defines Wiegand's notion "genuine purpose" of a dictionary as follows: "the dictionary covers this or that area and is conceived to assist users with these or those characteristics in this or that situation in order to solve problems of this or that sort."

6. to assist the translation of texts from a foreign language into the native language.

3.2.4.2 The knowledge-orientated functions

Another major function is one that seeks to edify the user's knowledge in a particular subject matter. The knowledge-orientated functions are as follows:

1. to provide general cultural and encyclopedic data,
2. to provide special information about a subject field or a particular discipline,
3. to provide information about a language (e.g. when studying a foreign language).

Although no single dictionary can pretend to be equally useful in all these areas, the above makes it abundantly clear that each dictionary compilation must have at least one clear-cut lexicographic function as the leading principle.[48] This function must be decided upon before the commencement of the lexicographic process because it determines the type of contents and their structure in a dictionary. Additionally, the function will also be a point of departure in dictionary criticism since it is included as part of the internal criteria (i.e. claims and purpose of dictionary compilation) in the front matter. The components and the structures of the dictionary can subsequently be evaluated against the function of the dictionary in order to establish whether they enable the goal or function. In the following paragraphs selected dictionary components and their structures will be discussed based on the accumulated insights from academic lexicography.

3.3   The structure of dictionaries

3.3.1   Introduction

This section gives an overview of selected structural components of dictionaries (in their textual form). In addition, the following discussion endeavors to demonstrate

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[48] Tarp (2000: 199) advocates that from the standpoint of user-orientated lexicographic theory, the best thing would always be to compile a dictionary with only one function and dedicated to only one type of user. In this way one attains the best product to solve the special problems of a homogeneous group of users.

how each major component fits into the scheme of a dictionary as a "big" text.[49] Such an overview and discussion of vital notions provide a key to the criticism of existing works (Chapter 4) and to the development of a beta-version of a BH lexicon for translators (Chapter 5).

3.3.2   The frame structure

Bergenholtz & Tarp (1995: 188) define the frame structure as the overall collection of all the inter-related components constituting a dictionary.[50] The basic premise of the notion "frame structure" initially perceives dictionaries as *carriers of text types* that are functionally positioned in dictionaries in varying ranges (Wiegand 1996b: 134-149). Texts can be positioned, according to their functionality, in three identifiable areas that include the *front matter*, *central word list* and the *back matter*.[51] The central word list is the obligatory component of any dictionary containing *article stretches*, which are conditioned by the access alphabet system of a particular language. The front matter contains all texts that come before the central word list, whilst the back matter contains all texts that come after the central word list. The front and back matter texts are part of what is called *outer texts*, which host optional texts occurring outside the central word list.

The frame structure allows data to be systematically distributed or positioned in the central word list and outer texts. The distribution of lexicographic data in these focal areas is according to a data distribution scheme designed by the lexicographer in the planning stages of the dictionary (Gouws 2001: 103).[52] A frame structure that is well thought out in the planning stages of the dictionary compilation will, at the end enhance quick and unimpeded access to lexicographic data and optimal retrieval of desired information in order to solve a problem(s) in a particular reference act. The

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[49] Cf. Gouws and Prinsloo (2005: 57) on the notion "big" text.

[50] Cf. also Atkins (1996: 515-546).

[51] Gouws (2001: 102) states that according to the frame structure a dictionary contains three textual focal points, i.e. front and back matter, and the central word list.

[52] Cf. Kammerer & Wiegand (1998: 224-238); also Gouws (2001: 521ff.) for a detailed discussion of the frame structure.

structural components (some have already been alluded to above) that constitute the frame structure are discussed in the following paragraphs.

3.3.3 Dictionaries as Carriers of Text Types

Wiegand (1996b: 134-149) regards dictionaries as carriers of text types, with each particular dictionary constituting a range of texts that are functional components of the dictionary as a whole or "big" text.[53] In an earlier publication Wiegand (1983b: 48-49) claims that his theory does not concern itself with the *content* of lexicographical texts, but rather it is interested in their *structure.* In this structure, lemma signs have to be placed in such a manner as to help the function of the dictionary, and ultimately enable the user to access data and to retrieve desired information successfully. If dictionaries can be perceived as containers of data, then it is a prerequisite to plan the *container* before putting *contents* into it.

The word dictionary has at least two meanings.[54] It may mean (1) the *whole book* or (2) the *word list.* This distinction motivates a two-pronged approach to the structure of dictionaries. The first structural approach is the wordbook structure or textual book structure and the second is the word list structure. These are discussed respectively below.

3.4 The word book structure[55]

The wordbook structure approaches the dictionary or the "big" text considering all the text types included, i.e. the central word list and the collective set of outer texts. According to Gouws & Prinsloo (2005: 57), the wordbook approach is the one that is prevalent in the majority of modern day dictionaries and strongly promoted by dictionary research because it accommodates various text types. The sections below

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[53] Cf. Hausmann & Wiegand (1989)

[54] Jackson (2002: 21-22) defines a *dictionary* as a reference book about words that partially records the vocabulary of a language. However, it is to be distinguished from an encyclopaedia, which according to Jackson is a book about things and not words. Some lexicographers and linguists would beg to differ at this junction. They don't make a distinction between an encyclopaedia and a dictionary. Landau (2001: 6) defines a dictionary as a text that describes the meanings of words, often illustrating how they are used in context, and usually indicating how they are pronounced.

[55] Cf. Hausmann & Wiegand (1989: 331-332).

will discuss how texts are segmented and distributed in different focal areas of the word book.

3.4.1   Textual segmentation

Since dictionaries in printed form are carriers of texts types, they may be divided into functional parts or functional elements by a process Hausmann & Wiegand (1989) call *textual segmentation.*[56] Textual segmentation is based on the general knowledge of the partitioned constituents in books and other types of literature. The positioning of text types in a dictionary can be segregated into three identifiable areas already introduced in §3.3.2 (i.e. the front matter, central list and the back matter).

Hausmann & Wiegand (1989: 330) employ Brenner's (1951) dictionary book to illustrate the areas of segmentation of text types that are functional components in a dictionary. A textual segmentation of Brenner (1951) resulted, on the first level, in the following functional parts that are immediate constituents of the "big" text:

(a) The title (main title)

(b) The table of contents

(c) The imprint

(d) The user's guide

(e) The word list (the dictionary in the narrow sense)

(f) Appendix I: foreign expressions and idioms (first separate word list)

(g) Appendix II: abbreviations (second separate word list)

Further segmentation of the functional parts listed above gives rise to segmentation on a second level. At this level, the functional parts can be partitioned into smaller functional text parts, which are secondary constituents of the "big" text. Textual segmentation is completed only when it reaches the level of those text constituents that cannot be segmented any further into functional parts. The "big" text is not only segmented into functional parts. Data is also distributed to all focal areas of the central list and the outer texts through the data distribution programme conceived of in the dictionary's conceptualization plan. Consequently, a distribution pattern

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[56] Textual segmentation is the positioning of text types in a dictionary in various sections, cf. Gouws & Prinsloo (2005).

prevails reflecting a *distribution structure*.[57] The following is a discussion of the functional components referred to in the preceding paragraph.

3.4.2 Outer texts

Additional texts that are positioned either before or after the compulsory central word list are collectively called outer texts. These are usually considered as optional texts except for the obligatory user's guide to the dictionary.[58] Outer texts can play an important role in enhancing the quality of the information transfer to which the dictionary is committed (Gouws & Prinsloo 2005: 58).[59]

The collection of outer texts can be divided into two categories: 1) integrated and 2) non-integrated outer texts (Kammerer & Wiegand 1998: 224-237). On the one hand, integrated outer texts are those that directly affect the subject matter of the central word list and are in accordance with the genuine purpose of the dictionary. They function in co-ordination with the central list. Outer texts are needed to ensure an optimal and full-retrieval of data distributed in the dictionary with regard to the subject matter of the dictionary, and in order to achieve the genuine purpose (Gouws & Prinsloo 2005: 59). An example of an integrated outer text type is found in the front matter text item (k) "dictionary grammar", of DGR (2001) cited below §3.4.3. This item presents grammatical data to be given in a particular article of the central list to ensure optimal retrieval of grammatical information that is relevant to the specific lemma sign lexicographically treated.

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[57] Cf. Gouws & Prinsloo (2005: 58); §3.4.6.

[58] No lexicographer may assume that the target user of the specific dictionary will know how to use, to interpret and to understand the full lexicographic presentation. Therefore the structure, contents, presentation and dictionary specific conventions should be explained to the user (Gouws & Prinsloo 2005: 58).

[59] Gouws & Prinsloo (2005:60ff.) further discuss the benefits of outer texts. For example, outer texts privilege the lexicographer to include categories of entries, e.g. proper names, names of countries, languages, etc., which would not typically appear in a general monolingual descriptive dictionary or a general translation dictionary. Additionally, outer texts allow the lexicographer to present other data not necessarily expected in a specific dictionary, but still deemed appropriate by the lexicographer for the target users of that dictionary, e.g. cultural data, metric measures, currencies.

On the other hand, non-integrated outer texts function abreast the central word list and are not needed in the retrieval of information. Gouws & Prinsloo (2005: 59) explain that non-integrated outer texts do not contain data from which information regarding the subject matter of the dictionary can be retrieved. For this reason, non-integrated outer texts are perceived as not contributing directly to the genuine purpose of the dictionary. However, non-integrated outer texts have a functional relevance of their own. Gouws (2001: 104) argues that the relevance and functional value of an outer text does not depend on its integration into the genuine purpose of the dictionary. For example, *the table of contents* is not directly linked to the articles in the central list, but gives information regarding the texts that function within the different focal areas, (i.e. front mater, back matter) constituting the word book structure.[60] The next section discusses the front matter and back matter texts with reference to §3.4.1.

3.4.3   Front matter

The *front matter* text contains all the functional texts preceding the *central word list.* In the example of Brenner (1951), the front matter is made up of parts *(a)-(e).*[61] According to Hausmann & Wiegand (1989: 330), the front matter is normally not as a whole functional part of the dictionary, but rather an optional set of functional text parts."[62] Furthermore, the front matter is not an obligatory component (except for the user's guidelines), nor does it have to be identical in all dictionaries.[63] Consequently, there exists no standard norm for arranging functional text parts. It follows that, if functional text parts of the front matter are arbitrary then the front matter of different dictionaries may host different text types according to the genuine purpose of the dictionary. Consider the following text parts of the front matter in *Duramazwi Guru*

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[60] As is common to most books, the table of contents increases accessibility and hence their functional value of aiding the user should not be underrated, cf. Gouws (2001: 105).

[61] Hausmann & Wiegand (1989: 330) comment that the functional parts (a)-(e) are identical to what book science call *prelims,* e.g. Blana (1986: 72ff). However, they further argue that the *front matter* is not necessarily identical to the prelims, because the latter are part of the *inner book* or primary text.

[62] Gouws (2001: 103; 1999) notes that neither the front nor the back matter are functional parts of a dictionary, although both may contain individual texts which have specific functions in the dictionary.

[63] Cf. Hausmann & Wiegand (1989: 331).

RechiShona (DGR 2001)[64] and *NTC's English Idioms Dictionary* (NTCEID 1996).
Text parts in DGR:

    (a)   title

    (b)   authors

    (c)   introduction 1

    (d)   introduction 2

    (e)   branch of ALRI

    (f)   project ALLEX

    (g)   word of thanks

    (h)   corpus sources

    (i)   author's request

    (j)   introduction

    (k)   dictionary grammar

    (l)   abbreviations

    (m)   method of entry selection and definition

    (n)   Guide to dictionary users.

Now compare the text parts in NTCEID:

    (a)   title

    (b)   imprint

    (c)   table of contents

    (d)   user's guide

    (e)   terms and symbols

    (f)   a word about the dictionary

A comparison of the above front matter texts, i.e. in DGR and NTCEID, demonstrates the arbitrariness of functional text parts. DGR has a more elaborate front matter, whilst the front matter in NTCEID is less elaborate.[65] Items (d, e, and f) in DGR

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[64] This is a dictionary of the Shona language spoken in Zimbabwe.

[65] The front matter contains important data about the dictionary, especially the user's guide and the function the dictionary claims to perform. The importance of the front matter is nevertheless recognized by lexicographers and reviewers. Landau (2001: 148) comments "although front-matter articles are seldom read by dictionary users, they are often regarded as important by reviewers, who, faced with the daunting talk of examining a 1,600-page book with two or more columns per page, seize on the most conspicuous elements read."

could as well have been omitted. Also notable is that in the front matter of both dictionaries, the "user's guide" is included as a compulsory functional text type.

3.4.4 Back matter

The back matter text contains all the texts following the central word list. In the example of Brenner (1951), the *back matter* constitutes text parts *(g)* and *(h)*. The set of functional parts in the back matter are also arbitrary and vary considerably from one dictionary to the other. For example, the back matter in NTCEID contains only one text part, i.e. *phrase-finger index*. But this is not so in DGR where one finds the following:

- appendix I: Shona idioms
- appendix II
    1. African countries
    2. weights
    3. measures
    4. judicial terms
    5. colors
    6. time
    7. kings and totems of the Shona people
    8. word list with Shona-English, English-Shona gloss
    9. notes.

Functional parts of the back matter text are also not obligatory.[66]

3.4.5 Central word list

The *central word list* is the most important obligatory immediate text constituent of the dictionary as a whole. Without the *central word list,* there can be no dictionary. As such, the central word list together with the user's guide, which is provided in the front matter text, is a compulsory functional part. The structure of the central word list is discussed in §3.5 and therefore will not be elaborated on here.

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[66] Cf. Gouws (1999: 4-37) and Hausmann & Wiegand (1989: 331).

In summary, the frame structure of the wordbook containing the outer texts (i.e. front and back matter) and the central word list is epitomized below using an example from Brenner (1951).
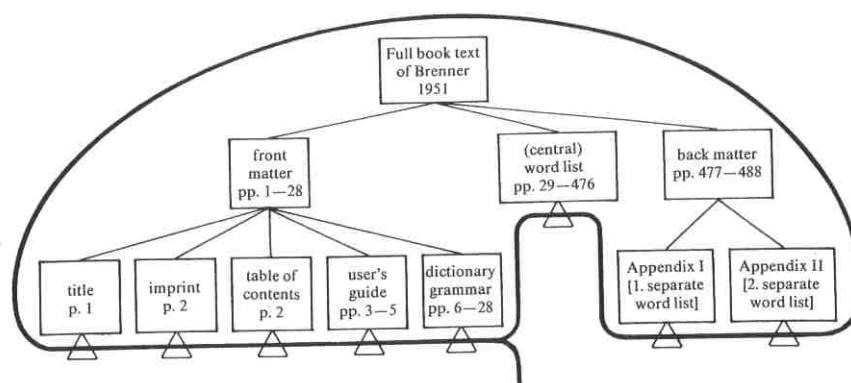
Fig.1. the general word book structure of Brenner (1951)

In Fig.1, the wordbook has a frame structure hosting the functional components of the front matter text, central word list and back matter text. Each functional component is further divided into smaller functional components carrying data that may or may not have direct impact on the central list. Data entries are distributed to various focal areas of the dictionary through a data distribution programme, which is part of the conceptualization plan of the dictionary.

3.4.6   The distribution structure

We have already introduced the notion of distribution structure in §3.4.1. In the conceptualization plan of the dictionary, the lexicographer(s) decides on the data to be included, (i.e. what data, where and how much data) in all the functional parts of the frame structure.[67] The data distribution programme established in the planning stages of the dictionary enables such a task. It enables the allocation, positioning and organization of all lexicographic data between the outer texts and the central list. The distribution of data at the focal points of the frame structure exhibits a structure called a data distribution structure (Bergenholtz, Tarp & Wiegand 1999: 1779).

Gouws & Prinsloo (2005: 58) distinguish between two main types of data distribution structures. The first is a simple data distribution structure in which the central word list is the only target for the allotted data. The second is the extended data distribution

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[67] Cf. Bergenholtz & Tarp (1995: 188).

structure, in which outer texts or parts of the outer texts are employed to accommodate data as part of the procedure of data distribution. The data distribution structure gives clear guidelines regarding the article's internal presentation and the different search areas to which data categories are allocated (Gouws & Prinsloo 2005).[68] In addition, it ensures a balance in the treatment of each functional component, especially of the lemma sign occurring in the central word list. The notion of distribution structure can be used to criticize dictionaries, firstly by assessing whether the dictionary had a firmly established distribution programme in the conceptualization plan. Secondly, did the dictionary stick to this programme in the allocation and organization of data to the different focal points of the frame structure during the lexicographic process?

3.5   The word list structure

The word list structure focuses on the central word list alluded to in §3.4.5, which is regarded as the *dictionary*. According to Gouws (2001: 103), the central word list contains what are known as *article stretches*. This is the presentation of articles grouped together according to the access alphabet, e.g. A-Z. The central word list usually contains article stretches representing letters of the full alphabet, but can also include article stretches representing letters or letter combinations not occurring in the ordinary alphabet. The latter are part of the alphabet of a specific language, e.g. the old German alphabet system has 30 letters, some that are complementary, i.e. with umlaut, e.g. ü, ö, ß, ä. The lexicographer has to decide whether to treat the complementary letters in the same article stretch or treat them in separate ones, e.g. all lemma signs in the article stretch "u" may or may not include those that begin with umlaut Ü in the access alphabet.[69]

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[68] The structure the dictionary will assume and the data it will host are also influenced by the specific dictionary typology, function, and target group.

[69] Hausmann & Wiegand (1989: 335) comment that most German dictionaries, for example the BW, Duden-GW, which alphabetizes **ü** like **u**, **ö** like **o** and **ä** like **a**, should contain the structural indicators "**U, Ü**", "**O, Ö**", "**A, Ä**". They add, "the absence of these elements is a systematic defect." A consideration of the word list structure would have enabled these dictionaries to incorporate such elements into their lexicographic description systematically.

The word list is called *continuous* when there are no interruptions in the structure of the central word list. In some dictionaries, the word list is interrupted by other type of data called *middle matter texts* or *inserts*. Middle matter units are those immediate constituents of the whole dictionary text that are inserted into the central word list, but that are not part of this word list (Hausmann & Wiegand 1989: 331). For instance, the American Heritage Dictionary of the English Language (1994) has middle matter texts that include abbreviations, diagrams, drawings, weights and measures. The distribution and positioning of middle matter texts between article stretches in a dictionary is illustrated in Fig.2.
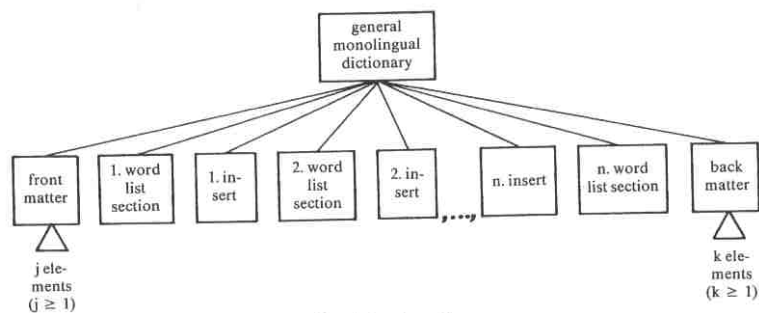
Fig.2. An example of the distribution of middle matter texts in Brenner (1951).

The middle matter texts are positioned in between article stretches or word list sections, i.e. ***word list section- insert- word list section-***…. This makes the central word list discontinuous. If the inserts or middle matter were to be removed, the various parts of the word list move together to form an uninterrupted central word list. As the dictionary proper, the central word list connects the textual book structure and the textual word list structure, exhibiting a simple frame structure of the dictionary book.
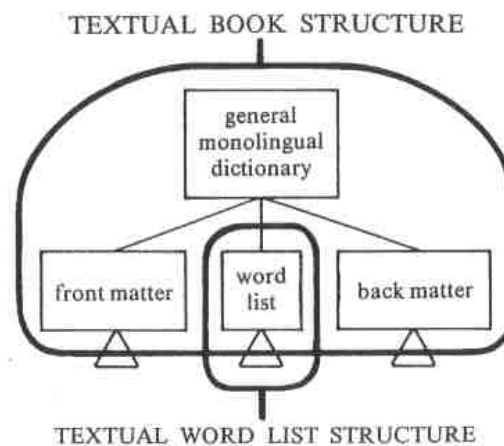
Fig.3. Connection between the textual book structure and the word list structure.

Since the central word list is regarded as the dictionary, most of the end user's look up activities are centered on it. As such, the central word list receives much lexicographic attention in terms of the distribution of structural components. In other words, the central list is the most salient component of a dictionary displaying a frame structure (Gouws & Prinsloo 2005: 63). The following sections will focus on these components, which form part of theoretical lexicography and can be employed in the criticism of dictionaries.

3.6 The dictionary article

An important consideration in Hausmann & Wiegand (1989)'s metalexicography is the notion of *dictionary article*. It captures, in a simple way, and introduces pertinent components of the article structure.

Every article stretch represented by the access alphabet contains lemma signs that are the basic *treatment units* to undergo lexicographic treatment. The treatment unit results when a form mentioned and data relating to that form are brought together.[70] The process by which the form and data is brought together is called the *addressing procedure*. Data constitute several types, e.g. definition, spelling etc. Each data *type* or *item* is addressed to a form that is also called the *address*.

The most important address is the *lemma sign* because it belongs to the alphabetic *access structure* of the dictionary. The ordered set of all lemmata or entry forms of the dictionary or word list form the *macrostructure*. The ordered set of data addressed to the entry forms is called the *microstructure*. The entry forms in the macrostructure and the whole set of data in the microstructure establish the *dictionary article*. The relationship of the macrostructure, microstructure and the whole dictionary article can be illustrated in Fig.4 below[71].

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[70] Hausmann & Wiegand (1989: 328) liken this relationship of form and information to that of *topic* and *comment*.

[71] Fig. 4 was adopted (Hausmann & Wiegand 1989) with modifications, i.e. the notion "information" has been replaced by "data". Information is what the user retrieves from the dictionary and data is the content of what the lexicographer places in the dictionary article.
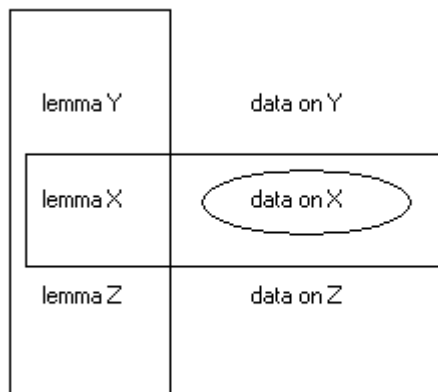
Fig. 4 ▯= macrostructure, ▭= dictionary article,◯=microstructure

Fig.4 illustrates a simple article structure constituting the lemma sign hosted in the macrostructure, and the microstructure hosting data addressed to the lemma. In discussing the order structures embedded in the dictionary article, I will start with a discussion of the access structure, since it is concerned with the search path the user takes from locating the dictionary on the shelf to locating the article stretch and to the specific article of the desired lemma sign being looked up.

3.7   Access structure

3.7.1   Introduction

This section discusses the notion of *access structure* and the related concepts, i.e. *outer access structure*, *inner access structure* and *search zones*. The access structure determines the search route the end-user follows from picking the right dictionary on the shelf, to the lemma sign in the macrostructure and to the retrieval of desired information in the microstructure.[72] The effectiveness and success of any dictionary is measured, among other things, by the accessibility and retrieval of desired information. A crucial consideration for the lexicographer is therefore to structure all data in such a way that end-users can easily and speedily access and retrieve information to resolve a specific problem. As such, a clear-cut design of the access

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[72] With regards to access structures, Louw (1998) points out that the access structure is the primary guide structure in any standard dictionary's central word list. *Guide structures* refer to the set of structures identified in metalexicography that provide a framework within which the accessibility and availability of data types can be evaluated.

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structures is a prerequisite in the conceptualisation plan of the dictionary. The following paragraphs focus on the notion "access structure" and the related aspects.

3.7.2   Outer access structure

When the user approaches any dictionary, he/she has a problem to which they hope the dictionary will provide a solution, e.g. about the form of the lemma, semantics or usage, etc. The question therefore is what search path does the end-user follow in order to get to or locate the desired lemma and information? A defined *search path* is followed. According to Gouws & Prinsloo (2005: 165), the search path does not begin inside the book but begins from the entries on the cover of the dictionary to the lemma sign presented in the macrostructure.[73]

In a given reference act, the end-user is first exposed to entries on the spine and cover of the dictionary. These entries already constitute a part of the outer access search path. For example, *The Dictionary of Classical Hebrew,* has a search path that begins on the spine, with the functional entries *"The Dictionary of Classical Hebrew Volume I."* Since this dictionary has more than one volume, the outer access structure will guide the user, (it is presume in this case that he or she has a query on a lemma that begins with Hebrew access alphabet), to the entries: *title*, *volume number*, and the *letter* of the article stretch covered in that particular volume. Further entries constituting the outer access structure provided as search paths include the title page and table of contents, which set the user on the dictionary's internal search route.[74]

Dictionaries can have either one search path or several search paths defined. Dictionaries with only one search path are regarded as *monoaccessible* dictionaries because they have only one search path in which the macrostructure and outer access

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[73] The title on the spine and on the cover is regarded as "entries" that are functional, forming an integral component of the lexicographic presentation.

[74] Gouws (2002: 609-619) demonstrates that the table of contents is a functional part of a dictionary as a compound of texts. The purpose of the table of contents should not only be to give an overview of the contents of the dictionary, but also to increase the access of the dictionary as a "big" text by means of an indication of page numbers ensuring a rapid progress to the different texts constituting the "big" text.

structure coincide. [75] Dictionaries with more than one search path to solve the search problem are called *polyaccessible* dictionaries, e.g. dictionaries with *indexes*. Most dictionaries have, in addition, a shorter version of the outer search path. Hausmann & Wiegand (1989: 338) delineate this shorter search path as starting at the running heads of the column.

Running heads are the common search path that most users are accustomed. Some dictionaries have one running head on one page. Consider Excerpt 1 below:

Excerpt 1 (Clines 1993)

Others have two, e.g. BDB (1974) indicating the first and last lemma to receive lexicographic treatment on that particular page.

Excerpt 2 (Brown-Driver-Briggs 1974)

The end-user who is knowledgeable of the dictionary's features will look out for the running heads or headers, to access the desired lemma rapidly. Running heads as

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[75] Hausmann & Wiegand (1989: 337) explain that in the context of monolingual dictionaries the macrostructure and the only outer access structure coincide. Dictionaries whose typological criterion is the outer access profiles belong to monoaccessible dictionaries because they have only one search path available.

guiding elements partly form the *outer rapid access structure*. With such guiding elements, users can quickly locate the desired lemma. Some dictionaries have a second rapid access structure, namely the *thumb index*. The guiding elements of thumb indexes are either letters or pairs of letters or both.

The outer access structure ends at the exact point where the lemma sign being searched for is found. The lemma sign, which in most cases is identified from the next entry by a typographical structural marker (e.g. bold letters) introduces the dictionary article, simultaneously signaling that the lemma sign is now ready for lexicographic treatment.[76] The search path at this moment proceeds into the inner access structure.

3.7.3 Inner access structure

The outer access path, whose role is to guide the user to the lemma, is the first part of the complete search path. The second part that completes the user's reference act is the *inner access structure*. Once the desired lemma sign is located the end-user changes direction, proceeds from the outer access path, and enters into the *inner access path* of the microstructure, which contains all kinds of data either directly or indirectly addressed to the lemma sign. If the user knows the conventions of the dictionary, e.g. the use of structural indicators, search areas, etc., the search path in the microstructure can also be systematic (Hausmann & Wiegand 1989: 338). This justifies the obligatory inclusion of the user's guide in the front matter, which usually explains features of the inner access structure. In most cases, the inner access structure is explained as a string of article positions from the first to the last position.

Data items may be consigned to the first prominent position or further down in the article. In such cases and in order for the user to access an item that is further positioned in the article, he or she relies on the marked search areas and the use of structural indicators that are of a typographical and non-typographical nature.[77] These

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[76] Typographical structural markers form part of the access structure of the dictionary (Gouws & Prinsloo 2005: 116-117).

[77] It is important that the lexicographer should have within the conceptualisation plan of the dictionary a well-devised inner access structure that will help the user identify the data categories and retrieve required information (Gouws & Prinsloo 2005:171)

aids constitute part of the inner rapid access structure and exist to help the user to distinguish data categories clearly within the article and to access and retrieve desired information rapidly.

The inner rapid access structures are of a linear type. They include at least one lemma and one structural indicator within the article and two search areas.[78] According to Gouws & Prinsloo (2005: 170), structural indicators (typographical or non-typographical) are entries that identify a specific item or data category.[79] For example, "~", "▶", "◊", "●", "□" are non-typographical entries employed to identify data categories, e.g. items giving definitions, senses, usage examples, etc. The typefaces, e.g. bold, italic and roman numerals are typographical indicators entered in the article to indicate specific search fields or data categories. The inner rapid access structure leads to the identification of the search area and the micro-architecture.

3.7.4 Search area and micro-architecture

A dictionary may be a reference work containing a considerable load of relevant data. However, data is unhelpful, especially to the end-user, if it is not accessible in the shortest amount of look up time. Gouws (2001: 102) states, "Although… dictionaries may contain all the relevant data, *if* the structure of the dictionary and the presentation of the data is of such a nature that the target user cannot find the data or retrieve the needed information *then the dictionary has failed in its purpose*." It is against the backdrop that lexicographers should map out, in the dictionary's conceptualization plan, where and how the data should be distributed and presented. In these regards, the notions "micro-architecture" and "search area structure" become crucial in that they oblige the lexicographer also to focus on the layout of the dictionary's microstructure. The layout of a dictionary is essential since it helps the user to retrieve desired information successfully, ultimately helping the lexicographic function.

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[78]Search areas are sets of article positions marked by a structural indicator.

[79]Typographical indicators are not entries from which the user can retrieve information regarding the subject matter of the dictionary, but they are those entries that mark a specific item or indicate a specific search field in a dictionary. Non-typographical structural indicators are symbols and signs used to mark the beginning of a certain search field or data category and they play an important role in the inner access structure of a dictionary, cf. Gouws & Prinsloo (2005: 116-117).

The micro-architecture focuses on how data in a given article is divided and presented in the text blocks hosting them. The text blocks improve accessibility and user-friendliness, and at the same time help the lexicographic function of the dictionary (Bergenholtz, Tarp & Wiegand 1999: 174-175). The consistent and clear presentation of these text blocks in the central list exhibit an article-internal structure that defines the search area structure. The search area structure, which is the systematic ordering of article-internal text blocks in a top-to-bottom relation, can be regarded as an order structure. This is because it presents the different text blocks and article slots of a dictionary as search fields, ordered according to fixed criteria. The different search fields can be identified in their top-to-bottom relation by the use of non-typographical indicators, e.g. diamonds, triangles, or squares. Hausmann & Wiegand (1989) summarized a typology of access structures (fig.5).
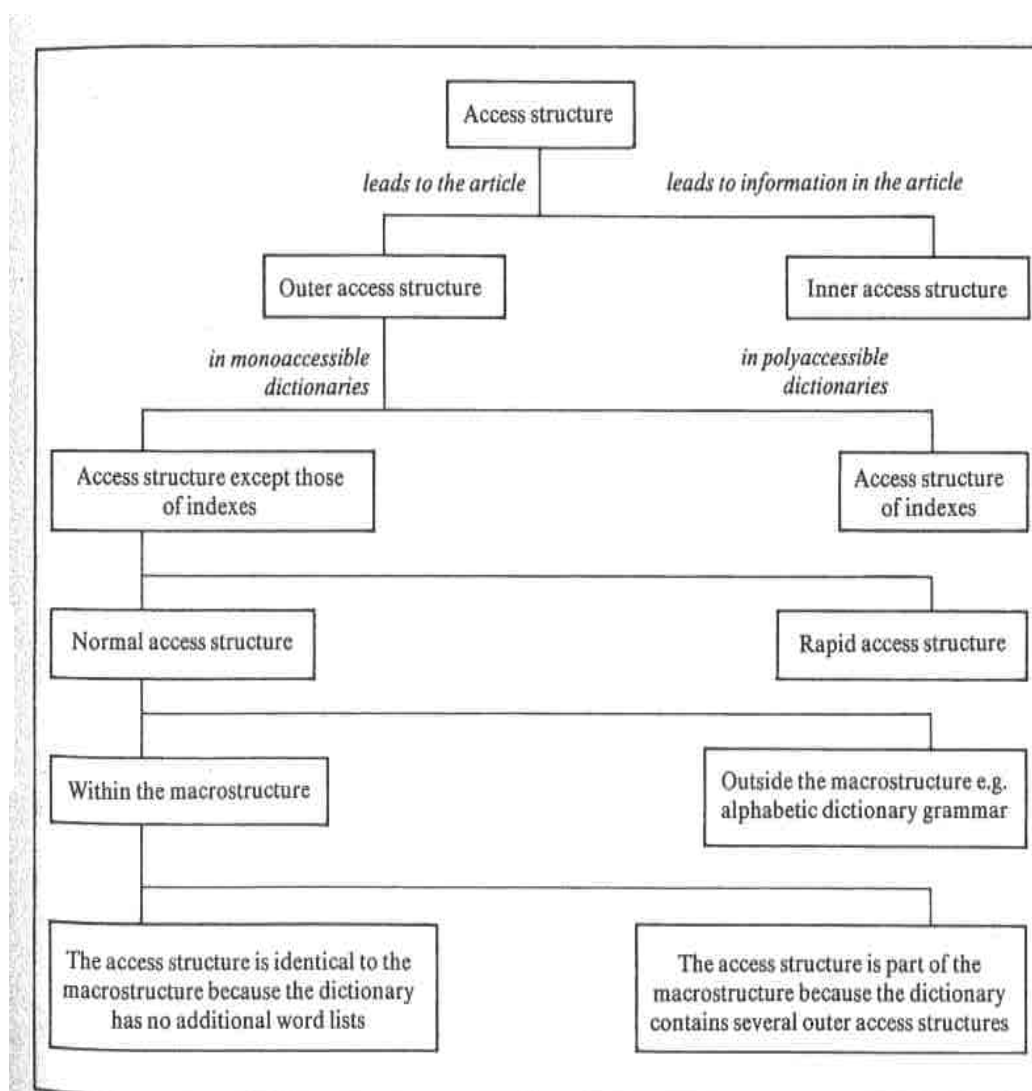
Fig. 5. A typology of access structures (Hausmann & Wiegand 1989)

The accessibility of data and the easy retrieval of desired information is one area in which dictionaries may be criticized. Access structures account for most of the dictionary's user friendliness, and hence its success as a helpful dictionary. If information cannot be retrieved easily, then the dictionary is most likely to fail in fulfilling its intended purpose and function.

3.8   The macrostructure

3.8.1   Introduction

The *macrostructure* is a universal obligatory component in the compilation of any reference work. The microstructure is the only one that contains all lexical units treated in the dictionary (Hausmann & Wiegand 1989: 336).[80] Not only does it focus on the ordering of selected lemmata in the central word list (dictionary), but it also determines under which letter of the access alphabet the article stretch and the lemma sign is to be found. Hausmann & Wiegand (1989: 328) define the macrostructure as the ordered set of all lemmata in the central word list of the dictionary.[81] Gouws & Prinsloo (2005: 65) emphasize that the successful retrieval of information in a dictionary often depends on an unimpeded access to the needed lemma-sign. Therefore, the lexicographer must have a well-planned macrostructure to be presented in the dictionary that will enhance successful information retrieval.

Hausmann & Wiegand's (1989) discussion of the macrostructure focuses (1) on monolingual dictionaries;[82] (2) on alphabetical macrostructures; and therefore (3) on languages with alphabetical writing systems. The macrostructure can be presented differently within two main dimensions that are available so that we can distinguish different designs. Hausmann & Wiegand (1989: 336) identify these dimensions as the

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[80] Cf. Wiegand (1989a: 372) on the discussion of the macrostructure as an order structure.

[81] Jackson (2002: 25) defines the macrostructure from the standpoint of the dictionary as a whole book i.e. he states that from the perspective of its macrostructure, there are potentially three parts to a dictionary's macrostructure: *the front matter, the body* and *the appendices.*

[82] Though Hausmann & Wiegand's (1989) theory is mainly directed to monolingual dictionaries, it has been agreed upon in lexicographical circles that the theory and the key notions contained therein, are also applicable to bilingual dictionaries.

straight-alphabetical lemma file and the *sinuous lemma* file.[83] These are discussed below.

3.8.2 Straight-alphabetical file

The first dimension in which the macrostructure is presented is the straight-alphabetical file, which is manifested in languages with alphabetical writing systems. The *initial-alphabetical* macrostructure is a set of carriers or guiding elements explained in the following order relational terms, *a initial-alphabetically precedes b* (relative to the access alphabet **z**). This order relation contains the lexical units or items systematically treated in the dictionary.[84] Before the lexical units become part of the macrostructure and are alphabetized, they have already undergone several lexicographic treatment procedures, i.e. their selection as lexical units (*outer selection*) and various sources from which they are selected (*dictionary basis*).[85]

In *straight-alphabetical* dictionaries, the orientation from top to bottom is strong in comparison to sinuous lemma file designs. In other words, the *lemma file* is arranged

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[83] Geeraerts (1989: 288) makes a different type of distinction of the macrostructural presentation, namely, *alphabetical* and *thematic grouping* of lemmata (Jackson 2002: 78); Landau (2001: 98-99).

[84] A lexical unit is the smallest unit of a sentence that must satisfy the following criteria (1) it must be at least one semantic constituent (i.e. a constituent part of a sentence that carries meaning which combines with the meanings of the other constituents to give the overall meaning of the sentence), (2) it must be at least one word (Cruse 1986: 4-36*)*.

[85] The dictionary basis is the set of all dictionary sources, which are themselves of several types e.g. native-speaker competence or available literature and other publications cf. Hausmann & Wiegand (1989: 337); Wiegand (1984: 234); also §2.4.4. The lemmatization of lexical units and the sources thereof are selected through a process in lexicographic practice called *the outer selection*. A number of factors can influence the outer selection. Zgusta (1989: 288) noted some of them: "the selection of macrostructural elements is mostly based [influenced] on geographical, socio-linguistic, chronological, inter-lingual, etymological, formal, grammatical, stylistic, semantic, or statistical criteria." In addition, the function of the dictionary can also greatly influence the outer selection of lemma signs. In some cases however, the dictionary basis makes the outer selection much simpler, e.g. the corpora of so called dead languages (languages no longer used in contemporary socio-linguistic contexts, e.g. BH, Ancient Greek, Aramaic) whose sources are limited to documents such as the Hebrew Bible, Dead Sea Scrolls, and other sources.

strictly in a straight vertical design according to the alphabetical writing system without grouping. Consider the following:

pass

passage

pass away

passenger

pass for

passion

passive

pass off

pass out

passport, etc.

Lexical entries are arranged by their spelling in a strict straight-alphabetical order, i.e. *pass, passage…etc.* Svensén (1993:17) refers to this ordering of lemmata as semasiological. Some dictionaries however break away from the strict alphabetical ordering of lemmata by grouping lexical units.

The strict alphabetical ordering of lemmata may seem uncomplicated given that one can simply follow the alphabet relative to **A-Z**. With reference to Bergenholtz (1990: 19-37), Gouws & Prinsloo (2005: 97-98) cite potential problems in the ordering of lemmata in a dictionary according to a strict alphabetical system in that the lexicographer wrestles with in the planning stages of a dictionary. These problems include the influence of diacritic signs on alphabetization, the ordering of multiword lemmata, the influence of a hyphen and the ordering of lemmata differing only in terms of capital letters versus lower case letters in their initial positions. Decisions on these and other problems have to be included in the dictionary's conceptualization plan if the dictionary is to be successful in the extrapolation of information by the user.[86]

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[86] Gouws & Prinsloo (2005: 98-101) make provision by suggesting some solutions to the problems raised in Bergenholtz (1990).

3.8.3 Sinuous lemma file

In the second dimension, one finds sinuous lemma files. Hausmann & Wiegand (1989: 336) list two types of sinuous lemma files found in dictionaries, namely *niching* and *nesting*.[87] These digress from the strict application of a linear macrostructural ordering because access to the articles with the niched and nested lemmata as guiding elements is only possible when the search route goes via a basis lemma, i.e. the root word.[88] *Niching* is a strict-alphabetical clustering of lemmata, which *may or may not be semantically related* (Hausmann & Wiegand 1989: 336). *Nesting* is a clustering or listing of lemmata, which stretches the rules of strict-alphabetical ordering in order to *exhibit morphosemantic relations between words*.[89] In our discussion, we will consider Gouws's (2005) detailed account of the macrostructure, highlighting some distinctions and pointing out advantages and disadvantages of such macrostructural ordering of lemmata.

According to Gouws (2005: 261), the alphabetical ordering that characterizes niching applies to what he terms a *cluster-external* and *cluster-internal* level.[90] The lexical units appearing in the niche are ordered alphabetically, and the niche fits into the alphabetical environment framed by the preceding and the following main lemmata. External deviation implies that the lemmata included in the nest do not fit into the alphabetical environment framed by the preceding and following main lemmata. As such nesting typically leads to a clustering of lemmata, which alphabetically come after the basis lemma. At least one lemma in this cluster disturbs the alphabetical link with the following main lemma. Gouws (2005: 262) gives an example from the *Verklarende Afrikaanse Woordeboek* (Eksteen et al. 1992) to illustrate a cluster-external level.

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[87] Gouws (2005: 261) explains that in the presentation of the macrostructure of a dictionary, a well-established distinction exists between main lemmata participating in the vertical ordering and sublemmata participating in the horizontal ordering of macrostructural elements. Within the category of sublemmata, a further distinction is made between the niched and nested sublemmata that function as the guiding elements of niched and nested articles, respectively.

[88] Cf. Gouws (2005, 2001) and Wolski (1989).

[89] Niching and nesting of lemmata is in one sense an onomasiological arrangement (Svénsen 1993: 18), and in other circles called *thematic grouping* (Jackson 2002; Landau 2001; Zgusta 1989).

[90] Cf. Gouws (2001: 102).

ballet´, -te 1. Kunstige toneeldans. **2.** Al die danser of danseresse saam; **balletdans; balletdanseres; balletliefhebber; balletmusiek.**

bal´letjie, -s. Klein bal; **'n balletjie opgooi,**´n mening uitspreek om te sien wat die reaksie is.

ballet´korps. Groep danseresse (dansers) wat in'n ballet saam optree.

ballet´meester,-s Leier van'n ballet.

balletomaan´,..mane. lem. Wat op ballet versot is; .. manie

Excerpt 3 (Eksteen *et al* 1992)

Gouws (2005: 260) comments that in a strict alphabetical ordering, the sublemma *balletliefhebber* should have been ordered between the lemmata *balletkorps* and *balletmeester* and the sublemma *balletmusiek* should have been ordered after the lemma *balletmeester*. In isolation, the cluster constituting this type of a nest does not differ from an isolated cluster representing a niche because on a cluster-internal level the strict alphabetical ordering is maintained. This kind of nesting is called *first level nesting,* (Gouws 2001: 106).[91]

Internal deviation occurs where the lemmata presented in the cluster do not adhere to a strict alphabetical ordering. This occurrence is called *second level nesting* Gouws (2001: 106). The latter is illustrated in the following example from the *Nasionale Woordeboek* (De Villiers *et al.* 1987).

> *re'gering (-e, -s)* s.n.w. *1. bestuur, bewind, veral… …2. bepaaalde kabinet,…3. owerheid, staat.* **regeringloos; regeringsamp, -amptenaar, -gebou, -koste, -pos, vorm; regeringsaak, -stelsel** (by 1**); regeringsbeleid, -blad, -hoof,... –party, -tyd** (by 2.)
> Excerpt 4 (De Villiers *et al.* 1987).

With reference to the above, Gouws (2005: 262) points out that, the first lemma (**regeringloos**) is a derivation, whereas the others are compounds. Morphological differences within the nest motivate the use of a semi-colon to separate the derivation

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[91] Hausmann & Wiegand (1989: 336) illustrates *first level nesting* from the *(BW 1984)*: for example when in the compound article **fill** the following boldface sublemmata **filler, fill in, filling station, fill in on** and **fill out** are listed before the next main lemma **fillet**.

from the compounds. In the first group of compounds (up to **regeringstelsel**), the first sense of the main lemma prevails. The sense is signified by the structural marker (by 1). The structural marker (by 2) indicates that in the second group of compounds, the second sense of the main lemma prevails. The use of two distinct groups of lemmata representing the compounds is motivated by semantic reasons. Within each one of the two groups of nested lemmata, an internal alphabetical ordering has been maintained. However, due to morpho-semantic reasons, the nest as such does not display an internal alphabetical ordering. In addition to the distinction of niching at the cluster-internal level and the cluster-external level, Gouws (2005) further makes another distinction namely *single* and *multiple* niching. Single niching is illustrated below.

> **hand´doek, -e**. Absorberende doek waaraan 'n mens jou hande en gesig afvee na dit gewas is; *die handdoek ingooi*, die stryd gewonne gee; **handdoekgoed; handdoeklinne; handdoekrak; handdoekroller; handdoekstof**
>
> Excerpt 5 (Ekseen *et al* 1992)

> **pup´pet,** speelpop, handpop, draadpop, marionet; strooipop; werktuig, speelbal, figurant; ~**government**, marionetteregering;~**-man**; marionetspeler;~**-play**, poppespel; ~**-ry**, poppespel; skynvertoon; poppekastery; ~**-show**, poppeskas, poppespel, marionet(te)spel; ~**state**, vasalstaat, popstaat; ministaat; ~**-valve**, stootklep.
>
> Excerpt 6 (Eksteen *et al*. 1997).

The above examples illustrate *single niching* where the clustering of complex words with a mutual first component is restricted to a single niche attached to the article introduced by the basis lemma. In these examples, the user reaches the desired lemma without too many problems by use of the alphabetical knowledge.

Multiple niching is niching in one article sequence, characterized by the repetitive occurrence of niches with the same lemma part operating in the niche external entrance position. Gouws (2005) illustrates multiple niching in the following Excerpt.

> **Haus…, das; 1.1.   1.2.**
> **Haus/haus [´..]/-arbeit, die 1. ....2. ,-aufgabe…..,-backen….**
> **Häusschen…**
> **Hausen…**

Haus/haus…-frau…-halt…

Haushalten...

Haus/haus/-herr...-hoch...

häuslich

Haus...-nummer,...-suchung,...wirt

Excerpt 7 (Kempcke *et al.* 2000).

The presentation of lemmata with *Haus/haus* as first component illustrate that the articles selected are not necessarily accommodated in the same niche but frequently in a series of niches separated by articles not participating in the relevant clustering. In the above example, the article sequence contains no less than four niches resulting from a procedure of multiple niching. The article sequence, which starts with a text block introduced by the lemma sign *Haus,* ends with the final article headed by the grouped partial lemma sign –*wirt* in the condensed text block. The lemma-external niche entrance *Haus,* is constituted by different text blocks. It contains various niched articles with either *Haus* or *haus* as first component as well as other main lemmata, i.e. the complex forms *Häuschen, hausen, Haushalten* and *häuslich*. Gouws (2005: 265) comments that the reasons motivating such a presentation of complex forms as main and not as niched lemmata are not made known to the user.[92] Multiple niching as a form of macrostructural ordering of lemmata for the sake of textual condensation becomes inconsistently complex to the disadvantage of the end-user in his efforts to retrieve information successfully.[93]

In summary, this paragraph highlights that the macrostructure can be presented within two main dimensions, namely the straight alphabetical lemma file and the sinuous

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[92] Gouws (2005) argues that a consistent application of a traditional system of clustering could have rendered all the niched articles and the main lemmata in this article sequence into one text block. But the lexicographer has opted not to condense all the lemmata with Haus/haus as first component into one cluster, but rather to present some of them as main lemmata and some grouped into different clusters. Such a hybrid, as Gouws points out, of niching does not enhance the quality of the outer access-structure.

[93] Gouws (2005: 266ff.) elucidates the notion of multiple niching, including multiple niching in article sequences with semantically related main lemmata, multiple niching in partial article stretches which include semantically unrelated main lemmata, remote multiple niching and homonymy and multiple niching.

lemma file. The common feature within the two dimensions is the orientation from top to bottom and left to right conditioned by the access alphabet relative to A-Z. The sinuous lemma file presentation is the result of space saving textual condensation, which sometimes results in the end-user having difficulty in locating the desired lemma and information, and hence the preference for a straight-alphabetical lemma file. Hausmann & Wiegand (1989: 329) contend that the only ordering principle that all users may be reasonably expected to master easily is the alphabetical order. Every deviation from this order leads to location problems. Again dictionaries can be criticised in respect of how they order the lemmata, i.e. do dictionaries order lemmata in a way that make it easy to locate desired lemma signs?

3.9   The microstructure

3.9.1   Introduction

The microstructure is the total set of linearly ordered data entries positioned alongside the lemma sign. In their discussion of the microstructure, Hausmann & Wiegand (1989: 340) refer to Rey-Debove's (1971) *Classical Conception* theory of the microstructure.[94] They argue that this theory is insufficient because, in part, it has a limited inventory of data types to be hosted in the microstructure. Therefore, they set out to develop what they term the *New Conception* of dictionary microstructures, which they claim is unique in the following ways,[95]

(1)   it attempts to explain consistently all the empirical findings not taken into account by the classical conception because of its small empirical basis;

(2)   the new conception of microstructures is based on (a) an elaborate method of how to find partial texts of dictionaries and textual segments of dictionary articles and on (b) an elaborate terminology in theoretical language;

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[94] Hausmann & Wiegand (1989).

[95] The new conception has elaborated a linguistically and metalexicographically well-founded system of item classes which is based on more than 100 dictionaries and which specifies more than 200 item classes

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(3)   as part of a theory of the lexicographical text, the new conception can be employed as a module of a general theory of lexicography;

(4)   the new conception not only describes, and partly justifies the structural state of affairs in the field of metalexicography, but also attempts to create the theoretical basis to go beyond the old scheme of uniform articles.

These aspects separate the *New Conception* from the *Classical Conception*. The next paragraphs will focus on different aspects of the microstructure as developed by Hausmann & Wiegand (1989). The work of Gouws & Prinsloo (2005) who have further elaborated on the notion of microstructure is also considered.

3.9.2   The article structure and the data categories

3.9.2.1 Entries

The lemma sign hosted in the macrostructure is accompanied by a number of microstructural *entries* that are presented as part of the lexicographic treatment. Gouws & Prinsloo (2005: 115) use the term *entry* to refer to each constituent of a dictionary article.[96] Consider the following dictionary Excerpt from KB:

> להק Eth. *leheqa* to grow old, Arb. *lahaqa* to be snow-white.
> Der…
> Excerpt 8 (KB 1994)

This article hosts "Eth. *leheqa* to grow old", which in this case is a single entry. Arb. *lahaqa to be snow-white*, is also a separate entry. According to Gouws & Prinsloo (2005: 115), entries can also be smaller constituents, e.g. the comma separating the two entries above, or semicolons, etc. Wiegand (1989c: 427) makes a distinction of two types of dictionary entries, namely *items* and *indicators*.

In contrast to structural indicators (see §3.7.3), *items* are entries from which the user can retrieve some information regarding the subject matter of the specific dictionary. In a dictionary article a variety of data types, i.e. definitions, part of speech, senses,

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[96] "Entry" is here limited to individual constituents of the microstructure.

etc. are allocated in treatment of the lemma sign. Each entry that represents such data types is regarded as an item because the user can retrieve some information regarding the lemma sign. For example in (Excerpt 8), the entry *Ethiopian (Eth)* and *leheqa to grow old* are items from which the informed dictionary user can retrieve the information concerning the subject matter, i.e. the lemma sign in Ethiopic and Arabic, and their respective translation equivalents. Items and structural indicators should be included in the dictionary's conceptualization plan because of the important role they play, in aiding the identification of search areas and the successful retrieval of information.

3.9.2.2 Article structure

In the planning stages of the dictionary, the lexicographer must clearly have a framework that will determine the nature and extent of the microstructure, the article structure and how different slots of the micro-architecture will be filled with lexicographic data. This framework is called the microstructural programme, because it orders the entries included as part of the treatment of the lemma in such a way that the article displays a definite structure (Gouws & Prinsloo 2005: 119). The microstructure has two core components, namely: *the comment on form* and *the comment on semantics* (Hausmann & Wiegand 1989: 353).[97] To either of these, i.e. form and semantics, belong all items appearing in the microstructure.

On one hand, the comment on form is the component that hosts data types, which reflect on the form of the lemma sign.[98] These forms include morphological, phonetic and orthographic forms. On the other hand, the comment on semantics is the component of the article structure that constitutes data types that reflect on the

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[97] According to Hausmann & Wiegand (1989: 353), a standardized dictionary takes into consideration both the form and lexical meaning. It may constitute the following classes of items: 1. items giving the form of the lemma sign, i.e. phonetic, spelling syllabification and paraphrasing, 2. items relating to a separate meaning, i.e. semantic paraphrasing items, 3. items relating to lexical meaning, i.e. polysemy, (numbers giving meaning positions), 4. items relating both to separate meaning and to a form, e.g. example items. Consequently items in (1) have the theoretical status of a component called "comment on form" (CF), and those in (2-4) "comment on semantics" (CS) (Gouws & Prinsloo 2005).

[98] The lemma sign is a part of the comment on form because it conveys data regarding the spelling of the treatment unit.

semantic and pragmatic features of the lexical item represented by the lemma sign. This data typology may include sub-comments on semantics, definitions, and translation equivalents. Whilst the definition of the lemma sign is the most sought after data type in monolingual dictionaries; translation equivalents are dominant in bilingual dictionaries.[99]

Subcomments on semantics occur in cases where a lemma being treated may have multiple senses or is polysemous.[100] In such polysemous cases, the comment on semantics is further divided into as many subcomments on semantics as may be necessary. Consider the following dictionary Excerpt:

אָב n.m. **father** — **1.** *father of individual*; of father as commanding; instructing; specif. as begetter, *genitor*; rebuking; loving; pitying; blessing; as glad; grieving. Also as object of honor, obedience, love. Hence metaph. of *intimate connection*. **2.** of God as *father of his people*, who constituted, controls, guides and lovingly watches over it; esp. God as *father of Davidic line*; *f. of needy* (late) (in n.pr., *f. of individual*). **3.** *head of household*, family or clan בֵּית אֲבִי as abode; = family; esp. techn. of divisions of Isr. אָב בֵּית לְמִשְׁפָּחוֹת = a father's house, i.e. a family or clan; more oft. pl. **4.** *ancestor* **(a)** of individual; grandfather (instead of precise term); greatgr.; gr.-greatgr.; oft. pl. (= *fathers, forefathers*); **(b)** of people. **5.** *originator or patron* of a class, profession, or art. **6.** fig. of *producer, generator*. **7.** fig. of *benevolence* & protection; of Eliakim. **8.** term of *respect & honour*; appl. to master; priest; prophet; counsellor; king; artificer. **9.** specif., *ruler, chief* (late).

Excerpt 9 (Clines 1993)

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[99] Zgusta (2006: 230ff) stresses that a translation equivalent should be a real lexical unit of the target language, which occurs or can occur in real sentences. The task, therefore, of the bilingual lexicographer is to find such lexical units in the target language that are equivalent to the lexical units of the source language, and to coordinate them. He/she basically works with translational equivalents, synonyms, mutually disambiguating synonyms, mutually complementing synonyms, explanatory equivalents, and explanations. According to Zgusta (2006: 235) all these have the purpose of informing the user about the meaning of the lexical unit of the source language, of supplying him/her with lexical units of the target language which can be used as equivalents of source language sentences, and of inducing in him a recollection of other suitable, near synoymic lexical units of the target language, even if they are not directly indicated.

[100] One speaks of "polysemy" when a lexical item has two or more definitions with some common features that usually derived from a single basic meaning (Trauth & Kazzai 1996: 371). In cases where a lemma sign is monosemous, the comment on semantics has no sub-comments on semantics but carries a single meaning. This means one definition in monolingual dictionary, or one translation equivalent, with possible synonym equivalents where applicable are dominant entries in the comment on semantics (Gouws & Prinsloo 2005: 126).

The senses indicated by numerals **(1-9)** are sub-comments on semantics because the lemma undergoing lexicographic treatment represents a polysemous item. Once again the lexicographer has to decide in the planning stages of the dictionary as to how the article-internal ordering of subcomments on semantics is going to be. Sense ordering can be, on the one hand, from the oldest to the youngest in historically based dictionaries. On the other hand, ordering of senses can be based on frequency in synchronic dictionaries, i.e. the sense with the highest usage frequency will be given prominence in the article-internal ordering. With regard to the latter, Van der Meer (1998: 556) argues against the ordering of senses based on frequency. He claims that the literal sense of the lemma sign being treated should come first since this makes it easier to define the figurative ones.[101] Whatever approach the lexicographer decides on, he/she should ensure that the user can successfully retrieve desired information.

3.9.2.3 Data categories

The comment on form and the comment on semantics are structural components in the microstructure hosting data categories. This data typology is determined by the type and function of a particular dictionary. One of the alleged weaknesses of Rey-Debove's Classical Conception (see §3.9.1) theory of the microstructure is that it has a limited inventory of data types (Hausmann & Wiegand 1989). The following data types can, nevertheless, according to Rey-Debove, be included in the article.[102]

- *Synchronic identifying data:* - this refers to data that helps to identify the form of the lemma sign and its morphological paradigm, synchronically and accentuation, part of speech, inflexion and aspect.[103]

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[101] Cf. 5.2.2 for a further discussion on the arrangement of meaning.

[102] Hausmann & Wiegand (1989: 341) comment that the data categories are Saussurean, but also those of traditional lexicography. Furthermore, their discussion (of data types) is not meant as a classification in a theoretical sense.

[103] All *spelling* data may be located in the lemma position. The lemma position thus, following our discussion of the macrostructure, does not belong to the microstructure of the article, which it precedes. Therefore, the data category *"spelling"* can be said to be embedded in the macrostructure.

- *Diachronic identifying data:*-this refers above all to etymological data.[104] The latter traces the development of form and meaning over an extended period for each word in the language (Landau 2001: 130).

- *Diasystematic labeling:* - this refers to the restriction of usage indicated by a label or mark. Hausmann & Wiegand (1989: 341) cite different kind of labels.[105]

- *Explanatory data:* - the definition is above all the most important data in this category. This may include further types of explanatory texts such as linguistic or encyclopedic description.

- *Syntagmatic information:* - this includes data on constructions and on collocations, which may be in the form of an example, thus including text Excerpts or quotations.

- *Paradigmatic information:* - synonyms, antonyms, analogues, homonyms and paronyms as well as word formation fall under paradigmatic information type.[106]

- *Different kinds of semantic information:* - There are information data types that cannot be classified under a generic term because their functions are quite different, e.g. figurative or metaphoric data can help to both structure the article and mark the semantic process a lemma sign has undergone. However, they complement the definition and demonstrate the dependency of the article structure on the presumed meaning structure of the lemma sign.

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[104] Hausmann & Wiegand (1989: 341) suggest that borrowing labels may also belong to this data type the boundaries of which are rather fluid.

[105] These labels include: temporal (diachronic) labels; regional (diatopic) labels; labels for borrowing and for marking style and situation (style labels); special field of activity (technical, field and group) labels; frequency labels that are occasionally supported by a reference to the corpus; usage (normative) labels and sometimes attitudinal labels, e.g. *derogatory*.

[106] Hausmann & Wiegand (1989: 342) comment that within the classical conception, explanatory, syntagmatic and paradigmatic data form the core of the microstructure. They further argue that by including such data in the dictionary article, the lexicographer draws upon the structuralism of De Saussure, who insisted on the importance of combinatory (syntagmatic) and associative (paradigmatic) relations for the constitution of the linguistic sign.

- *Notes:* - Various data may be classed under the term *note, e.g. usage notes or translation notes.*

- *Pictorial illustrations:* - images designed to help in the semantic comprehension of the lemma.

- *Ordering devices:* - These devices assist in making the structure of the article clear, i.e. search area structure, inner rapid access structures. Devices, i.e. structural and nonstructural indicators in the form of figures, letters, brackets, punctuation marks, symbols, e.g. diamond shape are largely responsible of the impression of textual density, which the dictionary article conveys.

- *Cross-references:*- this type of information opens search paths, which end inside the dictionary. Some cross-references, e.g. bibliographic, lead the user to external search paths outside the dictionary (Wiegand 1988: 559ff.).[107]

- *Representation or repetition symbols:* - e.g., the tilde (~) is substitution instructions. Wiegand (1988: 84ff.) comments that users following these instructions realize text cohesion.

The above inventory of data types given according to Rey-Debove (1971) can be summarized graphically as below.[108]

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[107] The system of cross-referencing which leads the user from a reference position to a reference address has been discussed in Gouws & Prinsloo (2005: 177-192). Medio-structure is a term given to the framework within the system is conducted. Three types of cross-referencing can be identified, i.e. 1. the article-internal cross-referencing, which works within the proximity of the article itself, 2. article-internal cross-referencing, which takes the user to an entry in another article or other text in the dictionary, and 3. the dictionary-external cross-referencing which takes the user to an address outside the dictionary.

[108] Cf. Landau (2001); and Béjoint (2000) for a further discussion on data types.
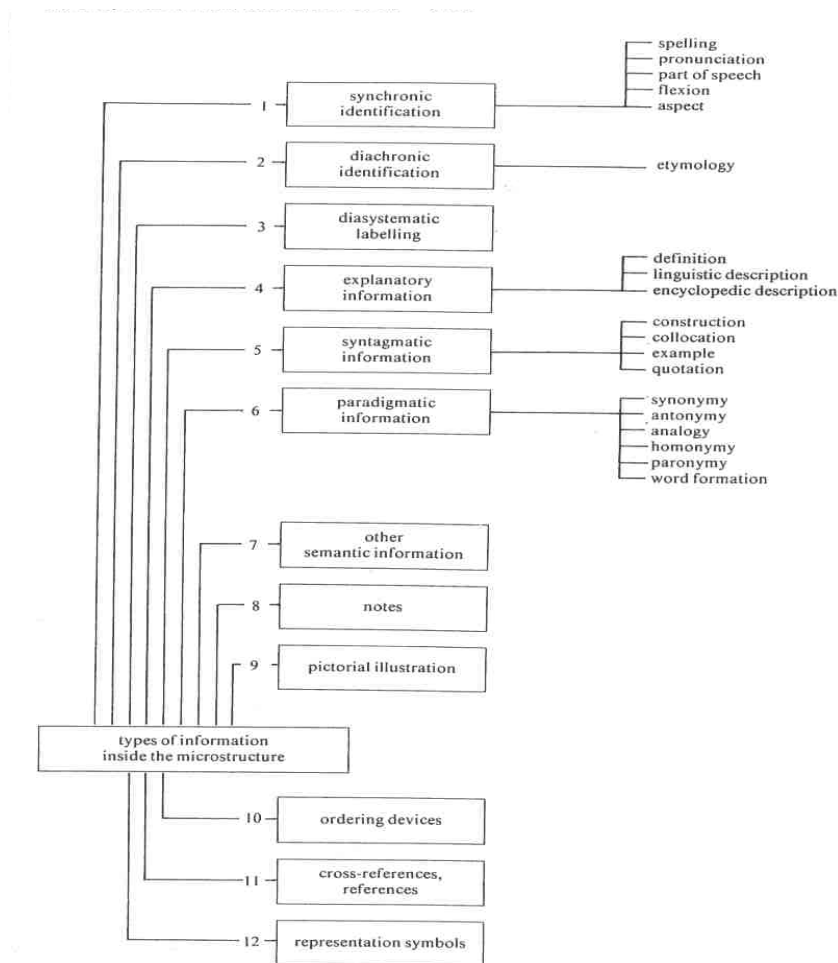
Fig. 6 Data types according to Rey- Debove (1971)

Apart from the formal synchronic identifying data that includes spelling, pronunciation, part of speech, inflexion, aspect, the rest of data types in Fig.6 are hosted in the comment on semantics.

3.9.2.4 Context and cotext

In our discussion of dictionary functions, it was pointed out that the function of a dictionary should be communication-orientated. When and if the function of the dictionary is text production, then it is the lexicographer's duty to help the user to use the words presented by the lemma signs and the translation equivalents in active communication (Gouws & Prinsloo 2005: 127).[109] It is therefore necessary to

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[109] If the function of the dictionary is exclusively for text reception, it is an acceptable procedure to limit the comment on semantics in many articles to the mere presentation of paraphrase of meaning or a translation equivalent in monolingual and bilingual dictionaries respectively (Gouws & Prinsloo 2005: 127).

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incorporate relevant and complementary entries within the component of comment on semantics, in order to enhance text production in real life situations of the socio-linguistic milieu. The *context* and the *cotext* entries therefore, play a vital role toward the latter end. The context of the lemma sign refers to the pragmatic environment in which it is typically used, whilst the cotext refers to the syntactic environment in which it is used (Bahns 1994: 84ff).[110] Let us consider the Excerpt below.

אָב n.m. **father** — **1.** *father of individual*; of father as commanding; instructing; specif. as begetter, *genitor*; rebuking; loving; pitying; blessing; as glad; grieving. Also as object of honor, obedience, love. Hence metaph. of *intimate connection*. **2.** of God as *father of his people*, who constituted, controls, guides and lovingly watches over it; esp. God as *father of Davidic line*; *f. of needy* (late) (in n.pr., *f. of individual*). **3.** *head of household*, family or clan בֵּית אָבִי as abode; = family; esp. techn. of divisions of Isr. לְמִשְׁפְּחֹת בֵּית אָב = a father's house, i.e. a family or clan; more oft. pl. **4.** *ancestor* **(a)** of individual; grandfather (instead of precise term); greatgr.; gr.-greatgr.; oft. pl. (= *fathers, forefathers*); **(b)** of people. **5.** *originator or patron* of a class, profession, or art. **6.** fig. of *producer, generator*. **7.** fig. of *benevolence* & protection; of Eliakim. **8.** term of *respect & honour*; appl. to master; priest; prophet; counsellor; king; artificer. **9.** specif., *ruler, chief* (late).

Exerpt 9 (Clines 1993)

The lemma sign אָב has nine subcomments on semantics indicated by numeric polysemous markers **(1-9).** Each subcomment contains a polysemous sense in italics, i.e. *father of individual*. Immediately following the polysemous sense, are entries of father as; "*commanding*", "*instructing*", … "*loving*", *etc*., giving the specific and relevant context in which *father of individual* can be used. In polysemy sense **(4)** "*ancestor*", two typical contexts are further given **(a)** and **(b).**

According to Gouws and Prinsloo (2005: 128), context entries like these assist in both text reception and text production. However, for text production purposes, it is even better when a dictionary also offers cotext guidance by giving typical illustrative collocations, phrases and example sentences to illustrate the way in which the specific word functions within the linguistic system. In Excerpt 9 above, the cotext is not as evident as the context.[111] Cotext entries are critical in that they convey needed

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[110] The context is usually indicated by means of glosses, i.e. a single word indicating something about the usage of the word, or by means of lexicographic labels. The cotext is usually indicated by means of illustrative example material like collocations and example phrases and sentences (Gouws & Prinsloo 2005: 127ff.)

[111] It is important to select examples with typical collocations carefully (probably on the basis of frequency of attestation, also typical grammatical constructions in which the word represented by the

grammatical information in text production situations. This becomes more pertinent in translation dictionaries where such entries could make a significant difference, for example in a BH dictionary for translators.

3.9.2.5 Types of Microstructures

In this section, different types of microstructures are discussed. Research in metalexicography has formulated models for various types of microstructures (Wiegand 1996). However, not all types are as relevant for general dictionaries (Gouws & Prinsloo 2005).[112] The following microstructure types have been identified as crucial because they represent the most fundamental and typical ones. These are *simple microstructure, integrated, unintegrated, and obligatory* and *extended obligatory microstructures.* Among these however, the integrated and unintegrated microstructures are further identified as important ordering structures because their application is at the core of any dictionary conceptualization plan and lexicographic process.

3.9.2.5.1 Simple microstructures

It was noted in §3.9.2.2, that a standardized article has two immediate textual constituents, i.e. the comment on form (CF) and the comment on semantics (CS). On this basis, each dictionary that corresponds to this kind of description possesses a *simple microstructure* that consists of two core structures, i.e. the left core structure (CF) and the right core structure (CS). Fig.7 below illustrates a simple microstructure.

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lemma sign functions in the speech community should be presented, cf. Gouws & Prinsloo (2005). For example, the treatment of a given noun should indicate typical combinations with adjectives, verbs and prepositions, and in the case of verbs, the transitivity or intransitivity should be indicated.

[112] Hausmann & Wiegand (1989), claim that the New Conception theory of microstructures gives a systematic key for distinguishing different kinds of microstructures. This allows a comparison of dictionary articles and systematic construction of article types in relation to types of lemma signs. It also makes provision for the evaluation of the suitability of microstructures for defined classes of potential users, cf. Wiegand (1989b).
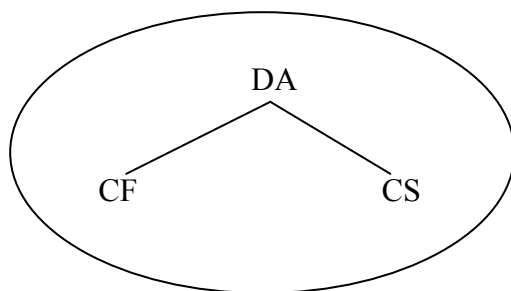
Fig. 7. A simple microstructure constituting components CF and CS.

The comment on semantics, which is the right core structure, essentially constitutes the various microstructure types found in dictionary types.[113]

3.9.2.5.2 Integrated and unintegrated microstructure

According to Gouws & Prinsloo (2005: 138ff), the distinction between integrated and unintegrated microstructures is made on the grounds of the *proximity*, and the *directness* of the relation between each entry representing a paraphrase of meaning (in monolingual dictionary) or each entry representing a translation equivalent (in a bilingual dictionary) and the supporting cotext entries (representing illustrative examples in the specific article). Excerpt 11 below, from the ODGD illustrates an integrated microstructrue.

> **Send**…**2** (grant) schicken; **~her victorious**! (arch)
> [Herr,] lass sie siegreich sein!; **God ~s the rain**
> **on the just and the unjust** (prov) Gott lässt
> regnen über Gerechte und Ungerechte
> Excerpt 11 (ODGD 2005)

In this article, the treatment is directed at a lemma representing a polysemous lexical item. As such, each polysemous item is treated as a subcomment on semantics. The partial Excerpt above represents the item giving subcomment on semantics, in which the lemma *send* has the context entry (*grant*) and a translation equivalent *schicken*. This is followed by two illustrative examples presented as cotext entries, i.e. illustrating the archaic (arch) use of the sense. What is noteworthy is that the context and cotext entries are presented immediately after the translation equivalents within

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[113] Hausmann & Wiegand (1989) comment that the exemplification of the left core structure may be transferred mutatis mutandis to all partial structures of microstructures. In other words, the distribution structure of the left core partial structures is invariable.

the same subcomment on semantics. The entries presented in such manner are known as integrates because they appear in the same entry field of the subcomment on semantics. For this reason, the structure is called an integrated microstructure.[114]

An integrated microstructure makes it easier for the user to achieve rapid retrieval of desired information because all items directed to the lemma are presented in the same field or text block. For this reason, integrated microstructures are recommended as ideal for monolingual and bilingual pedagogical and standard dictionaries.[115]

In an unintegrated microstructure, the cotext or context entries do not appear in the same search field. A dictionary characterized by an unintegrated microstructure includes all different subcomments on semantics in a text block. Another text block may follow separately, constituting cotext entries corresponding to context entries in a different text block. Gouws & Prinsloo (2005) provide a good example of such a microstructure.[116]

Bak ww. (het gebak)
1 Gaarmaak deur hitte. **2** Gaar word, warm kry. **3** Hard laat word deur hitte. **4** Hitte afgee
Eiers in die pan bak (1). In die son sit en bak (2). Stene bak (3). Die son bak op die stoep (4).
Excerpt 12 (Constructed example 2003 reproduced in Gouws & Prinsloo 2005)

In this dictionary Excerpt, *bak* constitutes four subcomments on semantics that come one after the other in a text block without cotext entries. Another text block follows immediately, hosting cotext entries with numbers in parenthesis next to them. By relating and matching this number to the address in the text block constituting subcomment on semantics, the user may successfully retrieve information. However,

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[114] When explaining integrated microstructures, Hausmann & Wiegand (1989) start on the premise that simple microstructures may be called integrated when all items within the article that do not belong to the comment on form are located in the scope of a certain semantic item. Simultaneously, these items belong to the same sub-comment on semantics to which the semantic item also belongs.

[115] Integrated microstructures decrease textual condensation and at the same time enable the user to interpret the contents of the subcomment on semantics correctly.

[116] The example was drawn from Gouws (2003).

the retrieval is not as swift and clear as in a dictionary with integrates because a non-integrated microstructure demands more dictionary using skills from the user, i.e. to match the cotext entry to the correct subcomment on semantics, especially in articles that are detailed. A lexicographer should therefore only use this type of microstructure in cases where it does not hinder the dictionary look up procedures of the end-user. Additionally, the user's guide has to instruct the user clearly on how to access such a microstructure.

3.9.2.5.3 Obligatory and extended obligatory microstructures

Hausmann & Wiegand (1989: 346) distinguish and discuss the following types of microstructures: the *obligatory microstructure*, the *absolutely obligatory microstructure,* and the *complete obligatory microstructure* of the dictionary.[117] Due to the lack of clarity on the latter distinctions, Gouws (PC: 2003) prefers to distinguish only two major microstructures.[118]

With reference to the above two major microstructure types, i.e. integrated and unintegrated, a further subdivision of the obligatory and extended obligatory microstructures can be made.[119] This subdivision depends on the extent of the data categories to be included, the lemma types undergoing lexicographic treatment, as well as the distribution structure of the dictionary's conceptualization plan.

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[117] The understanding of the "completely obligatory microstructure" is problematic. Briefly described, it gives information on (a) the set of all item classes occurring in a dictionary; (b) all item classes which are obligatory for all types of lemma signs, i.e. form, semantics, and sets of those item classes which are obligatory only for all special types of lemma signs; (c) all types of lemma signs, i.e. nouns, verbs, prepositions; (d) all abstract microstructures assigned to the types of lemmata. Personal communication with Gouws (Stellenbosch 2003) also confirmed the apparent confusion. However, Gouws (PC: 2003) at this particular juncture would prefer to make a distinction of only two microstructures, i.e. the obligatory microstructure and what he would call the *extended obligatory microstructure.* It is *extended,* because it has the elements of the obligatory microstructure and other information types that may or may not be included in the microstructure.

[118] Gouws (PC: 2003) and Gouws & Prinsloo (2005).

[119] Cf. Gouws (1999a, 2003).

The obligatory microstructure refers to the minimum of microstructural items that must be included in each and every article, whether the article exhibits an integrated or an unintegrated microstructure. For example, the article in a bilingual dictionary may contain the lemma sign being treated, the item giving the part of speech, the item giving a translation equivalent for each of the polysemous senses of the lemma sign, and an illustrative example presented as a cotext entry.

In some instances, certain lexical items represented by the lemma sign in terms of the minimum requirements of the specific dictionary may need additional items and data categories in order to ensure their adequate lexicographic treatment. For example, the plural form of a noun, the irregular form of a verb or superlative, past tense or mode of verb, a synonym, hyponym or antonym may be required to enhance sufficient lexicographic treatment of the lemma sign. When this is the case, a slot is provided in accordance with the data distribution structure already decided upon in the dictionary's conceptualization plan. The addition of data complements the default article, which must fulfill the requirements of the obligatory microstructure. The additional data results in the *extended obligatory microstructure*. "Extended" and "obligatory" because more data may be required in order to provide the user with a comprehensive treatment of the lemma sign, from which he/she can successfully retrieve desired information. The nature and extent of an extended obligatory microstructure relies on the nature of the lexical item represented as the primary treatment unit in the article (Gouws & Prinsloo 2005: 142).

3.10   Addressing Structure

3.10.1 Introduction

In §3.6, the notion "addressing structure" has already been alluded to. The conceptualisation plan of the dictionary must be clear on the addressing profile that must characterize a dictionary article. Lexicographers and users alike must be clear about the relations of the items that are positioned in the microstructure. All entries in the microstructure, i.e. in the comment on form or comments on semantics, the structural indicators identifying data categories and search fields, must be functional

and should contribute to the lexicographic treatment of the subject matter of the dictionary.

Each item of the microstructure should be directed at a specific item whether the main entry representing the lemma sign or an entry in the microstructure. The lemma in the macrostructure functions as first level or primary treatment unit, whilst the greater number of microstructural items is provided as supporting entries to the primary treatment unit. This kind of relationship establishes an *addressing procedure,* where the lemmas sign and data relating to it is brought together.

The primary treatment unit is called the *address* and each item functioning as support to the lemma sign is called the *addressee* (Hausmann & Wiegand 1989: 349). The *addressing structure* of a dictionary is the system according to which microstructural items are directed to other items. Whilst the lemma sign is the most typical address in an article, other items may also function as addresses (Gouws & Prinsloo 2005: 135). When such is the case, different types of addressing may be distinguished, with *lemmatic* and *non-lemmatic* addressing types being the major ones.

3.10.2 Lemmatic addressing

Lemmatic addressing results when the address is the main lemma. When the main lemma sign is introduced into the article text, it is available for further lexicographic treatment, particularly for definition. In a dictionary where the macrostructure is ordered in a straight initial alphabet, each lemma will be the main address of a given entry. Sublemmatic addressing results when the macrostructure exhibits a sinuous lemma file (niched or nested lemmata).[120] The items in the subarticles are directed to the sublemmata, thus rendering the sublemmata as the address.[121] In some cases, all items in the dictionary article are addressed to the lemma, resulting in *full lemmatic*

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[120] Sublemmatic treatment is given to single words or to multiword lexical units, for reasons of condensation, structure displaying or by simple necessity (e.g. in cases of multiword lexical units, which otherwise are difficult to look up).

[121] The sublemmata remain part of the macrostructure of the dictionary; therefore, sublemmatic addressing is a type of lemmatic addressing (Gouws & Prinsloo 2005: 135).

addressing. This implies that there is no topic switching, i.e. there is no change in the address/addressee relationship because all lexicographic items comment exclusively on the lemma sign (Hausmann & Wiegand 1989: 349).

3.10.3 Non-lemmatic addressing

Addresses that belong exclusively to the microstructure and that are not directed to the lemma or sublemma in the macrostructure are called *non-lemmatic addresses.*[122] The use of non-lemmatic addressing implies a system of topic switching within the dictionary article because each non-lemmatic address introduces a new treatment unit as the topic (Hausmann & Wiegand 1989: 349).[123] Let us consider the following dictionary Excerpt 13 used in Hausmann & Wiegand (1989).

flood¹ /flʌd/ also **floods** *pl— n* **1** the covering with water of a place that is usu. dry; a great overflow of water: *The town was destroyed by the floods after the storm.* | *The water rose to flood level.* | *The river was in flood.* (=overflowing) **2** a large quantity or flow: *There was a flood of complaints about the bad language after the show.* | *She was in floods of tears.* **3** **before the Flood** *infml* a very long time ago

Excerpt 13 (LDOCE 1987)

The dictionary article with the lexical item "flood" exemplifies non-lemmatic addressing and contextual addressing. The treatment of the lemma sign shows that it has three polysemous senses (1-3). The entry (3) "**before the Flood**" is presented as a sub-address accompanied by a comment on semantics. [124] The item "*a very long time ago*" is directed not to the lemma "*flood*" but to the entry "**before the Flood**", thus demonstrating a case of non-lemmatic addressing and topic switching. Non-lemmatic addressing in Excerpt 13, may be difficult to identify as such. In this regard, it is always imperative that the lexicographer clearly indicates topic switching in non-

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[122] They may alternatively be called *subaddresses* (Hausmann & Wiegand 1989).

[123] Although topic switching increases the level of textual condensation in a given dictionary article it also leads to a more comprehensive treatment procedure where the lemma is complemented by other items as treatment unit. The user does not only retrieve information regarding the lemma but also of other items in the article (Gouws & Prinsloo 2005: 136).

[124] American lexicography refers to the defined phrasal entries as *"run-in-entries"* (Landau 2001: 101-105).

lemmatic addressing, especially against a background that the user always assumes that all items in the microstructure are addressed to the main entry.

In polysemous sense (1) "**in flood**" (coming directly after the cotext entry) is a non-lemmatic address presented in context, "the river was **in flood**" (=overflowing). One can therefore say "**in flood**" is a *contextual sub-address*. According to Hausmann & Wiegand (1989), *overflowing* is a semantic item that may be called *gloss*. A gloss is the definition of a contextual sub-address.[125]

Hausmann & Wiegand (1989) further characterize "**in flood"** in the above Excerpt as *open addressing*. This is because the entry "in flood" is emphasized and segmented by typography, i.e. semi-bold-face. Contextual addressing may also be concealed or *hidden* with the assumption that the user is able to deduce the right information. The following idiomatic use of *witness* in LDOCE illustrates *hidden contextual addressing*:

The economic situation is clearly beginning to improve- witness the big rise in company profits this year (=this is a fact that proves the statement). LDOCE (1987)

The bracketed gloss refers to a sub-address. The unit glossed is not indicated by any typographical means as "**in flood**" above. In this case, the user has to guess the bracketed gloss refers to witness.[126]

There are instances when addressing is without definition. This is called *elliptic addressing*. The latter is common with sublemmatic and seldom with lemmatic addressing. For example, derivatives and compounds are frequently undefined in

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[125] *Glossing* in Hausmann & Wiegand's terms constitutes a sort of *ad-hoc* addressing, because the dictionary compiler deems it necessary or useful to provide an explanation. Furthermore, glossing is common when the lexicographical treatment contains idiomatic items or when definitions contain expressions that need to be explained.

[126] In some dictionaries contextual addressing (glossing) plays a very important role. Landau (1984: 85, 88) calls all contextual addresses "hidden entries." He calls open contextual addresses i.e. **"in flood"** "hidden boldface entries."

English and other lexicographic traditions. Consider ***filler, fill in, filling station, fill in on*** and ***fill out*** from (WB). The lexicographer merely states expressions without providing meaning. In addition contextual addressing can be elliptic in that it is unglossed, e.g. from LDOCE *get:* When you *"get to know* him you'll find he's quite nice."* The unit, *get to know* is emphasized by means of italics, thus it becomes an address, though it is not glossed. The latter is also an example of open non-lemmatic addressing. On the one hand, non-lemmatic addresses do not necessarily need to be defined or glossed. On the other hand, the glossed contextual addresses do not necessarily need to be open. There cannot, however, be a hidden contextual address without a gloss because nothing would distinguish this from a mere example.[127] The following tree summarizes the possible addressing structures that can be employed in a dictionary article.

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[127] Hausmann & Wiegand (1989: 350) comment that idioms are sometimes treated erroneously as examples instead of defining them. In cases of idioms listed without defining, the term *zero addressing* applies.

```
                        ┌─────────┐
                        │ address │
                        └────┬────┘
            ┌────────────────┴──────────────────┐
  ┌──────────────────┐              ┌──────────────────────┐
  │ in the macrostructure │         │ in the microstructure │
  └──────────────────┘              └───────────┬──────────┘
                                        ┌──────────────┐
                                        │ non-lemmatic │
                                        └──────┬───────┘
   ┌─────────┐  ┌──────────┐            ┌────────────┐
   │  lemma  │  │ sublemma │            │ subaddress │
   └─────────┘  └──────────┘            └─────┬──────┘
                                ┌─────────────┴──────────────┐
                         ┌──────────────┐          ┌────────────┐
                         │ context-free │          │ contextual │
                         └──────┬───────┘          └─────┬──────┘
                                                ┌────────┴────────┐
                                          ┌──────┐          ┌────────┐
                                          │ open │          │ hidden │
                                          └──┬───┘          └───┬────┘
  ┌────────────────────┐   ┌─────────┐  ┌───────────┐  ┌───────────┐  ┌──────┐  ┌─────────┐
  │ defined or undefined │ │ defined │  │ undefined │  │ unglossed │  │ glossed │  │ glossed │
  └────────────────────┘   └─────────┘  └───────────┘  └───────────┘  └──────┘  └─────────┘
```

```
┌──────────────────────────────────────────────┐
│  ┌──────┐                                      │
│  │ open │                                      │
│  └──┬───┘                                      │
│     ├──── bold face                            │
│     ├──── italics                              │
│     ├──── capitals                             │
│     └──── other typographical signals          │
│  ┌────────┐                                    │
│  │ hidden │                                    │
│  └──┬─────┘                                    │
│     └──── no typographical signals             │
└──────────────────────────────────────────────┘
```
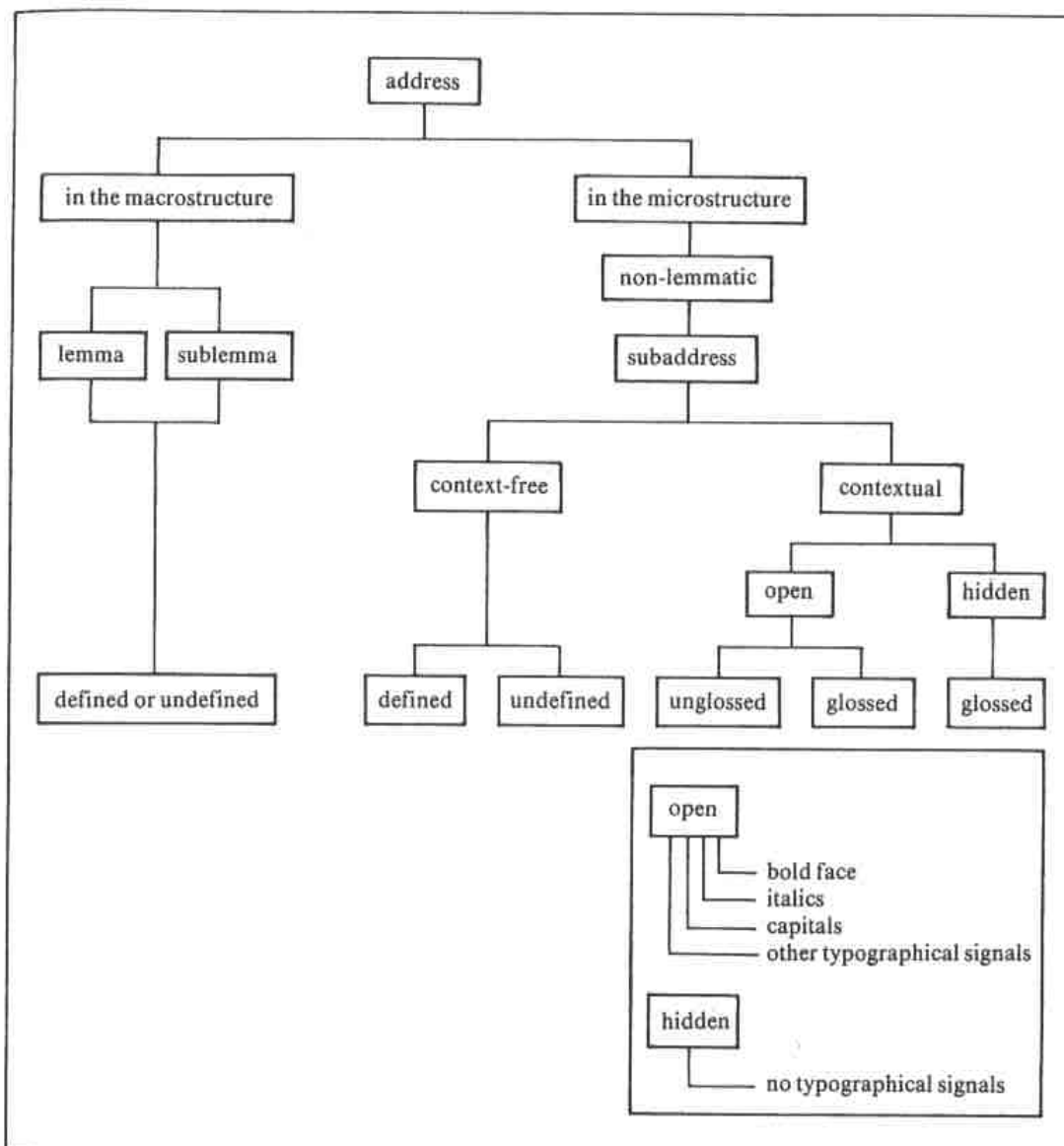
Fig.11 Visualization of addressing structures (Hausmann & Wiegand 1989)

3.10.4 Addressing: A problem

Whilst the notion of addressing is critical for any planned dictionary, lexicographers are continually confronted with the problem of where to address within the dictionary article? Hausmann & Wiegand (1989: 352) recognize this problem as lacking an international norm and solution. Conversely, in view of the above types of addressing procedures, it is the lexicographer's discretion to principally enter treatment units by lemmatic addressing, or sublemmatic addressing, or subaddressing (context-free or contextual, open or hidden), or by giving a simple example phrase, i.e. zero addressing.

It is imperative that a well-devised addressing structure, which will allow the application of both lemmatic and non-lemmatic addressing procedures, be evident in the conceptualization plan of the dictionary. Optimal retrieval of desired information by the end-user also depends on the addressing profile of the dictionary.

In summary, the microstructure of a dictionary is one of the crucial focal points when it comes to dictionary criticism because it hosts salient structural components such as the inner access structure, medio-structure, search areas, text blocks, cotext and context entries, addressing structure, etc. The microstructure is also the centre of the user's look up activities for data addressed to the lemma sign, and conversely, one of the lexicographer's major construction sites.

3.11   Bilingual dictionaries

3.11.1 Introduction

In this section, bilingual dictionaries will be briefly discussed since the investigation is mainly concerned with BH bilingual dictionaries. Special focus will be placed on their relationship to monolingual dictionaries. Attention is also given to the relationship between translation equivalents common in bilingual dictionaries and the paraphrase of meaning in monolingual ones.

3.11.2 Bilingual dictionaries vs. monolingual dictionaries

A major distinction between bilingual and monolingual dictionaries lies in the fact that the latter focuses only on one language, whilst the former focuses on two languages. The main purpose of a bilingual dictionary is to indicate the semantic equivalency of the lexical units or items of two languages. There are different types of bilingual dictionaries; the variation largely determined by the goals for which the dictionary is compiled.

Zgusta (2006: 208) makes a distinction between what he calls genuinely bilingual dictionaries and quasi-bilingual ones.[128] Quasi-bilingual dictionaries belong to the

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[128]Genuinely bilingual dictionaries have the basic purpose of helping the user to handle texts in a foreign language.

category that comprises of those whose function is identical with, or similar to that of the monolingual dictionary. Such dictionaries are particularly compiled for dead, or exotic languages, since it would be difficult to define the meaning of Akkadian words in Akkadian. An Akkadian-English dictionary is compiled instead. Since the purpose of such dictionaries is more or less the same as that of the monolingual ones, namely the description of the lexical units of a language and of their meaning, quasi-bilingual dictionaries do not differ much from the monolingual ones in their techniques of presentation (Zgusta 2006: 208, 220).

The discussion above leads us to an important note, i.e. in spite of the category-specific features of any given dictionary, many features, both in terms of structure and contents, are mutually shared by dictionaries belonging to different typological categories (Gouws & Prinsloo (2005: 151). For example, with regards to the article structure of both dictionary types i.e. mono- and bilingual, the lemma sign functions as the guiding element and main treatment unit, and all the data in the microstructure is positioned in either the CF or CS. Data included in both these dictionary types is mostly similar. The main difference, however, lies in the CS. In general monolingual dictionaries, the focus in the CS is on the paraphrase of meaning, which is represented as the definition of the lemma sign. In a bilingual dictionary, a translation equivalent(s) is provided representing the lexicographic definition of the lemma sign.

Translation equivalents have long been a common feature in bilingual dictionaries. In monolingual dictionaries, however, it is often necessary to give more than one paraphrase of meaning in a single article in order to provide for the different polysemous senses of a word represented by a given lemma sign. In bilingual dictionaries, the comment on semantics should also make provision for a treatment procedure that has all the polysemous senses of a lexical item in its scope. Polysemy is a word specific feature, which implies that for a polysemous word in the source language one will not necessarily find a target language translation equivalent with exactly the same polysemous senses. It is therefore necessary for the lexicographer to provide a separate translation equivalent for each one of the polysemous senses of the lemma sign (Gouws & Prinsloo 2005: 151-152).

3.11.3 Translation equivalent vs. paraphrase of meaning

In bilingual dictionaries, it is important to discern the relationship between a translation equivalent and a paraphrase of meaning. This is especially crucial considering that users of bilingual dictionaries typically regard translation equivalents as the meaning of the source language word. They seldom realise that data on offer is not a paraphrase of meaning or even a statement about meaning, but rather a translation equivalent paradigm.[129] The following example illustrates a meaning paraphrase versus a translation equivalent.

> **chair**-*n*. **1** seat for one person usu. with a back. **2** professorship. **3**. **a** chairperson. **b** seat or office of a chairperson…(POD 1988)

> **chair**- (n) stoel, getoelte; setel; voorsitter (stoel); leerstoel, professoraat; plat (spoor); kapgebint; stoelbed (vir tappe); …(GW 1997)

According to Gouws & Prinsloo (2005: 153), in the first article (in a monolingual dictionary) *chair* is treated as a polysemous lexical item with three distinct senses. For each sense, a lexicographic definition presents the relevant paraphrase of meaning. In the second *chair* has a paradigm of translation equivalents, i.e. stoel, …setel, etc representing some of its polysemous senses. From a semantic perspective, however, it would be erroneous to regard these equivalents as the meaning of the word *chair*. *Chair* does not necessarily mean *setel*, but could be translated as such when it is placed in its typical context. A lexicographer should therefore inform the user that the nature of the core entries in a bilingual dictionary differs from those in a monolingual dictionary. Additionally, translation equivalents may not be regarded as entries giving the meaning of the lemma, but they should be seen as target language lexical items that may be used to substitute the source language item in a specific situation (Gouws & Prinsloo 2005: 153).[130]

In a bilingual dictionary where the lemma sign functions as the guiding element, the translation equivalents are presented as part of the treatment of the lemma. In such dictionaries, lemmatic addressing prevails as the major addressing procedure, where

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[129] Translation equivalent paradigm is a term given to the collection of translation equivalents presented in the comment on semantics of a single article.

[130] In this regard, it is emphasized that the use of these translation equivalents is determined by the context and the cotext of the source language item.

all microstructural entries are directed to the lemma.[131] There is a relation between the lemma functioning as the treatment unit and the translation equivalent(s), which is from the source language form to the target language forms. Different types of translation relations can be identified, and within one single article the relation between the lemma and the members of the translation equivalent paradigm can represent different types of equivalent relations.[132]

3.12   Electronic dictionaries

3.12.1 Introduction

It is indisputable that electronic dictionaries offer more possibilities than do printed dictionaries. The limitations and obstacles of printed dictionaries, e.g. retrieval of information, the size of the corpus, etc., are accommodated immediately in the electronic dictionary (henceforth ED). The next chapter will also look critically at electronic dictionaries of BH. For this reason, the following paragraphs focuses only on the typology and features of electronic dictionaries, though there is a lot more that can be said about electronic dictionaries, e.g. their historical origins, and their purposes.

3.12.2 A typology of electronic dictionaries

Martin (1992: 193-194) refers to a number of electronic "objects" that are in the lexicographical landscape. He categorized them in the following way; 1) dictionaries for human users, 2) computer-based dictionaries, 3) machine-readable dictionaries, 4) lexical/term banks, 5) machine dictionaries, 6) lexical databases, and 7) intelligence lexicons. This list of "objects" has been criticized because it does not attempt to

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[131] It is seldom that non-lemmatic addressing procedures prevails (Gouws & Prinsloo 2005: 153).

[132] Equivalent relations are discussed extensively in Gouws (1989; 1996; 2000; 2000a). These are identified as follows: full equivalency, partial equivalency, divergence, zero equivalency, poly-divergence and communicative equivalency. Without elucidating on these relations, it is important to note as delineated in Gouws & Prinsloo (2005: 154) that one golden thread going through the discussion of these relations is that lexicographers have an obligation towards their users in ensuring a presentation and treatment of translation equivalents that will enable an unambiguous retrieval of information from the data on offer in the comment on semantics of a bilingual dictionary. The proper presentation and treatment of translation equivalents prerequire a clear understanding of the different types of equivalent relations.

differentiate between computational and non-computational ones. Sharpe (1995: 40-41) took a step further by making a distinction of EDs based on differences in hard- and software. He focused mainly on electronic bilingual dictionaries (EBDs), by making a distinction between specific EBDs, electronic notebooks, CD-ROM EBDs, and ED software. Again, this did not satisfy some scholars. For example, De Schryver (2003: 147) pointed out that a typology solely based on hard- and software does not seem to be very efficient, since it requires constant readjustments to cater for the never-ending innovations.[133]

Lehr (1996: 315) came up with a two-step technical-(meta) lexicographic typology of EDs, which De Schryver (2003) deemed more convincing. In the first step, Lehr classified EDs on technical grounds, with online vs. offline dictionaries as the main dichotomy. Offline dictionaries were further divided into pocket electronic dictionaries (PEDs) and (PC) dictionaries. The latter can be subdivided into CD-ROM, floppy disk(s) and other dictionaries. In the second step, each of these EDs can then be evaluated on (meta) lexicographic grounds. Either an ED is based on a paper dictionary or it is a new development, and each of the latter types can further have a print appearance or have an innovative appearance.[134]

Nesi (2000b: 842) came up with a typology of four EDs for language learning that emerged in the 1990s. This typology was based on the type of dictionary source and on who compiles and makes a profit from them. The following were identified for each type of ED: 1) internet dictionary: source is outdated, copyright-free material, users can contribute and no one makes financial gain; 2) glossary for online courseware: has new material, is compiled by language department staff members at the universities and there is no profit, 3) learners' dictionary on CD-ROM: is based on reputable hardcopy reference books, and compiled by major dictionary publishing houses who intend to, make profit, and 4) PED: is based on hardcopy sources, and

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[133] Sharpe (1995: 41) added two more types to those of Ide (1993), i.e. floppy-disk based on portable EBDs and EBDs with hand-held optical character recognition (OCR) scanners, cf. De Schryver (2003: 147).

[134] In print appearance, the onscreen of the ED looks like a printed dictionary page, however, the innovative appearance of the ED does not mimic the display of paper dictionaries.

made by electronic goods manufacturers. According to De Schryver (2003: 147), Nesi (2000b: 841-843) rightly points out that these types are presently blurred. For example, highly innovative dictionaries are being developed for the internet (some of which can only be accessed by subscription), online courseware is becoming commercially available and put on CD-ROMs, CD-ROM dictionaries are placed on the internet, and PEDs are starting to receive more serious lexicographical attention. From this overview, it is clear that none of these proposed ED typologies are entirely satisfactory to cover today's variety of users's needs. It is for this reason that De Schryver (2003: 147ff) suggests a typology based on one main criterion: the way in which dictionaries are accessed, i.e. WHO accesses WHAT and WHERE? It is hypothesized that this three-step typology is flexible to cater for future innovations. This taxonomical approach is summarized below.

The first step in this typology is to ask the question: who accesses the dictionary? Several answers can be given, i.e. machines can access NLP lexicons and humans can access human readable dictionaries.[135] However, both machines and humans can access lexicons designed for NLP as well as human use. The answer to this question leads us to the second step: what is accessed? Reformulated, this means that some type of a dictionary medium is sought after (De Schryver 2003: 149). In this regard two mediums can be identified: the physical-object (i.e. non-electronic) medium and the electronic medium. The physical devices can be further divided into handheld devices vs. robust machines (desktop computers).[136]

The "who" and "what" set the scene for the third step which attempts to answer the question: where does one access the dictionary? This identifies the type of storage mediums, which in computer terms is the hardware. With regards to the

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[135] NLP stands for **Natural Language Processing**. **Natural language processing (NLP)** is a subfield of [artificial intelligence](#) and [linguistics](#). It studies the problems of automated generation and understanding of [natural human languages](#). Natural language generation systems convert information from computer databases into normal-sounding human language, and natural language understanding systems convert samples of human language into more formal representations that are easier for computer programs to manipulate (http://en.wikipedia.org/wiki/Natural_language_processing).

[136] The discussion of this section focuses on the electronic-dictionary medium. Handheld devices can include clay tablet, papyrus, volumen, codex, etc. up to the printed page.

aforementioned, i.e. handheld devices vs. robust machines, a further subdivision along the lines of stand-alone vs. networked storages can be distinguished. Examples of handheld stand-alone dictionaries are PEDs, reading pens, or lexicons supporting text-messaging in mobile phones. At present, handheld networked PDA dictionaries are increasingly being used, providing access to some online dictionaries.[137] Today's most popular robust electronic machines are the desktop and laptop computer. In stand-alone versions, dictionaries are stored on various types of disks (CD-ROM, DVD, hard disk, etc.) while hard disks are primarily used as storage in the networked versions (De Schryver 2003: 149). A distinction is also made between the networked versions, i.e. those only accessible on a local area network (LAN) and those available globally on the internet. The former are stored and accessible on an intranet system of corporations, libraries, universities, etc. The latter are stored on servers accessible on the internet.[138] The following table summarizes the current inventory of stand-alone and networked EDs.

Electronic Dictionaries			
Dictionary on stand alone computer		Dictionary on a networked computer	
Handheld EDs, (e.g. PED, PDA)	Robust-machine (e.g. CD-ROM, DVD)	Intranet	Internet
one user uses a palmtop to access data stored on a small disk	one user uses a laptop/desktop to access data stored on a large disk	a group of users use laptops/desktops to access a dictionary stored on a local mainframe	users worldwide use laptops/desktops/PDA/cellular phones to access a dictionary stored on an online server

Table 1 (De Schryver 2003: 151)[139]

It can be concluded that a typology of electronic dictionaries is ever in flux due to the pace of today's technological innovations. Consequently, a rigid typology with

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[137] A typology of dictionaries of such nature are provided for example at the following URL: http://www.pda-dictionary.net/, i.e. **MSDict Cambridge Dictionary of American English (BlackBerry) 3.10** or **English-Italian-English Dictionary 2.0**.

[138] Many of today's intranet computers and home computers are also connected to the internet. In such environments the strong points of intranet or CD-ROM dictionaries can be combined with those of internet dictionaries.

[139] Adopted with changes.

regards to electronic dictionaries cannot be established in terms of one set of criteria. However, the three different criteria, especially that of De Schryver (2003), i.e. WHO accesses WHAT WHERE? can help us keep abreast of the transformations occurring in the area of electronic dictionaries, including BH EDs.

3.12.3 Key features of EDs

The electronic dictionary no doubt has much more to offer in comparison to the printed dictionary, which has its limitations.[140] The features of EDs have paved the way to a new generation of dictionaries unimagined in the printed dictionary era. The lexicographer's major problems of the past century, i.e. space, accessibility, size of corpus, etc, simply disappear in the electronic dictionary dimension (Prinsloo 2000: 140). In this section, only key features of the ED will be discussed in light of the limitations of the printed dictionary. These may enlighten us regarding some prospects of the BH EDs.

It could be argued that the power of EDs is rooted in its storage capacity, the speed of information retrieval, and multi-accessing and querying strategies. In contrast to a paper dictionary, there are no space constraints other than the need to avoid swamping the user with huge quantities of data.[141] Harley (2000: 85) observes:

> No need to *compress text* into cramped text paragraphs, i.e. each definition and example sentence can start on a new line. No need for *obscure codes*: - fuller descriptions become possible (e.g. parts of speech and grammar descriptions no longer need to be abbreviated to save space), with hyperlinks to more

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[140] The ED does not entirely usurp the printed dictionary, which has its advantages e.g. no electronic malfunctioning, lose of power, portable almost everywhere especially the pocket dictionary (Landau 2001; Leech & Nesi 1999).

[141] Large quantities of data raise the question whether the average user is able to process raw data and to turn these into lexicographically sound information. A similar problem arises with what is known as 'one-stop consultation', that is internet sites where one searches up to several hundreds of dictionaries simultaneously. All the search data is shown in long lists, and results from trustworthy sources and downright amateurish concoctions are all mixed up, i.e. of native speech and bilingual dictionaries (De Schryver 2003: 157).

detailed information. No need to *exclude possible inclusions or extra example sentences* on grounds of space.

The storage capacity of EDs also allows for the inclusion of various data types such as video sequences, animation (Nesi 2000b: 839-847).[142] Printed dictionaries are revised when the data is deemed outdated or may need amendments. This is not so with EDs, which are almost infinitely extensible.[143] In other words, there is more scope for the inclusion of extra material that is updated at any time.[144] Other features with regards to storage include offering users more access possibilities (Leech & Nesi 1999: 295-306), and the elimination of linear text restrictions, i.e. not everything needs to be written/visual and constant (Abel & Weber 2000: 807-818).[145] Cross-referencing is also optimised through hyperlinking to other data that is also available electronically on CD-ROM, intranet or internet. [146]

The speed with which the user can retrieve desired information is another key attribute of EDs. Of course the rapid access to data also depends on the processing capabilities of the device being used in the light of the amount of lexicographical data

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[142] Cf. Sato (2000: 863-870).

[143] The frame structure of the printed dictionary is firm and permanent. Contrastively the frame structure of EDs is flexible with the possibility of adding components; cf. Laursen & Duva (2005: 337ff).

[144] Cf. Harley (2000: 85-88); and Carr (1997: 209-230).

[145] De Schryver (2003: 157) notes that the true core of the ED revolution lies in the fact that users are liberated from the alphabetical straitjacket, that hypertext, menus, etc. eliminate (artificial) linear text restrictions, that the data conjured up onscreen are not static, and that powerful search capabilities ensure a smooth overarching navigation.

[146] This is an important consideration in the light of the hyperlink system, which makes it possible to work with various levels: as one can instantly link to all types of data addressed to the lemma sign or the translation equivalent. A hyperlink or simply a link, is a reference in hypertext document to another document or other resource (http://en.wikipedia.org/wiki/Hyperlink). It is similar to a citation in literature. However, when combined with a data network and suitable access protocol, it can be used to retrieve the resource referenced. This can then be saved, viewed or displayed as part of the referencing document.

being handled. At any rate, regular users of EDs will know that the average speed of retrieval time of a lemma sign is but a few seconds.

In contrast to the printed dictionary, a variety of search paths and querying strategies in EDs offer the user an exciting new range of data access routes to the desired information. For example, in online dictionaries the external access route starts with URL, or relevant metadata, i.e. title, search word of the dictionary (e.g. Oxford online dictionary).[147] An outer access route can also be followed taking into consideration the home page menu, permanent menu bar, access alphabet and search box-initial alphabetic, etc. Dodd (1989: 87, 89) points out that it should be possible to gain access to any entry by means of any of the pieces of data composing it. Potential routes are thus, limited only to the frontiers of what is contained in the dictionary, combined with possible manipulations or intersections of these items of data.

In summary, there is no doubt that technological developments in the electronic media have presented the lexicographer with powerful tools that were before unavailable in the compilation of printed dictionaries. As Atkins (1996: 515-516) says, "at last we are liberated from the straitjacket of the printed page and alphabetical order." Whilst we celebrate this liberation, we also take cognizance that we are still faced with the challenge of optimal exploitation of the technology at our disposal. Gouws & Prinsloo (2005) allege that one of the major problems in the production of electronic dictionaries is an insufficient utilisation of the possibilities offered by the electronic medium. Furthermore, it is alleged that most electronic dictionaries are more or less a mere replication or variants of printed dictionaries.

3.13   Conclusion

Chapter two concluded by identifying a preferred model, i.e. theoretical lexicography, for criticising existing lexica more objectively, with more promise for the improvement of existing lexica and the compilation of better ones. This chapter has introduced and discussed some notions of the preferred model, which I perceive as critical for the purposes of rigorous assessment of existing lexica. It is inconceivable in the time and space afforded by this investigation to appraise critically all aspects

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[147] URL stands for **Uniform Resource Locator**.

discussed in this chapter. For this reason, I will select some notions that are more pertinent, in line with this investigation, for a meticulous and comprehensive criticism of selected lexica:

1. The *frame structure of the book*: The frame structure of each selected dictionary will be criticized with special focus on the central word list and the outer texts. More importantly, the *front matter* text will be considered because it normally contains data about the dictionary, including the dictionary's *lexicographic function* as well as *the guide to the use of the dictionary*. These text parts are crucial if the dictionary is going to be successful in its intent to help the user in one way or the other.

2. The *lexicographic function*: In this chapter, two major lexicographic functions: communication and knowledge orientated functions were discussed. Most of the dictionary functions fit into either one of these. Among other things, the lexicographic function is core to any dictionary compilation because 1) it states what the dictionary is *trying to achieve*, 2) determines the *data and components to be included in the dictionar*y in order fulfil its goal(s), and 3) determines the *shape or structure the dictionary* will assume. In this light, each selected dictionary will be assessed in order to establish the lexicographic function of the dictionary. This will help in the critical evaluation and the determination of whether the structural components actually achieve the function of the dictionary.

3. The *microstructural component*: Attention will also be given to the microstructural component for the following reasons:
   a. Most dictionary look-up activities of the user are centred on the microstructure, since this component hosts data pertaining to the lexicographic treatment of the lemma sign.
   b. The microstructure hosts the most salient components that are discussed in this chapter. The following components belonging to the microstructure will be critically assessed: the comment on form and comment on semantics, inner-access structure, context and cotext entries, addressing structure, medio-structure, and the micro-architecture.

c. In addition, most existing BH dictionaries have not been criticized adequately in terms of their microstructure. In other words, the microstructure has not received as much critical attention as has the macrostructure and the semantic models used to determine meaning. In this light, a critical look at the microstructure is justified.

4. Section 3.11 discussed bilingual dictionaries as they relate to monolingual ones. The former deals with two different languages and usually gives "translation equivalents" as definitions. The focus of the latter is only on one language and definitions are provided as "paraphrases of meaning". Whilst these dictionary types may differ in regard to the above, the lexicographic principles of components and structures equally apply.

5. The discussion of electronic dictionaries established that the modern lexicographer is presented with tools that solve many of the problems faced by compilers of printed dictionaries. Space no longer limits the corpus, while accessibility of data and retrieval of information are some of the advantages that hypertext technology provides.

In the next chapter, I endeavour to assess critically each of the selected dictionaries with respect to the three selected aspects, i.e. 1) the frame structure, 2) lexicographic function, and 3) the microstructure.

Chapter 4

Criticism of Existing Bilingual Dictionaries

4.1 Introduction

In this chapter, selected general and BH bilingual dictionaries will be criticized in light of the model espoused and narrowed down in the conclusion of chapter three. This is in an attempt to assess and establish the degree to which existing lexica have taken into consideration current metalexicographical insights in their compilation. In addition, the consideration of general bilingual dictionaries is for illustrative purposes, since they are compilations of living languages as opposed to BH (§3.11). On the basis of the results accumulated from this critical appraisal, recommendations will be made upon which the conceptualisation plan of an improved BH dictionary for translators will be based. The chapter is organized in the following way: criticism of selected general bilingual dictionaries **4.2**, criticism of existing BH dictionaries **4.3**, and conclusion and recommendations **4.4**.

4.2 General Bilingual Dictionaries

4.2.1 Introduction

In this section, I will select two general bilingual dictionaries for critical analysis on the following grounds: 1) the publisher's reputation in the publication of dictionaries, and 2) the current date of publication, which presupposes a consideration and application of current trends in theoretical lexicography. The selection has been limited to only two dictionaries of living languages because they are sufficient to illustrate a good dictionary and a bad one. In each case, the following aspects of criticism will be focused on the frame structure of the dictionary book, lexicographic function(s), and the microstructure of the selected lemma sign, "send."

4.2.2 The Oxford-Duden German Dictionary (2005)

The *Oxford-Duden German Dictionary* (henceforth the ODGD) is a recent publication that resulted from a joint collaboration of two of the world's leading dictionary publishers, i.e. *Oxford University Press* and the *Bibliographisches Institut*. Our focus, as we look at this dictionary (as with each of the following), is on the components that

comprise the preferred critical criteria established in Chapter 3 and briefly stated in §4.2.1.

4.2.2.1 Frame structure

The frame structure (i.e. comprising of the central list, and the outer texts) of the ODGD contains a considerable number of functional components. The distribution of entries in the frame structure demonstrates, among other things, that the compilers of this dictionary had a clear conceptualisation plan of the dictionary, which served as a guide in its overall planning, organization, and compilation of the ODGD. Below is an ordered listing of the frame structure displaying functional components as they appear in the dictionary.

1. German abbreviations used in the dictionary
2. Title page
3. Publisher notes
4. Preface
5. Note on proprietary status
6. Editors and contributors
7. Contents
8. Key to German-English entries[148]
9. Key to English-Germany entries
10. Guide to the use of the dictionary
11. Phonetic symbols used in transcriptions of German words
12. Phonetic symbols used in transcriptions of English words
13. Festtags, Feiertags und Brauchumskalender (German)
14. Calendar of traditions, festivals and holidays (English)
15. **German-English dictionary**
16. Correspondence
17. Using the telephone
18. SMS
19. **English-German dictionary**
20. The revision of German spellings

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[148] The inclusion of items (*8* and *9*) reflects the fact that the compilers of the ODGD took cognisance of both target user groups.

21. Outline of German grammatical forms

22. Key points of German orthography and punctuation

23. Kleine Formenlehre des Englischen

24. Die Zeichensetzung im Englisch

25. German irregular verbs

26. Englische unregelmäßige Verben

27. Glossary of grammatical terms

28. Index boxed notes

With reference to the above components of the frame structure in the ODGD, it is easy to see that this is a large and detailed reference work with a wealth of data, from which the end-user can retrieve various types of information. The frame structure can be divided into the following functional segments: the front matter *(1-14)*; German-English word list *(15)*; middle matter *(16-17)*; English-German word list *(19)*; and the back matter *(20-28)*. In this way, the ODGD exhibits a primary frame structure whereby the components of the frame structure are directed to both word lists, i.e. German-English and English-German. This implies that the user can learn the features and conventions of both word lists in less time. Ultimately, this saves time in the retrieval of information from either section of the selected dictionary.

An important component in the frame structure (besides the central word list (s), is the *guide to the use of the dictionary (10)* appearing in the front matter text. As an obligatory component of the "big" text, *the user's guide* provides the user with the "how-to" or explanations of the features found in the dictionary in order to enhance easy accessibility, user friendliness and the optimal and efficient retrieval of desired information from the contents of the dictionary.[149] For example, it explains to the user, among other things, *the order of entries, division of entries, the headword, pronunciation, grammatical information, labels, etc*. An explanation of these features

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[149] The guide to *the use of the dictionary* familiarizes the user with macro-, microstructures, access, and addressing structures. It introduces the end-user to data categories that are included in the dictionary and also how these data types relate to each other within a particular article structure.

further sheds light on the data types one can expect to find within the dictionary articles.[150]

Though optional, item (7) *contents*, and item (4) *preface* can also perform an integral role. The former clearly shows the position of functional texts in the frame structure of the book. The user is not only given an overview of the contents of the dictionary, but is clearly guided over the textual boundaries to different parts of the dictionary. In this way, the table of *contents* lessens the time taken to access a particular functional part of the dictionary. For example, if the user wants to access the English-German word list (dictionary), he/she can quickly scan through the table of contents and with ease locate the item indicating the exact location of the word list desired, consequently saving look up time. The latter, i.e. *preface*, is also important because it tells the user what the dictionary is about. More importantly, it usually informs the user about the lexicographic function of the dictionary or why that particular dictionary has been compiled. With this in mind, I will attempt, in the next paragraph, to establish the lexicographic function of the ODGD, which may subsequently serve as part of the criteria for critically assessing the selected lemma sign.

4.2.2.2 Lexicographic function of the ODGD

Though the ODGD does not explicitly state the lexicographic function, it can, however, be roughly deduced from 1) the claims made in the *preface*, and 2) a typology of texts included in the outer texts. Firstly, the preface of the ODGD (2005: v) makes some claims from which we may assume the function of the dictionary.[151] These are paraphrased below.

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[150] A look at the user guide of the ODGD reveals that the following data types are included in the dictionary article: 1) headwords (including abbreviations, compounds, phrases), 2) pronunciation, 3) grammatical data (i.e. nouns, transitivity or intransitivity of verbs, adjectives, prepositions, etc), 4) style and usage labels, 5) definitions, 6) translations and collocates, 7) phrases, and 8) cross-references.

[151] A number of reasons can motivate a publication, e.g. money, or competition with other publishers. In any case a dictionary publication should be justified. Most dictionaries, especially printed ones, do so in the front matter, less so in electronic dictionaries.

- The *design* of this dictionary has been transformed by the use of colour and a new visual presentation, making it even more accessible and easy to use.[152]
- *Coverage* has been increased and updated… to reflect scientific and technological innovations, particularly in the field of information technology, as well as changes in politics, culture, and society.
- Other *features* (new to this dictionary) include notes on the life and culture of the German-and English speaking countries of the world.[153] Detailed boxes giving important areas of grammar and vocabulary, …in addition highlighting differences between the two languages that may create difficulty for the learner and translator, etc.[154]

Based on the above claims, especially the last bulleted one, we can gather that the target audience includes the learner, translator and others concerned with the German language. In the second place, we can also infer the function of the ODGD from some

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[152] Features of the dictionary are explained in both the English and the German languages so that both user groups can equally benefit from the dictionary with regards to navigating, accessing and retrieving desired information. Sample articles are provided to illustrate typical components of the article structure graphically. The graphic visualization of explanations and use of colour to highlight certain features, result in the user being better able to access and retrieve information rapidly.

[153] The boxes giving all kinds of data are found in the central list and are not themselves part of the word list. They may alternatively be called *inserts*, cf. Hausmann and Wiegand (1989: 331). The following is an example from the ODGD (2005: 3).

Abendbrot, Abendessen

For most Germans, **Mittagessen** is still the main meal of the day. *Abendbrot* or *Abendessen* normally consists of bread, cheese, meats, perhaps a salad, and a hot drink. It is eaten by the whole family at about 6 or 7 p.m. *Abendessen* can also refer to a cooked meal, especially for people who are out at work all day.
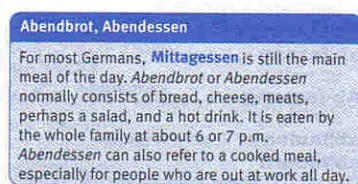
By including these inserts in boxes, the ODGD makes this dictionary user friendly in that data is rapidly identified and accessed. Easy access with the use of colour helps translators with their task and makes it an interesting reference work. Another feature from the German-English word list that enhances user friendliness is "die Jahreszeiten", which gives time divisions in a year, i.e. weeks, months, seasons, etc. (ODGD: 2005: 395).

The claim of cultural sensitivity, i.e. German and English cultures, is immediately demonstrated in the content of front matter items (*13, 14),* i.e. German and English calendars of traditions, festivals and holidays.

[154] Some of the new features included are reflected in the components of the frame structure listed, e.g. items *(16-17),* which are *middle matter,* serve as a bridge between the word lists.

of the items constituting middle matter texts, i.e. *correspondence (16)*, *using the telephone (17)* and *SMS*, that instruct the user on the "How to" of different situations of communication. The following lexicographic function can therefore be formulated in light of the claims and types of texts in belonging to the outer texts: *The ODGD is designed to help the learner, translator and others to understand the German or English language in order to communicate correctly whether spoken or written in a given cultural setting involving each of the two languages*. In the light of §3.2, we can categorize this function as primarily communication-orientated, i.e. to assist the reception and production of texts in either language.[155]

A further assessment of the frame structure in §4.2.2.1 in the light of the lexicographic function demonstrates that this dictionary had a clear conceptualization plan in its planning stages. The use of both target languages in the explanations (in the outer texts), the graphic and colour visualizations, the items e.g. *13, 14, 16, 17, 18, etc*, are all geared toward realizing the function of the dictionary delineated above. The following section will critically look at the lemma sign "send" in order to ascertain if the ODGD structured the microstructure and the related structural components (see 3.9) in a way that enhances successful retrieval of information, ultimately helping the function of the dictionary.

4.2.2.3 The ODGD article "send"

The access structure of the ODGD has a multiple of friendly features that are designed to increase the speed with which the end-user accesses desired information, thus fulfilling the claim in the preface that the design of this new edition "has been transformed by the use of colour and a new visual presentation, making it more accessible and easy to use" (ODGD: 2005: v).[156] The entries on the spine and cover of the dictionary book (e.g. title), the table of contents, thumb index, catch words and

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[155] On a secondary level, it can be argued that from the items (13,14), the function is also to provide general cultural and encyclopedic knowledge, cf. §3.2.4.2.

[156] Cf. Bray (1989: 135-146) on the detailed examination of the readability of a dictionary through nine formal aspects of printing and metalexicography, which include the use of colour and the font types.

the strict alphabetical ordering of the macrostructure are all part of the outer access structure designed to help the user locate the desired lemma sign.[157]

Taking into account these outer-search paths and following the strict alphabetical ordering of lemmata in the English-German word list, one finds "**send**" between the catch words, "**sell-by-date** and **Senegalese**", which are placed on the top right of the page.[158] The outer access search path is terminated when the desired lemma sign in the article stretch has been located. For analytical purposes, the following dictionary Excerpt on **"send"** is included.

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[157] These entries are helpful in that they are initial visible guides that the user encounters during the look up process.

[158] These guides indicate that the lemma *sell-by-date* is the first word occurring on the three columned pages and the word *Senegalese* is the last word appearing on the same page. By following a strict alphabetical ordering of the macrostructure, the user locates **"send".**

SCS1

CFS1

send /send/
A v.t. **sent** /sent/ **1** (cause to go) schicken;
senden (geh.); ~ **sb. to Africa** jmdn. nach
Afrika schicken; ~ **sb. to university/boarding
school** jmdn. auf die Universität/ins Internat
schicken; ~ **sb. on a course/tour** jmdn. in
einen Kurs/auf eine Tour schicken; ~ **a dog
after sb.** einen Hund auf jmdn. hetzen; **she
~s her best wishes/love** sie lässt grüßen/
herzlich grüßen; ~ **(sb.) apologies/congratu-
lations** sich [bei jmdm.] entschuldigen
lassen/[jmdm.] seine Glückwünsche übermit-
teln; **she sent him congratulations on ...**; sie
schickte ihm Glückwünsche zu ...; ~ **sb.
home/to bed** jmdn. nach Hause/ins Bett schi-
cken; ~ **sb. to his death** jmdn. in den Tod
schicken; see also **word A 6**

SCS2
2 (grant) schicken; ~ **her victorious!** (arch.)
[Herr,] lass sie siegreich sein!; **God ~s the rain
on the just and the unjust** (prov.) Gott lässt
regnen über Gerechte und Ungerechte

SCS3
3 (propel) ~ **a rocket into space** eine Rakete
in den Weltraum schießen; ~ **a ball over the
wall** einen Ball über die Mauer schießen; ~ **up
clouds of dust** Staubwolken aufwirbeln; ~
sth. to the ground/hurtling through the air
etw. zu Boden werfen/durch die Luft sausen
lassen; ~ **sb. sprawling/ reeling** jmdn. zu
Boden strecken/ins Wanken bringen; ~ **sb.
running for cover** jmdn. schnell Deckung
suchen lassen; ~ **sth. off course** etw. vom
Kurs abkommen lassen; see also **fly² A 4**

SCS4
4 (drive into condition) ~ **sb. mad or crazy** jmdn.
verrückt machen (ugs.); ~ **sb. into raptures/a
temper/fits of laughter** jmdn. ins Schwärmen
geraten lassen/in Wut bringen/dazu bringen,
dass er sich totlacht (ugs.); ~ **sb. to sleep**
jmdn. zum Einschlafen bringen; **that loud
music ~s me round the bend** (fig. coll.) bei
dieser lauten Musik könnte ich verrückt od.
wahnsinnig werden (ugs.)

SCS5
5 (dismiss) ~ **sb. about his/her** etc. **business**
jmdn. vor die Tür setzen; see also **Coventry;
pack c**

SCS6
6 (coll.: put into ecstasy) begeistern; **she really
~s me** sie macht mich total an (salopp)

CFS2
B v.i. **sent**: ~ **to sb. for sth.** (by letter) jmdn. um
etw. anschreiben; **we'll ~ to Germany for
that** wir werden nach Deutschland schreiben,
dass sie uns das schicken

Excerpt 17 ODGD (2005: 1521)[159]

A critical analysis of the above Excerpt 17 from the ODGD is sufficient to demonstrate that the compilers of this dictionary had a well thought out conceptualisation plan for the dictionary. A quick glance at the microstructure demonstrates a clear micro-architecture, which makes it easy to identify different search areas as well as to navigate. For example, the use of colour (blue), letters,

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[159] Only a part of the article "send" has been selected without a consideration of its extension that includes compounds such as *send ahead*, *send away*, etc. The selected part of the article with the exclusion of compounds is considered as sufficient to reflect the order structures of the ODGD. This sufficiency also motivates why the article i.e. *schicken; senden* in the Germany-English word list is not considered.

numbers and type face, to mark different data categories, search areas, text blocks, and the context and cotext entries, cross-references, etc., all give evidence of an adequate conceptualisation plan for the dictionary.

The lemma sign *send* is in bold and blue font, making it easy to identify it as the main address receiving lexicographic treatment. The item giving *pronunciation* immediately follows the lemma sign. These two items, i.e. the lemma sign and the item giving phonetic data appear on a separate line, separating them from the rest of the article.[160] The article structure deviates from the usual, which normally is characterized by the comment on form (CF) and comment on semantics (CS). In Excerpt 17, a different article structure prevails. It has, in the first place, a component known as the comment on form (CF) comprising the lemma sign and the item giving pronunciation.

A second component known as the comment on form and semantics (CFS) immediately comes after. This (CFS) is further divided into (CFS^1) and (CFS^2). In the article, the latter are marked by the structural indicators, i.e. (A) and (B), in blue colour. Each of (CFS) has its own (CF) and (CS) as immediate constituents. (CFS^1) has the item giving the comment on form (CF), i.e. (v.t. = verb transitive), past tense and transcription, and a (CS) which has 6 subcomments on semantics (SCS). This is because the lemma sign represents a polysemous item, and therefore each polysemous sense must be treated in its own (SCS). The relationship of the structural components prevailing in the article of the lemma sign *send* can be demonstrated in an abstract hierarchical structure below.

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[160] The separation of the lemma sign from the rest of the article is only done in cases where articles tend to be lengthy, cf. *schedule* (ODGD 2005: 1509).
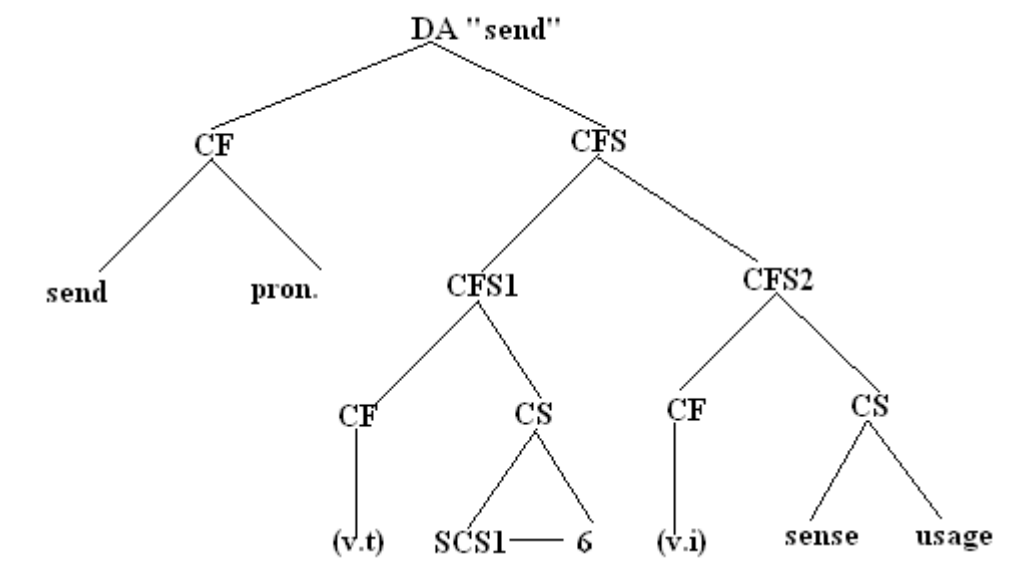
Tree diagram 1. The abstract hierarchical structure of the lemma sign, *send* in the ODGD (2005)

In (CFS[1]), we have the item giving (CF), i.e. (v.t). The item giving (CS) follows with (at least) 6 polysemous senses (SCS) marked by the typographical structural indicators (1-6). Each (SCS) is represented by a word or phrase in parenthesis, e.g. *cause to go* (SCS[1]), *grant* (SCS[2]), *etc*. The translation equivalents are given immediately, e.g. *schicken: senden (geh)* in the case of (SCS[1]).[161] This systematic microstructural ordering of data categories and items (in this article and others) imply that an adequate distribution and article structure was in place prior to and during the

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[161] In cases where two or more equivalents are given, semi-colons separate them. Elsewhere within the dictionary, specialist terms are often given two translations: a general or popular one and a specialist one, which are labelled (*fachspr*) or as (*tech. term*), e.g.

> **bilingual**…zweisprachig; bilingual (*fachspr*).
> **Schote**…pod; siliqua (*as tech.term*)

Words, which are untranslatable because they have no equivalent in the other language (mainly the names of institutions, customs, foods, etc), are given a short explanation (gloss) in italic type. This and other information, e.g. cultural tips given as inserts in boxes help if the dictionary is to be used as a translation tool, e.g.

> **Gerrymander**…*willkürlich in Wahlbezirke aufteilen, um einer politischen Partei Vorteile zu verschaffen.*
> **Einwohnermeldeamt**...*local government office for registration of residents.*

lexicographic process. The fact that an abstract hierarchical structure in the form of a tree (diagram 1) can be worked out, further substantiates the latter inference.

Cotext entries showing the syntactic environment in which each polysemous sense can be used come after the translation equivalent, consequently exhibiting an integrated microstructure. They are given in both languages, with the English in bold typeface and the German in the normal typeface, e.g. ~ **(send) sb. (somebody to Africa** jmdn (jemanden) nach Afrika schicken. This guides the user to appropriate a particular sense in a given communication-orientated environment correctly, consequently realizing the function of the dictionary, i.e. help the user to communicate or produce texts in either one of the languages. The structural indicators, e.g. (**A**), (**B**), numerals (**1-6**) and the semicolons (**:**) clearly mark and identify the search areas and text blocks giving different data categories. The user can, with ease, learn the structures prevailing in the article, in particular, the addressing structure, i.e. the user is clear as to "what item is directed to what?" This ultimately increases the user's success in retrieving desired information.

Another notable feature in the microstructure of the ODGD is the employment of different labels. These labels include style, usage, regional restrictions, or subject fields of a word.[162] In the Excerpt above, the following stylistic labels can be identified:

- (geh=gehoben, *A1*)- Style and usage label used to describe the German. In the context of the dictionary Excerpt above, the label indicates that the German translations *schicken; senden* can be used formally and solemnly. Usage examples or cotext entries are immediately provided in SCS[1] e.g. *send*/**cause somebody to go to Africa**/jmdn nach Africa schicken etc.
- In the sense (*grant A2*) two more labels are identified: 1) (arch=archaic) is placed after an example phrase, **send her victorious**! indicating that the latter is only found in literature but still used

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[162] In the guide to the use of the dictionary, these labels are explained. However not all are explained since the rest are given in the form of abbreviations found at the endpapers (inside covers) of the dictionary.

jocularly, ironically, or for a deliberately old fashioned effect; and 2) (prov.= proverbial), indicating that "send" can be used proverbially in the sense of "granting" e.g.. **God *sends* rain on the just and the unjust/** Gott lässt regnen über Gerechte und Ungerechte.

- More labels are found in (*drive into a condition, A4*): 1) fig. Coll. = figurative, colloquial: is a combination of two labels. In this case, the label indicates that the sense (A4) is used figuratively and colloquially, e.g. **that loud music *sends* me round the bend/** bei dieser lauten Musik könnte ich verrückt oder wanhnsinnig werden; 2) ugs= umgangssprachlich: placed after the German translation indicates that in the context, the word is used in everyday, conversational situations; not generally written and would not necessarily cause offence.

The labels employed in the ODGD are clear, further enhancing successful retrieval of information by the user during the look up process. Again, this demonstrates a dictionary well founded on careful planning, taking cognizance of the function of the dictionary and metalexicographical principles.[163]

A further look at Excerpt 17 of the lemma sign "*send*" shows an effective medio-structure. The following three cross-reference entries, (SCS[1]) (**word A 6**); (SCS[3]) (**fly[2] A 4**) and (SCS[5]) (**Coventry; pack C**) are identified. These entries (in bold and blue typeface) constitute the medio-structure of the article and are designed to furnish the user with additional lexicographic data addressed to the main entry. The cross-references lead the user to additional data given at an article's external address found in the dictionary (external cross-reference address), but outside the current article.[164] In (SCS[1]) (**word A 6**), the cross reference entry comes after the cotext entry. The user (having read the user's guide) will know that further data regarding the lemma in

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[163] Dictionary compilers should be careful of including labels that are not helpful, instead compound in accessibility. Bogaards (1996: 31-42) evaluated and compared four dictionaries namely, OALD5, LDOCE3, COBUILD2, and the CIDE. His study concluded that the COBUILD2 and CIDE's accessibility "of forms" and of "multi-word expressions" was not adequate, and in addition, the use of labels and the general layout was not as useful (Antor 1994: 65-83).

[164] Cross-reference entries can have their address within the same article (internal cross-reference), in the dictionary but outside the article undergoing treatment (external cross-reference address) or outside (e.g. to other reference works) the dictionary (the dictionary external cross-reference address).

question, and in particular the polysemous sense (SCS^1), can be obtained by looking up the lemma "**word.**" More specifically, the user can retrieve the sixth sense (6) of (CFS^1).[165] The same look up procedure can be repeated with the medio-structural entries in the microstructure. Thus, the medio-structure in the ODGD contributes towards meeting the lexicographic function of the dictionary, because it is clearly marked and consistently placed at the end of each text block represented by the subcomment on semantics.[166]

The above is not an exhaustive critical description.[167] However, based on the above discussion, a few things can be concluded. On the negative side, the ODGD did not clearly state its lexicographic function. Though the function can be deduced from the claims and text parts that belong to the outer texts, this may prove to be difficult for the end-user. A clearly stated lexicographic function might help the user approach and retrieve information from the contents of the dictionary in the light of its intended purpose. On a positive note, this dictionary can be commended for its clear primary frame structure, which hosts text parts relevant to the intended lexicographic function. The microstructure also shows a well thought-out plan for each data type and structural component hosted therein. The three aspects looked at in this section prove the endeavours of this dictionary in achieving the lexicographic function in light of current trends in theoretical lexicography, in particular with regard to its structural components.

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[165] The additional data that can be obtained with regard to this cross-reference entry is "*word" as a noun can be news, send or broadcasted, among other things*.

[166] The ODGD dictionary avoids overwhelming the end-user with cross-references. Sometimes cross-reference entries, if not treated well, can be a hindrance to effectiveness of the dictionary. Additionally, the ODGD avoids external cross-referencing, i.e. cross-referencing to sources outside the dictionary.

[167] An online review of this dictionary commended this dictionary on its coverage, i.e. 500 000 words, old and new German spelling, cultural, grammar and usage guides. It has been criticized for its cost and for omitting some terms. The bottom line-"One of the best German-English dictionaries. Comprehensive and useful! A "serious" dictionary for a serious learner" (http://german.about.com/library/weekly/aapr-oxduden.htm.).

4.2.3 Langenscheidts Handwörterbuch (2000)

The *"Langenscheidts Handwörterbuch"* (2000), henceforth LH, is another recent publication. It will be evaluated for a number of reasons. Firstly, in order to compare it with the previously described the ODGD (2005); secondly because it is a bilingual compilation involving the same source and target languages, i.e. German and English and vice-versa; and thirdly, because as a recent publication, one assumes that the compilers took into consideration current trends in theoretical lexicography. The three aspects comprising the model for criticism established in the conclusion of chapter three, i.e. frame structure, lexicographic function and the microstructure are the focus of the assessment of LH.

4.2.3.1 Frame structure

LH contains two word lists, i.e. English-German and German-English, suggesting that users of the both target languages intend it for use. This dictionary displays a frame structure known as a secondary frame structure. Such a frame structure prevails when a bilingual dictionary has two word lists. Each of these possesses a separate set of outer texts (in particular front and back matter texts). This is in contradistinction to the ODGD discussed above, which only has a primary frame structure catering for both central lists. Below are the frame structures of each word list, together with the functional components.

1. Benutzerhinweise für den Englisch-Deutschen Teil Das Wichtige
2. Title page
3. Publisher notes
4. Vorwort (German)
5. Preface (English)
6. Inhaltsverzeichnis/Contents
7. How to use the dictionary
8. Unregelmäßige Verben/Irregular verbs (English)
9. Zahlwörter/Numerals
10. British and American Weights and Measures
11. Abbreviations used in the dictionary
12. English-German Dictionary
13. British and American Abbreviations

14. Proper names

15. Film Certificates

Teil II:

1. Title page

2. Publisher notes

3. Vorwort (German)

4. Preface (English)

5. Contents

6. Guide to the Dictionary

7. Key to Symbols and Abbreviations

8. German-English Dictionary

9. German Abbreviations

10. Geographical Names

11. Länder und Cantons

12. Historical, Biblical and Mythological Names

13. Names of Musical Works

14. Numerals

15. German Weights and Measures

16. Temperature Conversion Tables

A look at the outer texts of each of the above word lists, i.e. Teil I & II, may lead one to presuppose that this dictionary, (as opposed to the ODGD) is a product of two independent and previously existing dictionaries merged with no intention of establishing any coherent relationship. Teil I has its own front matter (1-12), central list (12) and back matter (13-15), whilst Teil II has items (1-7), (8) and (9-16), respectively, consequently reflecting the suggested merger. Furthermore, the functional texts in Teil I & II are almost identical, e.g. title, preface, publisher notes, table of contents, etc, suggesting that there was neither a viable nor a practical conceptualization plan prior to bringing these two dictionaries together.

According to Gouws (PC 2006), the approach of a second frame structure is theoretically not wrong. However, it does not practically enhance user friendliness as well as helping in the successful retrieval of information. For instance, the user has to master the features and conventions of each word list, (as suggested by the provision of two "guides to the use of the dictionary" one for each), an exercise that may

consume more of his/her time and can be a bit confusing. This is in contrast to the primary frame structure approach, which enables the user to become acquainted with the dictionary and its features in half the time than of the secondary frame structure approach. The primary frame structure presupposes that even though a dictionary may contain two word lists, they are a coherent product from which the user can easily learn to consult successfully, without impediment, because of one set of guiding elements.

Another benefit of a well thought out primary frame structure approach is that space, (which is always a concern in printed dictionaries), time and money are saved in a given lexicographic project, because some functional components can be integrated on a single page, e.g. guide to the use of the dictionary, contents abbreviations, weights and measures. The next paragraph will elucidate LH's lexicographic function.

4.2.3.2 The lexicographic function of LH

The preceding discussion, which argues that LH's is a merger of two independent dictionaries, further hints that each dictionary may have had its own lexicographic function. However, this expectation is not so since the prefaces in the front matter texts are almost invariably identical. In addition, the lexicographic function is not explicitly stated and therefore difficult to pin down. For this reason, the claims made in the preface may shed light on the construction of LH's intended function. The following are some of these claims (LH 2000: 7):

- LH claims to have a reputable tradition formed by the linguistic and lexicographical skills of experienced dictionary compilers and editors.
- Claims a wide coverage, including technological lexical items.
- Claims to include the new German orthography (*deutschen Rechtshreibung*)[168]
- Claims to provide the meaning of lemmata.

There are more minor claims, from which it is difficult to deduce the primary lexicographic function. However, the above are not adequate to make out the function of this dictionary in the light of two major dictionary functions, i.e. communication

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[168] It prescribes the new spellings to be officially used e.g. the *Abfluß* (old) *Abfluss* (new), *achtgeben* (old), *Acht geben* (new) etc.

and knowledge orientation in §3.2. This makes it difficult to assess this dictionary. I will, nevertheless criticize this dictionary's microstructure in the following paragraphs.

4.2.3.3 "Send"

In this section, the dictionary article "**send",** in *Teil I,* will be critiqued since it sufficiently portrays the general article structure of the dictionary. Using the alphabetic access route, one can search for the article stretch in which the lemma in question is hosted. Catchwords or guiding elements are provided in pairs on the top left and top right of each page, e.g. **semiskilled** and **sentence.** The former is the first word appearing on the three-columned-page and the latter is the last word listed on the same page. Following the straight alphabetical order, the end-user knows that the lemma sign, i.e. "**send"** is located between **semiskilled** and **sentence.**[169] The following Excerpt is from Teil I of LH.

Excerpt 18 (LH 2000: 577)

Having found "**send**" one proceeds to the microstructure, where data about the lemma sign is given. For critical purposes, the following conventions employed in the microstructure are interpreted below.

- [send]: item giving pronunciation

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[169] LH avoids niching and nesting, which are mainly designed to save space. Derivatives and compounds are also arranged in straight alphabetical order, e.g. **send**, **sendaway**, **sender** and **sendoff.** In addition irregular comparatives and superlative forms e.g. **better, worst**; the various pronoun forms, e.g. **her, them**; and the past tense and past participle of irregular verbs, e.g. **sent** come strictly alphabetically on the same page but after **sen.su.ous** and before **sen.tence**

- *j-n*: jemanden; *etc*. et cetera, *dat* : dative

- [*irr*.]: item giving grammatical information, i.e. *irregular verb*

- **I** *v/t*: Roman numerals separating different parts of speech, i.e. *verb transitive*

- **1.**: Arabic numerals separating the senses of the headword.

- ~: represents the headword

- *e-e*: eine

- **s.o**: someone (bold italics used for phraseology and for prepositions taken by the word.

- →: cross-reference marker

- *adj*: adjective; *od*: oder; *pres.p*: present participle

Use of the above conventions, e.g. abbreviations, condenses the article considerably, thus saving space. Consequently, the article has been reduced to one text block hosting all the data categories in the microstructure. The lumping of data in Excerpt 18 above, further presents a poor micro-architecture, making it difficult for the user to identify search areas, and to establish a clear addressing structure between items. Ultimately, this leads to problems of accessing data and retrieving desired information. This will be illustrated in the course of this section.

In the article Excerpt 18, the lemma sign introduces the comment on form (CF), i.e. pronunciation [send], irregular verb [irr]. The item giving comment on form and semantics (CFS^1), i.e. [**I** v/t]) immediately follows. Further down in the text block, another (CFS^2), i.e. [**II** v/i] is provided. The structuring that prevails here, i.e. CF-CFS^1-CFS^2 is similar to that of the ODGD (§4.2.2.3). However, in LH, this structure is not clear due to lumping of data for space saving purposes.

The lemma sign undergoing treatment represents a polysemous lexical item. As such it has six subcomments on semantics (SCS) marked by numerical structural indicators (1-6). The item giving CFS^1 has, under it, four polysemous senses numbered (1-4), whilst CFS^2 has two (5-6). What is noteworthy is the unclear use of the numerical indicators and the addressing relationship they establish between the items giving (CFS$^{1-2}$) and the items giving (SCS$^{1-6}$). Is (5-6) addressed to CFS^1 or to CFS^2? What justification is there to make a distinction between CFS^1 and CFS^2, and no distinction

of the subcomments on semantics under each of the latter? Should not those entries under CFS^2 be marked as (1) and (2) instead of (5) and (6) to mark them as directed to or addressed to the lemma sign in the intransitive form? Let us look at the following example, which is given as the first polysemous sense (SCS^1).

Example 1: SCS^1

> **1**. *j-n, Brief, Hilfe etc* senden, schicken (**to** dat): ~**s.o. to bed (to a school, to prison)** j-n ins Bett (auf e-e Schule, ins Gefängnis) schicken; →**word** 6.

Based on this structural organization and the data provided, one may justifiably suggest that no adequate article structure was established in the planning stages of the dictionary. The polysemous sense is not clear and it is difficult to retrieve helpful information. LH begins the above subcomment on semantics with the entries; (j-n), *Brief* (letter), or *Hilfe* (help) and *etc. senden, schicken* (**to** *dat*) are given without any translation equivalents in comparison with the proceeding entries, i.e. *.~s.o. to bed, (to school, to prison)*…, which have translation equivalents. An external cross reference entry →**word 6** is added at the end of (SCS^1).[170] The entries in this subcomment on semantics are unclear with regard to the polysemous sense intended, let alone its correct usage.[171] Now let us compare this with the following:

Example 2: SCS^2

> **2**. *Ball, Kugel etc. wohin* senden, schießen, jagen;

A comparison of SCS^1 and SCS^2 shows that LH's distribution structure within this particular article is inconsistent, further suggesting the lack of a conceptualization plan for the dictionary. SCS^1 has a larger number of entries whereas SCS^2 has the entries *Ball, Kugel, etc*., *schießen*, and *jagen*. Firstly, the polysemous sense is not clearly indicated. In the second place, no translation equivalents are provided to help the user with some lexical terms introduced. The end-user may not know what the

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[170] This is a cross-reference to another entry providing an illustrative phrase containing the initial entry word. In this case the user looks up the entry "word" and sense (6): **… send~(word) to** *j-n Nachricht geben* (LH.)

[171] Cf. The ODGD (2005) in §4.2.2.3 for the treatment of the first polysemous sense.

German equivalents *schießen (shoot)*, and *jagen(hunt)* mean in English? [172] In this case, he/she has to divert from the article in order to look up these words, consequently increasing the time needed for that specific reference act. Thirdly, the items presented in this particular entry, i.e. *Kugel, jagen,* are not clear in respect to the lemma sign being treated, i.e. their figurative use. If the user has German as mother tongue, he/she may use "send" in inappropriate speech contexts. In this regard, LH fails to employ the stylistic label.

Example 3: SCS ($^{3-4}$)

> **3.** *mit adj. od. pres. p.* machen**:~ s.o mad**; ~ **s.o flying** a) j-n verjagen, b) j-n hinschleudern; ~ **s.o reeling** j-n taumeln machen *od*. lassen; **4**. *sl*. *Zuhörer etc*. in Ekstase versetzen, hinreißen;..

The above example shows the lack of a clear-cut article structure in the conceptualization plan of the dictionary. In SCS$^{3-4}$, the order of entries has again changed in contrast to SCS^{1}and SCS². In (3) grammatical items, *mit=with adjective od= or pres. p.= present participle* proceed in demonstrating the syntactic environment. The item *machen* follows, however, without a translation equivalent, e.g. *to make*. The cotext entries, ~ **s.o mad** and ~ **s.o flying** do not have their translation equivalents in the target language either. Another notable addition in SCS^{3}, are the marked equivalents (a) *j-n verjagen* and (b) *j-n hinschleudern...,* whose relevance to the treatment unit and to the addressing structure is not clear. [173] Furthermore, these entries are provided with no equivalents to facilitate understanding and retrieval of information. The inconsistence in the structure of data continues, e.g. ~ **s.o reeling** is entered with a translation equivalent, i.e. *j-n taumeln machen od. lassen*. In SCS^{4}, the stylistic label, (sl=slang) indicates the context of the accompanying entry. However, this is not adequately illustrated. [174]

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[172] The word, **schießen** can have many of English equivalents, e.g. *to lodge, to shoot, to dart* etc. and **jagen**: *to hunt, to hawk, to hound, etc*.

[173] If *(a) j-n verjagen* is looked up in the same LH dictionary, one sees that this word is used figuratively with the meaning of "chasing away" cf. LH (2000: 1395). In the article in question, LH fails to reflect this to the user, and in addition, fails to demonstrate the address-addressee relationship.

[174] The author asked a few German speakers if they understood the relationship of sense (4) to the rest of the dictionary article and to the headword and they confessed to a lack of understanding.

4.2.4 Summary

Based on the above discussion of LH, we can conclude that LH lacked an adequate conceptualization plan for the dictionary prior to its compilation. The secondary frame structure approach to this dictionary demonstrates, in part, this inadequacy. That LH lacked a clear-cut plan for the dictionary is further confirmed by the lack of a clear lexicographic function for the dictionary. It was even difficult to deduce the function from the claims made in the front matter texts. The microstructure and the structural components hosted therein also points to the lack of a conceptualization plan. Therefore, on the one hand, LH suggests, (from the frame structure, lack of the lexicographic function and the microstructure) that this dictionary did not take advantage of the current trends in theoretical lexicography. In contrast, the ODGD demonstrates convincingly that it adhered to some key lexicographic principles that theoretical lexicography has to offer. In the next section, a critical look at existing BH dictionaries will be taken under the headings of frame structure, lexicographic function and the microstructure.

4.3   Existing BH Dictionaries

4.3.1   Introduction

This section will focus on the critical analysis of BH dictionaries within the framework of theoretical lexicography, especially with regard to components and structures of dictionaries. Focus is placed on the frame structure, lexicographic function and the microstructure. This should help us to identify selected areas for improvement based on current trends in theoretical lexicography, keeping in mind that theoretical lexicography (§2.4.4) enables and should enhance practical lexicography. In this section, both printed and electronic dictionaries (since the author aims to contribute towards an electronic one) of BH will be critiqued in terms of their structural components in the light of Chapter 3.

4.3.2   Brown-Driver-Briggs (BDB 1974 reprint)

4.3.2.1 Introduction

The Hebrew and English lexicon of the Old Testament, or simply BDB (1907), is a widely known and used lexicon based on the work of William Gesenius. It must be understood right from the beginning that the production of this publication was before insights from theoretical lexicography were accumulated and formulated in a more

coherent format. Therefore, our criticism of BDB is undertaken bearing in mind that the compilers of this dictionary, at the time, did not have at their disposal the tools available today.

4.3.2.2 Frame structure of BDB

The components of the frame structure of BDB are listed below in their order of appearance.

1. Title page
2. Preface
3. Note
4. Abbreviations
5. Central list (*Hebrew*)
6. Central list (*Aramaic*)
7. Addenta et corrigenda (additions *and corrections*)

The components of the frame structure are not many in comparison to those of the dictionaries in §4.2. The list shows the central word list, which is the most salient and obligatory functional part of the "big" text. The frame structure is missing the crucial *guide to the use of the dictionary*, which must be present in the front matter text as an obligatory functional entry, in addition to the central list. The lack of it is a disadvantage to the user who may have to use his intuition to retrieve desired information in a given look up procedure, especially at the early stages of using the dictionary. The success of a dictionary largely depends on the user's skills that are enabled through the guide to the use of the dictionary.

Since the Old Testament is largely written in the Hebrew language and some parts in Aramaic, the compilers of BDB deemed it necessary to separate the two, resulting in two central lists (items 5,6), though the Aramaic word list is fairly short. The back matter text consists of the item *addenda et corrigenda* (7), which notes the amendments that have been made in this particular edition.

4.3.2.3 The lexicographic function of BDB

The *preface* (item 2)*,* is a detailed functional component highlighting among other things, its claims, dictionary basis and gratitude to the contributors.[175]

> They have [the compilers] felt…that the task which they had undertaken could not be rightly discharged by merely *adding new knowledge t*o the old, or by *substituting more recent opinions* for others grown obsolete, or by any other form of superficial revision. …they reached the conviction that their …chief duty was *to make a fresh* and … *exhaustive study* of the OT materials, determine the actual uses of words by detailed examination of every passage, comparing, at the same time, their employment in the related languages, and thus *fix their proper meanings in Hebrew*. …this method [of excluding etymologies] deprives the student of all *knowledge as to the extra-Biblical* history and relationship of his words, and of the stimulus to study the cognate languages, and lessens his opportunity of growing familiar with the modes of word-formation (BDB 1974: vi).[176]

The lexicographic function(s) of BDB can be inferred from the claims above. These include, 1) to add knowledge to the student in light of the discoveries (at that time) of languages cognate to Hebrew,[177] 2) to conduct an exhaustive study of the OT with the ultimate goal of establishing the meaning of Hebrew lexica,[178] and 3) to stimulate the student to the study of cognate languages. From these claims, the following lexicographic function can be constructed: primarily to present to the user, i.e. the student, the meanings of BH dictionary items, and secondarily to add new stimulating knowledge in light of languages cognate to BH. In other words, the lexicographic

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[175] The preface also gives credit for the sources used in the lexicographic process of compiling the dictionary. This is important in the light of the fact that some dictionaries do not acknowledge sources (or the dictionary basis) consulted, and hence have been accused of plagiarism. Gratitude due to the contributors is also included in the preface.

[176] The parentheses and italics are my own additions.

[177]"Student" at the time of compilation refers to the Hebrew scholar or academic, exegeted and postgraduate and not what we may understand today.

[178] Van Steenbergen (2002: 199) states that it is remarkable that at the time of the compiling of this lexicon the authors paid attention to the use of words even though the lexicon contained a strong bias towards etymology in its lexical descriptions.

function of BDB is a knowledge-orientated and text reception function (§3.2.4.2). Therefore, our critical look of the BDB is carried out within the framework of metalexicographical insights discussed in Chapter 3, with special consideration given to the lexicographic function.

4.3.2.3 The microstructure:שׁלח

The outer access search path of BDB starts on the spine of the book, where the title identifying the book is given. The outside cover of the book contains no title or author entries.[179] In order to access the desired lemma, (in this case the verb שׁלח) the Hebrew alphabetic access search route can be followed. The main guiding elements of the outer access search path are catch-words that are provided on each two-columned-page.

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[179] Cf. The ODGD (2005).

in all these [21 t.] given by Gi as Qr).—Σηλωμ, Σηλω(ν).—Mod. *Seilûn*, c. 9½ m. NNE. of Bethel, Buhl[G178] Dr[Hast. DB SHILOH]. Also תַּאֲנַת שִׁלֹה; s. p.1061.

שִׁילֹנִי, שִׁילוֹנִי etc., **adj. gent.** of foreg.: הַשִּׁילֹנִי of Ahijah 1 K 11²⁹ 15²⁹ הַשִּׁילֹנִי 12¹⁵; 2 Ch 9²⁹ הַשִּׁילֹנִי 10¹⁵; also הַשִּׁילוֹנִי (coll.) 1 Ch 9⁵, in ‖ Ne 11⁵ הַשִּׁלֹנִי without n.pr.m., but in both these read הַשֵּׁ(י)לָנִי Be Ke Ryle Gu[Hpt] Siegf[Ne] Buhl, etc.; v. II. שֵׁלָה.

שַׁלְהֶבֶת v. p. 529ᵃ supr.

I. שָׁלַח[814] **vb. send** (NH *id.*; Ecclus 48¹⁸+; Aram. שְׁלַח, ܫܠܰܚ, So[Buhl] Ba[ES 41] cp. Ar. سَرَح (*r=l*), *send forth, drive* cattle to pasture, *send* messenger, etc., but then diff. √ for I. שְׁלַח, Ar. سِلَاح *weapon*; As. prob. *šalû* (*send, hurl*?), whence *teš̌litu, command*);—**Qal**₅₆₂ *Pf.* 3 ms. שׁ׳ Gn 42⁴+, 2 ms. sf. שְׁלַחְתַּנִי Ex 5²², etc.; *Impf.* 3 ms. יִשְׁלַח Gn 3²²+, 2 fpl. תִּשְׁלַחְנָה Ez 23⁴⁰ (Ju 5²⁶ read תִּשְׁלַחְנָה Ob³ תִּשְׁלַח יָד? Ges[§47k]); *Imv.* ms. שְׁלַח 1 S 20³¹+, mpl. שִׁלְחוּ 2 K 2¹⁷; *Inf. abs.* שָׁלֹחַ(וֹ) Nu 22³⁷+; cstr. שְׁלֹחַ v¹⁵+, שְׁלַח Is 58⁹, sf. שְׁלָחֲךָ Gn 38¹⁷, etc.; *Pt. act.* שֹׁלֵחַ Ex 9¹⁴+, etc., שׁוֹלֵחַ 1 K 14⁶+, etc.;—**1.** *send*: human subj., esp. **a.** acc. pers. Gn 42⁴ 43⁸ (both J; c. אֵת *with*, pers.) Nu 22¹⁵ (E) + oft., c. לְ rei for which Je 14³ 16¹⁶; sq. אֶל pers. Gn 37¹³ (J), 2 S 11⁶ Ne 6⁵+; rarely c. לְ pers. Gn 32¹⁹ (J; pass.), אֶל loc. 2 Ch 16⁴, בְּ loc. 1 S 11³, acc. loc. 2 K 22³, ה- loc. 1 K 5²⁸, ה- loc. + מֵעַל pers. 2 S 13¹⁷, מִן loc. Gn 37¹⁴ (J), Nu 13³ (P), etc.; sq. inf. purpose 1 S 25¹⁴ (+ מִן loc.), 2 K 1¹⁶ Je 40¹⁴+, אֶל pers. c. inf. purpose 2 S 10³ Je 42⁹+, c. ו subord. 2 K 5⁶, c. vb. fin. actionis Ex 2⁵ (E), *sent her maid and took*, +, etc. (many combinations); acc. pers. alone 24⁵ (E), Jos 7²² (E), 2 S 10⁷+oft. **b.** less oft. acc. rei (sometimes c. בְּיַד of agent), אֶל pers. 1 S 16²⁰ 2 K 5⁵ 20¹²+, 1 K 5²³ (= designate by sending unto), לְ pers. Ju 3¹⁵ 1 K 5²²+, אֶל loc. Est 1²², 2 K 6¹⁴; + inf. purpose 1 Ch 19⁴ Est 4⁴; + vb. fin. action. ψ 105⁵²⁸; acc. of kid, alone, Gn 38²³ also (acc. om.) v¹⁷, etc. **c.** very oft. without obj.: + vb. fin. action., *send and do* so and so, Gn 27⁴⁵ (E), 2 K 11⁴ Jb 1⁵+; c. אֶל pers. Ho 5¹³ 2 S 11⁶+, esp. + לֵאמֹר Gn 38²⁵ (J), 1 K 20⁵ (oft. S K), Je 29²⁸+; c. inf. purpose Gn 32⁶ (J), Nu 21³² (J), 1 S 22¹¹+, etc. (and so 1 S 31⁹, reading וַיְשַׁלְּחוּ, for **Pi.**, Th We Dr Now, not HPS Bu); abs. 2 K 2¹⁶·¹⁷ 2 S 14²⁹; = *send to inquire* 1 K

20¹⁷, etc.   **2.** *send*: subj. יהוה (God), **a.** acc. pers. Gn 45⁵ (E; לִפְנֵי pers.), 1 S 15¹⁸ (בְּדֶרֶךְ), + אֶל pers. 2 S 12¹; acc. of angel, לִפְנֵי pers. Gn 24⁷ Ex 33² (both J), אֵת *with* Gn 24⁴⁰ (J), etc.; c. acc. pers. = *commission* Ex 3¹² (E), Ju 6¹⁴ Is 6⁸ Je 14¹⁴·¹⁵+ oft. Je, Zc 2¹³+; also (c. אֶל pers.) Ex 3¹³ (E), Je 25⁴ Ez 3⁶+, etc.; esp. of sending prophet, הַשְׁכֵּם וְשָׁלֹחַ (שָׁלֹחַ) Je 7²⁵+ (v. [שָׁכַם]); acc. pers. + inf. purpose 1 S 15¹ Je 19¹⁴+; + עַד loc. 2 K 2², acc. loc. v⁴, ה-ָ loc. v⁶, etc. **b.** c. acc. rei, plagues Ex 9¹⁴ (c. אֶל לֵב ב pers.), fig. arrows 2 S 22¹⁵ = ψ 18¹⁵ (+vb. fin. action.), ψ 144⁶, cf. Je 25¹⁶ al.; his word Is 9⁷ (ב gent.), 55¹¹ אֲשֶׁר *to which*), Zc 7¹² (ב agent.), ψ 107²⁰ (+vb. fin. action.), 147¹⁵ (+acc. אֶרֶץ); acc. help 20³ (מִן loc.), light and truth 43³ (+vb. fin. action.), cf. 57⁴.   **3.** *stretch out*, esp. acc. hand: **a.** human subj., c. בְּ pers. *against*, Gn 37²² (E), 1 S 24¹¹ Est 2²¹+; c. בְּ rei (property of others) Ex 22⁷·¹⁰ (E), Est 9¹⁰+, בַּחֲלָמִישׁ Jb 28⁹; c. אֶל pers. *against* Gn 22¹² (E), 2 S 18¹², עַל pers. 1 K 13⁴, etc.; אֶל rei (for good) 2 S 6⁶ (יָד om.); from outside, inward, Ct 5⁴ (מִן loc.); abs. Jb 30²⁴ (read טֹבֵעַ for בְּעִי Di Bi Bu). + inf. purpose 1 S 22¹⁷ 2 S 1¹⁴ 1 Ch 13⁹; + vb. fin. act. Gn 3²² (J) Dt 25¹¹ Ju 15¹⁵+; שׁ׳ אֶצְבַּע Is 58⁹, in token of scorn; c. acc. of rod 1 S 14²⁷, שָׁלַח מַגָּל Jo 4¹³ *stretch out* (the) *sickle*. **b.** יהוה subj., acc. hand, + אֶל pers. *against* Ex 24¹¹ (E), cf. (עַל) ψ 138⁷; + vb. fin. act. †Ex 3²⁰ (JE), 9¹⁵ (J), Jb 1¹¹ 2⁵; in favour, Je 1⁹, abs. ψ 144⁷ (מִן loc.), also (pass.) Ez 2⁹ and (acc. תַּבְנִית יָד), 8³. †**c.** acc. hand, subj. angel, + acc. loc., inf. purpose 2 S 24¹⁶, cherub, אֶל rei, מִן loc. Ez 10⁷; adversary, אֶל pers. Jb 1¹²; subj. angel, acc. rod Ju 6²¹. **d.** *stretched out, slender*, of tree Gn 49²¹ (poem in J), v. I. שָׁלָה supr. p. 18ᵇ. **e.** perhaps *extend, direct*, acc. rei Ez 8¹⁷ (v. זְמוֹרָה supr. p. 274ᵇ, also conj. in Toy Krae).   **4.** rarely *send away* (v. **Pi.**): human subj., acc. pers. Ju 11³⁸ (+acc. temp.), Gn 28⁵ (P).   **5.** *let loose* (v. **Pi.**), perhaps only ψ 50¹⁹ (fig.) *thy mouth hast thou let loose in evil.* †**Niph.** *Inf. abs.* וְנִשְׁלוֹחַ סְפָרִים = *letters were sent* (Ges[§114zgg]) Est 3¹³ (+אֶל pers., בְּיַד agent., inf. purpose). **Pi.**₂₆₆ *Pf.* 3 ms. שִׁלַּח Ex 8²⁸+, sf. שִׁלְּחַנִי 1 S 20²², etc.; *Impf.* 3 ms. יְשַׁלַּח Je 3¹+, יְשַׁלַּח Is 45¹³ Pr 6¹⁴; 1 s. sf. אֲשַׁלְּחֶךָ Gn 32²⁷, אֲשַׁלְּחֶךָּ 2 S 11¹² 1 K 20³⁴, etc.; *Imv.* ms. שַׁלַּח Ex 4²³+, etc.; *Inf. abs.* Dt 22⁷ 1 K 11²², cstr. שַׁלַּח Gn 8¹⁰+, שַׁלֵּחַ Ex 7²⁷+, etc.; *Pt.* מְשַׁלֵּחַ Gn 43⁴+, etc.;—**1.** *send*

off, away, human subj.: **a.** acc. pers. +לְ loc. Jos 24²⁸ (E), Ju 7⁸ 1 S 10²³ +; +לְ pers. Je 48¹²; +ה- loc. Ju 12⁹ and (c. inf. purpose) Gn 28⁶ (P); acc. of goat, לַעֲזָאזֵל Lv 16¹⁰ (ה- loc.), v²⁶; *send out,* different ways, acc. pers., בְ loc. Ju 19²⁹ 20⁶; *send* into exile, ׳י subj., c. מִן loc. Je 24⁵, ה- loc. 29²⁰. **b.** *send away, dismiss,* acc. pers. Gn 21¹⁴(E), 25⁶(J; מֵעַל pers.), 2 S 13¹⁶+; specif., c. acc. of wife (=*divorce*), Dt 22¹⁹·²⁹ 24¹·³ Je 3¹+, abs. Mal 2¹⁶. **c.** *send away* empty (-handed) רֵיקָם, +acc. pers. Gn 31⁴²(E), Dt 15¹³ Jb 22⁹. **d.** *send off,* give a 'send-off' (sometimes escort part way), acc. pers., Gn 18¹⁶ 24⁵⁹ 31²⁷ (all J), 1 S 9²⁶ 2 S 19³² 2 K 5²⁴ 6²³ Ob⁷. **e.** acc. rei 1 S 6⁸ Ne 8¹² +, c. acc. loc. 1 S 5¹⁰ 6³, אֶל pers. Je 27³, etc. **2.** **a.** *send away,* subj.׳י, acc. pers. Gn 19²⁹ (J; מִתּוֹךְ), 1 K 9⁷(מֵעַל פְּנֵי). **b.** *give over,* acc. pers. ψ 81¹³ (בְ of evil). **c.** *cast out,* acc. pers. Je 28¹⁶ (מֵעַל־פְּנֵי), Lv 18²⁴ 20²³ (both מִפְּנֵי). **d.** *send out, forth, send on a mission,* esp. of ׳י, c. acc. of hornet Dt 7²⁰, cf. 28²⁰ 32²⁴ (all בְ pers.), serpents Nu 21⁶ (E; בְ pers.), lions 2 K 17²⁵·²⁶ (both *id.*), foes 2 K 24²·² (+inf. purpose); pestilence Am 4¹⁰ Ez 28²³ (בְ pers.), etc.; also springs into (בְ) channel ψ 104¹⁰. **3.** *let go, set free* (sometimes c. חָפְשִׁי) Ex 4²³ 5²·² (all JE), 2 S 3²¹·²³·²⁴ +; =cease to abuse Ju 19²⁵; +inf. purpose Gn 24⁵⁶ (J), Ex 5¹ (E; +10 t. Ex), 1 S 5¹¹; c. acc. of bird Gn 8⁷·⁸ (מֵאִתּוֹ +); +עַל־פְּנֵי הַשָּׂדֶה Lv 14⁷, cf. v⁵³ (both P); =*let loose,* acc. of beast, Ex 22⁴ (E), Lv 16²² (בְ loc.); acc. of bridle Jb 30¹¹ (fig.); metaph. of strife Pr 6¹⁴·¹⁹ 16²⁸; *let loose* waters, subj. ׳י, Jb 12¹⁵. **4.** *shoot forth* branches, Je 17⁸ ψ 80¹² Ez 31⁵ (but v. ı. שָׁלַח **2**); cf. of locks (פֶּרַע) Ez 44²⁰=*let grow long.* **5.** *let down,* acc. pers. Je 38⁶ (בְ instr.), acc. rei v¹¹ (*id.*+אֶל pers. et loc.). **6.** *shoot* (acc. of arrow om.), שָׁלַח (אֶת־)הַעִיר לְ׳שׁ׳ לִי לַמַּטָּרָה 1 S 20²⁰. **7.** phrases: בָּאֵשׁ שׁ׳ +Ju 1⁸ 20⁴⁸, cf. 2 K 8¹² ψ 74⁷; but also שׁ׳ אֵשׁ בְּ +Am 1⁴·⁷·¹⁰·¹² 2²·⁵ Ho 8¹⁴ Ez 39⁶; rare expressions are: וַיְשַׁלְּחֵם בְּיַד־פִּשְׁעָם Jb 8⁴ (God subj.); *stretch out* hand, בְ rei (for use) Pr 31¹⁹, לְ pers. (charity) v²⁰; חֲבָלֶיהָ תְּשַׁלַּחְנָה Jb 39³ (of hinds, bearing); שַׁלַּח לַחְמְךָ עַל־פְּנֵי הַמָּיִם Ec 11¹.—רַגְלִי שִׁלֵּחוּ Jb 30¹² is corrupt; Theod Ew Di רַגְלָם שִׁלֵּחוּ; Me Bu Be al. dittogr. from v¹¹ᵇ. **Pu.** *Pf.* 3 ms. שֻׁלַּח Ju 5¹⁵ Jb 18⁸, etc.; *Impf.* 3 ms. יְשֻׁלַּח Pr 17¹¹; *Pt.* מְשֻׁלָּח Is 16²+;—*be sent off* (started on journey) Gn 44³ (J); with commission, בְ pers. Ob¹ Pr 17¹¹, אֶל pers. Dn 10¹¹;

be put away, divorced, of wife Is 50¹ (fig.); *be impelled* (?), בְּרַגְלָיו (=*at his heels ?*), c. בְ loc. Ju 5¹⁵ (vb. dub.), cf. שֻׁלַּח בְּרֶשֶׁת בְּרַגְלָיו Jb 18⁸ *he is hurried into the net with his feet* (? ⅏ 𝔊 Du שֻׁלְּחָה רַגְלוֹ); Is 16² *a driven* (scattered) *nest* (כֵן מְשֻׁלָּח; נְוֶה מְשֻׁ׳), cf. 27¹⁰, (עוֹף נוֹדֵד וְקֵן מְשֻׁלָּח ∥); נַעַר מְשֻׁ׳ Pr 29¹⁵ *a boy let loose* (unrestrained). †**Hiph.** *Pf.* 1 s. וְהִשְׁלַחְתִּי *and I* (׳י) *will send* famine, בָּאָרֶץ Am 8¹¹, cf. Ez 14¹³, wild beasts; בְ pers. Lv 26²² (H); *Pt.* מַשְׁלִיחַ, acc. of flies, בְ pers. Ex 8¹⁷ (J); *Inf. cstr.* לְהַשְׁלִיחַ, acc. of foe, בְ gent. 2 K 15³⁷.

Excerpt 19, (BDB 1974 reprint)

The macrostructure is arranged alphabetically according to root forms א to ת. The disadvantage with this kind of arrangement is that it is not always easy to find a particular entry if it is not the root. This is especially so in the case of irregular verbs,

as it takes a lot of insight to figure out from which root a particular entry could have been derived (De Blois 2002: 13).[180]

Our focus, according to our model of criticism in §3.13, is not on the macrostructure, but on the microstructure where most look-up activities are centred. A quick glance at the microstructure of the above article Excerpt shows that data is lumped into one text block, presenting an inadequate micro-architecture. This further presents immediate problems regarding the rapid accessing of data and identifying the different focal search areas. Ultimately, the successful retrieval of desired information (whether helpful or not) is impeded. These shortcomings become evident when we take a close look at data provided in the microstructure.

The entry (in Excerpt 19) representing the lemma sign to be treated introduces the comment on form (CF), i.e. (vb. =verb), followed by an item giving the first instance of comment on semantics (CS), i.e. the translation equivalent, *send*. Data categories hosting cognate languages, levels of derivation, context and cotext entries, grammatical data, bibliographic, cross references, etc., are provided as part of the microstructure.

In dictionary Excerpt 19, comparative data, e.g. Aramaic, Arabic, and Assyrian are given together with bibliographic data and translation equivalents. Their prominent positioning in the article structure suggests that this data is relevant to the understanding of the lemma in question. Understood in the light of the lexicographic function, this data may add knowledge, especially to an audience well versed in the cognate languages referred to. However, with regards to the meaning of the lemma in question, one may ask to what extent do this data in this particular instance add to or enhance the meaning of שׁלח? Is there no sufficient internal evidence to construct the meaning of the lemma sign given comprehensively? Therefore, the inclusion of

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[180] De Blois, however, also points out an advantage with this method of arrangement, namely: it is easy for the user to see the semantic relationship between each root and its derivatives. This is important because there are many cases where there is no significant difference between the meaning of a root and some of the words that were derived from it (De Blois 2000: 12).

comparative data in this particular instance is not clearly justified, hence they are an impediment to data of a more pertinent nature.

שׁלח is lexicographically treated at various levels of derivation, i.e. qal, piel, pual and hiphil. This approach is important in the light of the problems besetting the BH verbal system because, among other things, it recognizes the subtle differences in meaning among the verbal stems.[181] It also enables a better micro-architecture because treatment of each verbal stem can represent a text block and it is easy to recognize the search areas.

At the qal level, the number of occurrences is listed in subscript (562). The same occurs for the piel, however, not for the pual and hiphil. The significance of indicating frequency is not clear however, the article structure suggests that it may have been the motivating factor for initially treating the lemma sign at the qal, piel, etc. order. In the qal, different forms are provided, e.g. Pf 3 ms שׁ (= Elohim) Gn 42:4 + (= more references), etc. This data may help the user to learn and identify the different forms associated with a particular lemma sign at each level of derivation. It may also add knowledge concerning the Elohist source of the Torah. This is in accordance with one of the lexicographic functions alluded to in the preface, namely that the student becomes familiar with word-formations (BDB 1974: vi).

One of BDB's goals is to provide its users with the results of an exhaustive study of OT materials in order "to fix their proper meanings in Hebrew." That an exhaustive study was undertaken is evident in the grammatical and collocation data provided in the microstructure of Excerpt 18. However, this data is not adequately structured in a way that enhances successful retrieval of desired information, in particular the meaning. The lemma sign in the qal (and in the piel) represents a polysemous item. The numbers (1-5) in bold typeface mark each of the senses represented by a translation equivalent in italics. Further meaning extensions or subcomments on semantics are indicated in small bold typeface letters (a, b, c, etc.). Whilst these are helpful markers, they are not optimally employed to enhance rapid accessibility to the

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[181] Cf. O'Connor & Waltke (1990: 353-359) on the problem of BH verbal system.

data because (as already pointed out above) of their occurrence in a lumped text block of data. Structural indicators should facilitate clear identification of data types and different search areas. These enable the user to scan through the microstructure quickly, access data and extract the information they are looking for.

Let us consider the following subcomments on semantics or polysemous items given in qal.

Qal$_{562..}$: **1**. *send*: human subj., esp. **a**. acc. pers. Gn 42^8…
2. *send*: subj. ´י (God), **a**. acc.pers. Gn45^5…
3. s*tretch out*, esp.acc. hand: **a**. human subj. c בְּ, …**b**. ´י subj., acc. hand. + אל …
4. rarely *send away* (v. Pi.): human subj., acc.pers…
5. *let loose* (v. Pi.), perhaps Ψ50^{19}

Each of the above subcomments on semantics has a translation equivalent. In the first instance, sense (1) and (2) have exactly the same translation equivalent i.e. *send*. What then is the difference between (1) and (2)? It lays in the cotext entries that show the various syntactic environments in which the lemma in question occurs. For example, in (1), the lemma may convey a different sense when man is the subject (**human subj.**), and in (2), when God is the subject (**subj. ´י (God**) and **acc. angel**. BDB's distinctions of (1) and (2) suggest that different meaning extensions may be involved. Whilst such collocations may be important to the identification of polysemy, merely listing them is not necessarily data that shed light on the different intended senses of the lexeme at hand. The user is left in limbo with regards to the meaning of or the sense intended in (1) or (2). This pattern of marking collocations occurs throughout the microstructure. Grammatical data can significantly contribute to the meaning and distinction of polysemous senses. However, in some cases, such data is not adequately treated. For example, in the qal 3a-b, we have the use of שלח on the one hand, with man as subject, and on the other, with God as subject. What sense(s) do these distinctions proffer to the user? The grammatical items ב and אל may be used in constructions with *hand* as accusative to connote "against" (ב and אל) or "for good" (אל) sense. However, the compilers do not clearly indicate what it means when man stretches out his/her hand *against* or *to* someone, and when God

does the same?[182] Furthermore, is the act of stretching one's hand at any point used figuratively, especially when it refers to God stretching out his hand? Inadequate and unclear treatment of such items has text reception and translation implications.

On a further note, BDB's treatment of שלח shows some inconsistency in the structural distribution and organization of items. This further impedes the successful and swift retrieval of desired information. Let us consider the following items marked as polysemous senses in the qal and the piel.

> **Qal**… **3**. *stretch out,…*: a. human subj.,…*against*..
> b. ׳י subj., acc. hand,…
> c. acc. hand, subj. angel…
> d. *stretched out*, slender, of tree…
>
> **vs**.
>
> **Piel**… **2**.   a. *send away*, subj. ׳יacc.pers…
> b. *give over*, acc. pers…
> c. *cast out*, acc. pers…
> d. *send out, forth*, send on a mission,…

A comparative look at the above shows that there were no clearly devised criteria for ordering the different subcomments on semantics. The set of subcomments on semantics in the qal (3a-b) is unclear and does not say much about the lemma in question, whilst that of the piel (2a-b) exhibits partial consistency, i.e. each meaning extension begins with a translation equivalent.

The use of cross-references further confirms the ambiguity of ordering items in the microstructure. The most common form of referencing in Excerpt 19 is the dictionary external cross-referencing, where additional data relevant to the lemma, is found outside the dictionary. There are cross-references (biblical citations) used as cotext entries, i.e. usage examples that are found in the passages of the Hebrew Bible. With each cotext entry cited, the symbol (+), e.g. Nu. 22^{37}+ is added where applicable, to indicate that there are more citations with the same environment. Another type of

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[182] It may be argued that the lexicographer, by attaching meaning to items e.g. God is the subject or man is the subject, he or she is getting into the realm theologizing, which is not the responsibility of the lexicographer.

external cross-referencing takes the user to the bibliographic data. Whilst this additional data may add knowledge, if followed up by the user, the structuring or positioning within the article's internal ordering defeats the lexicographic function.

In summary, we have looked at the frame structure of BDB and discovered that it lacks the user's guide, which is an essential functional part of any dictionary. The lexicographic function, i.e. to impart knowledge, was inferred from the claims made in the preface. With regard to the microstructure, data is provided that could otherwise be more helpful if structured in a way that was easily accessible to the user. Furthermore, the provision of sense distinctions in BDB is not well-justified. Despite this, BDB has been a formidable aid, and remains so for scholars who have relied on it for more than a century for various purposes, including exegesis of the OT texts.

4.3.3   Koehler-Baumgartner

4.3.3.1 Introduction

Koehler-Baumgartner's (henceforth KB) *Hebrew and Aramaic Lexicon of the Old Testament* was first published in German. Koehler was responsible for the Hebrew edition published in 1953. Baumgartner took care of the Aramaic supplement, which was issued in 1957 together with a reprint of the first edition by Koehler. These two volumes comprise the second bilingual edition.[183] Aware of the difficulty of using the supplement at the same time as the main volume, Baumgartner sought to prepare a consolidated third edition, which abandoned the bilingual format favoured by Koehler. The third edition comprising of five fascicles in the German language took twenty-five years to produce, with the first appearing in 1967.

Due to insufficient or lack of knowledge of the German language, Biblical scholarship and Bible students raised the need to have KB available in the English language. In response to this need, the publisher decided to have KB translated into English. The English volume appeared in 1993, whilst volume five, which contains the Aramaic,

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[183]   Koehler's (1953) first edition had its distinctive bilingual translations. However, before his death (1956), Koehler invited Baumgartner on board, especially to work on the Aramaic Supplement. Baumgartner continued the work, however, abandoning the bilingual format that characterized the first and second editions.

appeared in 2000. In this section, the English translation of KB[3] will be critically analyzed.

4.3.3.2 The frame structure of KB

In terms of the frame structure of the wordbook, KB[3] presents a peculiar design, since it consists of five different volumes.[184] Except for the fifth volume covering the Aramaic, each of the other volumes (1-4) covers a certain number of article stretches, represented by the Hebrew alphabet. Furthermore, each volume has its outer text, consisting mainly of the front matter text, which hosts the items *title page* and the *preface*. Volume one and volume five differ from the others in that the latter has front and back matter texts, whilst the former possesses only the front matter text. The frame structures of the word list of all the five volumes are listed below.

Vol. 1 (1993) a. Title page
          b. Publisher
          c. Table of contents
          d. Preface
          e. Sigla and abbreviations
          f. Bibliography
          g. Transliteration table
          h. Introductions to previous editions
          i. Central list with article stretches: ח-א

Vol. 2 (1995) a. Title page
          b. Preface
          c. Article stretches: צ-ט

Vol. 3 (1996) a. Title page
          b. Preface
          c. Article stretches: שׂ-פ

Vol. 4 (1999) a. Title page
          b. Preface
          c. Article stretches: ת-שׁ

Vol. 5 (2000) a. Title page
          b. Preface

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[184] The electronic version integrate all five volumes.

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c. Central list (Aramaic)

d. Supplement bibliography

The front matter text of volume one has more functional components than the rest. Most notable is that it hosts the items, *table of contents* (c), *sigla* and *abbreviations* (e), *bibliography* (f), *transliteration table* (g) and *introductions* to previous editions (h). These components are not included in the other volumes, probably for reasons of space saving and to avoid redundancy. However, such omissions may be to the disadvantage of the user, especially when they consult the third or fourth volume. The user may encounter an abbreviation or dictionary external cross reference or transliteration problem, which may call for consultation in the table of abbreviations hosted only in the first volume. Whilst this problem is overcome in the electronic version, it may prove to be an impediment with regard to accessibility in a multi-volume work. In such cases, the user may have to consult the front matter of the first volume or the primary outer text in order to solve his/her problems. Another observation is that the front matter lacks the indispensable functional component regarding "how to use the dictionary."

4.3.3.3 Lexicographic function of KB

Each volume of the Hebrew-English version is characterized by its own preface, which comments on the lexicographic process of that particular publication. However, the most important preface is the one by Koehler (1953) because it points towards the original intention when compiling this dictionary. Koehler (1953 electronic version) states that the main task of any dictionary of the Old Testament is to render accurately in modern language the meaning of the Hebrew words. On this basis, it can be established that the goal of this dictionary is primarily to provide the user with the most complete and precise "meaning" of Hebrew lexemes. The "user" here may refer to the scholar, who is expected to handle comparative and bibliographic data, which are part of the dictionary article. Because of its nature, this data also leads us to construe that, apart from the meaning, the lexicographic function of KB is also text reception and knowledge orientated. In the next paragraphs, the microstructure will be critically assesed in light of the lexicographic function and insights gained from theoretical lexicography.

4.3.3.4 The microstructure: שׁלח

Since the Hebrew-English version comprises multiple volumes, the search path to the desired lemma sign starts on the spine of the dictionary book, where entries: *title, volume number* and *article stretches* are indicated. By taking these into consideration, the user can pick the right volume hosting the desired lemma sign. In this case, שׁלח is hosted in vol. 3, covering article stretches שׁ-ת. KB follows a strict alphabetical ordering of lemmata, an approach that enables the user to locate the desired lemma, שׁלח. The article on the lemma in question is long. However, the partial Excerpt 20 below sufficiently serves the purpose.

Column 1

different from Western Semitic. According to the dictionaries the main meaning of *šelû* as a vb. is to be careless (AHw. *šelû* IV; CAD *šelû* A); AHw. suggests that the meaning for a homonymous vb. (AHw. *šelû* II; CAD *šelû* B) is to be blunt, but CAD leaves it as "meaning uncertain"; the meaning of the other vb. *šalû* (AHw. *šalû* I; CAD *šalû* B) as to submerge is irrelevant.

It is also uncertain whether to link the Arb. vb. *saraha* to allow cattle to graze freely with שלח (so Gesenius-Buhl *Handw.* and Kopf VT 8 (1958) 207-209); but on this see also Wehr-Cowan *Dict.* 406b, where *saraha* in the II-form is taken to mean to drive cattle to pasture, send, despatch, let go, dismiss a woman by divorce, as well as several other associated meanings.

For further remarks on the etymology see also THAT 2: 909; for further bibliography see THAT 2: 909-916, and see also below under the various sub-sections.

—2) the vb. *šlḥ*: Arb. *slḥ* to take off clothing, take off a fleece; JArm. שְׁלַח to take out, take off; שְׁלִיחַ naked; also in Syr.

qal (564 times): SamP. passive pt. Gn 32₁₉ 49₂₁ *šáluw'wā* otherwise pi.: also active pt. *šalla* for forms without ם (LOT 5: 142 §2.12.8): pf. שָׁלַחְתִּי, שָׁלַח/לַחַ, שְׁלַחֲנִי/שְׁלָחֲךָ, שְׁלָחְתָּם/שְׁלַחְתָּם, sf. שְׁלַחְתָּנוּ, שְׁלָחֲנוּ/שְׁלַחְתַּנִי, שְׁלָחֲךָ, sf. שְׁלָחוֹ, שְׁלַחְתִּים; impf. (וַ)יִּשְׁלַח, (וָ)אֶשְׁלַח, וַתִּשְׁלַח/לַח/לָחֶה, תִּשְׁלָחֶה/לַח, הִשְׁלַחְתָּם/לָחוֹ, נִשְׁלַחָה, sf. יִשְׁלָחֵם, יִשְׁלָחֵנִי, יִשְׁלַחֲנִי, (וַ)יִּשְׁלַח; impv. שְׁלַח, הִשְׁלַחֲנִי/חַנִי/חֲךָ/חֵם, שְׁלָחָה, שְׁלָחֵהוּ, sf. שְׁלָחֵנִי; inf. abs. שָׁל(וֹ)חַ, cstr. שְׁלֹחַ Is 58₉ see Bauer-Leander *Heb.* 359j, sf. שְׁלָחֲךָ/לֵחֶךָ 1C 8₈ (on which see under pi. 6cε); pt. שֹׁל(וֹ)חַ, sf. שֹׁלְחֵךְ, שֹׁלְחֶךָ, pl. שֹׁלְחִים, sf. שֹׁלְחָיו; passive שָׁלוּחַ, fem. שְׁלוּחָה, שְׁלֻחָה.

—1. to **stretch out**: —a. a rod (מַטֶּה) 1S 14₂₇,

Column 2

מִשְׁעֶנֶת Ju 6₂₁; a sceptre (מַטֶּה) Ps 110₂; זְמוֹרָה Ezk 8₁₇ (no certain meaning for this sbst., see HAL 261f; HALOT 273a, s.v. 2; Zimmerli *Ez.* 195. 222; THAT 2: 912).

—b. אֶצְבַּע Is 58₉ as an abusive gesture (→ אֶצְבַּע HAL 79a; HALOT 81b); cf. Akk. *ubāna tarāṣu* to stretch out the finger, with good or with bad intent (AHw. 1326a s.v. *tarāṣu* G-theme, 1d).

—c. יָד, on which see Humbert VT 12 (1962) 383-395; THAT 2: 911; Keel *Wirkmächtige Siegeszeichen im AT* (OBO 5 (1974) 153-160); Stähli *Wort und Dienst*, new series 17 (1983), 47f: to stretch out the hand: α) in order to grasp something Gn 3₂₂ 8₉ 19₁₀ Ex 4₄ Dt 25₁₁ Ju 3₂₁ 15₁₅ 1S 17₄₉ etc.; on this see Keel loc. cit. 153; שָׁלַח יָדוֹ מִן־הַחוֹר he thrust his hand through a gap in the door Song 5₄; Keel loc. cit.: probably to reach the bolt, but without being able to find it; to stretch out יְמִינוֹ the right hand and lay it on someone's head Gn 48₁₄; Keel loc. cit. 154: to reach out and touch something with good or malicious intentions, an action which comes very close to grasping; with נָגַע עַל־פִּי Jr 1₉; with בְּאֶל Jb 1₁₁ 2₅; of the ark of the covenant שָׁלַח יָדוֹ אֶל 2S 6₆; with עַל 1C 13₁₀.

—β) to stretch out the hand towards an object, meaning to lay hands on (with בְּ) Ps 125₃ Jb 28₉; or alternatively to help oneself to someone else's property Ex 22₇.₁₀ (with בְּ), Dan 11₄₂ (with בְּ); so also cj. Ob 13c (see BHS).

—γ) towards a person, people against people, with בְּ, but occasionally with אֶל) meaning to lay hands on someone in the sense of to kill, murder (on which see Keel loc. cit. 154): with בְּ Gn 37₂₂ 1S 22₁₇ 24₇.₁₁ 26₉.₁₁.₂₃ 2S 1₁₄ Ps 55₂₁ Est 2₂₁ 3₆ 6₂ 8₇ 9₂; with אֶל Gn 22₁₂ 2S 18₁₂ Jb 1₁₂; Keel loc. cit.: the stark expression שָׁלַח יד together with a person seems to be elliptical and needs to be com-

Column 3

pleted by something like לִפְנֹעַ (1S 22₁₇), or לִשְׁחֹת (2S 1₁₄); Keel also refers to 2S 24₁₆, where יְרוּשָׁלַ͏ִם is the obj. of שָׁלַח יָד.

—δ) with God (Yahweh) as sbj.: with אֶל of the person Ex 24₁₁; and a following vb. with a condemnatory meaning וָהֲכִיתִי Ex 3₂₀, וָאֶשְׁלַח Ex 9₁₅; or with the idea of deliverance וְתוֹשִׁיעֵנִי יְמִינֶךָ Ps 138₇.

—2. to **let free, give free rein to**: פִּיךָ שָׁלַחְתָּ בְרָעָה you give your mouth free rein in evil, or perhaps for evil (so NRSV) Ps 50₁₉ (→ בְּ 9); pt. passive שְׁלֻחָה wandering free Gn 49₂₁, adj. describing אַיָּלָה the doe.

—3. to **send, despatch** (THAT 2: 912; Stähli *Wort und Dienst*, new series 17 (1983), 50-52; see also Gesenius-Buhl *Handw.*): a) with a human sbj.: α) with acc. of the person אֶת־הַנַּעַר 1S 20₃₁, cf. Pr 9₃; שֹׁלְחָיו those who have sent him out Pr 10₂₆, שֹׁלְחֶךָ those who have sent you Pr 22₂₁; with acc. of the person and a prepositional phrase: with אֶל often with מַלְאָכִים messengers Gn 32₄ 2S 2₅ 3₁₂-₁₄ 12₂₇ 1K 20₂; otherwise with acc. of the person and אֶל Gn 37₁₃ Jr 27₃ (rd. וַיִּשְׁלַח), 42₆; there are other occurrences, with עַל Jr 29₃₁ Neh 6₃; with לְ 2S 10₃; with עִם Neh 2₉; with II אֶת Gn 43₈; with לִקְרָאתָם to send to meet them 2S 10₅; with מִלְּפָנָיו to send someone away from his presence 2K 6₃₂.

—β) with ellipsis of the obj., see Gesenius-Buhl *Handw.*, and Stähli loc. cit. 51¹¹⁰: וַיִּשְׁלַח וַיִּקְרָא Gn 31₄ 41₈-₁₄ Ex 9₂₇ Jos 24₉ etc., וַתִּשְׁלַח וַתִּקְרָא Gn 27₄₂ Ju 4₆ 16₁₈, with the finite form of a different vb., with לקח Gn 20₂ Dt 19₁₂ 1S 16₁₁, or with other verbs Gn 28₅ Ju 21₁₃ 1S 4₄ 20₁₂ 5₈·₁₁ 25₃₉ etc.

—γ) this elliptical usage occurs also with שָׁלַח and לְ with inf. Gn 32₆ Nu 16₁₂ 21₃₂ 22₁₅ Jos 6₂₅ etc.

—b) with אֱלֹהִים/יהוה and acc. of the person (Yahweh, God sends): מַלְאָךְ Ex 23₂₀ 33₂ Nu 20₁₆, מַלְאָכוֹ Gn 24₄₀, יוֹסֵף, with לִפְנֵיכֶם God sent me before you Gn 45₅·₇; מֹשֶׁה Ex 3₁₂·₁₅

Column 4

etc., judges 1S 12₁₁, prophets Is 6₈ Jr 17 Ezk 2₃ 2C 25₁₅, שֹׁלְחִי the one who sends me, or alternatively the one who has sent me 2S 24₁₃ (for שׁלח in connection with prophets see Richter *Die sogenannten vorprophetischen Berufungsberichte* (FRLANT 101 (1970) 156ff), see also Herrmann BK 12/1: 64.

—c) with human sbj. and acc. of the thing: שָׁלַח חֲמֹרִים Gn 45₂₃ שָׁחַד 1K 15₁₉ 2K 16₈, שֹׁלֵחַ דְּבָרִים Pr 26₆ the one who sends information, a message (KBL; ZüB) :: the one who has a matter of concern looked after (Ploeger *Prov.* 306); שֹׁלֵחַ סֵפֶר אֶל־ 2S 11₁₄ 2K 5₅, אִגְּרוֹת לְיָרְאֵנִי letters to make me afraid, to intimidate me Neh 6₁₉; as for the objects of שׁ with human subjects the following can be mentioned (see THAT 2: 912): (עִזִּים)גְּדִי־ Judah sent a kid goat Gn 38₂₀·₂₃; Joseph sent male and female donkeys loaded with gifts Gn 45₂₃·₂₇; Pharaoh sent wagons to transport Jacob and his family Gn 46₅; what was sent takes the expression מִנְחָה הִוא שְׁלוּחָה לְ it is a gift sent for Gn 32₁₉.

—d) with אֱלֹהִים/יהוה as sbj.: α) an expression (or a manifestation) of judgement: מַגֵּפֹתַי my plagues, meaning the plagues that I have instituted Ex 9₁₄ etc., הַצִּרְעָה Ex 23₂₈ Jos 24₁₂ (→ צִרְעָה), הַחֶרֶב Jr 25₁₆·₂₇, דָּבָר Is 9₇, אֱלֹהִים וּמַפְתִּים Ps 135₉, אֵשׁ Lam 1₁₃, רוּחַ רָעָה Ju 9₂₃.

—β) to send favours: grain, must, oil Jl 2₁₉, אֹרֶךְ וַאֲמִתֶּךָ Ps 107₂₀, עֶזְרֶךָ Ps 20₃, דְּבָר Ps 43₃, חַסְדּוֹ וַאֲמִתּוֹ Ps 57₄ᵇ, צֵידָה Ps 78₂₅, מָיִם Jb 5₁₀, פְּרוֹת Ps 111₉.

—γ) to shoot arrows וַיִּשְׁלַח חִצִּים/חֵצָיו Ps 18₁₅/2S 22₁₅ :: שָׁלַח 1.

—e) particular and special usages: α) שׁ בְּיַד to send by someone 1S 16₂₀ 2S 11₁₄. 2C 8₁₈ see Welten *Geschichte und Geschichtsdarstellung in den Chronikbüchern* (WMANT 42 (1973) 37); שְׁלַח־נָא בְּיַד־תִּשְׁלָח Ex 4₁₃ so send who you will (ZüB), or alternatively take what messenger you will (Noth *Ex.* 5,

The first data category immediately after the lemma entry is comparative philology.[185] Koehler (1953) employed this data as supporting evidence to the meaning of BH lemmata, however, with caution. This suggests that this data is not necessarily required to construct the meaning of the lemma.[186] Given its role, i.e. as supporting evidence, one can regard this data as tangential. For this reason and in light of lexicographic function and principles of lexicography, their prominent positioning in the article structure serves as an impediment to the retrieval of desired information, especially the meaning. Furthermore, KB dedicates, in Excerpt 20, more space to this data in comparison to BDB (§4.3.2.3).

Excerpt 20 shows data given in different text blocks, e.g. qal, piel, etc., are textually blocked, the subcomments on semantics marked by numbers and Greek letters are also blocked. This makes it easy to identify different search areas. Ultimately, a clear micro-architecture prevails, which facilitates better access to data and retrieval of desired information. KB further enhances the micro-architecture through the use of bold typeface, e.g. **qal**…-1 **to stretch out**:.. -2 **to let free, give free rein to**:.. -3 **to send, despatch,** for the items representing polysemous senses, consequently making it easier to identify them as such. Whilst the micro-architecture represents a positive aspect of the article structure, there are also some negatives with regard to the ordering of individual items in the text blocks.

The first negative is the inconsistent register of frequency of each verbal stem. For example, the lemma under treatment appears 564 times in the Qal stem. This, however, is not done for the remainder of other verbal stems under which the lemma is treated. Another problematic issue with respect to marking frequency is the helpfulness of this data in the light of the lexicographic function.

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[185] This deviates from BDB and other dictionaries, which have the item giving comment on form, e.g. part of speech, immediately after lemma sign to undergo lexicographic treatment, cf. De Blois (2002).

[186] Clines (1993: 17) argues that comparative data is problematic and strictly irrelevant to the Hebrew language. He further argues: "practically speaking, there is evidence that the significance of the cognates has been systematically misunderstood by many users of the traditional dictionaries."

The medio-structure, i.e. the use of cross-references is inadequately structured. The positioning of this data (e.g. bibliographic) within the subcomments on semantics, obfuscates more pertinent (in respect to the dictionary function) items such as meaning, context and cotext entries. For example, under the qal, the subcomment on semantics **1c**, יָד precedes the following detailed dictionary external cross-references:

> יָד On which *see* Humbert VT 12f (1962) 383-395; THAT 2: 911: Keel *Wirkmächtige Siegeszeichen* im AT (OBO 5 (1974) 153-160; Stähli Wort und Dienst, new series 17 (1983), 47f:..[187]
> Excerpt 21

When considered in the light of scholars (target audience), this data may help in adding knowledge as well as encourage further investigation. However, its positioning within the article, (in this case, the first place in the SCS) is a hindrance to data that is relevant or higher in rank with regard to the primary function of the dictionary, e.g. **to stretch out the hand**: α) *in order to grasp something* is important data tucked away behind bibliographic data. There is also no order in the distribution of this data, i.e. sometimes it occupies first place, the middle or at the end of the subcomment on semantics. The lack of criteria for distributing and ordering items in the microstructure not only makes accessibility difficult, but also upsets the addressing relations, i.e. what item is directed or addressed to what?

On a further note, KB fails to adequately mark meaning extensions. Consider the following:

> **Qal**… 1—c. יָד, **to stretch out the hand**: α) *in order to grasp something* Gn 3$_{22}$ 89 1910 Ex 4$_4$ Dt 25$_{11}$ Ju 3$_{21}$ 15$_{15}$ 1S 17$_{49}$ etc.; שָׁלַח יָדוֹ מִן־הַחוֹר he thrust his hand through a gap in the door Song 5$_4$: probably to reach the bolt, but without being able to find it; to stretch out יְמִינוֹ the right hand and lay it on someone's head Gn 48$_{14}$,: to reach out and touch something with good or malicious intentions, an action which comes very close to grasping; with נָגַע עַל־פִּי Jr 1$_9$; with בְּ/אֶל Jb 1$_{11}$ 2$_5$; of the ark of the covenant שָׁלַח (יָדוֹ) אֶל 2S 6$_6$; with עַל 1C 13$_{10}$.
> Excerpt 22

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[187] Most of the bibliographical data refer to German works and therefore will be geared toward scholars able to handle the German language, cf. Holladay (1991: vi).

The above Excerpt is a subcomment on semantics hosting **to stretch out the hand** as the primary polsemous sense and secondary ones further marked by Greek letter (α, β, γ, δ). The first one, i.e. α) *in order to grasp something* is followed by biblical citations presented as cotext entries showing the usage within the Bible. However, the status of the following entries is not clearly indicated:

- שָׁלַח יָדוֹ מִן־הַחוֹר he thrust his hand through a gap in the door Song 5$_4$: probably to reach the bolt, but without being able to find it;

- to stretch out יְמִינוֹ the right hand and lay it on someone's head Gn 48$_{14;}$

- to reach out and touch something with good or malicious intentions, an action which comes very close to grasping; with נָגַע עַל־פִּי Jr 1$_9$; with בְּ/אֶל Jb 1$_{11}$ 2$_5$; of the ark of the covenant שָׁלַח (יָדוֹ) אֶל 2S 6$_6$; with עַל 1C 13$_{10}$.

Each of the above is separated by semicolons (;), each represents a distinct object to which the hand is stretched, and each has at least a biblical citation representing its cotext. These distinctions can be regarded as context entries.

In summary, KB represents, to an extent, an improved micro-structure in terms of a more visible micro-architecture, which is characterized by text blocks and identifiable search areas. A closer look at the items in the subcomment on semantics, however, shows that KB did not have clearly devised criteria for ordering entries of the medio-structure, context and cotext entries and meaning extensions, to say the least. For this reason, the realization of the lexicographic function is hindered. Furthermore, the lack of devised criteria reflects inadequate or little consideration of what theoretical lexicography has to offer, in particular, regarding the components and structures of dictionaries.

4.3.4 Holladay (first edition 1971, reprint 1991)

4.3.4.1 Introduction

A Concise Hebrew and Aramaic Lexicon of the Old Testament is a dictionary based on the first, second, and third editions of KB. Whilst the previous in §4.3.3 had scholars as its target audience, this one was designed for the beginning student of BH. This reference work is, therefore, an abridgement and is in no sense a substitute for

the German parent work (Holladay 1991: vi). The following paragraphs will critically assess this dictionary under the aspects that comprise our model for criticism, i.e. frame structure, lexicographic function and microstructure.

4.3.4.2 The frame structure

Holladay's frame structure components are listed below.

1.   Title page
2.   Introduction
3.   Note to the second impression
4.   Note to the twelfth impression
5.   Addenda
6.   Abbreviations

   a.   biblical books

   b.   proper names

   c.   other abbreviations[188]

7.   Signs
8.   Central list (Hebrew-English)
9.   Lexicon of the Aramaic portions
10. Addenda (continued)[189]

Items (1-7) above constitute the front matter text, item (8) is the obligatory central list, whilst item (9) is a shorter list which has been separated from the central list for clarity purposes. Item (10) forms part of the back matter text. Like the other dictionaries of BH that we have already studied, the front matter text of KB lacks an important obligatory functional component, namely the guide to the use of the dictionary. The introduction (item 2) highlights, among other things, reasons for the decision to abridge KB's original work, data that has been omitted and other changes that have been effected. The table below lists data that have been omitted in this abridgement, together with the reasons for their exclusion.

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[188] The items a-c are an example of textual segmentation at the second level, cf. §3.4.1.

[189] Items (5,10) belong to the same outer text "addenda." They start in the front matter and partly end in the back matter. Corrections are noted together with the page citations where they occur. The position of the addenda demonstrates the arbitrariness of outer texts.

Data Omitted	Reason(s) Given
All etymological material in cognate languages	It is expected that the student who can master cognates is also expected to master the German language, and therefore should consult the German parent work.
All bibliographic entries, citations of the names of specific scholars who put forth this or that suggestion on the meaning of a word	Most of this type of data in the German work is directed to works in German, and all of them are the province of the specialist.
All citations to, and semantic specification of occurrences of given words in the Hebrew text of Sirach and in the Qumran material.	1) It has been felt necessary to confine an abridged lexicon to the compass of the Masoretic text, 2) again the student ready for post-biblical literature might well be expected to have learned German.
All citations to manuscript textual variations in the Hebrew text	The spelling and vocalization of the 3rd edition of Kittel is taken as standard.
Almost all conjectural emendations	These can be contested therefore there is no reason to omit or include them.
Reconstructed trilateral roots and cross-references to these roots	These are often hypothetical, and as such are of no direct use to the student when translating.
All letters of the alphabet	These are not lexical items. Furthermore, the German work offers important linguistic information under entries of the isolated consonants, but this has been dispensed with in the present work.
Entries such as proper names, e.g. דֹּד	These are not lexical items needing translation.

Table 2. Data that has been omitted in Holladay (1971)

The exclusion of the tabled data considerably reduces the original work comprising of five volumes to one concise dictionary. Some features from the original work have however been carried over to Holladay (1971).[190] The economic issue of affordability is one of the factors that motivated the compilation of this concise version.

> A concise Hebrew and Aramaic Lexicon of the Old Testament has been designed as an up-to-date working tool of modest price and compass for the student of BH and Aramaic. Till now, the English-speaking student of Hebrew has had to rely on expensive and complex large-scale lexicons or pocket-size glossaries that make no pretence of keeping abreast of current scholarship (Holladay 1971)

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[190] These features include arrangement and numbering of the definitional subdivisions in the German work, all entries of the German work when they exist as semantic items in the MT, the skeleton of chapter-and-verse citations and the various inflectional forms of the word (Holladay 1971: x).

Other reasons may also have motivated the compilation of the abridged version, e.g. the lexicographic function.

4.3.4.3 Lexicographic function of Holladay

The following quotation from the introduction in Holladay highlights the goal of the concise version of KB.

> The first [purpose]…is to meet the needs of the beginning student, uncertain of the way, anxious to "get the assignment done", whose overriding question is simply, "What does this word, this verse, this passage mean?"… The other purpose is to lead the student to ask the prior question, "How and to what extent *can* we know what this word or verse or passage means?" (Holladay 1971: xiv).

Based on this extract, the lexicographic function of Holladay can be constructed from the interrogatives, "What" and "How"? The former focuses on the meaning of the lexical item in its context, whilst the latter focuses on the method of how one can be certain of the meaning. The purpose is therefore to equip the beginning student with necessary tools to understand Hebrew texts for exegetical purposes. In other words, the lexicographic function is communication-orientated with text reception at the core.

4.3.4.3 The microstructure:שלח

In this section, I will assess the article on שׁלח, taking into consideration the lexicographic function as well as insights from theoretical lexicography. Special attention is paid to the different structural components of the microstructure. The macrostructure of Holladay follows a strict alphabetic ordering of lemmata, and by following this search path, the user can locate שׁלח. The following Excerpt 23 from Holladay will be critically assessed.

שָׁלַח‎: qal (562×): pf. שׁ׳, –שָׁלַח La 1₁₃, שָׁלַחְתִּי שָׁלְחוּ, sf. שְׁלָחֲךָ, שְׁלָחָתֶם; impf. יִשְׁלַח, תִּשְׁלְחֶנָּה, יִשְׁלָחֻהוּ, אֶשְׁלָחָה, sf. תִּשְׁלְחֵם; impv. שְׁלַח וּשְׁלַח 2K 9₁₇, שִׁלְחָה, sf. שְׁלָחֵנִי; inf. שְׁלֹחַ & שְׁלַח Is 58₉, שָׁלְחִי, abs. שָׁלוֹחַ; pt. שֹׁלֵחַ, sf. שֹׁלְחִי, שֹׁלְחֶךָ, pl. sf. שֹׁלְחָיו, pass. שְׁלוּחָה שָׁלוּחַ, שְׁלֻחוֹת ‡, שְׁלֻחָה noun: — 1. give free play to, let go: šālaḥ pîw bᵉ give free rein to one's mouth for Ps 50₁₉; šᵉluḥâ let loose Gn 49₂₁; — 2. stretch out (trans.): obj. one's hand Gn 3₂₂, w. bᵉ lay one's hand on Jb 28₉, lay hands on Gn 37₂₂; obj. finger Is 58₉, obj. staff 1S 14₂₇; — 3. let s.one go: w. lᵉfānāyw ahead Gn 45₅; — 4. send Gn 37₁₃; subj. God, obj. prophets 2K 2₂; šōlᵉḥî (God) who sends me 2S 24₁₃; šālaḥ dābār lᵉ send a message to Gn 45₂₃, w. dᵉbārîm news Pr 26₆; subj. God, obj. things Ex 9₁₄; send s.thg. bᵉyad by s.one 1S 16₂₀; šāluᵃḥ qāšâ sent w. bad news 1K 14₆; direct (by messengers) 1K 5₂₃.

nif.: inf. נִשְׁלוֹחַ be sent Est 3₁₃. †

piel (265×): pf. שִׁלַּח, שִׁלְּחָה > שִׁלְחָה Ez 17₇ 31₄ like שִׁלְחוּ Ps 74₇, sf. שִׁלְּחוֹ, שִׁלַּחְתִּיךָ שִׁלְּחֻךָ, שִׁלַּחְתָּנִי; impf. יְשַׁלַּח, וַיְשַׁלֵּחַ, תְּשַׁלַּחְנָה יְשַׁלְּחוּ, וַיְשַׁלְּחוּ אֲשַׁלַּח, sf. וָאֲשַׁלְּחֵךְ אֲשַׁלֶּחְךָ, תְּשַׁלְּחֵנּוּ; impv. שַׁלַּח, שַׁלְּחֵם, sf. שַׁלְּחֵנִי שַׁלְּחֵנוּ; inf. שַׁלֵּחַ, abs. שַׁלֵּחַ; pt. מְשַׁלֵּחַ, pl. cs. מְשַׁלְּחֵי: — 1. give free play to, let loose, let go (away): obj. pers. Gn 30₂₅, cattle Ex 22₄, water Ez 31₄, hair 44₂₀; set (discord) free Pr 6₁₄, get free of (labor-pains) Jb 39₃; stretch out (one's hand) Pr 31₂₀, spread out (roots) Je 17₈; — 2. let go, let free: Gn 31₄₂, obj. one's opponent Gn 32₂₇; haḥûṣâ let (daughters) go outside the clan (to marry) Ju 12₉; — 3. escort, accompany Gn 12₂₀; — 4. send away, out, off: obj. pers. Gn 28₆, arrow 1S 20₂₀; w. bᵉ hand over to Ps 81₁₃; turn away, drive out Gn 3₂₃; dismiss (a wife) Dt 21₁₄ (lᵉnafšâh wherever she wants to go); — 5. send, obj. pers. Gn 19₁₃, thing Ne 8₁₂; esp. of God who sends afflictions &c. 2K 17₂₅; idiom: šillaḥ bā'ēš set on fire 2K 8₁₂.

pual: pf. שֻׁלַּח, שֻׁלַּחְתִּי; impf. יְשֻׁלַּח; pt. מְשֻׁלָּח: — 1. be sent off (on a journey) Gn 44₃; w. bᵉ fall into (a net) Jb 18₈; pt. left to onesf. Pr 29₁₅; — 2. be sent (subj. messenger) Ob 1 Pr 17₁₁ Dn 10₁₁; be dismissed, sent away (by divorce) Is 50₁; pt. chased away Is 16₂, deserted Is 27₁₀; be carried away? Ju 5₁₅. †

hif.: pf. הִשְׁלַחְתִּי; inf. הַשְׁלִיחַ; pt. מַשְׁלִיחַ: w. acc. & bᵉ, let loose upon, obj. insect pests Ex 8₁₇, beasts of field Lv 26₂₂, enemy 2K 15₃₇, famine Ez 14₁₃ Am 8₁₁. †

I שֶׁלַח‎: שֶׁלַח, sf. שִׁלְחוֹ: javelin, dart Jl 2₈.

Excerpt 22, (Holladay 1971)

The most obvious observation is that the abridgement resulted in a shortened version of the dictionary (Excerpt 22). With regard to the article structure, a cursory glance shows the treatment of the lemma sign in different text blocks. Each of these represents the lexicographic treatment of שלח at each level of derivation, i.e. qal, nifal, piel, pual and hifil. Text blocking (without paying attention to individual items) generally enhances a lucid micro-architecture and search areas, e.g. the user can directly locate the comment on semantics in the qal or piel, etc.

A look at the data items in each text block of the microstructure shows some inconsistencies. For example, at each level of derivation, different forms of the lemma in question are given in bold typeface, however some with biblical citations and some without, e.g. in the piel, impf. תְּשַׁלַּחְנָה. The reason for doing this is not clear, but in the light of the function, provision of citations may have been helpful to the beginning student. Furthermore, the selective provision of citations with some forms and not with others is something that could have been explained in the front matter text of "guide to the use of the dictionary." שׁלח is a polysemous lexical item and therefore has multiple subcomments on semantics at each level of derivation, marked by a numeral and bold typeface. Holladay does not consistently follow this marking throughout the article. Consider the following:

Piel   -1. **give free play to, let lose, let go** (away)...**stretch out** (one's hand)   Pr. 31$_{20;}$ -2 **let go, let free.**..

Pual   -1. **be sent off** (on a journey) Gn 44$_3$; -2 **be sent** (subj. messenger)…; **be dismissed, sent away** (by divorce)…

In this example, *stretch out* and be *dismissed, sent away* are both in bold typeface, however, not marked by number. Should these entries be read as separate polysemous senses or be treated as part of the subcomment on semantics in which they occur? The lack of clarity on the status these entries further raises the question of addressing. Should they be understood as addresses or as addressees? Clearly and adequately devised criteria for ordering items in the microstructure also means that such instances of obscurity are eluded.

Despite the shortcomings, Holladay consistently lists context and cotext entries with each polysemous sense. For example, each subcomment on semantics has several context entries in the form of one word and a cotext entry in the form of one biblical citation, i.e. **piel: 1. give free play to, let loose, let go** (away): *pers*. Gn 30$_{25}$; *cattle* Ex 22$_4$, *water* Ez 31$_4$,… Whilst this may seem clear enough, one may ask, in light of the target audience and intent of the dictionary, is such data sufficient for comprehensive text reception of the biblical text? In the piel, sense 5. *send*, Holladay marks the stylistic label, *idiom*… **set on fire** 2K8$_{12}$. The mere indication of usage style does not adequately help the beginning student with the meaning, let alone

understanding of the text, because the relationship between the items *send* and **set on fire** is not defined.

In conclusion, Holladay's approach of omitting data types that are considered immaterial to the envisaged audience results in a shorter dictionary article with an improved micro-architecture. But the polysemous senses or sense distinctions are not clearly marked resulting in an inadequate address/addressee relationship.[191] Context and cotext entries show a certain consistency, however, the question is whether this is ample for the intended purpose and target audience, "the beginning student."

4.3.5 Dictionary of Classical Hebrew (Clines)

4.3.5.1 Introduction

In this section, I will look at *The Dictionary of Classical Hebrew* (henceforth Clines) under the three headings of frame structure, lexicographic function and the microstructure of the selected lemma sign. This dictionary, which is a research project of the University of Sheffield under the editorship of David J.A. Clines, was conceived in 1983. Five volumes covering article stretches ‏נ-א‎, out of the expected eight volumes, have so far been completed. The volume that hosts ‏שלח‎ is not yet available, and therefore, I will consider the verb ‏יצא‎, which appears in the fourth volume covering article stretches ‏ל, כ, י‎.

4.3.5.2 Frame structure

Clines's is a multivolume reference work, with each volume attributed by its own secondary frame structure, consisting of the central list and the outer texts. For our purpose, I will consider the frame structure of volume one (primary frame structure) and that of volume 4 (secondary frame structure). The former contains vital information regarding, among other things, lexicographic function, whilst the latter hosts the article stretch in which the selected lemma appears.

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[191] Even if it can be argued that Holladay followed KB in structuring articles, it still does not justify the inconsistent distinction of senses and inadequate addressing procedure.

Frame structure: vol. 1
1. Title page
2. Publisher notes
3. Table of contents
4. Preface
5. Introduction
    a. main characteristics of the dictionary
    b. other features of the dictionary
    c. the structure of typical lexicography
    d. the recent history of Hebrew lexicography
    e. a Hebrew dictionary of the end of the 12th century
    f. the texts used for this dictionary
    g. the Dictionary of Classical Hebrew Project
6. The sources
    a. Hebrew Bible
    b. Ben Sira
    c. Qumran and related non-biblical texts
    d. Inscriptions
7. Words beginning with Aleph in order of frequency
8. Abbreviations and signs
9. **א (article stretch)**
10. English-Hebrew index

Frame structure: vol. 4
1. Title page
2. Publisher notes
3. Table of contents
4. Preface
5. Introduction
6. The source
    a. Qumran and related non-biblical texts
7. Words beginning with Yodh, Kaph and Lamedh in order of frequency
8. Abbreviations and signs
9. **Article stretches ל כ י**
10. Bibibliography
11. English-Hebrew

Each of the above frame structures display a number of items coming before the central list (i.e. items 9 in both cases). Despite the fact that most items of the outer texts are optional, both frame structures exclude the obligatory functional component "How to use the dictionary." This component, though not clearly indicated, may be deduced from the "introduction" (item 5) in the front matter text of the primary frame structure (volume 1). The "introduction", among other things, describes the features of the dictionary (a-c). This description may serve as the "guide to the use of the

dictionary." The preface (4) in the first volume is also important (together with the introduction (5g) because it states the dictionary's claims from which the lexicographic function can be drawn or construed.

4.3.5.3 Lexicographic function of Clines

In the *preface* (4) and *introduction* (5), Clines makes the following claims that presumably separate it from other BH dictionaries:[192]

> 1) *Dictionary basis (coverage)*: unlike previous ancient dictionaries, this one claims to include systematically all texts written in Hebrew from the earliest times down to the second century of the common era (Clines 1993: 7, 14).[193]
>
> 2) *Knowledge of and meeting of users' needs*:
>
> "But despite our only partial acquaintance with the needs and interests of future readers of the dictionary, we have tried to put ourselves in the shoes of such readers as we have written and revised the proofs of the dictionary. The readers, *we feel sure*, want an *alphabetical dictionary*; the readers, want all the Hebrew to be accompanied by an English *gloss*; the readers want *comprehensiveness*, so as to be sure of locating a particular text under one or another text under one or another semantic heading; the readers want help with *difficult forms*; the readers want an *English-Hebrew index*. We have tried to serve the needs of such readers" (Clines 1993: 10)[194]

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[192] In the introduction to the fourth volume, Clines (1998: 11), in a long section, claims to using gender-inclusive language in English as far as possible, eliminating gendered forms in English where modern practice favours the use of an unmarked form. For example, the translation equivalents *artisan, plougher* and *sentry* are preferred over *workman, ploughman* and *watchman* respectively. Poythress (2005) criticized Clines's claim of gender inclusiveness: "The new lexicon, then, offers disgracefully inadequate evidence. I am suspicious of a new lexicon, with a publishing date of 1993 and onwards, stemming from an academic environment that heavily favours egalitarianism, that changes previous lexicons on the basis of completely inadequate evidence" (http://www.bible-researcher.com/clines.html).

[193] The corpora include the Hebrew Bible (excluding the Aramaic parts), Ben Sira, the Qumran manuscripts (Dead Sea Scrolls) and related texts and inscriptions and other occasional texts. With this wide coverage one can anticipate the challenge of selecting useful information during the lexicographical process as well as structuring this information.

[194] My italics for emphasis.

3) *Linguistic approach*: Clines claims to have a theoretical base in modern linguistics, which concerns itself with the uses of words in the language, especially the regular and normal uses in the written language.

"The focus here, then, is not so much on the meanings, or the translation equivalents, of individual words as on the patterns and combinations in which words are used; and attention … is paid primarily not to the unusual and difficult words but to the common words" (Clines 1993: 14-15,25).

4) *User-friendliness*: Clines also claims that his dictionary is user friendly to its audience, i.e. a beginner in Hebrew, a professional scholar, with regards to article structure and the easy accessibility and retrieval of desired information (Clines 1993: 15-16).

In addition to these claims, Clines (1993: 26) clarifies his position with regard to the lexicographic function of the dictionary.

By design, then, this new dictionary systematically deflects attention from the word to the larger units of meaning… Its function is not primarily to tell the user the meaning of words. It has not been written in order to help readers of the Hebrew texts to discover how to translate those texts. It would indeed be a very inconvenient way of studying a Hebrew text to look up the meanings of all the words in this large and exhaustive work. Rather *the primary function of this dictionary is to organize and rationalize the available data about Hebrew words, enabling readers to make their own decisions about the meaning of words in the light of all the evidence, which has been arranged in such a way as to make that task feasible… a dictionary for the age should be short on authority and prescription and long on reader involvement, open-endedness and uncertainty… so we have consistently regarded our task as providing and organizing the data that others will use as they think best, rather that imposing our own views as to what is significant.*(Italics for emphasis*)*.

The lexicographic function of Clines does not fit into either of the two major functions distinguished in §3.2.4. It is nevertheless a lexicographic function (above in italics) but a minor one. Clines anticipated that his approach to the Dictionary of Classical Hebrew would draw criticism.

This dictionary marks an important departure from the tradition of Hebrew lexicography, and it is our hope that it will be judged according to its own stated

designs and not according to the norms with which scholars have long been familiar (Clines 1993: 7).

In the next section, an Excerpt of the article of the selected lemma sign will be discussed.

4.3.5.4 The microstructure: יצא

As already pointed out above, Clines is a multivolume reference work with an outer access structure that starts on the spine and cover of the dictionary book. Entries, i.e. the title, volume number and the article stretches covered, help to identify the correct volume in which the sought after lemma sign occurs. In our case, the lemma יצא is found in volume four, which hosts article stretches י כ ל. In our case, יצא occurs under the article stretch covering all lemmata beginning with the Hebrew alphabet letter י. Using catch-words (or guide words) and the macrostructure as access guides and by following the Hebrew access alphabet in the respective article stretch, the desired lemma, יצא and can be located. The following Excerpt is sufficient for the purpose of analysis.

יְפְתַּח־אֵל, נֵי יִפְתָּח־אֵל Ge-Iphtahel, see.

יָצָא 1067.20.156.1 vb. go out.

Qal, p. 000a
  Subjects, p. 000a
  Prepositions, p. 000a
  Collocations, p. 000a
  Passive, p. 000a
Hiphil, p. 000a
  Subjects, p. 000a
  Prepositions, p. 000a
  Collocations, p. 000a
Hophal, p. 000a

Qal 785.14.120 Pf. יָצָא, יְצָאָה (,יָצְאָה), יָצָאתִ (Kt יצתי [Job 121]), יָצְאוּ, יְצָאוּ (,יָצָאִי), יְצָאָנִי, יְצָאֲחֶם (יָצְאוּ); impf. יֵצֵא (Si יצאך), 3fs תֵּצֵא, אֵצֵא (אֵצְאָה), 2ms תֵּצֵא, וַיֵּצֵא + waw (,תֵּצְאוּ) נֵצֵא, (תֵּצֶאןָ) תֵּצֶאֳנָה, 3fpl (תֵּצֶאןָ); ,וְיָצָא וְיָצְאָה, וְיָצָאֵנִי ,וְיָצְאוּ, וַיֵּצֵא, 3fs (וְתֵצֶאן) וַתֵּצֵאֳנָה, 3fpl (,וָאֵצֵא) וַיֵּצֵא, 3fpl (וַתֵּצֶאןָ); impv. צֵא (,צֵאִי ,צֵא (,צֶאנָה צֵא (,צֵאוּ); ptc. יֹצֵא (יֹצֵאת), יֹצְאָה (יֹצֵאת), יֹצְאִים (יֹצְאִים), יֹצְאֵי (יֹצָאִי, יוֹצֵא), יֹצְאוֹת (יוֹצְאֹת, יָצוֹת); inf. abs. יָצֹא (יָצֹא); cstr. צֵאת (צֵאתָ, צֵאתְךָ, צֵאתְךָ ,צֵאתֹ, צֵאתֵנוּ, צֵאתְכֶם, צֵאתָם צֵאתָמָה).

1. intransitive, go out, come out, set out, leave, depart, march (into battle); of river, flow (Gn 2₁₀), of sun, rise (Gn 19₂₃ Jg 53₁), of peoples, be descended (e.g. 1 C 2₅₃), of land sold, be returned (e.g. Lv 25₂₈), of money, be spent (e.g. 2 K 12₁₃), of prisoner, surrender (e.g. 2 K 24₁₂), of lot, fall (Nm 33₅₄ Jos 16₁), of foetus, come out early, abort (Ex 21₂₂ Ps 144₁₄), of intestines, drop, prolapse (2 C 21₁₅.₁₉), protrude (e.g. Ne 3₂₃ 11QT 41₁₂); perh. fulfil duty (Ec 7₁₈), perh. depart life, die* (Si 30₄₀), of metal, flow from crucible (Ex 32₂₄ Jb 23₁₀ Pr 25₄ [unless יצא II shine]).*

2. transitive, go out from, leave (Gn 44₄ Ex 9₂₉.₃₃ Nm 35₂₆ Dt 14₂₂ 2 K 20₄ Si 63₅).

<subj> Y. Ex 11₄ Jg 4₁₄ 5₄ 2 S 5₂₄ Is 26₂₁ 42₁₃ Mc 1₃ Hb 3₁₃ Zc 14₃ Ps 44₁₀ 60₁₂ 68₈108₁₂ 1 C 14₁₅, Belial 1QM 1₄, כְּרוּב cherub Ezk 10₁₉, מַלְאָךְ angel Nm 22₃₂ 2 K 19₃₅

IIIs 37₃₆ Zc 2₇.₇ 5₅ 4QShirShabb^f 20.2₉, messenger Ezk 30₉, שָׂטָן adversary Jb 1₁₂ 2₇.

Aaron Ex 4₁₄ 8₈ 12₃₁ 28₃₅ Lv 8₃₃ 9₂₃ 10₇ 16₁₇.₁₈.₂₄ Nm 12₄.₄.₅ (or em. בוֹא come) 4QapMos^a 1.2₈ (... וְאַהֲרֹן יָצָא[י]), Abimelech Jg 9₂₉, Abiram Nm 16₂₇, Abner 2 S 2₁₂, Abra(ha)m Gn 11₃₁ (or em. וַיֵּצְאוּ and they went out to יֵצְא and Terah went out, or hi.) 12₄.₅ 24₅ 4QCommGenA 2₁₀.₁₃ (אבר[הם]), Ahaziah 2 K 9₂₁.₂₁ 2 C 22₇, Araunah 2 S 24₂₀, Asa 2 C 14₉, Asshur Gn 10₁₁, Asher 4QJub^h 38₆ (יָצָא[א]), Azariah 2 C 15₂, Balak Nm 22₃₆, Benaiah 1 K 2₄₆, Ben-hadad 1 K 20₃₁.₃₃, Benjamin 4QJub^h 38₈ (וַיֵּצָא ... בְּנַ[יָמִן]), Cain Gn 4₁₆, Dan 4QJub^h 38₆ (יָצָא[א]), Dathan Nm 16₂₇, David 1 S 17₃₅.₅₅ 18₅.₁₃ 19₈ 20₁₁.₁₁ 21₆ 23₁₃ 24₉ 28₁ 29₆ 2 S 13₃₉ (or ins. נֶפֶשׁ soul of David) 18₃ 19₈.₈ 2 S 21₁₇ 1 C 12₁₈ 14₈.₁₅ 4QDescDavid 1₅, Dinah Gn 34₁, Ebed-melech Jr 38₆, Ehud Jg 3₂₃.₂₄, Eldad Nm 11₂₆, Eleazar Lv 10₇ Nm 31₁₃, Eliakim 2 K 18₁₈IIIs 36₃, Elijah 1 K 19₁₁.₁₃, Elisha 2 K 2₂₁ 5₁₁, Enoch 4QJub^h 38₈ (... וַיֵּצְא [הֲנוֹךְ]), Ezekiel Ezk 3₂₂.₂₃.₂₅, Gaal Jg 9₂₇.₃₃.₃₅.₃₈.₃₉, Gad 4QJub^h 38₅ (וַיֵּצָא[וּן]), Gehazi 2 K 5₂₇, Haman Est 5₉, Hamor Gn 34₆, Hananiah Arad ost. 16₃, Hathach Est 4₆, Hezekiah 2 K 18₇, Hiram 1 K 9₁₂.

Isaac Gn 24₆₃ 4QJub^d 21₂₆, Isaiah 2 K 20₄ (or del. יָצָ) Is 7₃, Ishmael Jr 41₆, Issachar 4QJub^h 38₇ (יִשָּׂכֵר]), Ithamar Lv 10₇, Jacob Gn 27₃₀ 28₁₀ 31₁₃ 47₁₀ Mc 2₁₃ (people), Jael Jg 4₁₈.₂₂, Jehu 2 K 9₁₁ 10₉, Jeconiah Jr 29₂, Jehoiachin 2 K 24₁₂, Jehoshaphat 2 C 19₄ 20₂₀.₂₀, Jehu 2 C 19₂, Jeremiah Jr 1₅ 14₁₈ 19₂ 20₁₈ 37₄.₁₂, Jeroboam 1 K 11₂₉ 12₂₅, Joab 2 S 2₁₃.₃₂₆ 20₈ 24₄.₇ 1 K 2₃₀ 1 C 21₄, Joah 2 K 18₁₈IIIs 36₃, Job Jb 1₂₁ 3₁₁ 23₁₀ 29₇ 31₃₄, Jonah Jon 4₅, Jonathan 1 S 19₃ 20₁₁.₁₁.₃₅, Joram 2 K 9₂₁.₂₁, Joseph Gn 39₁₂.₁₅ (mss lack וַיֵּצֵא) 41₄₅.₄₆ 43₃₁ Ps 81₆, Joshua Ex 17₉ Nm 27₂₁ Jos 14₁₁, Josiah 2 C 35₂₀, Judah 4QJub^h 38₅ (וַיֵּצָא[וּ יְהוּדָה]), Laban Gn 31₃₃, Leah Gn 30₁₆, Levi Gn 34₂₆ 4QJub^h 38₆ (יָצָא[א] ... לֵוִ[י]), Lot Gn 11₃₁ (or em.; see Abraham) 12₅ 19₆.₁₄, Medad Nm 11₂₆, Michal 2 S 6₂₀, Miriam Nm 12₄.₄.₅ (or em. בוֹא come), Mordecai Est 4₁ 8₁₅, Moses Ex 2₁₁.₁₃ 8₆.₂₅.₂₆ 9₂₉.₃₃ 10₆.₁₈ 11₈.₈.₈ 12₃₁ 18₇ 33₈ 34₁₈.₃₄.₃₄ Lv 9₂₃ Nm 11₂₄ 12₄.₄ 31₁₃ Dt 4₄₆ 31₂.

Naphtali 4QJub^h 38₅ (וַיֵּצְאו]), Nebuchadrezzar Jr 43₁₂, Nehemiah Ne 2₁₃, Noah Gn 8₁₆.₁₈ 4QCommGenA 2₂ 4QCommGenD 3₂, Oded 2 C 28₉, Og Nm 21₃₃ Dt 3₁

29₆, Ornan 1 C 21₂₁, Othniel Jg 3₁₀, Rebekah Gn 24₁₅.₄₅, Reuben 4QJub^h 38₇, Ruth Ru 2₂₂, Samson Jg 16₂₀, Samuel 1 S 9₁₄.₂₆, Sarai Gn 11₃₁ (or em.; see under Abraham) 12₅, Saul 1 S 9₂₆ 13₁₀ 23₁₃.₁₅, Sennacherib 2 K 19₂₇ IIIs 37₂₈, Shallum Jr 22₁₁, Shebna 2 K 18₁₈IIIs 36₃, Shimei 1 K 2₃₆.₃₇.₄₂, Sihon Nm 21₂₃ Dt 2₃₂ 29₆, Simeon, son of Jacob Gn 34₂₆ 4QJub^h 38₈ (וַיֵּצָא שִׁמְעוֹ[ן]), Simeon, son of Johanan Si 50₅, Solomon 1 K 3₇ 2 C 1₁₀, Terah Gn 11₃₁ 4QCommGenA 2₈, Tirhakah 2 K 19₉IIIs 37₉, Uriah 2 S 11₈.₁₃, Uzziah 2 C 26₆.₁₈.₂₀, Zebulun Dt 33₁₈ 4QJub^h 38₇ (וּזְבוּלוֹ[ן]), Zedekiah Jr 38₁₇.₁₈.₂₁ 39₄.₄, Zerah 2 C 14₈.

Amorite Dt 1₄₄, Aramaean 2 K 5₂ 7₁₂, Benjaminite Jg 20₂₅, Caphtorite Dt 2₂₃, Cherethite 2 S 20₇.₇, Edom Nm 20₁₈.₂₀, Eshtaolite 1 C 2₅₃, Hebrew Dt 15₁₆ 1 S 14₁₁, Hivite Jos 9₁₂, Jerusalem 2 C 20₁₇, Judah 2 C 20₁₇.₂₀.₂₀, Moab Jr 48₉ (or em. יֵצֵא תִצָּא it will go flying away to נָצֹה תִצֶּה it will indeed be ruined), Pelethite 2 S 20₇.₇, Philistine Gn 10₁₄ 1 C 1₁₂, Shunamite 2 K 4₃₇, Zorathite 1 C 2₅₃, Chemosh Jr 48₇, Israel(ites) Ex 15₂₂ (Sam hi.) 23₁₅ (Sam hi.) 23₁₅ Dt 9₇ 11₁₀ 16₃.₃.₆ 20₁=11QT 61₁₃ Dt 21₁₀=11QT 63₁₀ Dt 23₅.₁₀ 24₉ 25₁₇ Jos 2₁₀ Jg 2₁₅ 1 S 4₁ 2 K 7₁₂ 13₅ Is 48₂₀ 55₁₂ Mc 7₁₅ Ps 105₃₈ 114₁ 121₈ 2 C 31₁ 4QapPent 2₁₀ 11QT 46₁₃, worshipper Ps 88₉.

אָדָם human being Ps 104₂₃ Jb 14₂ perh. Si 16₁₄, אֱנוֹשׁ person Si 14₂₂, אִישׁ man Gn 44₄ Ex 12₂₂ 16₂₉ Nm 27₁₇ 30₃ 31₂₈ Dt 13₁₄=11QT 55₃ Dt 23₁₁.₁₃ 24₅ Jos 2₅ 54.₆ 8₁₄.₁₇ Jg 12₄ 11₃ 19₂₃.₂₇ 20₂₀ 1 S 7₁₁ 11₁₀ 17₄ 23₁₃ 28₁ 30₂₁ 2 S11₁₇.₂₃ 13₉ 16₅.₅.₇.₇ 20₇.₇ 1 K 20₁₇.₁₈.₁₈ 2 K 10₂₅ 18₃₁IIIs 36₁₆ 39₄ 52₇ Ezk 9₇.₇ 47₃ Dn 9₂₂ 1QM 2₈.₈ 3₁.₇ 7₃.₁₆ perh. 7₁₇ 9₃ 16₄ (וְהָאִישׁ]) 1QS 7₂₃ 9₉ 4QD^e 7.1₁₁ (וְהָאִישׁ]) 4QM^c 16 (אֱנוֹשִׁ) 11QT 58₁₆ CD 11₁₀.₁₁, זָכָר male Jos 5₄, גֶּבֶר man Lm 3₇, אִשָּׁה woman Gn 8₁₆.₁₈ 12₅ Ex 15₂₀ 21₃ Dt 24₂ 1 S 18₆ 2 K 8₃ Am 4₃ Zc 5₉ Pr 7₁₅ Ru 1₇, אָב father 1 S 22₃ 2 K 2₁₅ Jr 7₂₅, אֵם mother 1 S 22₃ 2 K 4₂₁ 24₁₂.

בֵּן son Gn 8₁₆.₁₈ 9₁₈ 11₃₁ 12₅ 27₃ 42₁₅ Lv 8₃₃ 24₁₀ 25₄₁.₅₄ Dt 13₁₄=11QT 55₃ Jg 8₃₀ 9₂₆ 2 S 10₈II1 C 19₉ (of Ammon) 2 S 16₁₁ 1 K 2₄₆ 1 K 8₁₉II2 C 6₉ 2 K 2₃ 18₁₈.₁₈IIIs 36₃.₃ 2 K 20₁₈IIIs 39₇ Jr 22₁₁ 41₆ Ezk 44₁₉ 5QRègle 2₈ (וּבָנ[י]), specif. son of Israel Ex 12₃₁ 14₈ 19₁ Nm 1₁ 9₁ 26₄ 27₂₁ 33₁.₃.₃₈ Dt 4₄₅.₄₆ 20₁.₂₈ 21₂₄ 1 K 6₁ 8₉II2 C 5₁₀ 20₁₆ Jr 10₂₀ Ne 8₁₅ 1QDM 1₁ (צֵאת בְּנֵי יִשְׂרָ[אֵל]) 2₆ (צ[ן אֹת]נוּ) 4Q Jub^a 1.1₁ (וּבְנֵי יִשְׂרָאֵל]), of Benjamin Jg 20₁₄.₂₁.₃₁ 21₂₁, of

human being Si 40₁, of animal Jb 39₄, of worthlessness Dt 13₁₄, בַּת daughter Gn 24₁₃ Ex 21₇.₁₁ Jg 11₃₄ 21₂₁ Mc 4₁₀ Ca 3₁₁, אָח brother Gn 25₂₆ 38₂₉.₃₀ 42₁₅ Lv 25₄₁.₅₄ Dt 15₁₆ Jg 9₂₇ Jr 29₁₆ 11QPs^a 28₉, חָתָן son-in-law Gn 19₁₄ Jl 2₁₆ Ps 19₆, כַּלָּה daughter-in-law Gn 11₃₁ Jl 2₁₆, עַלְמָה young woman Gn 24₄₃, בְּתוּלָה young woman Jr 31₄, נַעֲרָה young woman 1 S 9₁₁, נַעַר boy 1 K 20₁₇ 2 K 2₂₃, יֶלֶד male child Ex 21₂₂ 2 K 4₁₈ Ec 4₁₄, וָלָד foetus Ex 21₂₂(Sam), דּוֹד beloved Ca 7₁₂, אֲהֻבָה beloved one Ca 7₁₂ (if em. אֲהֵבָה love), יָפֶה beautiful one Ca 1₈, צַדִּיק righteous one Pr 12₁₃, perh. עָנִי poor one Jb 24₅, יָרֵא ptc. one who fears Ml 3₂₀ Ec 7₁₈, בָּקַשׁ pi. ptc. one who seeks Ex 33₇, יֹשֵׁב inhabitant Ezk 15₇ 39₉ Mc 1₁₁ 2 C 20₂₀.₂₀, לָבַשׁ pass. ptc. one who is clothed Ezk 10₇, perh. רָשָׁע wicked one Ps 109₇, אָהַב ptc. one who loves money Ec 5₁₄, מֵת dead one Nm 12₁₂ 11QT 49₁₄.

מֶלֶךְ king Gn 14₈.₁₇ 17₆ 35₁₁ 8₁₄ 11₄ 1 S 8₂₀ 24₁₅ 26₂₀ 2 S 11₁(Qr) 15₁₆.₁₇ 18₂ 19₂₀ 1 K 20₂₁ 2 K 3₆ 9₂₁.₂₁ 11₈ 19₉.₂₇IIIs 37₉.₂₈ 2 K 24₇.₁₂ Jr 17₁₉ 22₁₁ 29₂ 39₄ Dn 11₁₁.₄₄ 1 C 20₁ 2 C 23₇ 11QT 58₁₅.₁₈.₁₉.₂₀.₂₁, שַׂר prince 1 S 18₁₃.₃₀ 2 S 24₄.₇ 2 K 24₁₂ Jr 29₂ 1QSa 1₁₇(erased) (שָׂרֵי] ... 4Q Ma 1₉ (יְ[י]צָא), נָשִׂיא prince Nm 31₁₃ Ezk 44₃ 46₂.₈.₁₀.₁₂.₁₂, פַּרְעֹה Pharaoh Ex 7₁₅ 8₁₆, גְּבִירָה queen mother Jr 29₂, מֹשֵׁל ruler Jr 30₂₁, נֹגֵשׂ ruler Zc 10₄ (or del.), אָדוֹן lord Jg 19₂₇ 2 S 19₂₀ Dn 10₂₀, בַּעַל lord Jg 9₂₇ 19₂₃, רֹאשׁ head 1QM 9₁₁ 1QSa 1₁₇(mg) (רֹשֵׁי] ...).

כֹּהֵן priest Lv 14₃.₃₈ 21₁₂ Nm 31₁₃ 1 K 8₁₀ Ezk 42₁₄ 44₁₉ 2 C 5₁₁ 24₅ 1QM 7₉.₁₃ 1Q29 2₄ (הַכֹּהֲנ]ים) 4QM^a 1₉ (הַ]כֹּהֲנ[ים), לֵוִי Levite Ezk 44₁₉ 2 C 24₅ 1QM 7₁₄ 4QM^a 1₉ (יֵצֵא[ו]), מְשֹׁרֵר singer 2 C 20₂₁, הָלַל pi. ptc. one who praises 2 C 20₂₁, שֹׁמֵר overseer Ex 5₁₀ (or em. יֹצֵא to אוֹץ urge) 5₂₀, נֹגֵשׂ taskmaster Ex 5₁₀, מַשְׂכִּיל instructor 1QS 10₁₃, סֹפֵר scribe 2 K 18₁₈IIIs 36₃, מַזְכִּיר recorder 2 K 18₁₈IIIs 36₃, זָקֵן elder Dt 21₂ 1 S 11₃, שֹׁפֵט judge Dt 21₂, מְשָׁרֵת servant 2 K 6₁₅, שֹׁאֵב ptc. one who draws (water) Gn 24₁₁, רָץ runner Est 3₁₅ 8₁₄, עֹמֵד ptc. one who stands Jg 3₁₉, סָרִיס eunuch 2 K 24₁₂ Jr 29₂, חָרָשׁ artisan Jr 29₂, מַסְגֵּר smith Jr 29₂, עֶבֶד servant Gn 42₁₅ Ex 21₂.₃.₄.₅.₇ 2 S 12.₁₃ 1 K 20₃₁.₃₉ 2 K 24₁₂ Si 30₄₀, נֹשֵׂא one who raises, i.e. carries, Y.'s vessels Is 52₁₁.₁₁.₁₂.

אָסוּר prisoner Is 49₉, רֹדֵף pursuer Jos 2₇, פָּלִיט survivor 2 K 9₁₅, פְּלֵיטָה survivor 2 K 19₃₁IIIs 37₃₂, חֹשֵׁב planner Na 1₁₁, חָרַב hi. ptc. one who lays waste Is 49₁₇, רֹצֵחַ killer

head 4QapMos[a] 1.2₈ ([ראשי כול כנול לפני יצא[ן *and he shall go out before all the heads of*); אֶל־פְּנֵי *in the presence of* Je-hoshaphat 2 C 19₂; מִלִּפְנֵי *from before, from the presence of*, -Y. Gn 4₁₆ Lv 9₂₄ 10₂ Nm 17₁₁ Ezk 30₉ Ps 17₂ GnzPs 4₂₀, Moses Ex 35₂₀, Elisha 2 K 5₂₇, מֶלֶךְ *king* Est 1₁₉ 8₁₅, פַּרְעֹה *Pharaoh* Gn 47₁₀, שַׁלִּיט *ruler* Ec 10₅, pl. *many* 1QS 7₂₃; מֵאֵת פְּנֵי *from the presence of* Y. Jb 2₇; לְעֵינֵי *in the sight of all Egypt* Nm 33₃.

תַּחַת *instead of*, + חִטָּה *wheat* Jb 31₄₀; מִתַּחַת *from under*, + יָד *hand*, i.e. control (of) 2 K 13₅; מִפֶּתֶן *threshold* Ezk 47₁; נֶגֶד *in front of*, + קָו *line* Jr 31₃₉(Qr) (or em. נֶגְדּוֹ *in front of it to* נֶגְבָּה *southwards*), אִשָּׁה *each one (fem.)* Am 4₃ (or em. ho. *be taken out*).

+ ה of direction, *to(wards), into*, + Gibeon 2 S 2₁₂, Huk-kok Jos 19₃₄, Jahaz Dt 2₃₂, Luz Jos 16₂, Ziphron Nm 34₉, צָפוֹן *north* 1 C 26₁₄, מִזְרָח *east* Jos 16₁, קֵדְמָה *east* Ezk 47₁, מִסְדְּרוֹן *vestibule* Jg 3₂₃, perh. אֹהֶל *tent* Nm 11₂₆, perh. *vestibule* Jg 3₂₃, perh. פַּרְשְׁדֹן *anus or vestibule* 3₂₂ (unless פֶּרֶשׁ *bowel*), מַיִם *water* Ex 7₁₅ 8₁₆, יָם *sea* Jos 16₆ 18₁₅, מִדְבָּר *steppe* Nm 21₂₃, שָׁם *there* Dt 23₁₃ 4Q Ord[a] *outside* Gn 39₁₂.₁₅ (mss lack ה in both) Jos 2₁₉ 1 S 9₂₆; without ה- of direction, + Assyria Gn 10₁₁ (unless אַשּׁוּר *Asshur* is subj. of יצא), En-shemesh Jos 18₁₇, Jabneel Jos 15₁₁, Jordan Jos 16₇, Rimmon Jos 19₁₃, שָׂדֶה *field* Gn 27₃ Jg 9₂₇.₄₂ 1 S 20₁₁.₁₁.₃₅ 2 S 11₂₃ 18₆ Jr 6₂₅ 14₁₈ Ca 7₁₂, נַחַל *wadi* Jos 15₄, קֵדְמָה *east* Ezk 47₃.

<COLL> יָצְאוּ הַתֵּבָה *those who go out of the ark* Gn 9₁₀, יֹצְאֵי שַׁעַר עִירוֹ *those who go out of the gate of his city* Gn 34₂₄.₂₄, יֹצְאֵי יְרֵכוֹ *those who go out of his thigh (and var.)* Gn 46₂₆ Ex 1₅ Jg 8₃₀, יֹצֵא צָבָא *one who goes to war* Nm 1₃+₁₃₁ 26₂ 2 C 25₅, אֲשֶׁר יֵצֵא לַצָבָא *those who go to war* 1 C 5₁₈ 7₁₁ 12₃₄.₃₇ (יֹצְאֵי *in all three*), חֵלֶק הַיֹּצֵא בַּצָּבָא *portion of those who go out with the army* Nm 31₃₆, יֹצְאֵי הַשַּׁבָּת *those who go out, i.e. off duty, on the sabbath* 2 K 11₇ 11₉ll2 C 23₈ (יוֹצְאֵי).

הַיּוֹם אֲשֶׁר־יָצָאתָ *the day on which you left* Dt 9₇, בְּיוֹם צֵאתְךָ *on the day you left* 1 K 2₃₇.₄₂, יוֹם צֵאתְכֶם *the day you left* Dt 16₃, בְּיוֹם הַמֵּת יֵצֵא *on the day when the dead one leaves, i.e. the dead one leaves*, i.e. is taken out 11QT 49₁₄, הַיּוֹם אֲשֶׁר יֵצֵא *the day on which they left* Jr 7₂₅, מוֹעֵד צֵאתֶךָ *the appointed time of your departure*

Dt 16₆, בְּיוֹם צֵאתֵנוּ *on the day we left* Jos 9₁₂, צֵאת *at the beginning of going out, i.e. when one goes out* 1QS 10₁₃, בְּכֹל אֲשֶׁר יֵצֵא *whenever they went out* Jg 2₁₅, עֵת צֵאת הַמְּלָכִים *the time when kings go out* 2 S 11₁(Qr, mss), מִיּוֹם צֵאתוֹ *from the day he goes out* Si 40₁, עֵת יֵצֵא הָרִאשׁוֹנָה *the time when the first one goes out* 11QT 45₆.

אֲשֶׁר יֵצֵא הַגּוֹרָל *for whom the lot falls* 1QSa 1₁₆(mg); מֵעֲלוֹת הַשַּׁחַר עַד צֵאת הַכּוֹכָבִים *from the rising of the dawn to the coming out of the stars* Ne 4₁₅; צֵאת הַשָּׁמֶשׁ *rising of the sun* Jg 5₃₁; וְיִתֶּן לָךְ ... כַּיּוֹצֵא בָהֶם *that he might give you ... like that which goes out for them, i.e. like them/theirs* Si 10₂₈(A), וְשִׁת כַּיּוֹצֵא בוֹ *and perform mourning for him like that which goes out for him, i.e. to the extent he deserves it* Si 38₁₇.

יצא + *noun used adverbially*, חוּץ *outside* Dt 23₁₃, (*through) breach* Am 4₃ (or em. אֹהֶל *tent*), וְעֶרְמֹת הַתּוֹצָאָה *and through breaches you will pass to* וְעֶרְמֹת הַתּוֹצָאָה *and naked you will be taken out or* הַתּוֹצָאָה *pushed along, you will be taken out or* פְּצוּרוֹת תּוֹצָאָה *broken, you will be taken out*), דֶּרֶךְ *by way (of)* Jr 39₄, *in the direction (of)* Jr 39₄, פֶּתַח *(out of) entrance* Jb 31₃₄ (unless יצא *transitive, go out from the entrance*), שַׁעַר *(through) gate* Jb 29₇ (unless יצא *transitive*), לַיְלָה *(by) night* Jr 39₄ 52₇ Ne 2₁₃, חֵמָה *(in) anger* Jr 23₁₉ 30₂₃, אַמָּה *(for a number of) cubit(s)* 11QT 41₁₂, שָׁנָה שָׁנָה *year by year* Dt 14₂₂, חֹדֶשׁ *month by month, every month of the year* 1 C 27₁.

יצא + *other adverb*, אָז *then* 1QS 4₁₉, אַחַר *afterwards* 4QCommGenA 2₁₀, אַחֲרֵי־כֵן *afterwards* Gn 15₁₄ 25₂₆ Ex 11₈, אָנָה *where?* Jr 15₂, אָנָה וְאָנָה *(to) anywhere at all* 1 K 2₃₆, חִנָּם *at no cost* Ex 21₂.₁₁, פִּתְאֹם *suddenly* Si 5₇; כֵּן *thus* 4QWays[b] 1a.14.

יצא + *noun used predicatively*, מַחֲנֶה *(as) army* Dt 23₁₀, אֶלֶף *(as) thousand* Am 5₃, מֵאָה *(as) hundred* Am 5₃, רָשָׁע *(as) guilty one* Ps 109₇, רִאשׁוֹן *first* 4QJub[b] 38₅ (יֵצְאוּ), שָׂמֵחַ וְטוֹב לֵב *freely* Ex 21₅; וַיֵּצֵא שָׂמֵחַ ... חָפְשִׁי *he left happy and contented* Est 5₉, sim. 4QJub[d] 21₂₆, יָצְאוּ מְבֹהָלִים וּדְחוּפִים *they left with great haste and urgency* Est 8₁₄, var. Est 3₁₅.

יצא *infinitive* + יצא *finite*, Gn 8₇ 27₃₀ Nm 35₂₆ 2 S 16₅ 18₂ 2 K 5₁₁ Jr 38₁₇ 48₉ (if em. נֹצָא *fly*) 4QCommGenD 3₄.5; יצא *followed by inf. of* הלך *go* Gn 11₃₁ 12₅ Jos 9₁₂ Jg

19₂₇ 2 K 9₁₅ Jr 37₁₂ 1QM 7₃ 1QS 7₂₃ 9₉, קרא *meet* Gn 14₁₇ 30₁₆ Ex 4₁₄ 18₇ Nm 20₁₈.₂₀ 21₂₃.₃₃ 22₃₆ 31₁₃ Dt 1₄₄ 23₂ 31 29₆ Jos 8₅.₁₄.₂₂ Jg 4₁₈.₂₂ 11₃₁.₃₄ 20₂₅.₃₁ 1 S 4₁ 9₁₄ 13₁₀ 17₅₅ 18₆ 30₂₁ 2 S 6₂₀ 18₆ 2 K 9₂₁ Is 7₃ Jr 41₆ Zc 2₇ Jb 39₂₁ Pr 7₁₅ 2 C 35₂₀ 4QDibHam[a] 1.4₇ 28₉, רדף *pursue* 2 S 20₇, חבה *hide oneself* 2 K 7₁₂, ראה *see* Gn 34₁ 1 K 9₁₂ Jr 20₁₈, דבר pi. *speak* Gn 34₆, נגד hi. *tell* 2 K 9₁₅(Qr), צעק *cry* 2 K 8₃, בקש pi. *seek* 1 S 23₁₅ 26₂₀, שחר pi. *seek* Pr 7₁₅, פקד *muster* 2 S 24₄, punish Is 26₂₁, שאב *draw water* Gn 24₁₃.₄₃ 1 S 9₁₁, שׂוח perh. *meditate* Gn 24₆₃, שׂכל hi. *instruct* Dn 9₂₂, חול *dance* Jg 21₂₁, שׁיר *sing* 1 S 18₆(Qr), שׁכב *lie down* 2 S 11₁₃, שׁים *cause to be* Jr 4₇, נפל hi. *bring down* 1QM 8₁₀, נכה hi. *strike* 2 S 5₂₄ll1 C 14₁₅, לחם ni. *fight* 2 K 19₉lIs 37₉ 1QM 1₄, ערך *array* 1 S 17₈ 1 C 12₃₇ 4QM[a] 1₈, שמד hi. *destroy* Dn 11₄₄, חרם hi. *destroy* Dn 11₄₄, חזק pi. *strengthen* 2 K 12₁₃, מלך *rule* Ec 4₁₄.

יצא :: בוא *come* Gn 31₃₃ Ex 21₃ 28₃₅ Lv 9₂₃ 16₁₇ Nm 22₃₆ (+) 27₁₇.₂₁ Dt 9₇ 23₁₁ 28₆.₁₉ 29₆ (+) 31₂ Jos 6₁ 14₁₁ Jg 3₂₄ 9₁₅ (+) 1 S 9₁₄ 13₁₀ (+) 17₂₀ 18₆ (both +) 18₁₃.₁₆ 29₆ 30₂₁ 2 S 16₅ 24₇ (all three +) 1 K 3₇ 15₁₇ll2 C 16₁ 2 K 4₃₇ 11₉ 19₂₇lIs 37₂₈ Jr 17₁₉ 37₄ Ezk 7₁₀ (+)42₁₄ 44₃ 46₈.₉.₉.₁₀.₁₀ Mc 4₁₀ (+) Zc 8₁₀ 1 C 4₂₄ 27₁ 2 C 1₁₀ 15₅ 22₇ (+) 23₇.₈ 1QS 10₁₃ 11QT 36₈ 45₅ 58₁₉ CD 11₁₀.₁₁ 13₄ 20₂₇, ישׁב *sit* 2 K 19₂₇ 2 C 19₄ 1QS 10₁₃ (+), שׁוב *go back* Gn 8₇ Jb 1₂₁ 4QD[e] 7.1₁₃.

יצא + יבל ho. *be brought* Isa 55₁₂ (1QIsaa הלך *go for* יבל), קום *arise* Gn 31₁₃ Ex 12₃₁ 2 S 19₈ Ezk 32₂.₂₃ 1QS 10₁₃, נוס *flee* Gn 39₁₂.₁₅ (mss lack יצא) Dt 28₇.₂₅, ברח *flee* Is 48₂₀llJr 39₄=52₇, פנה *turn* Ex 10₆, סור *depart* Is 52₁₁.₁₁, עמד *stand* 1 K 19₁₁.₁₃ 22₂₁ 2 K 10₉, שׁכם hi. *arise early* Jos 8₁₄, הלך htp. *go around* 1 C 21₄, אבד *die* Si 30₄₀.

Also 1QpMic 12₃ 4Q365a 2.2₄ 4QapJoshua[a] 3.2₃ 4Q paraKings 21₃ (יצא) 4Q418 211₂ 11QJub fr. 7₁ (יוצא) 11QT 4₂.

<ANT> בוא *come*, ישׁב *sit*, שׁוב *go back*.

Hi. 277.6.36 Pf. הוֹצִיא, הוֹצִיאָנִי, Q (הוֹצִיאָנוּ, הֹצֵאתָ, הוֹצֵאתָ, הוֹצֵאתָ, הוֹצֵאתָ, הוֹצֵאתַנִי, הֹצֵאתַנִי, הוֹצֵאתַנִי, הוֹצֵאתָם, הוֹצִאָם, הוֹצֵאתִי, הוֹצֵאתִי, הוֹצֵאתִיו, הוֹצֵאתִים, הוֹצֵאתִיךָ, הוֹצֵאתִיךָ impf. יוֹצִיא, Q (יֵצֵא), יוֹצִיעַ, Q (יֹצִיאֵנִי, יֹצִיאֵנוּ, Q יֹצִיאֵם, יֹצִיאֵם, Q (תּוֹצִיא), תֹּצִיא, 3fs (תּוֹצֵא) תֹּצִיא, 2ms תּוֹצִיא תוֹצִיא (תֹּצִיאֵנִי, Kt יֹצִיאֵי [Jr 8₁], יֹצִאוּ (אוֹצִיאָ) יוֹצִיאוּ, Q (יֹצִיאֵנִי, תוֹצִיא) נוֹצִיא; + waw (וְהוֹצֵאתָ) Q (וְהוֹצֵאתָ, וְהוֹצִיא

וְהוֹצֵאתִי, וְהוֹצֵאת (וְהוֹצֵאתִי), וְהוֹצֵאתָ, (וְהוֹצֵאתוֹ), וְהֹצֵאתִי) Q (הוֹצִיאָה-וֹ), וְהוֹצֵאתָ (וְהוֹצֵאתָה-), וְהוֹצֵאתָהּ; יֵצֵא, וַיּוֹצֵא, וַיֹּצֵא, וַיֹּצִאֵם, וַיּוֹצִיאֵם, וַיֹּצִאֵנִי, וַיֹּצִאֵהוּ, וַיֹּצִיאֵהוּ, וַיּוֹצִיאֵנִי, Sam וַיֹּצִאֵהוּ [Ex 15₂₂]), וַיֹּצִיאֻנִי, וַתּוֹצֵא, 3fs (וַתּוֹצֵא, וַתֹּצֵא); impv. הוֹצֵא (Qr הוֹצֵא) הָיְצֵא, הוֹצִיאָ-ה, הוֹצִיאֵנִי, הוֹצִיאֵם; ptc. (מוֹצִיאָם, מוֹצִיא) מוֹצִיא, מוֹצִיאוֹ, מוֹצִיא, מוֹצִיאֲךָ; hi. cstr. (הוֹצִיא), הוֹצֵא, inf. cstr. (Q הֹצִיא), הוֹצִיאֲךָ, הֹצִיאוֹ, הוֹצִיאֵהוּ, הוֹצִיאֵנוּ, (הוֹצִיאֲכָה, Q הוֹצִיאֲךָ—

take out, bring out, produce (e.g. Jr 15₁₉), **lead out** (e.g. Ex 6₂₆),* **cause to appear** (e.g. Jr 51₁₀), **exact money** (e.g. 2 K 15₂₀), **expel** (e.g. Ezr 10₃), **give in marriage** (Si 7₂₅), perh. **cast into weapon** (Is 54₁₆).*

<SUBJ> Y. Gn 15₅.₇ Ex 6₆.₇ 7₄.₅ 12₁₇ 12₄₂.₅₁ 13₃.₉.₁₄.₁₆ 16₆.₃₂ 18₁ 20₂ 29₄₆ 32₁₁.₁₂ Lv 19₃₆ 22₃₃ 23₄₃ 25₃₈.₄₂ 26₁₃.₄₅ Nm 15₄₁ Nm 17₂₄ 23₂₂ 24₈ Dt 1₂₇ 4₂₀.₃₇ 5₆.₁₅ 6₁₂.₂₁.₂₃ 7₈.₁₉ 8₁₄.₁₅ 9₂₆.₂₈.₂₈.₂₉ 13₆.₁₁ 16₁ 26₈ 29₂₄ Jos 24₅.₆ Jg 2₁₂ 6₈ 2 S 22₂₀.₄₉ 1 K 8₁₆.₂₁.₅₁.₅₃ 9₉ Is 43₈.₁₇ 65₉ Jr 7₂₂ 10₁₃ 11₄ 31₃₂ 32₂₁ 34₁₃ 50₂₅ 51₁₀.₁₆.₄₄ Ezk 11₇(mss).₉ 26.9.10.14.22.34.38.41 21₈.₁₀ 28₁₈ 34₁₃ 37₁ 38₈ 42₁.₁₅ 46₂₁ 47₂ Mc 7₉ Zc 5₄ Ps 78₂₀ 25₁₅.₁₇ 31₅ 37₆ 66₁₂ 68₇ 78₁₆ 105₃₇.₄₃ 107₁₄.₂₈ 135₇ 136₁₁ 142₈ 143₁₁ Jb 10₁₈ 12₂₂ Dn 9₁₅ Ne 9₇.₁₅ 2 C 6₅ 7₂₂ Si 38₄ 44₂₃ (וַיֵּצֵן[א) 1QH 12₉ 4₂₅ 4QpsEzek[b] 1.2₆ 4QDib Ham[a] 1.5₁₀ 11QPs[a] 26₁₄ 11QT 59₂₁, perh. 4QBibPar 1₁₆ 4QpsEzek[c] 3.2₅ (וַיּוֹצִיאֵם) 4QpsMos[d] 2₂.

Aaron Ex 6₁₃.₂₆ 16₃ Nm 20₁₀ 1 S 12₈, Asa 2 C 16₂, Cyrus Ezr 1₇.₈, David 2 S 5₂ 12₃₀.₃₁ll1 C 20₂.₃ 1 C 11₂, Eleazar Nm 19₃, Eliezer Ezr 10₁₈, Elnathan Jr 26₂₃, Evilmero-dach Jr 52₃₁, Ezekiel Ezk 12₇.₇, Ezra Ezr 8₁₇(Kt), Gedal-iah Jr 39₁₄ Ezr 10₁₉, Gideon Jg 6₁₈.₁₉, Hadadezer 2 S 10₁₆, Hilkiah 2 K 23₄, Jarib Ezr 10₁₈, Jehoiada 2 K 11₁₂, Jeremiah Jr 15₁₉, Jeshua Ezr 10₁₉, Joash Jg 6₃₀, Job Jb 15₁₃ 38₃₂, Joseph Gn 48₁₂, Josiah 2 K 23₆, Lot Gn 19₅.₈.₁₂, Maaseiah Ezr 10₁₉, Melchizedek Gn 14₁₈, Menahem 2 K 15₂₀, Moses Ex 3₁₀.₁₁.₁₂ 46.₇ 6₁₃.₂₆ 14₁₁ 15₂₂(Sam) (MT qal) 16₃ 19₁₇ Lv 24₁₄ Nm 17₂₄ 20₈.₁₀ Dt 9₁₂ 1 S 12₈, Nebu-chadnezzar Ezr 1₇, Noah Gn 8₁₇, Pashhur Jr 20₃, Phar-aoh Ex 6₂₇, Rahab Jos 2₃, Ruth 2₁₈, Zerubbabel Zc 4₇.

Ephraim Ho 9₁₃, Judah Jr 17₂₂, Israel(ites) Ex 12₄₆ Dt 14₂₈ 17₅=11QT 55₂₀ Dt 22₂₄=11QT 66₁ (וְהֹצֵאתָ[ן]) Is 48₂₀

The microstructure of the above Excerpt 24 contains a load of data that include the following: number of occurrences, part of speech, gloss, morphology, semantic and syntagmatic relationships, paradigmatic relationships, i.e. synonyms and antonyms, and an index that lists all the words that may be clearly derived morphologically from the verbal root. The article is also structured in the order of the inventory of above data types.

The first entry of the microstructure is the item giving the frequency of the lemma in each of the sources used as the dictionary basis. The comment on form follows, i.e. (**vb**) together with the translation equivalent, (**go out**) given as the first instance of the comment on semantics. A brief outline of the article showing the different data categories at each level of derivation, i.e. *Qal, p.000a; Subjects, p. 000a; Prepositions, p. 000a*; *etc* follows. The helpfulness of indicating frequency and a brief outline is not clearly justified in light of the lexicographic function.

Each data category, i.e. different morphological forms, semantic and syntagmatic relationships, etc. are presented in text blocks resulting in an overall visible micro-architecture and search areas. For example, the user can easily locate the text block listing morphological forms of each verbal stem, subjects, collocations, semantics and so forth. Each text block, except for the items giving synonyms or antonyms contains a mass of data, from which (according to the lexicographic function) the user may supposedly retrieve vital information in order to construct his/her own meaning. The listing of data in these categories, according to this dictionary, is so that the user can arrive at his own meaning of the lexeme. Whilst this may be true, this disadavantages the user in terms of accessibility (sifting through loads of items) and the time consumed in efforts to construct the meaning. In this computer age, one can use powerful tools, e.g. search capabilities to locate every instance of the occurrence of the lemma in the respective texts and use the data as one sees fit. Therefore, when we consider Clines's work within the framework of the powerful electronic tools at the

users' disposal, it can be argued that a dictionary of BH needs to offer more that just mere lists of occurrences.[195]

Clines (1993: 26) claims only to organize and rationalize the available data… enabling users to make their own meaning… and not to impose his own views. He nevertheless attempts to describe lexemes semantically with the justification that these meanings: 1) have a large subjective element in them, 2) often depend on the semantic structure of the English language, and 3) senses are arranged in order of frequency of attestation. This evidences the argument that it is difficult to produce a dictionary without a lexical semantic description component. Furthermore, based on dictionary research (especially the role and use of the dictionary); dictionaries are often consulted for "meaning" above other things (Béjoint 2000: 115-140). It is unlikely that users will find Clines helpful in light of the lexicographic function and the lack of attention given to the semantic description of lexemes.

The structural organization and marking of semantic data on יצא is unclear. Under the qal derivation, the lemma is treated under two readings, viz. intransitive and transitive, marked by (1&2). Consider the following:

> **Qal**
> 1. **intransitive, go out, come out, set out, leave, depart, march** (into battle); of river, **flow** (Gn 2_{10}), of sun, **rise** (Gn 19_{23} Jg 5_{31}), of peoples, **be descended** (e.g. $1C2_{53}$), of land sold, be returned (e.g. Lv 25_{28})…
> 2. transitive, **go out from, leave** (Gn 4_{44} Ex $9_{29,\,33}$ Nm 35_{26} Dt 14_{22} 2K 20_4 Si 6_{35}).
>
> Excerpt 25

An analysis of the above shows a number of inconsistencies, which reflect inadequate criteria for marking and ordering items. The use of the bold typeface is unclear, e.g. intransitive (1) is in bold typeface and transitive (2) is not. The use of the comma (,) to separate data types is unclear between the readings the translation equivalents. In some cases, for example, it is used to indicate cotext entries but not in others. Under

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[195] A dictionary should not be an exhaustive encyclopaedia containing all available data about a particular word but should limit itself to the data that is relevant from a semantic point of view (De Blois 2002: 16). יצא alone stretches over 12 pages; cf. BDB which covers 3 pages.

the intransitive reading, **go out, come out, set out, leave, depart, march**, are given as different meanings, however without context or cotext entries. The status of the following entry, i.e. into battle, is not clear though it may be interpreted as a context entry for the sense *"**march**"*. The subsequent items comprise of the context entry, i.e. "**of river**" and the cotext entry represented by the biblical citation (Gn2$_{10}$). In between "**flow**", "**rise**", "**be descended**." etc., are provided as distinct senses, such that the order of items under the intransitive reading is: translation equivalent paradigm-context entry-context entry-polysemous sense-cotext entry. This order suggests no adequate and justifiable criteria in place for ordering data items.

The analysis of Clines in this section is not exhaustive. The above discussion is however sufficient to conclude that, broadly speaking, the article structure shows an improved microstructure because data is lumped together in text blocks. The result is that the micro-architecture is to an extent visible. The structure of individual entries however, shows little criteria for ordering or even selecting the massive inventory of data that is listed in the article. Clines claims to be "sure" of the user's needs but does not help the user with the most important data, i.e. the meaning. As has been pointed out above, theoretical lexicography, especially research into dictionary use, has established that dictionaries, above all, are consulted for the "meaning" of lemmata. This is important given that meaning is a vital component to the understanding of BH texts and listing translation glosses.

Barr's (1973: 11) comments become even more pertinent, i.e. that "people expect the dictionary to say something about meanings, to classify or explicate meanings in some way or the other. This semantic responsibility can be avoided only if we once again allow lexicography to degenerate into a listing of the forms that occur." Clines has fallen into exactly this trap by merely recording data.

Furthermore, dictionaries are expected to answer queries and questions that users may have. When the user consults Clines, does he/she know what to look for and does the dictionary offer the answer? If we could ask Clines what problems this dictionary is designed to answer, we could anticipate the following answer: "Because it is not a conventional Hebrew dictionary, many readers will miss elements they have become familiar with, and may find several of its novelties of little use to themselves. We will

have to learn how to use this dictionary, and invent new questions to which it will provide the answers" (Clines 1993: 26).

4.3.6 Electronic BH dictionaries

4.3.6.1 Introduction

A general lexicographic theory, especially regarding the components and structures of dictionaries, can greatly improve the quality of printed dictionaries. By implication the integration of lexicographic theory and hypertext technology promises even more improved reference works. The next section is a brief assessment of BH electronic dictionaries, with the focus placed on the selected aspects for criticism established in §3.13. On one hand, I will attempt to ascertain if they have improved on their printed counterparts in the light of the advantages of hypertext technology. On the other hand, the intention in this section is to establish if insights from theoretical lexicography have been considered in the compilation of BH dictionaries available electronically.

4.3.6.2 General observations

Most electronic dictionaries of BH are available on CD-ROM either as stand alone (§3.12.2) reference works or as part of a larger collection of resources such as the *Libronix Digital Library System* (LDLS), *Bible Works 6* (BW[6]) or Paratext. Most of these works are mere carbon copies of their printed counterparts and their compilers did not consider current insights in theoretical lexicography. They also did not take full advantage of the powerful electronic tools available.

BDB (1906) is available electronically in a variety of versions, i.e. abridged versions (LDLS, BW[6]), full version (BW[6], LDLS). The abridged versions are shorter replicas of the printed ones. Many bibliographic and comparative data has been omitted. The abridged versions do away with outer texts, whilst the enhanced versions (LDLS, BW[6]) retain them. Accessibility has slightly improved simply because of the electronic nature of these dictionaries.

KB is also available on CD-ROM as part of LDLS. Just like BDB, this electronic version is a replica of the printed version with the central list and outer texts prevailing. The introductory notes to all volumes and abbreviations appear together in the front matter text, whilst bibliographic data is positioned in the back matter text.

The advantage of this electronic version over its printed counterpart is that all five volumes are accessible in one resource with the result that the user can easily navigate and access lemmata without having to exit to consult separate volumes. In order to enhance comprehensiveness further, the data is hyperlinked to other works available in LDLS. The user is taken from the current dictionary article to, for example, a BH reference grammar, or to other dictionaries within the library system. Certainly, these features are helpful to the end-user. However, not much has improved with regards the microstructural organization of data in the light of trends in theoretical lexicography.

4.3.6.3 Electronic BH dictionaries based on semantic domains

4.3.6.3.1 Introduction
In this paragraph, focus is placed on two recent dictionary projects that have taken a different approach both in terms of semantic models for analysis and structural organization of data. Both are organized according to semantic domains. The critical assessment is not so much on the semantic models used by each dictionary, but on the structural organization, in particular of the microstructure, in the light of insights from theoretical lexicography. The work of Swanson (1997), which is available on (LDLS), will be discussed first and then a critical look at SDBH (2000-), a current project found at URL: http://www.sdbh.org/home-en.html.

By way of background, a brief reference will be made to the work of Louw-Nida (henceforth LN) in order to understand Swanson (1997) and De Blois (2000). Towards the end of the 1980s, Louw & Nida published a *Greek-English Lexicon of the New Testament Based on Semantic Domains*. As suggested in the title, this dictionary has two distinct features, namely, a different approach in semantic analysis and a structural organization that differs from the dictionaries so far assessed in this chapter.[196] LN departs from the usual approach of an alphabetical ordering of Greek lemmata. Instead, lemmata are arranged according to semantic domains (at least 93 are given) ranging from geographical objects, and features to names of persons and

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[196] Cf. Louw (1985); and Louw & Nida (1992) for more information on LN's approach to this dictionary.

places. Some of the semantic domains further have subdomains. Lemmata with generic meanings are arranged in the first instance followed by those with meanings that are more specific. In order to access the desired lemma sign, an index has been added that lists each entry alphabetically and consequently leads the user to the specific semantic (sub) domain where this word is located. LN has been found helpful to the study of New Testament Greek. The invaluable contribution of LN did not go unnoticed especially in the context of those who study the Old Testament.

4.3.6.3.2 Swanson (1997)

Swanson saw the need for a similar BH dictionary based on semantic domains. This resulted in the publication (LDLS 1997) of *A Dictionary of Biblical Languages*, containing Old Testament Hebrew and Aramaic. Swanson's approach emulated LN's setup of semantic domains. After this background to Swanson, a closer look at the frame structure, lexicographic function and the microstructure will now be taken.

Frame structure

In terms of its frame structure, Swanson consists of texts positioned in the front matter that include *the title, author, table of abbreviations* and *author's preface.*[197] As most BH dictionaries looked at in this chapter, the front matter text lacks the *user's guide*. The *preface* is important because it justifies the connection between Hebrew lemmata and LN's domains.

> First, the Louw & Nida (LN) domain numbers for the Hebrew domains are used primarily as an organizational principle to keep track of the tens of thousands of meanings of OT lexemes… Secondly,... there is an advantage to have (so-called) neutral domains of meaning with all the Hebrew and Greek terms. Commonality of systems allows a person to find information efficiently. That is why we alphabetize so many of our reference books; so we can find common or similar information (Swanson 1997).[198]

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[197] The table of abbreviations contains an explanation of indicators/symbols, general abbreviations, Bible Translations, and reference works.

[198] Swanson (1997) is aware of the fact that the Greek language domain structure should not be imposed on a Hebrew culture domain structure though there is a degree of similarity. It is nevertheless, unclear why he goes on to use Greek domain structure on the Hebrew.

Lexicographic function

The lexicographic function is not explicitly stated in the preface. However, since this work is the first of its kind concerning BH, it can be roughly inferred from the preface that the goal of this dictionary is to render the meaning of BH lexemes from a semantic domain vantage point, hence the link to LN's domains. The primary target audience seems to be the translator as suggested in the statement, "Many of these domains could relate to nearly any culture of the world; which is why Louw & Nida was designated by its editors as a lexicon for *translators* (Swanson 1997)."

Microstructure: Swanson

Below is an assessment of the dictionary article's microstructure in the light of principles of components and structures of dictionaries. I will focus on the lemma sign, שֶׁלַח.

8938 שֶׁלַח (*shalach*): v.; ≡ Str 7971; TWOT 2394—**1.** LN 15.34-15.74 (qal) **send out**, dispatch, i.e., have an object leave an area by linear motion to another place, usually for a purpose (1Ki 5:28); (qal pass.) **be sent** (Ge 32:19[EB 18]; 1Ki 14:6; Jer 49:14; Eze 3:5; 23:40b+); (nif) **be sent** (Est 3:13+); (piel) **send away** (Ge 8:7); (pual) **be sent away** (Ge 44:3; Pr 17:11; Isa 50:1; Da 10:11; Ob 1+); (hif) **send out**, cause a messenger or entity to go out (Ex 8:17[EB 21]; Lev 26:22; 2Ki 15:37; Eze 14:13; Am 8:11+), note: this can refer to an event happening, see also domain LN 13.104–13.163; **2.** LN 16 (qal) **reach out**, stretch out, i.e., the non-linear movement of a limb extending from a source (Ex 4:4); (qal pass.) **be stretched out** (Eze 2:9+); (piel) **extend** (Pr 31:20), note: the extension of the hand often refers taking an action, either in violence or help; **3.** LN 37.127-37.138 (qal pass.) **be set free**, i.e., be released from the control of another (Ge 49:21+); (piel) **let go**, release (Lev 14:7); **4.** LN 15.245 (qal) **shoot**, hurl, i.e., make a missile fly through the air, not under its own power (Ps 18:15[EB 14]); **5.** LN 15.1-15.17 (piel) **let stray**, i.e., allow an object to wander to another area (Ex 22:4[EB 5]); **6.** LN 23.188-23.196 (piel) **let grow**, i.e., have something become larger or longer (Eze 44:20), note: referring here to hair; **7.** LN 68.34-68.57 (piel) **end**, stop, i.e., have an activity end or cease (Job 39:3); **8.** LN 34.66-34.78 (piel) **give a child in marriage**, formally, send out, i.e., arrange a wedding for a child (Jdg 12:9); **9.** LN 34.66-34.78 (piel) **divorce**, formally, send away, i.e., no longer be in a socially recognized marriage relationship (Dt 21:14); **10.** LN 19.43-19.54 (pual) **be thrust**, i.e., pertaining to a pressing, pushing motion propelling oneself or another object (Jdg 5:15; Job 18:8; Isa 16:2+); **11.** LN

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v. verb
Str *Strong's Lexicon*
TWOT *Theological Wordbook of the Old Testament*
LN *Louw-Nida Greek-English Lexicon*
qal *Qal*
pass. passive
EB English Bible versification
+ More references in BHS
nif *Niphal*
piel *Pi'el*
pual *Pu'al*
hif *Hiphil*

35.54-35.56 (pual) **be abandoned**, desert, forsake, be left alone, i.e., not have attendance or care of an object, which may include physically leaving an area (Pr 29:15; Isa 27:10+), note: further study may yield more domains
Excerpt 26, (Swanson 1997)

Each lemma sign in the macrostructure is assigned a number identifying it, e.g. **8938**. The comment on form follows, hosting items giving pronunciation, part of speech and dictionary external references. By clicking on the numbers provided, the user is led outside the article and the dictionary to more data about the form. The abbreviations are accessed by pointing the mouse to a window, which pops up with where relevant data is located.

Some conventions, e.g. (≡) may create difficulties for the user because they are not explained anywhere. This inadequacy highlights the importance of a functional component in the outer texts explaining all conventions used in the dictionary article. In §3.12, it was noted that one of the big advantages offered by EDs is that space is no longer a concern. In this article, there are no less than eleven subcomments on semantics. These are lumped together in one text block, as in printed dictionaries with the result that it is not easy to retrieve desired information successfully.

Items in Excerpt 26 are organized according to LN's Greek semantic domains. As a result, each subcomment on semantics begins with a number linking it to LN's semantic domains, which in turn determines the organization of meanings. This diverts from the traditional approach of organizing lexicographic data under verbal stems of the lemma in question, e.g. qal, nifal, piel, etc. Therefore, the user has to learn how to use this dictionary. In this regard, Swanson fails to explain or instruct the user adequately regarding the article's features in order to enhance successful retrieval of information. This further confirms the need for the "guide to the use of the dictionary."

After the number indicating LN's semantic domains, Swanson provides translation equivalents/paraphrases of meaning and biblical citations that function as context and cotext entries, e.g. (qal) **sent out**, dispatch, i.e. *have an object leave an area by linear motion to another place, usually for a purpose* (1Ki 5: 28). This approach, which differs from the traditional one, (which provided a translation equivalent), provides the user with more complete definitions, in this case, of the semantic features of the

שׁלח. Swanson does not provide the meaning of each verbal stem, e.g. in subcomments on semantics (1), the piel, pual stems only have a translation equivalent. Does the paraphrase of meaning given for the qal equally apply to other verbal stems within that particular semantic domain? Under each subcomment on semantics marked by numbers (1-11), a number of translation equivalents are provided with each verbal stem. These may be read as further subcomments on semantics, e.g. on those represented by LN's semantic domain number. The subcomments on semantics in Swanson are not clearly marked.

The translation equivalents in bold, are in some instances followed by another entry that suggests another translation equivalent, e.g. **send out**, dispatch; **let go**, release; **divorce**, formally send away. The reason for marking some translation equivalents is not clear. Do the ones in bold typeface represent the most prototypical over the proceeding ones? The status of the item "formally" after **divorce** is not clearly understood, though it can be intuitively construed. The relationships between items should be clearly indicated, hence the need for an explicit addressing structure in the planning stages of the dictionary.

Furthermore, there is a disparity in the distribution of biblical citations functioning as cotext entries. For example, in the subcomment on semantics (1) the sense in (qal pass) **be sent** has more than (+) five citations, whilst the proceeding (nif) **be sent** has only one (but could have more as indicated by the +). Swanson does not explain why the distribution of biblical citations varies from one item to the other.

Swanson's approach represents a step forward in the compilation of an ED of BH. However, in the light of theoretical lexicography, a lot still needs to be done. The lexicographic function needs to be clearly identified; the frame structure lacks the obligatory functional component that instructs the user regarding the features and on how to use the dictionary. The microstructure does not take full advantage of hypertext technology. Data is lumped together and items are not adequately supplied, marked and distributed. In addition Swanson simply follows LN's Greek semantic domains that do not necessarily aid in the description of BH.

4.3.6.3.3 SDBH (2000-)

The Semantic Dictionary of Biblical Hebrew (henceforth SDBH) project is being carried out under the auspices of the United Bible Societies. It was launched in the year 2000. Its aim is to build a new dictionary of BH that is based on semantic domains, comparable to Louw and Nida's Greek-English Lexicon of the New Testament, which was first published in 1989. Reinier de Blois carried out the preliminary research for this project. This resulted in a dissertation, titled *Towards a New Dictionary of Biblical Hebrew Based on Semantic Domains* (de Blois 2000). In addition to this, a computer tool called *Vocabula* was developed that can assist the Hebrew lexicographer in his/her efforts to describe BH dictionaries.

Unlike Swanson (1997), which is linked to LN's semantic domains, De Blois (2000) realized that even though there may be similarities and analogies, BH and New Testament Greek are unrelated languages. In addition, there are major differences between the culture underlying the Old Testament world and that of the New Testament. Therefore, De Blois sought to determine the specific needs of BH users. It was envisaged that an incorporation of these needs into the basic model of semantic classes should result in a Hebrew lexicon that is based on a linguistically and semantically adequate foundation that does full justice to BH and the worldview behind it (De Blois 2002). This implied an improvement of LN's theoretical approach to semantic analysis.

The consideration of SDBH in this thesis is not so much an assessment of the semantic model employed to determine the meaning(s) of lemmata, but rather of the structural organization of data in the microstructure in the light of the model for criticism in §3.13.[199] Two things need to be noted. The first is that, since this is a project that is still in progress, the focus will not be on the frame structure, due to its unavailability. Secondly, an adumbration of the semantic model is necessary in order to grasp the components and structures of the dictionary article better.

The basic premise of the theoretical approach is that it regards cognitive linguistics as the most justified frame of reference for the semantic analysis of BH. This is a careful

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[199] This is in keeping with the focus of this study, i.e. structure and components of BH dictionaries.

study of the way different concepts in the world behind a language are perceived by the speaker of that language and how these concepts are transferred into semantic categories. The human mind perceives all kinds of relationships between different concepts and classes of concepts, which are often reflected in the language. Consequently, patterns in the semantic relations between classes of concepts can be established according to their semantic domain and cognitive frames of reference. The meaning of concepts can best be understood in comparison with other concepts that belong to the same semantic domains or fields.[200] This approach also helps to distinguish the key semantic features of a given lexical unit, hence offers the possibility of explicating it more adequately. De Blois (2000) conducted a structural semantic analysis of the BH language and concluded the following:

1. From a semantic point of view, a distinction is made between three classes of lexical units in BH: *Objects, Events* and *Relationals*. Every Hebrew lemma sign belongs to one of these three semantic classes.

2. Lexical units that belong to the semantic classes Objects and Events have both a lexical and a contextual meaning. The former focuses on the meaning of a lemma sign within its minimal context, with only those semantic items that it requires in order to be able to identify its basic meaning, whereas the events take relevant arguments into consideration.

3. In order to study both the lexical and the contextual meaning(s) of a given lexical unit adequately, a further distinction is made between lexical and contextual semantic domains.[201]

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[200] *Meaning* is established on the basis of the following criteria: 1) on purely semantic analysis; philological and grammatical considerations are not to play more than a minor role in this process; 2) the lexical meaning of a word is to be explained in the form of a definition covering all relevant semantic features of that word rather than with the help of a number of glosses; and 3) meaning can be understood better if it is studied in relationship with other words that belong to the same semantic domain (De Blois 2000: 104).

[201] According to De Blois (2000) this implies that in SDBH most lexical entries have to be classified twice and receive both lexical and contextual labels. In other words, every (sub) entry may have one or more lexical meanings and will therefore be assigned to one or more lexical semantic domains. This also implies that for each lexical meaning, we may find one or more different contexts, each providing its own relevant information that will need to be covered by one or more contextual semantic domains,

4.3.6.3.3.1 Lexicographic function of SDBH

It is clear from the semantic model used, that this dictionary is mainly concerned with the meaning of lemmata. According to De Blois (2000: 103), the primary purpose of a dictionary that is based on semantic domains is to give insight in the *meaning* of words of a particular language [in this case BH] to enable the user to understand the Hebrew text for translation purposes. *Ipso facto*, such a dictionary should be organized along *semantic* lines, hence, *A Dictionary of Biblical Hebrew Based on Semantic Domains.*

In organizing the dictionary article, De Blois makes a distinction between what he terms structural data and supplementary data.[202] Structural data is of a semantic nature and it forms the basic structural framework consisting of four levels: 1) entry level, 2) base form level (with included derivations), 3) lexical meaning level (A…B…, with semantic class and definition), and 4) contextual meaning (1, 2 …with gloss). Supplementary data is of a non-semantic nature. This data can be hosted at levels (2-4) of the hierarchical structure above. For example, the following data can be included: 1) at the base level: (*parts of speech, related words, cross references, etc can be added*); or 2) at the lexical level: (*grammatical forms i.e. qal, niphal, etc.; or noun, adjectives, synonyms*; and 3) contextual level (*i.e. syntagmagtic data, scripture references, translation notes.*)

According to De Blois (2000: 107), this kind of hierarchical structure has three advantages, *viz*: 1) it is based on purely semantic criteria; 2) the structure reflects the semantic structure of the language and tries to do justice to the way the speakers of the language view the world around them, and transfer the concepts they perceive in that world into words; and 3) the structure allows the user to compare entries that

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cf. http://www.sdbh.org/framework/index.html; De Blois (2000; 2002a: 209-229; 2002b: 275-295; 2003: 1-17), for an elaborate explanation of the theoretical framework.

[202] The interface of structural data and supplementary data results in a total of (17) mixed data types that can be present in a given article. These include: main entry, base form, part of speech, included derivations, related entries, cross-references, lexical meaning, semantic class, lexical semantic domain, synonym, derivation, definition, contextual semantic domain, gloss, references, translation notes, and notes.

belong to the same lexical and/or contextual semantic domain(s), although that requires the presence of two indexes, one for each set of domains.[203] The article structure and the microstructural components are illustrated in the samples below. The first is the one initially proposed in De Blois's dissertation (2000) and the one following is the current one from the ongoing project available on the web (2006).

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[203] De Blois (2000: 107) further argues that, if a dictionary of a language like BH is not based on a structural semantic analysis like the one he proposes, we run the risk of imposing a random set of semantic domains on the language, which will not allow us to gain a good understanding of what is going on semantically in that language.

חבל

(1) verb | חֲבֹל[1], חֹבֵל, חֶבֶל, חֹבְלִים

(2) verb | חֲבֹל noun, m. | חֲבֹלָה noun, f.

(a) **Events:** Connection B2
qal = to seize an object as a pledge for a
loan; AG people; GO objects

Possession; Wrong - *to take an (unlawful) pledge (from someone who owes
you)* (EXO.22:25; DEU.24:6,17; JOB.22:6; 24:3,9; PRO.13:13; 20:16; 27:13;
EZK.18:16; AMO.2:8)

(b)*Events > Objects:* Connection B2
as [a], but with focus on the goal: = object
taken in pledge for a loan; AG people; GO obje[ct]

Possession; Wrong - *pledge* (EZK.18:7,12,1[

(3) verb | חֲבֹל[2] noun, m.

(a)*Events:* Description A3
pi.; noun = to bring destruction and suffering upon objects;
ST all objects; CA animate objects

Violence; (Providence) - *to destroy (the earth, its inhabitants, etc.; said of God
and people)* (JOB.21:17; ISA.13:5; 32:7; 54:16; MIC.2:10[a])

Violence; Plants; Animals - *to damage, destroy (vines; said of animals)*
(SNG.2:15)

(c)*Events:* Description C3
pi.; pu. (passive) = as [a], but extended to events; literally: to break and event;
hence: = to cause an event to come to an abrupt and violent end; CA people, deities;
ST events

Violence; Crafts; Work; Animals > Aspect; Hardship - *to be broken (of a
yoke) > to be brought to an end (of suffering)* (ISA.10:27)
*The yoke may not be known in many areas. In certain cultures where forms of animal husbandry
are found, people are known to tie heavy objects to animals to keep them under control. Such an
image might be a good equivalent. In all other cases a more dynamic equivalent needs to be
looked for.*

(a) MIC.2:10 - BDB and KB prefer to read וְחֶבֶל תְּחַבֵּל as חֶבֶל תֶּחְבְּלוּ, which turns the verb
into a passive, but doesn't really alter its meaning; HOTTP prefers to maintain the
interpretation of MT.

Excerpt 27. Article structures of SDBH (2000) before improvements were effected to
yield the current article structure below.

United Bible Societies - SDBH - Microsoft Internet Explorer

Datei Bearbeiten Ansicht Favoriten Extras ?

Adresse http://www.sdbh.org/vocabula/index.html

UNITED BIBLE SOCIETIES

SEMANTIC DICTIONARY OF BIBLICAL HEBREW

© United Bible Societies 2000-2006

Latest update: 2006-11-16; number of entries: 2276
Work in progress -- your comments are welcome

א ב ג ד ה ו ז ח ט י כ ל מ נ ס ע פ צ ק ר ש ת

◀ שׁוֹפְטֵי   שׁוּר ▶

שׁוּר   Reinier de Blois

(1)   verb

(a)   *See (State/Process)* **verb, qal** // ראה
= to perceive, either with one's physical eyes or in a vision - *to see* (NUM.23:9; 24:17; JOB.7:8; 20:9; 24:15; 34:29; 35:5,13,14)
Senses [show/hide contextual meanings]

(b)   *See (Action)* **verb, qal**
= to fix one's eyes on a particular goal and observe it - *to look, lurk* (JOB.33:27[a]; JER.5:26; HOS.13:7)
Senses [show/hide contextual meanings]

Secrecy שׁוּר עַל־אֲנָשִׁים - *to look at people > to do something in public* (JOB.33:27[a])
Hunting > Aggression ; Sin - *to lurk, lie in wait (to commit violence to people like a hunter waiting for his prey)* (JER.5:26)
Hunting > Judgment ; Animal > God - *to lurk, lie in wait (to punish people like a leopard waits for his prey; said of God)* (HOS.13:7)

(c)   *See > Help (Action)* **verb, qal** - *to look after* (HOS.14:9)
Care [show/hide contextual meanings]

(d)   *See > Think (Action)* **verb, qal**
= to perceive with one's mind - *to perceive, see, recognize* (JOB.17:15; 33:14)
Mind [show/hide contextual meanings]

(2)   verb

(a)   *Move (Action)* **verb, qal** // בוא
= to move from one place to another - *to come, go, travel* (SNG.4:8; ISA.57:9; EZK.27:25)
Motion [show/hide contextual meanings]

(a) JOB.33:27 - MT NJPS REB GNT CEV; RSV NJB NRSV שׁיר "to sing"

Genesis 23:9

וְיִתֶּן־לִי אֶת־מְעָרַת הַמַּכְפֵּלָה אֲשֶׁר־לוֹ אֲשֶׁר בִּקְצֵה שָׂדֵהוּ בְּכֶסֶף מָלֵא יִתְּנֶנָּה לִי בְּתוֹכְכֶם לַאֲחֻזַּת־קָבֶר

String:
Lexical Domain:
.
Contextual Domain:
- motion

אבד
אֶבֶן
אֲחֹרַנִּית
ראה
הדה
חנן
חול
חצץ
עב
קטר
קלע
שׁור

Excerpt 28 SDBH (2006)

A comparison of the two article structures will show that some lexical domain descriptions that were initially included in Excerpt 27 were left out because of the difficulty they presented concerning accessibility and interpretation. In the revised article structure, the extent to which SDBH took consideration of hypertext technology is clear in comparison to other BH electronic dictionaries.

Since this is an ED available on the internet, the access structure starts externally, with the URL: http://www.sdbh.org/vocabula/index.html. One can use the title

"*Semantic Dictionary of Biblical Hebrew*" or words in the title, which are relevant metadata to search for this dictionary. Once found, the *home page menu* displays, showing the content of the dictionary, i.e. title, language options, background to the dictionary and the dictionary. A click on any of the items displayed on the home page menu opens the relevant page hosting the respective contents. For example, on the home page of SDBH the following items are given: the title, language options (French, Spanish and Portuguese), background to the dictionary and the dictionary. A click on the item "dictionary" links the user to the page hosting the central list. Since this is an ongoing project, the lemma sign שלח has not yet been treated.[204] Therefore, I will focus on the lemma sign שור, which is displayed in Excerpt 28 above.

The interface of the above Excerpt 28 presents many access possibilities to the desired lemma. A permanent menu prevails regardless of the lemma sign that is searched for and displayed. Firstly, the user has the option of the Hebrew access alphabet, which is positioned together with the title on the top centre of the window. By clicking on the relevant letter representing a specific article stretch, e.g. שׁ, all lemmata hosted therein are displayed on the far right side window, which is permanent. This allows the user to scroll down in search for the desired lemma sign. Secondly, an initial-alphabetic search-box, with a Hebrew keyboard can be an optional search path. Using the provided keyboard, the user can enter the lemma sign desired, which is subsequently displayed in the far right window as well as the presentation of whole article (depending on the size of the monitor) in the centre window. More search options included a search according to lexical or contextual domains, e.g. the lemma in question belong to the contextual domain "motion". If the domain is typed, all lemmata belonging to this domain are displayed in the index.[205]

The microstructure shows an *avant-garde* approach of organizing data. The first observable feature is that SDBH did not shy away from taking advantage of the space afforded by hypertext technology. For example, the lemma sign שור is entered on its own line, and so are the comments on form (e.g. verb) and subcomments on semantics (1a-d & 2a). This makes the search areas easy to identify. Furthermore, the

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[204] The article on שלח has not been finalised at the time of writing.

[205] The table of contextual domains lists, up to date, 187 domains.

microstructure is organized at the lexical domain level, e.g. (state/process, help/action, etc) and at the contextual domain level, e.g. secrecy, hunting, etc. At the former level, the lexical meaning is provided and it represents the first subcomment on semantics, e.g.

(a)   (state/process) **verb, qal**//…= to perceive either with one's physical eyes or in a vision-*to see*

Meaning extensions stemming from the lexical meaning are then provided at the contextual domain level. These can be read as further subcomments on semantics and can be displayed by clicking on the (hide/show contextual domains) function. The structural organization according to the lexical and contextual domains also presents better addressing relations (compared to existing traditional dictionaries), i.e. the user knows which item is directed to what. With regards to the lexical meaning, De Blois (like Swanson) provides both a paraphrases of meaning and translation equivalents placed at the end of the current section, e.g. in Excerpt 28 the following are placed at the end: **to see; to look, lurk; to look after, to perceive**; etc. To further enhance the successful retrieval of information, SDBH makes use of colour schemes for different data types.

The microstructure of Excerpt 28 confirms that before commencing this compilation, SDBH had a clear cut conceptualization plan for the article structure and the data to be hosted. This is corroborated by the fact that an abstract hierarchical structure for Excerpt 28 can be constructed as below:

DA שׁוּר

CFS

CFS1   CFS2

CF   CFSa

verb   CF   CS

LD   PS   D   RE   LM   TE   CT   CD/M

state/   verb   qal   ראה   to perceive   to see   NUM 23:9;   senses
process   either with one's   24:17;   1. general to see
                                     physical eyes or   JOB 7:8; etc. 2. God-to see God
                                     in a vision   3. etc
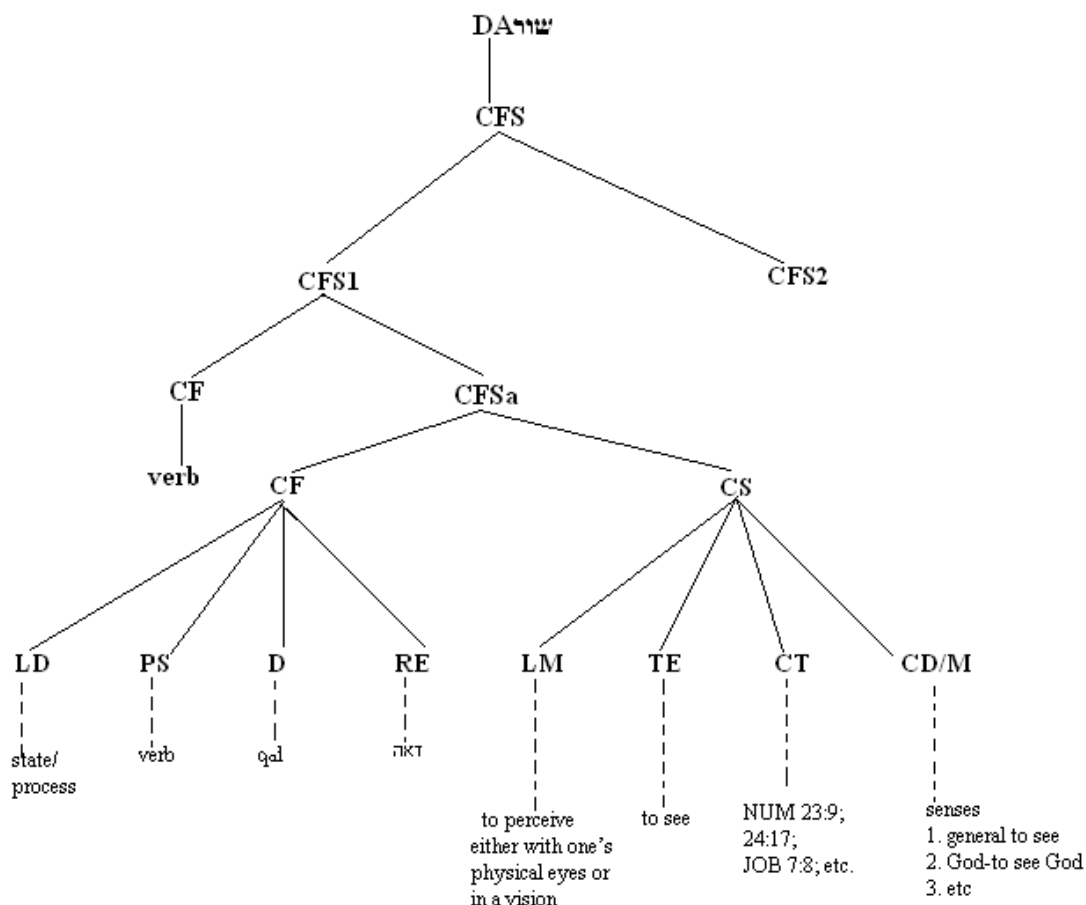
Items (DA= Dictionary Article; CFS= Comment on form and Semantics (one, two); CF= Comment of form; CS= Comment on Semantics; LD= Lexical domain; PS=Part of Speech; D= Derivation; RE= Related Entry; LM = Lexical meaning; CT= Citations;TE= Translation Equivalent; CD/M =Contextual Domain and Meaning

Tree diagram 2. Partial hierarchical structure of SDBH (2006)

SDBH is an innovative project raising the standard of ED dictionaries. As an ongoing project, proper assessment can only be undertaken upon its completion. A few things regarding the structural and theoretical approach can, however, be pointed out. SDBH does not provide an item that may represent the "basic meaning" or "semantic prime" of the lemma entry.[206] In Excerpt 28, שׁוּר appears separately with translation equivalents provided at the end of lexical and contextual meanings in the comment on semantics. Traditional BH lexicography and general bilingual dictionaries have always provided the lemma entry together with a translation equivalent function as the

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[206] The notion of "basicness" essentially states that some meanings are more basic than others. The author is aware that there are various takes to this notion, Cf. (2004: 50-51) and that he is treading on dangerous ground with the use of the notion "basic meaning." However, for the purpose of this investigation, "basicness" is used with reference to a commonly accepted "translation equivalent in the receptor or target language."

"basic meaning" or "semantic prime". The basic meaning may help the user with the most general or perhaps the most basic meaning of the lemma entry. In Excerpt 26, it is possible that the user may be left with some uncertainty regarding the basic meaning of שור.

In Excerpt 26, subcomment on semantics 1c, the entry at the lexical level, i.e. >Help/(Action) verb/qal, is followed by –to look after (Hos 14: 9). A comparison with other entries at this level shows that the lexical domain is entered in its own line, and in some cases accompanied by a related lexical item. The lexical meaning is then provided below and marked by =. Whilst this is an observation on the periphery, it is always important to adhere consistently to the structural programme of the dictionary's conceptualization plan. An inconsistent ordering of items may cause confusion with regard to how such misplaced data is read.

The treatment of lemma signs elsewhere will show that De Blois assigns the same meaning to lexical items with different verbal stems and lexical classes, but derived from the same root. Consider the following,

קטר

1. verb | מִקְטָר | noun, m | קִטֵּר | noun, m | קְטֹרֶת ,מִקְטֶרֶת ,קְטוֹרָה ,קְטָרוֹת ,קְטֹרֶת ,קִטֹּר | קִיטֹּר | קְטוֹרָה ,קִטָּרוֹן

(a)   *Sacrifice (Causative)* **verb, pi; verb, hi; verb, ho (passive); noun**
      = to set alight and cause smoke to rise from the sacrificial fat parts of an animal, of
      grain and other offerings, including incense ► as an offering ל to a deity; ● causer:
      human; affected: inanimate - *to set alight, burn* (EXO.29:13,18,25; 30:1,7,7,8,20;
      40:27; LEV.1:9,13,15,17; 2:2,9,11 .
Excerpt 29 (SDBH 2006)

The above entry is classified as a verb first before the nouns derived from it. In the first subcomment on semantics, the lexical domain (sacrifice/causative), part of speech (verb), verbal stems (piel, hifil, hofal) and the lexical class item (noun) are listed in the same context and assigned to the same lexical meaning. This suggests that, within De Blois's theoretical framework for semantic analysis, there are no semantic differences between these items, hence their being assigned to the same lexical meaning. Such an approach suggests that, whilst De Blois recognizes that there is a distinction in the form of these verbal stems, he in one way or another denies the possibility of their distinct semantic functions, if any. Traditional BH dictionaries that we have already looked at treat the verbs strictly according to the verbal stems or

levels of derivation. There is general consensus that the Hebrew verbal system is problematic, and this will be dealt with in §5.2.3. However, it must be borne in mind that, which ever view one takes, it certainly has an impact, not only on how BH dictionaries are described but also on the structural organization of data.

4.4   Conclusions and recommendations for an improved BH lexicon

In this chapter, two selected general bilingual and two BH dictionaries have been criticized in the light of the model for criticism established in chapter three. This model focuses on three selected aspects deemed relevant for our purposes, viz., the frame structure, lexicographic function and microstructure.

The criticism of the selected general bilingual dictionaries under the three aspects concluded that one was a good example that took into consideration insights from theoretical lexicography, whilst the other did not. The good one had a clear frame structure, which included among other things, a well-defined guide to the use of the dictionary, claims from which the lexicographic function could be adequately constructed and a microstructure that enhanced successful retrieval of desired information. The other dictionaries were lacking in all these areas. This confirmed that in any lexicographic process, it is essential to have a clear-cut conceptualization plan for each structural component of any compilation.

The critical analysis of both printed and electronic BH dictionaries concluded that most show no evidence of adequately applying the insights that theoretical lexicography has to offer. Of the three lexicographical components that were focused on, it was concluded that the selected BH dictionaries neglected the "guide to the use of a dictionary", which is a prerequisite functional component for the successful consultation of a dictionary. Furthermore, the lexicographic function is not clear, and in some cases, it is difficult to discern from the claims stated in the front matter. The result of this inadequacy is a microstructure that is difficult to access and to retrieve desired information from some. BH electronic dictionaries were also lacking in the areas just mentioned because they are just copies of their printed counterparts. Swanson and SDBH, however, are electronic BH dictionaries that have taken a different approach, i.e. entries based on semantic domains. The former initiated the

break from traditional BH lexicography, whilst the latter sought to improve BH dictionaries in terms of semantic models and the structural organization of data. De Blois's (2000-) main contribution to BH lexicography with regard to components and structures of BH dictionaries is that more clearly demonstrates what hypertext technology has to offer. By doing so, he has deviated from traditional BH dictionaries that are also available electronically through the develpement of a user-interface that is user-friendly, enhances rapid access to data, and the retrieval of desired information. For this reason, De Blois sets precedence for a new generation BH dictionaries through his ongoing project.

Based on the investigation of this chapter, the following aspects of lexicography will be focused on in Chapter 5.

1. First, in keeping with current trends in technology and theoretical lexicography, the proposed improvements of a BH dictionary will consider the electronic platform, as opposed to printed dictionaries.
2. The lexicographic function of the improved dictionary for translators will have to be clearly formulated.
3. A selection of data types that will facilitate the lexicographic function should be decided upon.
4. The structure of each data category will have to be organized using the insights of components and structures of dictionaries in theoretical lexicography as a guide.
5. In this regard, the microstructure of the dictionary article will be considered, with a focus on the following:
   - Data in the comment on form and comment on semantics
   - The arranging of meaning
   - The use of context and cotext entries
   - The micro-architecture, addressing structure and medio-structure of data types needed in the light of the lexicographic function.

Chapter 5

Dictionary Conceptualisation plan of the proposed BH dictionary for translators

5.1   Introduction

Chapter 2 established a preferred model by which existing lexica may be criticised. This model was elaborated on in Chapter 3, resulting in a model that focused on the frame structure, lexicographic function and the microstructure. Chapter 4 employed the model to criticise existing lexica with the goal to establish the extent to which they subscribed to theoretical lexicography in their compilation. It was concluded that most existing lexica did not take full advantage of insights from metalexicography before and during their compilation, nor did they optimally use hypertext tools available to compile better dictionaries.

The goal in this chapter is to develop a conceptualisation plan for an improved BH dictionary for translators. Though there are other aspects critical to the conceptualisation plan, the contents of this chapter will be limited to the formulation of the lexicographic function, which is a key consideration for any planned lexicographic project. Additionally, the chapter will focus on the microstructure since it hosts most structural components and is the centre of the lexicographer's work and the users' look-up activities. In order to achieve the latter objectives, this chapter will commence with a brief discussion of relevant theoretical issues, **5.2**, formulate a lexicographic function of the proposed improved dictionary, **5.3**, and develop the conceptualization plan of the microstructure for the proposed improved dictionary, **5.4**. and **5.5** is the conclusion of the chapter.

5.2   Theoretical issues

5.2.1   Introduction

In this section, two theoretical issues that have a bearing on the structural organization of the dictionary article will be discussed. The first regards the arrangement of meaning. How should meaning be arranged? The second issue focuses on the

meaning/function of BH verbal stems. Do the traditionally accepted verbal stems have distinct semantic differences or similarities that warrant their being assigned a distinct or non-distinct meaning? The answer(s) to each of these questions has practical implications on the structure of the article.

5.2.2 The arrangement of meaning

The assessment of BH dictionaries has shown that some dictionaries organize meaning according to frequency of attestation, e.g. Clines (1993). Some do not have clear criteria for the organization of meaning, e.g. BDB (1974 reprint). In his book, *Meaning in Language*, Cruse (2004: 195) discusses meaning and its related facets, one of which focuses on how meaning has been organized in dictionaries. One of the things that Cruse (2004: 195) puts forward is that meaning may be understood from the literal to the non-literal one. At the everyday level, the contrast between the literal and figurative use of a lexical item does not seem problematic. The problem, however, lies in the endeavour to determine exactly what "literal meaning" really is. A few ways of assessing the embodiment of literalness have been suggested (Cruse 2004: 195-197).

Meaning in dictionaries can be organized on a historical basis, with the earliest recorded use in the first position. This has been rejected as a satisfactory explanation for "literalness" mainly because, "while we might reasonably expect an intelligible path of change from past meanings to present meanings, most speakers are ignorant of the history of their language. On this basis, history cannot be the (direct) cause of current intuitions" (Cruse 2004: 195). Meaning can also be organized according to the most frequently occurring reading of a word. Whilst this may seem to be the most plausible for intuitions of literalness, it fails when we consider the verb *see*, which may have at least two readings, *viz*., "have a visual experience" or "understand" (as in Do you see what I mean?). The former is the most literal but less so in comparison to the latter in terms of text frequency (Cruse 2004: 195). In other words, to see is used in the context of "understand" more often than "have a visual experience."

Another approach to the organization of meaning is according to the default reading of a word, i.e. the one that is called up first from the mental lexicon when the word is encountered out of context, or the reading which one would assume to be operative in

the absence of contextual indications to the contrary. This would seem plausible in the context of "see" above, especially if a foreigner were to ask for its meaning. The literal, i.e. "have a visual experience" would come up first. However, "even if the literal meaning coincides with the default reading, we are still none the wiser as regards the underlying reason: it should be possible to come up with a genuinely semantic categorization" (Cruse: 2004: 196).

The following examples are used to explain two other possibilities of how literalness can be understood.

1. Mary has been offered an excellent *position* with a firm of solicitors.
2. What is your *position* on the single currency?
3. This is an excellent *position* from which to watch the parade.

From these examples, it can be drawn that the reading from which the most plausible path of change begins, represents literalness. It is inconceivable to start with (1 or 2) as the literal meaning and derive (3). Instead, it is more plausible and natural to begin with (3), in which *position* involves location in physical space, and then extend to the mental space (2), and then a place in an institutional hierarchy (1). This option is a better criterion for the explanation of "see", i.e. it is easy to derive the "understand" reading of "see" metaphorically from the "have a visual experience" reading, but not vice versa.

The reading most closely related to basic human experience and sensory impressions is another option which follows from a "claim that not only much of language, but also many conceptual categories are metaphorical in nature, and are extensions from basic experience, especially, but not exclusively, spatial experience" (Cruse 2004: 196). This explains why the "location in physical space" reading of position, and the "have visual experience" reading of see would be literal, and their other readings metaphorical or extended.

According to Cruse (2004: 197), it seems that the "plausible path" and the "basic experience" criterion seem to give the answer to the question of arranging meaning

from the most literal to the less literal.[207] Whilst these criteria may be adequate to common contemporary dictionaries, they may be difficult to apply to quasi-dictionaries, especially BH, whose cognitive world is far removed in both time and contemporary setting and experience.[208] In the light of the above possibilities, the question remains as to the most plausible approach in arranging meaning in a BH lexicon?

One of the aspects to take into consideration in BH lexicography is that the dictionary basis is found in already existing texts, i.e. the Old Testament. The task of the lexicography then, is not to compile a new corpus from scratch, but to compile and proffer a lexical description of each lemma occurring in the available text. In this light, it seems reasonable to organize the dictionary article according to the most frequently occurring meaning of the lemma sign.[209] Frequency, in this regard, does not serve as credence for literalness or figurativeness but prototypicality of usage in the text.

According to Gilquin (2006: 159), the notion of prototypicality lies at the heart of cognitive linguistics.[210] It is a label under which diverse phenomena have been lumped together (Geeraerts 1989: 606). Cognitive linguists, on the one hand, tend to consider the prototype as the cognitively most salient exemplar, whilst on the other hand, corpus linguists often equate it with the most frequently corpus-attested item (Gilquin 2006: 159).[211] Empirical studies[212] in each of the camps have affirmed

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[207] The author is aware of the fact that it is not always easy to determine or draw the line between what is literal and what is metaphorical.

[208] It does not mean, however, that cognitive semantics has no place in BH lexicography. The fact of the matter is, it plays a crucial role in the description of lemmata.

[209] This option has been rejected on the basis of the example cited §5.2.2 i.e. see viz. "have a visual experience or "understand."

[210] Geeraerts (1988: 207) points out that, "prototype theory is as it were part of the prototypical core of the cognitive paradigm in semantics, particularly in lexical semantics."

[211] It has been assumed that the two schools coincide with one another, whilst some claim that corpus linguists and cognitivists examine different things as they study frequency and saliency respectively (Gilquin 2006: 159).

Geeraerts's (1989) earlier position that prototypicality is itself a prototypical notion, with fuzzy boundaries, central and more peripheral instances. As such prototypicality is perhaps best described as a multi-faceted concept that brings together: 1) theoretical constructs [theoretical models] found in the cognitive literature and relying on deeply-rooted neurological principles such as primacy of the concrete over the abstract, 2) frequently occurring patterns of (authentic) linguistic usage, as evidenced in corpus data, and 3) first-come-to-mind manifestations of abstract thought, as revealed through elicitation tests (Gilquin 2006: 180). Whatever preferred approach to prototypicality, it must be pointed out that various facets of prototypicality can converge, when they all point in the same direction, but they can also be (wholly or partly) divergent and reflect different realities as demonstrated in Gilquin (2006).

Based on the above discussion, frequency of attestation in BH, the analyses of which belong to corpus linguistics, is the preferred approach to describing prototypicality regardless of concreteness vs. abstract meaning or first-come-to-mind point of reference.[213] In other words, the polysemous sense of a lemma (if it has several) that occurs the most serves as the prototypical usage and is therefore placed in first position, while other senses follow in diminishing order. The reason for this approach is that because BH is a language far removed from us in time and contemporary culture, it may prove a difficult task to describe and agree on the cognitive world of the speakers, e.g. with regard to the abstract or first-come-to-mind. Frequency of attestation provides us with a tool that is more definite in terms of consensus and as well as the basis for distinguishing meaning.

Another issue closely related to the arrangement of meaning is the Hebrew verbal system. The next paragraph will discuss the Hebrew verbal system and its implications not only for the semantic analysis of BH lexemes but also for their organization.

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[212] For example, Gilquin (2006) takes *causation* as a starting point to compare models of cognitive salience found in the literature with the most frequent patterns as attested in corpus data. Among other things, he shows how corpus data reflect the notion of prototypicality, and data has indeed been used as a tool to pinpoint prototypes.

[213] However, the metaphorical use of a lemma will be indicated where applicable.

5.2.3　The BH verbal system

5.2.3.1 Description

Multifunctionality is a quality inherent in every language, i.e. each language system uses finite means for infinite expressiveness, and *ipso facto* many aspects of a language are called upon to perform a variety of semantic functions. In BH, the verb is at the hub of the expression of predication, performs most functions and has the potential to determine a variety of other small functions or macro-functions. Various verbal forms are important to predication.[214] However, verbal stems (i.e. qal, piel) may play an even more central role.[215] The following example from Waltke and O'Connor (1990: 344) illustrates the potential a multiplicity of functions inherent in a Hebrew verb.

וַיַּכּוּהָ "And they smote it (the city of Jerusalem)"

This verb expresses at least nine arbitrary phenomena, which include: the action of smiting, the subject (here the actor), the object (the patient), voice, case frame, type of action, time of action, quality of action, and mood. The form וַיַּכּוּה has at least four bound morphemes that denote a number of things, i.e. the verbal root, signifying the state or action being represented; the pronominal affix(es) signifying person, gender and number of the action; the prefix signifying voice and causativity; and the vocalic infix signifying tense/aspect and mood/modality. The *waw* conjunctive morpheme prefixed to a verbal form may show the relationship of the situation represented by the verbal form to other situations. The shape of each of these affixes bound together is determined by the one before or after in the verbal form. The verb like the one above can be stripped of all its affixes to its stem or root, resulting in the form that is no longer a true verb but a hybrid. The central phenomenon of Hebrew verbal derivational morphology is the modification of the stem (which is the hybrid) by various vocalic and consonantal affixes. The consonantal affixes are characterized by

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[214] A predicate is a word or combination of words, including the verb, objects, or phrases governed by the verb that make up one of the two main parts of a sentence.

[215] Holladay (1973: 42) indicated that, "the choice of a word may express one type of meaning, its morphology another and its position in sequence another; and any element is likely to have more than one structural role, like a chord in a polyphonic structure which participates simultaneously in a number of melodic lines."

the prefix **n** and **h**, infix **t**, and doubling of the middle radical of the root. Though there are other patterns of affixation, the following are major ones that have been identified and labelled by grammarians, i.e. *qal, niphal, piel, pual, hitpael, hiphil*, and *hophal*.

The notion of predication was mentioned to in the above paragraphs. The Hebrew verbal system realizes various categories of predication that have been arbitrarily mapped in relation to other languages. Of these categories, tense, modality, voice and aspect are critically important in the analysis of Hebrew verbs. Tense refers to the morphological phenomena that locate a situation in the course of time.[216] It always refers to both the time of the action and the time of the utterance. BH has no tenses in the grammatical sense of the word. Rather, it uses a variety of other instruments to express time, e.g. adverbials, and various syntactic means (Waltke & O'Connor 1990: 347). Modality refers to the category of morphological behaviour that locates a situation in the discourse. Cook (2001: 126) broadly defines modality as characterizing the speaker's view of the actuality of an event.[217] Voice refers to the category of morphological phenomenon that describes the kind of situation a verb refers to.[218]

Waltke & O'Connor (1990: 346-350) discuss the category of aspect in relation to other languages, namely, European. They point out that the English word "aspect" refers to two entirely separate sets of grammatical categories: 1) aspect as the contour of action (perfective, progressive, etc, German *Aspekt),* and 2) aspect as the type of action (stative, causative, etc.; German *Aktionsart*). Many languages have complex systems of representing these two categories. "Semitic languages have well developed expressions of both systems, in that they formally distinguish *Aspekt* through the conjugations and *Aktionsart* by the stems (Waltke & O'Connor 1990: 346). In this light, the English reader must always be precautious of the naked term "aspect" in

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[216] A situation may be a state, an event or a process (Waltke & O'Connor 1990: 346). Cf. Andersen (2001: 1-2) and Cook (2001: 123-124) for a recent discussion on tense.

[217] Cf. Palmer (1986: 66-76) for a further discussion of the these notions.

[218] English has active and passive, whilst, for example, Classical Greek has middle as an additional voice.

connection with Semitic studies. For this reason, the German terms have been used to keep the notion aspect clear.

Aktionsart (type of action) is characterized by various phenomena, which will just be mentioned without elucidation.[219] The first include fientivity and transitivity. Fientive verbs pertain to the type of movement or activity inherent in the verb.[220] A verb can be stative (describe a state) or fientive (describe an activity). Transitivity refers to the contour of movement or activity inherent in the verb. Another phenomenon of *Aktionsart* involves causation. There are two major types of causation constructions, i.e. factitive construction and causative construction discussed in detail in Waltke & O'Connor (1990: 349). Last but not least, is the notion involving double-status action. These include reflexive, reciprocal and tolerative constructions. The parameters or phenomena treated under the heading of aspect (*Aktionsart*) are summarized below:

1. *voice*: active, passive, middle

2. *type of movement/activity*: fientive, stative

3. *contour of movement/activity*: transitive, intransitive

4. *causation*: causative, resultative/factitive, declarative

5. *double status action*: reflexisive, reciprocal tolerative.

The above parameters are arbitrary categories of predication that have been identified. Of these, aspect (*Aktionsart,* covering the five phenomena) has been suggested as the prominent category. For this reason, it has received much attention in terms of analysis and description, consequently establishing that the verbal system of Hebrew is not as straightforward as is apparent. There are problems regarding the understanding of the verbal system and these problems have a direct or indirect impact, among other things, on biblical exegesis, Bible translation and BH lexicography.

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[219] Cf. Jenni (2000: 68ff) for a detailed discussion of *Aktionsarten.*

[220] Fientive comes from the Latin fiens "becoming". It developed in use to designate both verbs that are non-stative in inherent meaning, and inflections of a verb that are not stative in form (Waltke & O'Connor 1990: 348).

5.2.3.2 The problem

According to Cook (2001: 117) the study of the Hebrew verbal system appears to have reached an impasse.[221] The problem in the analysis and description of the BH system mainly involves mapping.[222] Do members of the Hebrew verbal class have a relation of correspondence of some kind with one or more members of a parallel class or target language, (in this case English)?[223] In the light of the above, how do phenomena inherent in the verb וַיִּכּוּחָ, and the categories of predication map onto elements of the verb? Since the BH verbal system is one of derivational morphology, an important question is: what does the derivational morphology actually tell us? In this respect, Waltke & O'Connor (1990: 345) state,

> This is not a matter of translational equivalency, but a prior matter of linguistic study. It is only after we understand how the Hebrew verbal system works that we can properly debate how to express that information in a fluent translation, using the verbal categories of a target language. In all this, a real-world appreciation of how predicates work is useful, but appeals to common sense must not be allowed to replace careful study. Common sense has often been used to beat the Hebrew verbal system into a system like those of English, German, or Classical Greek.

Based on the above, it is clear that in order to translate a BH text into any target language or to compile a Hebrew-English lexicon, a proper understanding and

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[221] The impasse here does not refer to the question of verbal conjugation (qatal-yiqtol) nor the meaning of the verbal stems.The impasse refers to the result of two schools of thought regarding the Hebrew verbal system. Most scholars adhere almost religiously to either the "aspectual school" (e.g. Ewald 1879; Driver 1892 [1998]; Rundgren 1961; Waltke & O'Connor 1990; Meyer 1992), or the "tense school" (e.g. Blake 1951; Kurylowicz 1972, 1973; Revell 1989). According to Cook (2001: 117), 'conversions' between schools are rare and the rhetoric is often polemical.

[222] Cf. Cruse (2004: 32) on the discussion of the notion of mapping. Different kinds of mapping are also discussed, e.g. one-to-one mapping, one-to-many mapping, many-to-one mapping and many-to-many mapping.

[223] This is one of the factors that has contributed to the impasse. Many theories expect that the Hebrew verbal system should be unrealistically symmetrical in terms of form and meaning, cf. Bolinger (1977: x)'s view that "the natural condition of language is to preserve one form for one meaning, and one meaning for one form.

description of how phenomena of the Hebrew verbal system map onto the target language is a prerequisite. The point of departure toward a solution has been to look at the different categories of predication relevant or not, of BH and other languages, e.g. English.

5.2.3.3 Toward a solution

Many attempts to unlock the BH verbal system have been undertaken. A point of departure toward describing the Hebrew verbal system is a consideration of systems that have features which are relevant to Hebrew or which are not relevant but might seem to be. These features belong to categories of predication relative to various languages briefly surveyed above and are realized in the BH verbal system of derivational morphology.

The categories of predication set the stage for analysing and describing the grammatical subsystems of morphemes essential to the true verb or consonantal skeleton/root. These morphemes consist of various vocalic and consonantal affixes, which modify the root to yield a stem system comprising seven major stems, namely: qal, niphal, piel, pual, hithpael, hiphil, and hophal. A solution that adequately describes the stem system has not yet been proffered, neither is it the author's intention to give one, but to highlight the implication(s) of the problem for BH lexicography. Despite the lack of adequate approaches, different suggestions have been brought forward in the quest to understand the verbal stem system.

Waltke & O'Connor (1990: 353) highlighted some of the concerns raised in the description of the verbal stem system. These include the following: 1) scholars have tended to describe the system as based formally on the qal stem, 2) they assigned a meaning or set of meanings to each stem independently (the atomistic approach) and 3) they have neglected the system itself.[224] The atomistic approach (2) has been criticised for often failing to consider the fact that the verbal stems constitute a system, which clearly distinguishes morphemes that involve both form and function. In addition, this approach is particularly unsuccessful in dealing with semantic

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[224] The allegation of neglecting the system was made by Goshen-Gottstein (1969: 70-91) with special reference to Moscati's *Introduction to the Comparative Grammar of the Semitic Languages*.

anomalies and subpatterns that affect any study of the Hebrew verb (Waltke & O'Connor 1990: 353).

Goshen-Gottstein (1949: 35-47) attempted to salvage some of the inadequacies of the atomistic approach by constructing a diagram of the verbal stem system that highlighted known facts about the verbal stems. This approach was found lacking because it focused only on the forms of the verbal stems rather than on the meaning. In this way, Gottstein did not consider the whole system. If each stem is perceived to serve a particular function(s), and if these functions constitute a system, then it will help in the study of the system as a whole. According to Waltke & O'Connor (1990: 353), such an abstraction can be of help in understanding the functions or meanings of the individual parts and of their relationships to one another. Such an abstraction has consequences for BH lexicography with regard to the assigning of meanings to lexemes and to the organization of the article structure. Greenberg (1965: 14ff) contributed to the discussion of the verbal stem system by creating a model of the verbal stems based on a system of coordinates, with one vertical set pertaining to voice (i.e. active, passive, reflexive). Three vertical columns labelled I, II, III, are given describing the verbal action, i.e. simple, intensive and causative, respectively. This model, which I will not discuss, helps to present the functions of the verbal system, at the same time highlighting the difficulties of abstracting the features of the system. However, some aspects of the model have been found inadequate, e.g. the status of the horizontal axis; or the semantic basis of the piel, pual, and hithpael belonging to the column representing the intensive action (II).[225]

Earlier, it was noted that scholars have tended to describe the verbal system of BH as based on the qal stem.[226] Traditional grammarians have stressed the qal: piel relation as key to understanding the system. The piel: hiphil has also been emphasized. Waltke & O'Connor (1990: 354) emphasize the piel as the key to understanding the verbal stem system. In this regard, Goetze (1942: 1-8) is credited for initiating the first major

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[225] Cf. Waltke & O'Connor (1990:353-354) who briefly discuss the shortcomings of the Greenberg (1965)'s grid or system of coordinates.

[226] Cf. Creason (1995: 15), "the qal is the basic stem and all the other stems can be directly or indirectly related to the qal, both morphologically and semantically."

step to unlocking the system.[227] Jenni (1968, 1979) and others are credited with furthering Goetze's work.[228] Jenni (1968)'s discussion of the Hebrew piel demonstrated that it fundamentally entails a notion related to the basic active: passive dichotomy of voice. The latter offers an opportunity to see the system in its entirety, though it is believed that Jenni, in his thesis, failed to capture the full significance of his own hypothesis mainly because he excludes the notion of causation from his understanding of the piel (Waltke & O'Connor 1990: 354).

Creason (1995) furthered the analysis of the Hebrew verbal system by focusing on the classification of Hebrew verbs with respect to their semantic class, i.e. with respect to the aspects of the meaning of a verb that are expressed formally in the language or which potentially interact with formal categories in the language. The classification was based on two types of semantic data: 1) the kinds of situations to which the verb refers and 2) the number of participants involved in those situations.[229] Distinctions in the kinds of situations to which a verb refers are based on the *Aktionsart* category of predication. Creason (1995) in his thesis, further identified two types of participants involved in situations, i.e. those based on ontological categories and those based on thematic role distinctions.[230]

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[227] This is in light of the allegation that scholars prior to Goetze and Jenni failed to perceive the function of the Hebrew verbal stem system because they thought that the piel signified primarily intensive action (Waltke & O'Connor (1990).

[228] Cf. Ryder (1974) and Leemhuis (1977).

[229] Situations are divided into simple or non-complex situations and complex situations. The former can be distinguished in terms of state/event/telic/atelic. According to Creason (1995), the latter consists of two substitutions, one of which causes the other. Most piel verbs refer to a complex situation and almost all hiphil verbs do. The hiphil is nearly always causative of the qal, but the qal: piel relationship is determined by the telicity and complexity of the situation to which the qal refers. These criteria distinguish three kinds of piel: factitive, resultative, and frequentative. The other stems indicate voice distinctions, i.e. the pual and the hophal passive; of the piel and the hiphil, respectively. The hithpael is reflexive of the piel and perhaps occasionally of the qal or the hiphil. The niphal is a middle stem, which corresponds only to the qal and presents a situation with respect to one participant only and without respect to any other participant in the situation. A niphal verb may be translated as passive, reflexive, stative or incohortative depending on the context in which it occurs.

[230] Ontological categories of a participant are properties which the participant has apart from any particular situation, in which it is involved, i.e. properties that persist from situation to situation. These

Creason's major contribution is the development of a linguistic model (which incorporates the insights of previous systems, e.g. case grammar/valency theory) designed to deal with these distinctions and in the area of the analysis of Hebrew verbs and the Hebrew verbal system in general. His (1995: 402) study shows the following:

1. that the classification of Hebrew verbs on the basis of distinctions in *Aktionsart* and distinctions in the kinds of participants involved in a situation provide significant insights into the meanings of Hebrew verbs and the ambiguities they attest as well as the structure of the Hebrew verbal system as a whole.

2. the key element of the analysis of Hebrew verbs and the basis of the insights provided by this study is the classification of qal verbs by means of the features of situations. Creason (1995: 402) claims to be the first to classify, systematically, qal fientive verbs based on the kind of the situation to which they refer. Before Creason, the only distinction among qal verbs that was explored in any detail was the distinction between stative and fientive verbs.

3. on the basis of this classification, it is possible to isolate certain kinds of ambiguities that Hebrew verbs attest.[231]

Creason's approach is a complex one which cannot be adequately explained in this investigation. However, his study lays the foundation for more linguistically sophisticated analyses of the semantic and the syntax of BH verbs. Furthermore it lays the foundation for further research into various aspects of BH.[232]

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categories, which can further be broken down into subcategories, include the category of concrete objects, location, situation, abstract object and proposition. There are properties also relevant to thematic role (Creason 1995: 398).

[231] Cf. Creason (1995: 402ff) for a summary of ambiguities referred to.

[232] One of the aspects for further research pointed out in the conclusion of Creason (1995) relates to the way in which his model could be extended to create a lexicon of verbs. In this lexicon, the entries would reflect those aspects (e.g. syntax of Hebrew verbs) of the meaning of a verb with which his study of semantic classes of Hebrew verbs is concerned. From Creason's (1995) viewpoint, it may therefore be argued that if De Blois (2002) had considered Creason's model, he would have developed a different framework for treating the BH verbal stems in the SDBH, e.g. lexicographic treatment of verbs at distinct levels of derivation.

5.2.3.4 Lexicographic implications

The above discussion of the Hebrew verbal system mainly demonstrates that the system is a complex one in terms of description when mapped to some languages, especially the one familiar to most people, English. Various approaches that attempt to unlock the system have been submitted. The preferred approach has implications on the lexicographic description and organization of BH lexemes. One thing that scholars agree upon is the recognition of seven major verbal stems. However, the difficulty arises with regards to the function of each of the distinct verbal stems. Some assign a distinct meaning to each of these stems (atomistic approach). This may explain why traditional Hebrew lexica have lexicographically treated lexemes distinctly according to each verbal stem. Yet some have argued that the so-called verbal stems "were used interchangeably in order to indicate one and the same meaning, without implying the slightest differentiation" (Sperber 1966: 5-14). This may explain why some recent lexicons have tended not to assign a meaning(s) to a categorized verbal stem. Waltke & O'Connor's (1990: 359) comments in this regard still apply:

> Because English and other European-languages verbal systems are impoverished in morphological treatments of transitivity, causativity, and reflexivity, most Modern Hebrew lexicons also fail to show adequately the subtle differences in meaning among the verbal stems. The lexicographers are often forced to assign similar "meanings" of a verb to the different verbal stems… English and similar language can hardly begin to convey its [Hebrew verbal system]… Prejudged categories, dictated by the "cruder" English structures, are inadequate for interpreting the Hebrew categories; we must be guided by the forms and usages rather than by those of English.

In the light of the above discussion, the distinct verbal stems appear to denote indeed different functions or usage.[233] What therefore seems to be lacking is an adequate linguistic model that sufficiently maps the features of the Hebrew verb to other languages. For this reason, I will, for the time being, adhere to the lexicographic

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[233] The suggestion that the verbal stems are used interchangeably is highly unlikely by the very nature of their distinction.

treatment of Hebrew verbs at the distinct level of each verbal stem. Assigning the same meaning to distinct verbal stems automatically implies an imposition of the structure of the target language verbal system to that of Hebrew.

5.3 Lexicographic function of the BH dictionary for translators

In Chapter 3, the genuine purpose of the dictionary and the lexicographic functions of a dictionary were discussed. It was established that there are two major lexicographic functions a dictionary can have, i.e. the communication-orientated function and the knowledge-orientated function. The communication-orientated function focuses on text reception, text production and the translation of texts either from the native language to the foreign language or from the foreign language to the native language.

On the basis of the above discussion, the function of a BH dictionary for translators can therefore be formulated in the following way:

> The lexicographic function of a BH dictionary for translators is to primarily help translators and general users to **understand** the BH language texts (text reception) in order to **translate** these texts from the foreign language (Hebrew) into the selected target language.

The lexicographic function is communication-orientated with special focus on reception and translation of BH texts. In order to perform this function, it is necessary to select data types that will enable the user to understand BH texts and translate them. In addition, but such data need to be structured in such a way that the user can successfully retrieve desired information. The following section will focus on the data types and the structural layout of the proposed improved dictionary for translators.

5.4 The microstructural conceptualization of proposed BH lexicon

5.4.1 Introduction

This section focuses on the development of a conceptualization plan that pertains to the microstructural layout of the proposed dictionary. Toward this goal, four major things are considered. The first is the selection of data types and fields considered pertinent to the lexicographic function. Secondly, the development of an abstract hierarchical order structure for the whole dictionary article in accordance with insights gleaned from Hausmann and Wiegand (1989)'s theory of components and

structure of dictionaries. This is followed by an illustrative description of each structural component of the microstructure. Lastly, the development of an electronic user-interface for the proposed dictionary is described.

5.4.2 Data types

The selection of data types to be included in this dictionary is enlightened by those proposed by De Blois (2000-). His inventory of data types relevant for translators arises from first hand experience in Bible translation under the auspices of the UBS (United Bible Society). An inventory of data typology in this dictionary includes: head lemma (to be treated lexicographically, part of speech, basic meaning or semantic prime (in the form of a translation equivalent), related words, translation equivalent paradigm) comment on semantics (CS) for other lexical classes other than verbs or comment on form and semantics (CFS) for verbs, general notes and bibliography. Of these data types, the (CS) and (CFS) host different kinds of entries relating to the treatment of the head lemma, e.g. lexical meaning, context and cotext entries, cross-references, etc. The above data types also function as data fields that are employed to structure the whole dictionary article. Each field or data type will be elucidated in the section below dealing with the microstructural layout.

5.4.3 Abstract hierarchical structure

One of the insights gleaned from theoretical lexicography is that the lexicographer has to conceptualise the dictionary components and their structures during the planning stages of the dictionary. These structural components determine exactly where data is to be distributed during the lexicographic process. The notion "order structures" is here invoked and is relevant for the purpose of devising a mechanism that will serve as a guide to the ordering and placing of data in the microstructure. Below is a tree diagram (5) depicting the abstract hierarchical order structure for the proposed lexicon.

In the tree diagram representing the abstract hierarchical order structure, the dictionary article (DA) hosts both the lemma sign to be lexicographically treated and the data hosted in the microstructure. The microstructure further hosts structural components consisting of data fields. In tree diagram 5 the abstract hierarchical structure shows that the dictionary article has two major levels of treatment. In the

first place is the comment on form and semantics (CFS[1]), which essentially consists of a shorter version of the article. The data fields hosted therein include the item giving the comment on form (CF) i.e. part of speech and the component giving comment on semantics (CS) i.e. the basic meaning, related words, and a translation equivalent paradigm. Secondly, there is the item giving the comment on semantics (CS) or alternatively the item giving the comment on form and semantics (CFS[2]). The reason for two alternatives is that, (CS) on the one hand concerns the treatment of all lexical classes that are not verbs, e.g. particles, nouns, etc.

Dictionary Article (DA)

CFS[1]

CS/CFS[2]

CF

CS

CF

CS

part of speech

basic meaning

related words

translation equiv. paradigm

Qal

SCS[1] (polysemous sense or lexical meaning)

general notes

suggested bibliography

SCSa

SCSb

context, cotext + other entries

context, cotext + other entries

DA= dictionary article; CFS[1]= Comment on Form and Semantics 1,2...;
CS= Comment on Semantics; SCS[1]=Subcomment on Semantics 1, 2...;
SCSa= further subcomments on Semantics.

Tree diagram 5

On the other hand, (CFS2) is relevant for the lexicographic treatment of verbs in the light of the approach discussed in §5.2.3, i.e. the treatment of verbs according to levels of derivation. The (CFS2) has further comments on form and semantics, each consisting of a comment on form (CF) i.e. qal and comment on semantics i.e. (CS). The (CS) of each of the alternatives may have one or multiple lexical meanings if the lemma is polysemous. These polysemous senses may be regarded as subcomments on semantics (SCS [1...2...3]). Each of the latter can further be characterized by other

comments on semantics (SCSa), i.e. context and cotext entries and other data that enhance the lexical description of the lemma in question. Under (CS) at the second level of treatment we have other data fields, namely, general notes and a suggested bibliography. The components in the abstract hierarchical structure are further explained illustratively in the following section.

5.4.4 Description of structural components

This section briefly discusses and illustrates each structural component and data field of the article. It must be borne in mind that the proposed dictionary is intended to use hypertext technology.

(1) The curtailed dictionary article: Upon searching the desired lemma sign, the article structure in the text box will show in the display window of the user interface (§5.4.5). Each search result will always display a shorter or shrunk article version. The advantage of such a structure lies in the fact that the user can easily have

> חָלָב   **noun|**   **milk|**
>
> **+ Related entry(ies)**
>
> **+Translation equivalent paradigm**
>
> **+Comment on semantics (CS)**
>
> **+General note(s)**
>
> **+Bibliography**

an overview of the whole article. Additionally the user can clearly see the micro-architecture and the text blocks offering various data types addressed to the lemma. Users also have the advantage of rapidly accessing the data type they desire, e.g. +related entries. The structural indicator (+) shows that each data field can be expanded by clicking on it. Thus, instead of the user going through or scrolling down a whole article (which may at times stretch over five pages) searching for desired information (as is customary in existing BH dictionaries), he or she may select the desired expandable data field, resulting in quick retrieval of information. This is illustrated and explained further below.

(2) The entries in this structural component are black colour coded and include the head entry, part of speech and a translation equivalent that functions as

> חָלָב   **noun|**   **milk|**

the "basic meaning" of the lemma sign undergoing treatment. Though not the

definition, the "basic meaning" helps the user to grasp the general sense of the lemma sign. The structural component in the text box is a feature gleaned from traditional dictionaries that users are accustomed.

(3) This field, which can be expanded or contracted by clicking on (+), hosts lemmata that are related to the one being treated. These lemmata that derive from existing sources and the study of the BH texts contribute to the

| **+Related entry(ies)** |
| גְּבִינַה- |
| חָרִיץ- |
| חֶמְאָה- |
| שְׁפוֹת- |

lexical description of the lexical item in question. By clicking on a desired lemma in this field, the user is immediately taken to another window that opens displaying the dictionary article (1) of the clicked lemma sign. The hyperlink system will be used for this function.

(4) In the translation equivalent paradigm, users are presented with yet another feature common to traditional dictionaries that give a set of translation equivalents as definitions of the lemma sign. This componential feature has the following advantages: whilst the list of translation equivalents does not

| **+Translation equivalent paradigm** |
| -to send |
| -to send off, out, to, among, with |
| -to send against |
| -to stretch out, point |
| -to lay (hand) on |
| -to dismiss, expel |
| -to chase after |
| -to grow, spread |
| -to accompany, escort |
| -to divorce |
| -to go ahead, herald |

represent definitions, the user is nevertheless equipped with a summary of all the possible polysemous senses in the target language. Furthermore, by clicking on any translation equivalent, the user is taken to precisely where it occurs in the comment on semantics. The translation equivalent paradigm approach seeks to provide the user with optimal benefit by combining both features of traditional reference works as well as new insights of current theoretical lexicography and hypertext technology.

(5) The comment on form/ semantics: this field is a crucial one because it is the focal point of most of the lexicographic process. Even more, it hosts most of the data types that are included as part of the treatment of the lemma sign. The example that is in the

<div style="border:1px solid">

+Comment form//semantics
  +Qal
    +to stretch out one's hand
    +against, towards something/one
    + [+בְּ, לְ, אֶל,עַל] against, towards

-Exo.22:7[h]; 1Sam.24:7; Neh.13:21; Esth.2:21; 3:6; 6:2; 8:7; 9:10,15,16; Job.30:24[i]; Psa.125:3[j]; Dan.11:42; Obad.13[k]; Gen.22:12; 1Sam.17:49; 2Sam.6:6 18:12; 1Kgs.13:4; Ezek.2:9; Judg.5:26; 1Chron.13:10

</div>

text box relates to the treatment of verbs (cf. comment on semantics for other lexical classes). The treatment of verbs has six core levels, which can be identified by colour coding.

The first level is +Qal: this comments on the form (CF) of the verb in accordance with the decision reached in the discussion of §5.2.3, i.e. that verbs are to be treated at each level of derivation. As mentioned in (1), the structural indicator (+) lets the user know that the item in question is expandable and displays more data. Secondly, there is the comment on semantics (CS) with the lexical meaning provided in blue colour coding (or subcomment on semantics (SCS[1] 5.4.3) if the lemma sign is polysemous). As opposed to translation equivalents, the meaning is given in the form of a paraphrase, thus allowing for a more informative lexical description.

Fourthly, in the green colour is the item giving the contextual definition demonstrating the contextual use of the lemma in question. This may also include encyclopaedic data relating to the cognitive world of the Israelites. In lexicographic terms, this is regarded as a further subcomment on semantics (SCSa §5.4.3) or alternatively the context entry. In the fifth place, the valency[234] of the verb is given. This data has a two-pronged function in the context of this dictionary. On the one hand it is instrumental in the yielding of a distinct preceding contextual definition, e.g. *to stretch one's hand against or towards something or someone*. On the other hand, it serves as part of the cotext entry that is provided in the proceeding entries, i.e. biblical

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[234] In linguistics, valency theory or valency refers to the number of arguments that are controlled by a verbal predicate. These arguments, especially in BH can shape the meaning of a lexeme in one way or the other. As such, a consideration of valency is also crucial in the analysis of lexical items.

citations. The latter is the sixth core level and provides biblical citations that show the syntagmatic environment of both the lexical and contextual meanings. Using hypertext technology, data regarding valency are linked to the grammar reference work where they are elaborately dealt with. Biblical citations can be displayed (see below §5.4.5) by clicking on the desired reference.

In the text box (5), one can observe that there are blue superscripts next to citations. Again, this feature is of great advantage both to the lexicographer and to the user. For the lexicographer it solves the problem of addressing, cross-referencing and the distribution of other data types that would otherwise have cluttered the dictionary. With regards to addressing, items are placed behind to their address and can easily be obtained by hovering one's mouse over the superscript. The items can be any data the lexicographer deems relevant to the lexicographic treatment of the lemma sign, and may include both internal and external cross-references, translation notes, bibliography, grammatical notes, alternative translation equivalents, etc. The user also benefits from this kind of addressing, i.e. there is no confusion as to the address/addressee relationship because of immediate proximity. Furthermore, hypertext technology employed allows for rapid access to the various data represented by superscript.

(6) The field "general notes" allows the lexicographer to place any additional data that may enhance the user's understanding of the

| **+General notes** |
| -The basic syntax of the qal is transitive, i.e. "A sent B". "A" denotes a person (human or divine), whilst "B" can be (a) another person, or (b) an inanimate object… |

lemma sign. This can be anything from grammar, cultural commentaries, controversial occurrences, emendations, difficulties, etc. that the user may make use of either by noting or pursuing further research.

(7) In this field, suggested bibliography regarding the lemma being treated is provided. This suggests to the user a point of departure for further research. At

| **+ Suggested bibliography** |
| - Jenni (1967: 193-199) |
| -Greenberg (1983: 172-173 |
| -Van Gemeren (1997: 119-122); |
| -Waltke & O'Connor (1990: 362-447) |

the same time the bibliography references the sources consulted in the explication of the lemma in question. It can be observed that the bibliography is not given in full.

This is because by clicking on any of the references, the user is taken to a comprehensive bibliography consulted in the compilation of the dictionary. Where applicable, the user is linked to that particular source provided that the dictionary is part of a larger resource such as Libronix, or Bible Works.

5.4.5 The user-interface

Below (Fig.12) is a tentative model of the user-interface of the proposed dictionary that inculcates all the structural components discussed in the last section. It must be delineated at the onset that this interface is adapted from that of De Blois (2006), however with changes tailored to meet the features and functions of the proposed dictionary. Each feature of the user-interface is assigned a numeral value for purposes of description.
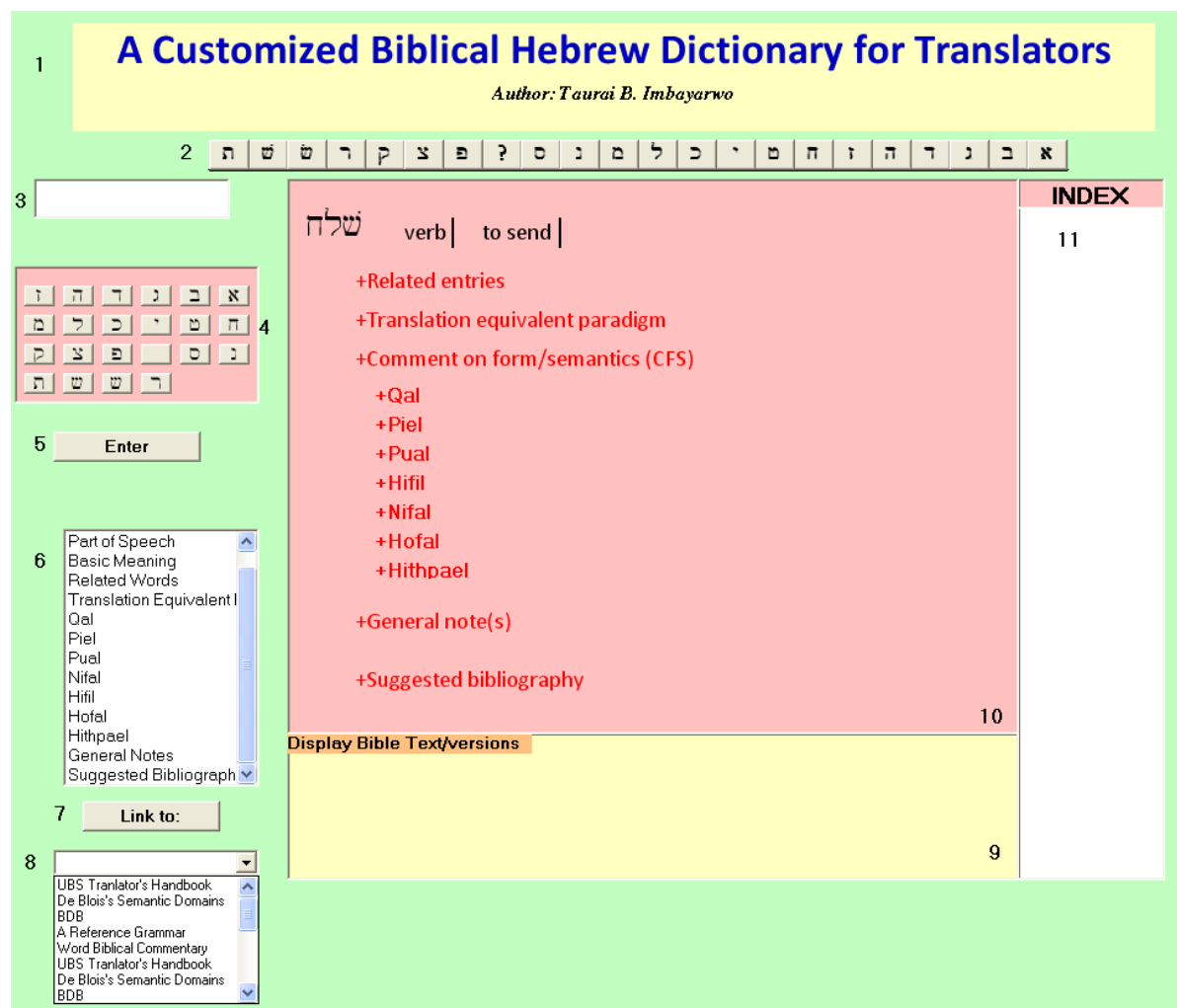
Fig.12 Proposed user-interface: A Customized BH Dictionary for Translators (CBHDT)

The interface of the model above has other features that mainly pertain to the access and retrieval of desired information. Rapid access to data is one of the most crucial concerns of the user, especially in this electronic age where information and the access thereof, is of primary concern. The above user-interface, whose features are described below, is thus, designed to respond adequately to such needs.

1. Title(1): this feature identifies the title of the dictionary, i.e. "A customized BH Dictionary for Translators." It is customized in the sense that users can select the data field hosting information they may require.

2. Initial alphabetic access (2): a BH alphabet is provided in this space. The user can click on a button representing the Hebrew letter. The result is that all lemmata beginning in that particular letter are displayed alphabetically in the index (11) in the right hand side of the interface. The user can further scroll down in order to locate the desired lemma sign. By double clicking on it, the dictionary article of that particular lemma sign is displayed in the main window in the centre of the interface (10).

3. Another alternative to accessing the desired lemma is provided by features (3), (4) and (5). Command buttons representing BH keyboard (4) allows the user, even the beginner, to type in the desired lemma sign that is consequently displayed in (3). By clicking the command button "enter"(5), the article of the desired lemma sign is displayed in the main window in the centre of the user-interface (10). The advantage of this feature is that, many translators use computers set to keyboards other than the Hebrew one, subsequently making it difficult for them to switch to and type in the correct Hebrew characters, e.g. Libronix Library System or Bible works 6. Ultimately, this prolongs the time taken to locate the desired lemma sign. With this feature, however, there is no need to switch to the Hebrew keyboard because the keyboard is readily available.

4. The feature labelled (6) in the interface also gives rise to the title of this dictionary (1). All the data types to be displayed in the main display window (10) are listed in this feature (6). By selecting any one, e.g. "Part of Speech", "Basic meaning" or "Suggested bibliography", the user is taken directly to data pertaining to that particular selection and is displayed in (10). This rapid access feature is alternative to clicking on the desired data field of the dictionary article displayed in (10), e.g. "+related entries" or "+translation equivalent paradigm." The access feature (6) further helps the user with accessing and presenting a clear "micro-architecture" and "search area." The latter is against a background of many printed and electronic BH dictionaries that have presented dictionary articles characterized by inadequate structural components.

5. In the user-interface, features (7) and (8) allow the user to consult other translation resources such as the UBS Translator's Handbook, or a well-acclaimed reference grammar. Not all data is included in the dictionary article. For this reason, the hypertext technology provides the opportunity to consult other tools linked to the dictionary in order to enhance the understanding of a lemma for translation purposes. These resources are only suggested tools that can be accessed by selecting from the combo box and can be generally perused for additional helpful information.

6. In the user-interface, the feature "display Bible text/versions" (9) allows the user to access the biblical citations functioning as cotext entries. For example, if the citation is Judges 1: 1, the user can click on this entry, which in turn is displayed just below the main display window (10). The user can choose the desired version (s) included in the database for comparative purposes.

5.5   Conclusion

This chapter has accomplished the following: 1) a discussion of theoretical issues, i.e. the arrangement of meaning, and the treatment of BH verbal system in the proposed dictionary; 2) the establishment of a lexicographic function; 3) the development of a conceptualisation plan of the microstructure. The latter focused on a number of things: 1) the data types deemed crucial to satisfy the lexicographic function of the

dictionary; 2) construction of an abstract hierarchical structure to function as an order structure; 3) a description of the structural components of the dictionary article, and lastly, 4) the development and description of a user-interface for the proposed lexicon. Now that this has been accomplished, different lexical items, i.e., a noun, a verb and a particle will be selected, and each will be described within the framework outlined in the preceding chapter.

Chapter 6

Trial of the Proposed Model on Selected BH Lexemes

6.1   Introduction

In Chapter 5, a model for a BH dictionary for translators was developed in the light of selected insights from theoretical lexicography discussed in the course of this investigation, especially in Chapter 3. In this chapter three lexical items belonging to different word classes, i.e. 1) a noun חָלָב, 2), a verb שלח, and 3) a particle גַּם are selected for the purposes of lexicographically treating them within the model. The emphasis on the treatment of the selected lexemes is on the structural components of the dictionary article and less on the semantic models for analyses.[235]   It is for this reason, that notions such as contextual domains, lexical domains are not used in the description of lexemes. Instead, the description of lexemes employs lexicographical notions of Comment on Form and Comment on Semantics, as well as cotext and context entries. For each of the lemma signs treated, a shorter or shrunk version of the article is provided and then expanded immediately after. The chapter is structured as follows: treatment of selected lemmata **6.2**, observations and remarks **6.3**, and **6.4** concludes the chapter.

6.2   Lexicographic treatment of selected lemmata

6.2.1   חָלָב

חָלָב   **noun| milk|**

    + Related entry(ies)

    +Translation equivalent paradigm

    +Comment on Semantics (CS)

    +General note(s)

    +Bibliography

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[235] The categorization of syntactic data in the treatment of the verb does not follow an established theoretical model.

חָלָב   **noun**| **milk**|

+Related entry(ies)

-גְּבִינַה

-חָרִיץ

-חֶמְאָה

-שְׁפוֹת

+Translation equivalent Paradigm
  -milk

+ Comment on Semantics
  +milk or aspects of milk used to describe various aspects of man and his existence (fig.)
  +[[a] **אֶל־אֶרֶץ זָבַת חָלָב וּדְבָשׁ** : **to a land flowing with milk and honey]** **a metaphoric fixed expression describing a fertile land that is usually associated with freedom and prosperity for its inhabitants: typical use.**
  -Gen.49:12[b]; Exo.3:8,15; 13:5; 33:3; Lev.20:24; Num.13:27; 14:8; 16:13,14; Deut.6:3; 11:9; 21:20; 26:9,15; 27:3; Josh.5:6; Jer.11:5; 32:22; Ezek.20:15; Isa.; Job.21:24; Joel. 3:18

  +the taste and sensuous quality of milk [honey and wine] used in a metaphor to describe physical love between man and woman.
  -SNS. 4:11; 5:1

  +the whiteness of milk [and snow] used comparatively to describe physical and moral attributes of beauty and purity of heart.
  -Lam.4:7

  +milk used in a metaphor describing cause and effect behavior, i.e. if one does this then this happens [just as pressing milk produces curds so anger produces strife].
  -Prov.30:33

  +the pouring of milk [and churning of cheese] used metaphorically to describe the creation or forming of man/woman in the mother's womb.
  -Job.10:10 [c]

 + milk- a nutritious white fluid secreted by women and other female mammals to feed their young immediately after birth and that can also be consumed by all human age groups.[d]
  -Gen.18:8; 49:12; [Exo.23:19; 34:26; Deut.14:21] [e] ; Deut.32:14; Judg.4:19; 5:25; 1Sam.7:9; Prov.27:27; Isa.7:22; 17:18; Ezek.20:6,15;

+General note(s)
  -The translator should note that חָלָב "milk" is not to be confused with חֵלֶכ "fat".
  -SNS 5:12 is problematic with regard to its reading and interpretation. It has been textually emended and understood from various vantage points. The translator is therefore advised to consult good commentaries to facilitate a preferred translation as well as to give alternatives by way of footnotes.

+Bibliography

-Olivier (1997: 135-137)

-Ryken (2000, c1998) (electronic ed.)

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[a] "Milk", which was an important staple produced by the Israelites, is here used together with "honey". Honey was valued for its sweetness rather than as a necessity of life, and therefore was rare enough to rank as a luxury. The two images combine to form a picture of total satisfaction. The image of "flowing" conjures up a rich fullness that surpasses all need.

In cultures where "milk" is not as important a staple, e.g. Korean culture, the translator may have to consider other alternatives that convey the same intended meaning.

[b] Some translations give "…teeth whiter than milk" (NRSV,NASB, NIV), which is a comparative description. However, the translation "…teeth white from milk", reflects more the text, which describes teeth that are white from the abundance of wealth and prosperity.

[c] In areas in which the making of cheese is unknown, it will be better to avoid the use of these images in favor of alternatives that culturally convey the concept of the creation of man in the womb.

[d] By-products of milk, e.g. cheese, slices of cheese, curdled milk (butter), curds and the different uses of milk in the Hebrew community (e.g. the squeezing and pouring of milk produces curds (Prov.30:33) gave rise to the figurative use and understanding.

[e] The BH expression translated "you shall not boil a kid in its mother's milk" occurs in exactly the same way in three verses with no explanation given.

6.2.2 שלח

שלח   verb| to send|

+Related entries

+Translation equivalent paradigm

+Comment on form & semantics (CFS)
+Qal
   +Piel
   +Pual
   +Hifil
   +Nifal
+General notes

+Bibliography

_____

שלח   verb| to send|

+Related entries
-מִשְׁלוֹחַ
-מִשְׁלָח
-שִׁלּוּחִים
-שְׁלֻחוֹת
-שֶׁלַח
-מִשְׁלַחַת
-יָרָה

+Translation equivalent paradigm
-to send
-to send off, out, to, among, with
-to send against
-to stretch out, point
-to lay (hand) on
-to dismiss, expel
-to chase after
-to grow, spread
-to accompany, escort
-to divorce
-to go ahead, herald

+Comment on form & semantics (CFS)

  +Qal

    +to send someone or something (typical)

      +to send something or someone to another

        +[+dir.obj.+אֶל pers.; ellipsed agent/obj.+ עַל , אֶל; ellipsed agent +לְ]

          -Gen. 32:19; .37:13; 38:25; 45:23; Exo.3:10; Num.13:2; 21:21; 22:5,10,37; Josh.2:3; 10:3,6; 11:1; 22:13; Judg.9:31; 11:12,14,17,19; 1Sam.6:21; 9:16; 16:19,22; 19:11; 25:32,40; 2Sam.2:5; 3:12,14; 5:11; 8:10; 10:3; 11:6; 12:27; 13:7; 14: 6,29x2,32; 19:12,15; 1Kgs.14:15,18; 15:19; 19:2; 20:2,5,6,7,10; 21:8,11,14; 2Kgs.1:9,11; 4:22; 5:5,6; 8:9; 10:5,7; 12:18; 14:8,9; 16:7,8,10; 17:4,13; 18:14; 19:9,20; 1Chron. 13:2; 14:1; 18:10; 2Chron.2:3,7,8,11,15; 16:2; 25:17,18; 28:16; 34:23; 35:21; Neh.8:10, Esh.1:22; 9:20,30; Isa.16:1; 37:2,9; 39:1; Jer.36:21; 37:7; 42:6,9,20; Ezek.23:16; Neh.6:2,3,4,5,8: Isa.37:21; Jer.36:14; Hos.5:13; Amos 7:10;

      +to send someone or something: to send

        +[+direct obj.]

          -Gen.28:5; 38:20,23; 42:4; 45:23; Exo.2:5; 3:12; 4:28; 5:22; 9:14; 24:5; Num. 16:29; 20:16; 22:15, Josh.7:22; 8:3,9; 14:11; 18:4; 24:5; Judg. 9:23; 11:38; 12:8,11; 13:8; 1Sam.18:5; 19:21; 21:3; 25:5,25,32; 26:4; 2Sam.10:7; 11:1; 13:27; 17:16; 18:29; 22:15[a]; 24:13; 1Kgs.2:29; 9:27; 12:18; 15:20; 2Kgs.1:2,13,16; 2:16,17; 9:19; 19:2; 20:12; 22:3; 1Chron.19:6,8,16; 2Chron.2:13; 6:34; 10:18; 16:4; 17:7; 32:9,21; 34:8; Neh.2:6; 6:12; Psa.18:14; 43:3; 105:26,28; 107:20[b]; 144:6; 147:18; Prov.9:3;10:2; 22:21;25:13; Isa.20:1;36:2; 42:19; Jer.26:22; 37:3; 39:13; 40:14; 48:16; 55:11; Jer. 1:7; 7:25; 14:14,15; 23:21,32; 27:15; 29:25; Ezek.13:6; Joel.4:13[c]; Hag.1:12; Mal.3:1;

      +to send someone to do or accomplish something

        +[+waw cons.; inf.]

          -Gen.20:2; 27:42,45; 31:4; 41:8,14; 45:5,27; 46:5; Exo.9:7,19,27; Num.13:17; 16:12,28; 21:32; Deut.19:12; 34:11; Josh.24:9; Judg.4:6; 16:18; 21:13; 1Sam.5:8,11; 15:1; 16:11,12; 19:14,15,20; 20:21,31; 22:11; 25:39; 2Sam.3:15; 9:5; 10:2,5,6,16; 11:3,4,5,18,27; 1Kgs.1:53; 2:36,42; 7:13; 12:3,20; 18:19; 20:17; 2Kgs.3:7; 5:7,8,10; 6:9,13,32; 7:13; 11:4; 23:1,16; 1Chron.19:3,5; 2Chron.10:3; 34:29; 36:10; Neh.6:19; Esth.5:10; Job.1:4,5; Psa.105:20; Isa.61:1; Jer.2:10; 9:16,17; 16:16; 19:14; 25:9; 26:12,15; 37:17; 38:14; 43:10; Ezek.23:40; Zech.1:10;

      +to send someone or something from or to a location

        +[+dir.obj. ;לְ,עַל, אֶל loc.]destination movement: send to, send among, against

          -Exo.3:13,14,15; 7:16; Num.13:27; 31:4,6; Josh.1:16; Judg.6:8,14; 1Sam. 2:4,6; 4:4; 16:1; 2Sam. 12:1; 14:2; 2Kgs.6:10; 10:1; Neh.2:5; Ezek.17:15; Zech. 1Chron.21:15; 2Chron.25:15; 36:15; Job.5:10; Psa.78:25; 111:9; Psa. 147:15; Isa.19:20; Jer. 14:3; 21:1; 23:38; 25:4,15,17; 26:5; 29:19,28,31; 35:15; 42:5,21; 43:1,2; 44:4 Ezek.2:3,4; 3:5,6; Joel.2:19; Zech.2:8,11; 4:9; 6:15; 7:2; Mal.4:5;

        +[+מִן] denoting origin of movement: send from, send out, send away, expel, throw out

          -Gen.8:10; 37:14; 42:16; Num.13:3; 20:14; 32:8; Deut.2:26; 9:23; Josh.2:1;7:2; Judg.18:2; 1Sam.25:14; 2Sam.13:17[d]; 15:12; 2Kgs.6:32[e]; 16:11; 22:17; 18:17; 1Chron.8:8[f]; Psa.20:3,2; 57:3; Jer. 29:1; Lam.1:13;

+[+ בְּכָל or עַל־כָּל +loc.] destination and coverage of movement: send to all

-Judg.6:35; 7:24; 20:12; 2Sam.15:10; 1Kgs.18:20; 2Kgs.10:21; 2Chron.30:1; 49:14
Ezek.8:17[g];

+[+ בְּ pers.] to, against

-2Kgs. 24:2; Jer.25:16, 17, Ezek.14:13; Isa.9:8;

+[+שָׁם]denoting spatial location: send there

-Judg.21:10; 1Kgs.18:10; 2Kgs.6:14;

+to send something through or by the hand of someone
  +[+בְּיַד]

-Exo.4:13; Judg.3:15; 1Sam.16:20; 2Sam.11:14; 12:25; 15:36; 1Kgs.2:25; 2Chron.8:18;
Esth.8:10; Prov.26:6; Isa.18:2; Zech.7:12;

+to send after someone or something: to chase after
  +[+אַחֲרֵי]

-2Sam.3:26; 2Kgs.7:14; 14:19; 2Chron.25:27;

+to send someone ahead or before: to herald
  +[+לִפְנֵי]

-Gen.24:7; 32:4; 45:5,7; 46:28; Exo.23:20,28; 33:2; Deut.1:22; Josh.24:12; Psa.105:17;
Micah 6:4; Mal.3:1;

+to send someone in the company of another: to accompany, escort
  +[+ אֶת, עִם] with

- Gen.43:8; Exo.33:12; 1Kgs.1:44; Neh.2:9;

+to send someone on a journey
  +[+דֶּרֶךְ] way

-1Sam.15:18,20; 1Kgs.8:44;

+to stretch out one's hand
  +against, towards or something/one
   +[+עַל,לְ, אֶל,בְּ] against, towards

-Gen.22:12; Exo.22:7[h]; 24:11; Judg.5:26; 1Sam. 17:49; 24:7,11; 26:9,11,23; 2Sam.6:6;
18:12; 1Kgs.13:4; 1Chron.13:10; Neh.13:21; Esth.2:21; 3:6; 6:2; 8:7; 9:10,15,16; Job.1:12;
28:9; 30:24[i]; Psa.125:3[j].; Dan.11:42; Obad.13[k]; Ezek.2:9;

+in order to do something
  +[+waw conse.; infi.]

-Gen.3:22; 8:9; 19:10; 22:10; 48:14; Exo.4:4x2; 9:15; Deut.25:11; Judg.3:21; 15:15;
1Sam.22:17; 2Sam. 1:14; 15:5; 2Kgs.6:7; 1Chron.13:9; Job.1:11; 2:5; Psa.138:7; Jer.1:9;
Eze.8:3[l];

+to stretch out a hand from
  +[+dir.obj., מִן]

-2Sam.24:16; Psa.110:2[m]; Ezek.10:7;

+to send out a finger: to point at someone with a finger
  +[+אֶצְבַּע]
   -Isa.58:9;[n]

+to reach out to something by stretching out a hand wielding an object
  +[+dir. obj.+בְּיַד]
   -Judg.6:21;

 +to let free or give rein to: to speak evil or against (fig.)
  +[שָׁלַחְתָּ בְרָעָה פִּיךָ] you send off your mouth with evil
   -Psa.50:19;

+Piel
  +to let someone or something go: to send away, to let free, release, let loose, divorce, dismiss, unleash (typical)
   +[+dir.obj.]
    -Gen.8:7,12; 12:20; 18:16; 21:14; 24:56,59; 26:29;31; 28:6; 30:25; 31:27,42; 32:26; 37:32; 38:17;43:4,5: 45:24; Exo.4:21,23; 5:1,2; 6:1; 7:2,14; 8:28; 9:1,2,13,17,28,35; 10:3,4,7,10,20,27; 11:1,10; 13:15,17; 14:5; 15:7; 21:26,27; 22:4; 23:27; Lev.14:7,53; 16:10,21, 22,26; 26:25; Deut.15:12,13,18; 21:14; 22:7, 19,29; Josh.2:21; 22:6,7: 24:28; Judg.1:25; 2:6: 3:18; 7:8; 19:25; 1Sam.5:10; 6:3; 9:19,26; 10:25;13:2; 19:17; 20:5,13; 20:22,29; 2Sam.3:21,22,23,24; 10:4; 11:12; 13:16; 18:2; 19:32; 1Kgs.8:66; 11:21,22; 20:34,42; 2Kgs.5:24; 6:23; 1Chron.12:20; 19:4; 2Chron.7:10; 24:23; Neh.8:12; Job. 12:15; 14:20; 20:23; 21:11; 22:9; 30:12[o]; 38:35; 39:3,5; Psa.80:12[p]; 104:30; Prov.6:14, 19; 16:28[q]; Eccl.11:1; Isa.32:20; 45:13; 50:1; 57:9; Jer.3:1,8; 17:8; 34:9,10,11,14,16; 50:33; Ezek.7:3; 13:20; 17:6,7; Mal.2:16;

  +to send someone/thing away to, from, against outside: to
   +[+אֶל, לְ, בְּ] by, to, into, among, to all, against
    -Gen.24:54; 43:14; Num.21:6; 22:40; Deut.28:48; 32:24; Judg.15:5; 19:29; 20:6; 1Sam. 6:2; 11:7; 31:9; 1Chron.10:9; Jer. Ezek. 2Kgs.17:25,26; 2Chron.7:13; Job.8:4; Psa.78:45,49; 81:12, Jer.24:12; 27:3; 38:6,11; 51:2; Ezek.5:16; 5:17; 14:19,21; 28:23; 31:4,5; Joel.2:25; Amos.4:10; Oba.7; Zech.8:10; Mal.2:2;

  +[+מִן] to send away from: to expel, divorce, drive out
    -Gen.3:23; 8:8; 19:29; 25:6; 26:27, Exo. 6:11; 12:33, Lev.18:24; 20:23; Num.5:2, Deut.24:1, 3; 1Sam.30:26; Isa.66:19; Zech 9:11;

  +[+מֵעַל פָּנָי] to send away from one's face: to dismiss, expel;
    -1Kgs.9:7; Job.30:11; Isa.27:8; Jer.15:1; 29:19

  +[+הַחוּצָה, אֶל־מחוּץ] to send outside
    -Num.5:3,4; Judg.12:9;

  +to set something on fire
   +[שִׁלַּח בָּאֵשׁ] sent to fire: fixed expression
    -Judg.1:8; 20:48; 2Kgs.8:12; Psa.74:7; Ezek.39:6; Hos.8:14, Amos 1:4,7,10,12; 2:2,5;

  +to stretch out a hand to someone/-thing
   +[יָד +בְּ, לְ]
    -Prov.31:19,2;

+to shoot at a target
  +[+לְמַטָּרָה]to send to a target
    -1Sam.20:20;

+Pual
  +to be sent to or against someone
    +[+,לְ , בְּ]
      -Prov.17:11; Dan.10:11; Oba.1;

  +to be chased away from or abandoned
    +[מְשֻׁלָּח]+
      -Isa.16:2; 27:10;

  +to be led out on to something by something else
    +[+ בְּ +בְּ] to…on, by
      -Judg.5:15; Job.18:8[r];

  +to be sent off: to divorce (metaphoric use)
      -Isa.50:1;

  +to be left to grow
      -Prov.29:15[s];

+Hifil
  +to send something against or upon
    +[+ בְּ] God exclusive subj.
      - Exo.8:17; Lev.26:22; 2kgs.15:37; Eze.14:13; Amos.8:11;

+Nifal
  +to be sent out
    -Esth.3:13

+General notes
  -The basic syntax of the qal is transitive, i.e. "A sent B". "A" denotes a person (human or divine), whilst "B" can be (a) another person, or (b) an inanimate object. This basic syntax is often complemented by an adverbial phrase denoting person or place of origin or destination, or an infinitivial phrase that expresses purpose. The nifal (only one occurrence, Esth.3:13) has the same syntax.
  -The piel (of which the pual is the passive) has the same transitive syntax as the qal, "A" sent "B" away.
  -The hifil: all five occurrences have the same syntax, i.e. "A" sent "B" and semantics and are used exclusively with God as subject.

+Bibliography
  - Jenni (1967: 193-199)
  -Greenberg (1983: 172-173
  -Van Gemeren (1997: 119-122);
  -Waltke & O'Connor (1990: 362-447)
_____

In areas where the shooting of arrows is not known, an alternative weapon may be necessary.

b The Hebrew expression with the equivalent "he sent forth his word" indicates action. In many languages, it will be better to recast the speaking and the healing, e.g. "he spoke and they were healed" or "the word which he spoke healed them."

c "To send sickles" is a metonym that was used to describe the sending of workers into the harvest field with their sickles. In cultures where sickles are not known an alternative agricultural tool is recommended.

d Alternatively, " to throw out."

e Alternatively, " to dismiss."

f To send away wives, i.e. "to divorce" in legal terms.

g Literally "send a twig to their nose or reach the vine branch to their noses". This is an obscure expression. Translators are advised to use footnotes to indicate any alternatives.

h Alternatively, to steal someone else's property.

i This verse is very difficult and translators and commentators interpret it in various ways. Therefore, the translator may need to note the different interpretations in footnotes

j i.e. "to adopt to the wicked ways of the conquerors."

k "Hand" is ellipsed but can be inferred from the context.

l "Hand" in this case is not literal, but what was stretched was in the likeness of or an image of a "hand."

m "The stretching of the rod" was a figure of domination, of the king's power. However, it is not clear how the Hebrew "from Zion" is to be understood.

n "To send a finger" i.e. to point at, is probably used as an abusive gesture.

o There is uncertainty about the phrase in which "send" occurs. Some translators opt to omit the line. Translators should consult commentaries for the interpretation of verse 6.

p "The sending of roots" is used metaphorically to describe an extension or growth, cf. Jer.17:8.

q Or "to spread strife."

r In many languages in which "traps" are not known, considerable adjustments will be required. This line may also be rendered as follows: "his own feet cause him to fall into a net", or "his own feet carry him to a trap which catches him."

s The verb here is "send." However, the context has the sense of being left to grow up without control or discipline. The line may be translated: "but if a child always does what he wants, he will shame his mother…"

6.2.3 גַּם

גַּם   focus particle| also|

+ Related entry(ies)

+Translation equivalent paradigm

+Comment on semantics (CS)

+General note(s)

+Bibliography

_____

גַּם   focus particle| also|

+ Related entry(ies)
-אַךְ
-רַק
-וְ-

+Translation equivalent paradigm
-also
-too
-furthermore
-moreover
-both…and …
-both…as well as
-both of them/these
-neither…nor
-in turn
-yes
-indeed

+Comment on semantics
  +Addition[a] (prototypical)
   +[גַּם + constituent] also, even, too
    -Gen.3:6; 4:4,22,26; 7:3; 12:30,31; 13:5,16; 15:14; 19:21,34,35,38; 20:5,6; 21:13; 22:20,24; 24:14,19,46; 26:21; 27:31,34,38; 29:27,30,33; 30:3,15; 32:21; 33:7;38:10; 35:17; 38:11; 44:29; 48:11,19; 50:23; Exo. 1:10; 7:11,23; 8:17,28; 9:19; 10:24; 12:32,38,39; 19:9; Lev.25:45; Lev.26:44; Num. 4:22; 11:4; 16:10; 18:28; 22:19; 24:24; 27:13; Deut. 1:28; 3:3,20; 23:3,4; 28:61; Josh.1:15,22; Judg. 3:22; 7:18; 8:31; 10:9; 19:24; 22:17; 23:17; 19:19,24; 1Sam. 2:15; 7:20,31; 8:8,20; 10:11,12; 18:26; 23:17; 2Sam.1:11; 11:12; 14:7; 15:19,24; 17:5,10,12,13; 18:2,22; 19:31,41; 1Kng.4:15; 13:18; 8:41; 15:13; 21:19; 17:20; 2Kng.13:6; 16:3; 17:41; 23:15; 1Chron.12:39,41; 2Chron. 6:32; 15:16; 16:12; 17:11; 20:13; 21:4; 24:7; 28:2; 31:6; 36:22; Ezr.1:1; Neh.3:35; 5:15; 6:7,14; Esth.5:12; 7:8; 9:13; Job. 12:3; 13:2; 16:4,19; 23:2; 33:6;

Isa.28:29; 30:33; Jer.7:11; Psa.10:21; 14:3; 23:4; 38:11; 53:4; .95:9; 119:23; Prov. 16:4; 18:3; 28:9; Eccl. 1:17; 2:8; 4:8,14; 8:17; 10:3; Isa.1:15; 7:13; Jer. 25:14; 27:7; 36:25; 48:26; Lam.3:8; Eze.31:17; Dan.11:22; Hos. 3:3; 4:5; 5:5; 6:11; 8:10; 9:16; 10:6; 12:12; Nah.3:10; Zeph.2:12; Hab.2:16; Zech.8:21; 9:7;

+[גַּם +sentence] furthermore, moreover, besides, what's more or what's worse

-Gen.5:2; 17:16; 20:12; 30:6,8; 31:15; 32:7,7,19; 38:22,24; 42:22,28; 37:7; 40:15; 42:22; 46:4; Exo.2:19; 3:9; 4:14; 11:3; 33:12; Num.16:13; Deut.7:20; Josh.2:24; 22:7; Jugd.2:3; 17:2; 20:48; Ruth. 2:8; 3:12; 1Sam. 1:6; 13:4; 15:29; 17:16; 28:20; 45:16; 2Sam.12:23,27; 15:19; Ruth.2:21; 1Kng. 1:6; 16:7,16; 21:19; 22:22; 2Kng.8:1; 21:16; 1Chron.10:13; 2Chron. 12:12; 21:7,13; 22:5; 29:35; Neh.4:16; 5:13,14,16; 13:23; Esth.7:9; Job.13:16; 28:27; 30:2; Psa. 37:25; 71:24; 137:1; Eccl.3:13; 5:16,18; 6:3,7; 7:21; 8:12; SNG.8:1; Isa.66:8; Jer. 2:34; 8:12; 31:19; 46:16; 50:24; Isa.57:7; Lam.4:15; Ezek.20:23,25; 24:3; 39:16; Zech.3:7;

+[גַּם +member of a coordinated phrase] also

-Gen.6:4; 14:7; Judg.2:10; 1Sam.18:5; 21:12; 28:23; 31:6; 2Sam.2:2; 2Kng.24:4; 1Chron.29:24; 2Chron. 21:17; 24:12; Job.24:19; Psa.8:8; 107:5; 148:12 Eccl.11:2; Isa.30:5; Ezek.21:14; Joel.1:12;

+[גַּם +sentences/paragraph] furthermore, moreover

-1Sam.43:13; 44:12; 2Chron.29:7; Job.18:5; Psa.19:12; 25:3; 85:13; Eccl. 4:11; 6:5; 9:3; Joel.4:4; Jer.5:28; 6:11; Ezek.18:11; Hos.7:9;

+multiple inclusion

+[גַּם + word or phrase//גַּם + word or phrase...] both ...and, as well as...

- Gen.24:25; 32:20; 43:8; 44:16; 46:34; 47:3,19; 50:9; Exo.4:10; 5:14; 12:31,32; Judg.8:22; 1Sam.28:6;

+[גַּם + sentence//גַּם + sentence...] both...and, as well as; neither ...nor

- Josh.7:11; 1Sam.48:8; 2Sam.3:19; 1Kng.1:46-48; Eccl.9:11;

+[גַּם שְׁנֵיהֶם] both of them, both these

- Gen.30:30; 50:18; Exo.7:11; Lev.26:24; Josh.2:12; 9:4; Judg.1:3; 9:19; 1Sam.28:22; Prov.23:15; 26:4; Ezek.5:8; Hos.4:6;

+corresponding reaction

+[גַּם + constituent] in turn, also

-Gen.30:30; 44:9; 50:18; Exo.7:11; 18:23; Num.22:33; Lev.26:24; Josh.2:12; 9:4; Judg.1:3; 2:21; 9:19; 1Sam.1:28; 28:22; 2Sam.2:6; 2Kng.22:19; 2Chron.34:27; Job.7:11; 40:14; Psa.52:7; 71:22; Prov. 1:26; 11:25; 23:15; 26:4; Jer.4:12; 13:26; Ezek.5:8; Hos.4:6;

+affirmative connotation

+[גַּם + coordinated phrase/constituent/sentence(s)] really, yes, indeed

-Gen.16:13[b]; Deut.2:15; 1Sam.13:3; 24:12; 47:3; 1Chron.20:4; Job.30:8; Psa.78:21; 85:13; 118:11; 119:24;

+neutral listing

-Job.24:19[c]; 30:8; Psa.107:5; 137:1; 148:12; SNS.7:14; Isa.30:5; Jer.31:19; Lam.4:15; Ezek.24:19;

6.3   Observations and remarks

A few things can be noted with regard to the lexicographic treatment of each of the selected lemma signs. The writer is aware that the selected lemmata may not be fully representative of all lexical classes. Nevertheless, the above adequately demonstrate the model proposed in Chapter 5.

6.3.1 Noun

The lexicographic treatment of חָלָב does not pose any major problems within the structural framework proposed in Chapter 5. The comment on semantics (CS) has two lexical meanings represented by the blue color coding, making this a polysemous lexical item. In the first place, attributes of milk are used figuratively to describe various aspects of man and his existence. In the second place, a literal explication of milk is provided. The reason for such structuring, i.e. the figurative first before the literal is based on the decision of Chapter 5 §5.2.2, where frequency is the principle of prototypicality and organization. In the case of חָלָב, the figurative usage occurs more frequently than the literal, and on this basis, it is more prototypical, being placed first in the structural layout of the article.

6.3.2 Verb

Chapter 4 focused on the criticism of a selected lemma, namely "send" or שׁלח in various dictionaries. To lighten the task of describing שׁלח and structuring all data addressed to it, mechanisms established in Chapter 5, viz., the frequency principle of organization, the lexicographic treatment of the lemma sign at distinct levels of derivation and valency, played a crucial role. At each level of derivation, lexical meanings (blue) were reached by looking at the syntactic phenomena (valency) in which שׁלח occurs. Various syntactic patterns were identified and grouped according to their frequency and possible semantic descriptions. The reader may observe that at each level of derivation, the biblical citations assigned to each lexical meaning (in blue), and contextual meaning (in green) determines its hierarchical positioning within the article structure. Consequently, the structuring of data is such that prototypicality diminishes as one proceeds down at each level of derivation, e.g. in the qal there are three subcomments on semantics in blue: 1) to send someone or something (prototypical); 2) to stretch out one's hand (less prototypical) and 3) to let free or give rein to (very rare).

The expanded dictionary article on שׁלח stretches over a number pages. This may pose the problem of rapid accessibility and retrieval of desired information not in a hypertext format. The model proposed in Chapter 5 solves this problem, especially through the feature of the shrunk or shorter version of the dictionary article. The user has the option to expand and shrink any data field desired.

6.3.3 Particles

In the footnote of Chapter 5, §5.4.4, it was pointed out that valency is crucial in the analysis of BH lexemes. The problem, however, arises with regard to which syntactic data is relevant in the case of function words, e.g. discourse particles. Furthermore, which syntactic data should be part of the dictionary article? The particle גַּם is a typical example of this problem. With a frequency of about 769 occurences, the cotext or syntactic environment of גַּם is wide ranging. As such, it is a demanding task to analyze and taxonomise various syntactic patterns as well as to describe them semantically.

Fortunately, instead of re-inventing the wheel, use was made of Van der Merwe (2007)'s work on גַּם for the purpose of this chapter. An analysis of his data reflected many syntactic differences, which made it difficult to select what to or what not to reflect in the dictionary

article. To resolve this problem, it was decided to reflect the semantic data with a minimal selection of syntactic data and the listing of all occurrences. Again the arrangement of this data was done according to the principle of frequency, i.e. the semantic and syntactic environment with the highest occurrence being regarded as being the prototypical usage of the article, e.g. *addition*, *double inclusion*, etc. Since the proposed dictionary makes use of hypertext technology, the skeletal data provided in the lexicographic treatment of גַּם is supplemented through linking to other resources where the lemma in question is dealt with in detail e.g. Van der Merwe, Náude, Kroeze (2004). In addition, the use of superscripted notes, the data which is displayed by hovering one's mouse over them, provides the opportunity for the addition of any other necessary information that may help the explication of the particle.

6.4   Conclusion

In this chapter, three lexical items were chosen and subjected to the model proposed in Chapter 5. The treatment of each lemma sign yielded different results which were reviewed in §6.3. It was also demonstrated that the model proposed in Chapter 5 certainly adds another dimension (that benefits from insights in the field of theoretical lexicography) concerning data types and the structural layout of the dictionary article, which is designed to satisfy the intended function of the dictionary.

Whilst this is a positive development, the testing of the model on each of the selected lemmata revealed aspects that may be perceived to pose problems or are inadequately dealt with. The following can be identified:

1. The treatment of חָלָב demonstrated that the principle of arranging meaning according to "frequency" of attestation might conflict with "common sense." The explanation is that the figurative usage of חָלָב occurs more often than the literal one, hence the former is in primary position and the latter is secondary. The user's common sense invokes the literal reading of the lemma sign first, before the figurative. For this reason, the literal meaning, according to common sense, is expected in the first position of the comment on semantics.

2. Furthermore, the proposed model does not make provision, in the case of verbs e.g., שׁלח, to organize data according to whether God, man, or an angel is the subject. This is in contradistinction to traditional BH dictionaries that indicate the subject of the verb. The question in this regard is this: Do such notations add any semantic value to

the lemma being lexicographically treated? In other words, is there any semantic shift when God is subject and when man is subject? The proposed model assumes that such distinctions do not have semantic variations in a lexicon, though they may, however, have theological implications in certain contexts. Furthermore, the value of lexicographically treating verbs at each level of derivation lies in that the user can see exactly which cases, with regard to both the cotext and context, refer to a particular stem. The fact that there are no semantic models that adequately deal with the different verbal stems, provides further justification to treat verbs at each level of derivation. Such an approach also suggests the need for further research regarding the function and semantics of different verbal stems.

3. Finally, yet importantly, the question of how much data should be part of the article lingers. This is especially with respect to the particle גַּם. The lexicographer is faced with the difficulty: how much syntactic data is relevant and adequate for the semantic description of the lemma sign, and should therefore be included in the dictionary?

Chapter 7

Conclusion

This investigation set out to prove the hypothesis that insights from theoretical lexicography, especially regarding components and structures of dictionaries, can contribute toward the improvement of existing BH dictionaries and prod the compilation of better ones.

In Chapter 1 the foundation was laid by stating and clarifying the problems that confront BH lexicography, viz., data included in existing lexica, lexical semantic models used in the analyses and description of lexemes, and the inadequate structural arrangement of dictionary articles. Due to the scope of the research, the focus was mainly on the lack of adequate structuring of data in ways so that users can optimally retrieve desired information during the look-up process. In order to improve and create better ones, it is important to assess existing lexica.

A plausible approach to criticising dictionaries, namely, theoretical lexicography, which consists of a collective set of accumulated insights from academic lexicography, was established in Chapter 2. The preferred approach for criticism came as a result of a critical discussion of the notion of dictionary criticism: a heuristic tool that seeks to improve the quality of existing lexica through critical assessment. The preference for a model based on a theory of lexicography was also founded on the fact that other approaches are not objective enough and therefore cannot promise substantial results for the purposes of improving existing lexica.

Due to the wide range of metalexicographic notions, only those that focus on components and structures of dictionaries were selected and discussed in Chapter 3. The discussion concluded by selecting three relevant aspects of metalexicography (i.e. the frame structure of the dictionary book, lexicographic function and microstructure) that were deemed to be fundamental for the purpose of this investigation. In the discussion of the frame structure of the book, the focus was on the structural components of the whole dictionary book. These include the front matter text, (which hosts among things, the lexicographic function and the compulsory "guide to the use of the dictionary," the central word list and other outer texts. The lexicographic function states the goal of the dictionary, including its target audience. It

further determines the data types entered and their structural organization in a dictionary. The selection of the microstructure was for two reasons: 1) it is the focal point of most of the user's look-up activities, and 2) it hosts the most salient dictionary components, e.g. the comment on form, comment on semantics, inner-access structure, context and cotext entries and addressing structure, among others.

Chapter 4 employed the above three aspects (i.e. the frame structure, lexicographic function and microstructure) to appraise selected general bilingual and BH dictionaries. The assessment of selected general bilingual dictionaries illustrated a good dictionary that takes into consideration insights from theoretical lexicography, whilst the other exemplified an inadequate compilation. In other words, the former was successful in meeting the requirements of its lexicographic function whilst the latter fell short. The evaluation of BH dictionaries, both printed and electronic, clearly demonstrated a lack of cognition of insights from theoretical lexicography, especially with regard to a clear identification of a lexicographic function(s) and the structure of dictionary components. With the acknowledgement that a clearly stated lexicographic function does not automatically translate into a neat dictionary product of high quality, it must be borne in mind that the lack of it also spell a badly compiled dictionary in terms of data types included and their structural organization. The consequence of this inadequacy, which was evident in most BH dictionaries, is that users are impeded in their efforts to successfully retrieve desired information during a look-up process. De Blois's approach, however, which deviates from traditional dictionaries of BH, presents the user with improved lexica in respect to the semantic model and the structural layout of data. The structural layout, which is according to semantic domains, allows the user rapid access to data and easy retrieval of information. De Bois's dictionary also uses the advantages that are provided by hypertext technology. This is in contrast to the dictionaries of BH available electronically, which are variants of their printed counterparts.

After considering the shortcomings of BH dictionaries and employing the insights of current trends in theoretical lexicography, Chapter 5 developed a model that focused mainly on the lexicographic function of a lexicon for Bible translators and its microstructure. A user-interface for this model was also developed using current hypertext technologies that are available, e.g. Visual Basic Enterprise 6. Prior to the development of the model, theoretical issues relating to the arrangement of meaning and the problem of the BH verbal system were

discussed. Frequency of attestation, though not without its problems was chosen as the preferred approach to prototypicality, which in turn determined the arrangement of meaning. With regard to BH verbs, each is to be lexicographically treated at each level of derivation. This is despite the fact that there are no clear semantic distinctions between some verbal stems.

Chapter 6 selected three lexical items from different lexical classes in order to test the model. The result demonstrated that current insights from theoretical lexicography might certainly improve on BH dictionaries with regards to the various structuring aspects. The main feature, among others, is a clear distinction of collapsible data fields that include related entries, a translation equivalent paradigm, comment on semantics/or form and semantics, general notes and a bibliography. These allow, on the one hand, the user to view and access different texts blocks, and on the other hand, enhance a user-friendly micro-architecture. Another feature concerns additional data provided through superscripts in hypertext. These help both the lexicographer and the end-user with issues of addressing and the medio-structure (i.e. cross-referencing). It was also pointed out, based on the results of testing the model, that certain aspects were left unaddressed or new problems are created. Therefore, in order to forge BH lexicography, the following research areas need further be investigation.

Due to space and scope constraints, the focus in this research was only on three theoretical lexicography notions. Many other aspects were not dealt with or are not in detail, e.g. research into dictionary use, distribution structure, dictionary basis, etc. Further research of BH lexicography in the light of these notions and others may improve BH dictionaries in respect to their helpfulness, accessibility and user-friendliness.

A second area that requires further research, and could further advance BH lexicography is the development of a lexical semantic model that provides heuristics for the sufficient analyses and description of BH lexemes. One of the problems that this semantic model has to tackle is the Hebrew verbal system, especially with regard to clarifying the subtle semantic differences of the verbal stems, e.g. qal, piel, hifil. Such a clarification will enhance the clear categorization of semantic data in the lexicographic treatment of verbs. Additionally, this semantic model must be able to deal with the description of various lexical classes

effectively, e.g. with particles like גַּם: what syntactic data is RELEVANT and how much is ADEQUATE for the description of the lexical item.

Thirdly, the notion of prototypicality with regard to the analysis and description of BH needs further investigation. Although the proposed model preferred an approach that considers prototypicality only in terms of frequency of attestation in corpus data, the other two considerations, i.e. concrete vs. abstract and first-come-to mind manifestations weigh equally. An important observation is that it is difficult to employ all three facets of prototypicality in the description of lexemes in a lexicon clearly. Therefore, the development of a model that may bring the three aspects into a harmonious (if possible) framework for an adequate lexicographic treatment of BH lemmata is called for.

Finally, yet importantly, an area that may need further attention is the development of a computer application programme that yields and conforms to the user-interface developed in this study (Chapter 5). This application will enable the lexicographer to enter generated data as per each lexical class during the lexicographic writing process. In addition, the application should make provision for emending entries at any time as well as adding entries and improvements from users and other contributors, e.g. similar to De Blois' *Vocabula.* These and other areas that may have been omitted in this investigation may yield better BH dictionaries, if developed in the light of current trends in theoretical lexicography.

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