Lexicography and Cognitive Linguistics:
Hebrew Metaphors from a Cognitive Perspective

by

Reinier de Blois

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1 INTRODUCTION

Two years ago, at the SBL Annual Meeting in Nashville, I gave a presentation on
a new dictionary project that had just been started by the United Bible Societies. This
new dictionary, of which I have the privilege to be the editor, carries the tentative
name of A Semantic Dictionary of Biblical Hebrew (SDBH). We have chosen this
name to underline the fact that this new dictionary is built on a solid semantic
theoretical framework, which cannot always be said about some of the more
traditional dictionaries.

Most of you have probably heard about Louw and Nida’s Greek-English Lexicon of
the New Testament Based on Semantic Domains, which was published by the United
Bible Societies more than twenty years ago. This dictionary can be considered quite
innovative in many ways. Our new Old Testament dictionary, which I will henceforth
refer to as SDBH, will be similar to Louw and Nida’s lexicon in many ways, but at the
same time it will be quite different too.

In both dictionaries semantic domains play a crucial role. This is important because
words do not have meaning in a vacuum. The meaning behind a word can only then
be fully understood when it is studied within its semantic domain. Louw and Nida,
however, based their semantic framework on a theoretical model that is often
referred to as componential analysis of meaning, which describes the meanings
of words in terms of binary distinctive features. This theory got a lot of attention in
the seventies and eighties of the previous century. Since that time, however,
important new insights have appeared on the linguistic horizon. Scholars have
started to pay more attention to the cognitive reality behind a language, including
the entire communication pattern in which language plays such a crucial role. New
approaches such as Relevance Theory and Cognitive Linguistics can be of immense
help to us in this process. In our linguistic analyses we should not be merely aiming
towards descriptive systems that work, but for systems that are intuitively adequate,
that represent as much as possible the ways of thinking of the speaker of the
language, and do justice to his/her organization of experience, his/her system of
beliefs, experience, and practices. We are not supposed to impose a system on a
language. Instead of that we are to try to discover the semantic structure of the
language. For that reason the semantic framework underlying SDBH will be not be
based on componential analysis of meaning but on a number of important insights from Cognitive Linguistics instead.

Another way in which the two dictionaries mentioned above will differ has to do with presentation of the data. The layout of Louw and Nida’s lexicon is quite revolutionary in that it does not list its entries in alphabetical order but organizes it according to semantic domain. This method has its advantages and disadvantages. The advantage is that you can easily see and compare different entries that belong to the same semantic domain. If you just want to look up a particular word, however, you have to go to the index first. And there you may discover that the entry you are looking for has been “scattered” all over the dictionary.

SDBH, on the other hand, has an approach that appears to be more conservative: All entries are listed alphabetically. Since, however, dictionaries are much more accessible when published electronically, SDBH will be made available in an electronic format that will give the user access to the data in different ways. Those who want to look up a word in the traditional way can do so. Those, on the other hand, who want to study a particular semantic domain in its entirety can do so as well. It is only a matter of a few mouse clicks.

2 SEMANTIC FRAMEWORK SDBH
I would like to explain the theoretical framework behind SDBH with reference to a number of typical SDBH entries. Let us have a look at such an entry: Here you see part of the entry for הָרֶפֶה “rope”.

| שָׂרָה, שָׂרָה | noun, masc. | 1

(a) **Objects**: Products
   = piece of stout cord; << made by twisting together strands of hemp, sisal, flax, cotton, or similar material,
   >> used for climbing, keeping things together, measuring, drawing things to oneself, making traps, etc.; a rope tied around the head is a symbol of submission
   
   **Commerce** rope (as trading article) EZE.27:24
   Climbing rope (for climbing) JER.33:6,11,12,13
   Decoration cord (used for hanging curtains for decoration purposes) EST.1:6
   Destruction rope (to tear down a construction) ZPA.17:13
   Dimensions measuring rope, measuring line ZPA.9:22, Psa.15:6, AMO 7:17, MIC.2/3, ZEP.2:5
   Hunting: Control rope (used to subdue an animal that has been caught) JOS.4:25
   Navigation naggag ZPA.33:25
   Tent; Strength > Security (tent-) cord (that keeps a tent securely in its place) ZPA.33:20
   Water Supply > Life (well-)rope (as a symbol of life) EZE.12:6
   Symbols; Humility, Pride rope (tied around the head, as a symbol of submission) IKI.2031:32

(b) **Objects**: Products > Scenery
   as [a], but with focus on the function: = piece of land, << measured off with the help of a length of rope, >> owned or occupied by an individual or a group of people

   Land area, region, district DEU.3:4,13,14, 103:19-29, 1KI.4:13, ZEP.2:5,9

   Land; Possession portion (of land) JOS.17:5,14; 19-5; ICH.12:18; Psa.78:35; 105:11; EZE.47:13
2.1 Semantic Classes

In the first place, בהל belongs to the semantic class of objects. According to Nida (1964) there are four universal semantic classes: objects, events, abstracts, and relationals. Nida claims that these four semantic classes are found in all languages of which we have any knowledge, even though these semantic classes are not always tied to the same grammatical classes in every language. All other semantic categories are to be considered language-specific. They do not relate to universal categories but depend solely on the semantic structure of a particular language. I am not sure about that. In my previous presentation I have argued that objects and events, and possibly relationals as well, are valid semantic classes for biblical Hebrew, but that abstracts are to be considered events. In other words, I doubt whether these four classes are really 100 percent universal at all.

2.2 Lexical Semantic Domains

Much more important than the distinction between objects, events, and relationals, however, is the distinction between different lexical semantic domains. An important difference between SDBH and the theoretical framework on which Louw and Nida’s lexicon was based is the distinction between two levels of semantic domains: lexical domains and contextual domains. This has everything to do with the difference in semantic theory that I mentioned earlier. I believe that using cognitive linguistics as a theoretical basis requires this double classification. Let me explain why. Lexical semantic domains correspond to what in cognitive linguistics is described as cognitive categories.

2.2.1 Categories in Cognitive Theory

There is nothing new about the term categories. Human beings have been thinking in terms of categories all along. And that has never been considered a problem. Most of our categorization happens automatically and unconsciously. We only become aware of this process in difficult cases. Without categories we cannot function as human beings at all. Eleanor Rosch was one of the first scholars to make categorization a subject for scholarly discussion.

Categories are not universal. They depend on the system of experiences, beliefs, and practices of a particular social or ethnic group. The way a human being perceives the entities in the world around him/her plays an important role.

Let us have a look at what cognitive linguistics teaches about categories. I am heavily indebted to Ungerer and Schmid, who wrote an excellent introduction to Cognitive Linguistics (1996).

- In the first place, every category has a prototype. Human beings make a mental representation, a cognitive reference point (Ungerer and Schmid 1996:39) for every category. One such category could be the one for “bird”, which will probably be a relevant category for most of you. The mere mention of this category enables the hearer to conjure up an image in his/her mind, depicting all relevant characteristics of birds. Most hearers may picture a creature with feathers, wings, etc. This mental image will probably differ from one language to another.
• Every category has good (typical) and bad (a-typical) members, including marginal examples whose category membership is doubtful. Many readers may agree with me that a “robin” is a typical example of the category “bird”. Examples of a-typical members of this category may be “ostrich”, “penguin”, and “bat”.

• Categories have attributes that provide information about categories. At first glance an attribute may seem similar to a component of meaning. There is an important difference, however. A component of meaning is a distinctive feature, whereas an attribute is not distinctive in nature. It is a cognitive feature, representing what a speaker of a language considers to be relevant information. The category “bird” may have the following attributes: (1) it has two wings, (2) it has two legs, (3) it can fly, (4) it has a beak, (5) feathers, and (6) it lays eggs. Typical members of a category have more attributes in common than less typical members.

• Finally, categories are not homogeneous. They have fuzzy boundaries. As a result of this a certain object may be a typical member of category A, but a less typical member of category B at the same time.

2.2.2 Categories in Biblical Hebrew – Methodology

I have tried to apply this approach to biblical Hebrew. The problem there is of course: How can you determine which are valid cognitive categories is an ancient language? There are no informants that we can interview and there is only a limited corpus of data to rely on. As a result, there is a limit to what we can discover as well.

Because of these limitations, what kind of tools do we have available to help us determine what can be considered valid cognitive categories in biblical Hebrew?

As far as the semantic class of objects is concerned, a very important tool is the study of generic terms. This can help us discover the different categories and subcategories that appear to have been relevant for the speakers of biblical Hebrew. Genesis 1, for instance, gives us a lot of information about (sub)categories, e.g. about the earth (heaven, earth, region below the earth), and about plants (vegetation, plants yielding seed, and fruit trees bearing fruit in which is their seed). Important information concerning the traditional taxonomy of animals can be found in Leviticus 11 and Deuteronomy 14.

A second powerful tool, which is especially helpful for the classification of events is the study of Hebrew poetry. A study of parallelism (both synonymic and antonymic), for example, yields a tremendous harvest of terms that belong to the same category. The same can be said about word pairs. Terms such as דָּס and אֶפֶם probably belong to the same category simply because of the fact that they are often used together.

Also very important is the study of metaphors. Understanding the way speakers of a language use words figuratively helps us to understand how their minds perceive the world around them and helps us to categorize that world.

In addition to this, a study of the wider context in which objects and events are used may provide other important information that helps us discover the range of
cognitive categories that appear to have been of relevance to the speakers of biblical Hebrew.

2.2.3 Categories in Biblical Hebrew – Objects

My research of Hebrew objects led me to the conclusion that the following eight cognitive categories or lexical semantic domains seem to cover objects adequately:

1. Animals – all living creatures, with the exception of human beings
2. Deities – all supernatural beings
3. Parts – all objects that cannot exist in isolation but are an integral part of another object and therefore usually occur as part of an associative construction, or require a possessive pronoun
4. People – all human beings
5. Plants – all plants and trees
6. Products – all inanimate objects, usually of a relatively small size, produced by People, Deities, Animals, or Plants.
7. Scenery – all inanimate objects, with the exception of Plants, that usually cannot be moved, and are part of the scenery in which events in the Old Testament take place
8. Substances – all inanimate objects, shaped in such a way that they usually cannot be counted but are to be measured instead, and from which other objects can be produced

There is no doubt that these categories can be divided into subcategories and that is something that will undoubtedly happen in the near future.

2.2.4 Categories in Biblical Hebrew – Events

As far as events are concerned, I have come to the conclusion that there are four main categories of events or lexical semantic domains in biblical Hebrew:

1. Description – all events that describe the features of objects.
2. Position – all events that describe the relationship between objects and the environment in which they are located.
3. Connection – all events that describe the relationship between objects that are attached to one or more other objects.
4. Perception – all events that describe the relationship between objects and the mind of animate beings.

These four categories can be divided further into several subcategories, as we will see later when we are going to talk about the SDBH framework handles metaphors.

2.2.5 Definitions

As we have already seen, one of the characteristics of categories in cognitive linguistics is the fact that each category has attributes. These are cognitive features
that help characterize the different members of each category. In principle each category has a different set of attributes depending on the category. I have tried to do something similar for biblical Hebrew, though I have tried to keep them as generic as possible. As I said earlier on, we are dealing with an ancient language with a limited data corpus, and we have to make sure not to impose anything on the language.

In the theoretical framework underlying SDBH we are using two sets of attributes, one for *objects* and one for *events*. These attributes are very important as they help us to write valid definitions for each entry. That is quite necessary, if you look at some contemporary dictionaries. This is an example from the *Concise Oxford Dictionary* (Sykes 1983).

**dog:** a domesticated carnivorous mammal, *Canis familiaris*, usu. having a long snout and non-retractile claws, and occurring in many different breeds kept as pets or for work or sport

**cat:** a small soft-furred four-legged domesticated animal, *Felis catus*

If somebody who does not know English wants to find out the difference between a dog and a cat this dictionary will not be very helpful to him/her. Why? There is no doubt that dogs and cats belong to the same cognitive category. This category ought to have one single set of attributes, which should reflect in the definition of the entry. The definitions quoted here, however, hardly show any structure at all:

- There is information about the snout and the claws of the dog; what about the cat?
- There is information about the skin of the cat; what about the dog?
- Dogs are said to be kept as pets or for work or sport; what about the cat?
- Cats have four legs; what about the dog?

Let me give you an example of how we are trying to deal with animals in SDBH. This category (or lexical semantic domain) has four attributes:

(i) **Description**

All relevant information concerning the outward appearance of the animal in question, including its behavior

(ii) **Source**

The subcategory to which this animal belongs. On the basis of texts like Genesis 1 and Leviticus 11 the following subcategories have been adopted:

- wild land animals
- domesticated land animals
- aquatic animals
- birds
- swarming\(^1\) creatures with wings (e.g. *locusts*)
- swarming land creatures (e.g. *lizards*, *rats*, and *mice*)

\(^1\) On the basis of Leviticus 11 we may conclude that the basic distinction between יְרֵצִים "swarming creatures" and other animals is a valid one in biblical Hebrew. This term appears to cover those animals that occur in such a quantity that they are difficult to keep count of, and also those that are described in Genesis 1:24f as נָחָשׁ "creeping things".
(iii) **Function**
The last two attributes cover the more anthropocentric qualities of animals, i.e. those that deal with the relation between animals and human beings. This particular slot deals with specific questions governing the role of animals (or parts of animals) within the life of every day, like: Is it a clean or an unclean animal? Is this type of animal used in sacrifice? If it is a domestic animal, what is it used for?

(iv) **Connotation**
This slot deals with the more stereotypical qualities of a particular animal, seen from the perspective of the Hebrew linguistic community. A fox, for instance, was regarded as a destructive animal. Wild pigs, on the other hand, were associated with paganism.

In SDBH definitions are structured accordingly, using a symbol or mnemonic to indicate each attribute. Two examples of definitions of animals from SDBH are given below:

**ונכ** = type of migratory locust; consumes all vegetation; << swarming creature with wings; >> clean; ~ regarded as a small but destructive insect; its way of walking resembles that of an old man

**הזיר** = ungulate bristly mammal of family Suidae; non-ruminant and omnivorous; << wild land animal; >> unclean; ~ regarded as an ugly, filthy, and destructive animal and often associated with pagan rituals

We could possibly go into more detail than this, but we would like to restrict ourselves as much as possible to the data that can be considered relevant to the biblical text and that can be backed up with biblical data.

Finally, the software we are using to display SDBH makes it easy to compare entries belonging to the same cognitive category or lexical semantic domain in SDBH. It only requires a search on the basis of lexical semantic domains. A list will appear showing all entries that match the search criteria.
2.3 Contextual Semantic Domains

תִּפְרָא
(1) noun, masc. ([1] תִּפְרָא
(a) Objects: Products
- a piece of stout cord, "made by twisting together strands of hemp, sisal, flax, cotton, or similar material;" used for climbing, keeping things together, measuring, drawing things to oneself, making traps, etc.; - a rope tied around the head is a symbol of submission
- Commerce: rope (as trading article) EZE 17:24
- Climbing rope (for climbing) JOS 2:15; JBS 36:6,11,12,13
- Decoration cord (used for hanging curtains for decoration purposes) EST 1:6
- Destruction rope (to tear down a construction) ISA 17:13
- Dimensions measuring rope, measuring line JOS 9:2,2; Psa 5:16; AMO 7:17; MIC 2:5; ZEC 2:5
- Hunting; Control rope (used to subdue an animal that has been caught) 1OS 30:23
- Navigation rigging ISA 33:23
- Tent; Strength > Security (tent:) cord (that keeps a tent securely in its place) ISA 33:20
- Water Supply > Life (well-)rope (as a symbol of life) BCC 12:6
- Symbols; Humility, Pride rope (tied around the head, as a symbol of submission) 1Ki 20:31,32
(b) Objects: Products > Scenery
- as "[a], but with focus on the function = piece of land, "measured off with the help of a length of rope;" owned or occupied by an individual or a group of people
- Land area, region, district DEU 3:13,14; JOS 19:25; 1Ki 4:13; ZEF 2:5,6,7
- Land; Possession portion (of land) Psa 17:3,14; 19:5; 1CH 16:18; Psa 78:33; 1OS 11; EZE 47:13

As I mentioned earlier, the framework underlying SDBH is based on cognitive linguistics and therefore we are making a distinction between two levels of semantic domains. So far we have been talking about lexical semantic domains, which correspond to cognitive categories. Let us go another step further now. Categories are always used in context. Strictly linguistically, context should be defined as that which precedes or follows an utterance. From a discourse point of view it is the situation in which an utterance is embedded (Ungerer and Schmid 1996:45). From a cognitive perspective, however, context should be seen as a mental/phenomenon.

Let us go back to the word נִפְרָא "rope". If we would ask a native speaker of biblical Hebrew what a נִפְרָא is, he/she would probably be able to describe what, according to his/her world view, the prototype of a "rope" would look like. That would probably not go much further than a description of what a simple rope looks like, what it is made of, and maybe a few examples of what it is used for.

In order to get the complete picture, however, we need to have more information. That information is supplied by the cognitive context, a mental image of a situation where we find a נִפְרָא interacting with other objects. In the biblical text we find many different cognitive contexts that paint us different pictures of the object represented by the Hebrew word נִפְרָא:

- It can be an item for sale on the market
- It can be used by a person climbing down a wall
- It can be used to hang curtains in a palace hall
- It can be used to tear down a wall during a siege
Cognitive contexts like this are represented in SDBH by what we have labelled as *contextual semantic domains*. And since cognitive contexts are usually quite complex often more than one semantic domain is needed to describe it adequately.

3. METAPHORS AND MAPPINGS

3.1 METAPHORS IN COGNITIVE LINGUISTIC THEORY

Traditionally, metaphors and metonyms are called figures of speech. As such they are usually seen as highly marked expressions, used in highly specific contexts like rhetorical style and poetry. Of late, however, scholars have started to realize that these are phenomena that are not restricted to a certain limited number of contexts but they pervade the entire language. Metaphorical expressions are found in languages over the world and often they do not happen as mere accidents, but reflect patterns of thinking. They reflect structural relationships that people perceive between the entities in the world around them.

In cognitive linguistics, patterns like this are called *thought mappings*. The word *mapping* is a mathematical term and can be defined as a correspondence between two sets that assigns to each element in the first a counterpart in the second (Fauconnier 1997:1). In the context of cognitive linguistics we talk about mappings between different cognitive categories or cognitive contexts. A famous example is the mapping between TIME and SPACE. In English and many other languages, time is often expressed in terms of spatial relations. The following examples, borrowed from Fauconnier (1997:26-27), make this abundantly clear:

(1) to be *close to* Christmas
(2) to *reach* the end of the week
(3) to *go past* the deadline
(4) to work *from* nine *to* 5, etc.

These are not accidents. Expressions like this reflect patterns of thinking.

Another interesting mapping is the one between TIME and MONEY. In the modern Western culture the expression “time is money” is more than just a saying. It has affected the cognitive patterns. See, for instance, expressions like:

(1) You are *wasting* my time.
(2) Can you *give* me a few minutes?
(3) How do you *spend* your time?
(4) We are *running out of* time.
(5) Is that *worth* your while?

These examples, in which time is perceived as a precious commodity, were borrowed from Lakoff and Johnson (1980:7-8).

3.2 METAPHORS IN BIBLICAL HEBREW

The Bible is full of patterns like this. In the Old Testament “anger” is often expressed in terminology that is borrowed from the cognitive context FIRE, e.g. “the anger of the LORD was kindled.” In other contexts we see mappings between the cognitive contexts of ANGER and FLUIDS, e.g. “the LORD poured our his anger on his people.”
It also appears that the speakers of biblical Hebrew perceived a semantic relation between the physical weight of an object and the experience of an event as difficult or troublesome. A stone may be heavy, but a famine or a plague may be considered “heavy” as well. There seems to be a semantic link between heaviness and stubbornness as well. In the Bible we read repeatedly about heavy hearts (Exodus 9:7) and heavy ears (Isaiah 59:1).

Some of these thought mappings have become an integral part of the semantic framework of the language whereas others are somewhat more “accidental”. SDBH deals with both types albeit in a different way.

3.2.1 STRUCTURAL METAPHORS IN BIBLICAL HEBREW

We will deal with the more structural metaphors first. Let us look at Hebrew events for an example. I mentioned four categories for Hebrew events: Description, Position, Connection, and Perception. Within each of these four categories we can discern several metaphorical extensions of meaning that have become lexicalized. The following table shows what is going on and how regular these extensions of meaning are.

The first column shows the four main categories for Hebrew events. In the next columns we find examples of what can be considered the basic sense of events belonging to each of these four categories. Only one example per category has been given, but it is easy to find several more.

The third column goes one step further. The argument structure of the events listed here does not change, but the meaning does. Instead of events with a concrete, “physical” sense we find events with a “non-physical”, more emotional sense. The last column, finally, shows events that do no longer have an object as main semantic argument, but another event. This can be considered a further metaphorical extension of meaning.

<table>
<thead>
<tr>
<th>Main Category</th>
<th>Events with object as main argument</th>
<th>Events with object as main argument, with non-physical sense</th>
<th>Events with other event as main argument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Attribute כבד “to be heavy” (PRO.8:24)</td>
<td>Attitude כבד “to be burdensome” (2SA.13:25)</td>
<td>Modification כבד “to be intense” (GEN.12:10)</td>
</tr>
<tr>
<td>Position</td>
<td>Location לעון “to stand” (GEN.41:1)</td>
<td>Existence לעון “to stand firm” (PSA.130:3)</td>
<td>Occurrence לעון “to endure” (EZK.22:14)</td>
</tr>
<tr>
<td>Connection</td>
<td>Attachment דבכ “to stay close to” (RUT.2:8)</td>
<td>Relation דבכ “to be faithful to” (2KI.18:6)</td>
<td>Involvement דבכ “to take part in” (PSA.101:3)</td>
</tr>
<tr>
<td>Perception</td>
<td>Sensation</td>
<td>Cognition</td>
<td>Sensation</td>
</tr>
<tr>
<td>Hebrew “to see”</td>
<td>Hebrew “to take heed”</td>
<td>Hebrew “to see”</td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td>(EXO.12:13)</td>
<td>(1CH.28:10)</td>
<td>(GEN.21:16)</td>
<td></td>
</tr>
</tbody>
</table>

As a result of this, the four main categories for events can be subdivided on the basis of patterns of lexicalized metaphorical extensions of meaning into 11 or 12 subcategories as shown in this table.

The following examples from SDBH show how this subdivision is used in a dictionary entry.

<table>
<thead>
<tr>
<th>verb</th>
<th>adjective</th>
<th>noun, masc.</th>
<th>noun, masc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>נָתַן</td>
<td>adjective</td>
<td>noun, masc.</td>
<td>noun, fem.</td>
</tr>
<tr>
<td>noun, fem.</td>
<td>יִתַּן</td>
<td>noun, fem.</td>
<td>התִּתְּנָנָה</td>
</tr>
<tr>
<td>יִתְּנָנָה</td>
<td>noun</td>
<td>תְּנַנְּנָה</td>
<td></td>
</tr>
</tbody>
</table>

(a) **Events:** Attribute, State/Process

verb, qal; verb, hif.; adjective; noun

= to have great physical strength or power; ST (parts) people

**Strength:** Body to be physically strong > vital, healthy

JOS 14:11; ZSA.13:14, EZK.30:22; 34:16; AMO 2:14

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(c) **Events:** Attitude, State/Process

verb, qal; adjective

= to be resolute, persistent, and emotionally strong; >> resulting in unwillingness to change the course of action that has been planned;

~ this attitude can be interpreted both in a positive and in a negative way, ST (parts) people

**Will:** Fear to be strong (sometimes: of hands or loins) >> to not give in to fear (when facing a difficult task)

DEU.31:6,7,23; JCS.1:6,7,9,18; 10:25; 23:6; JDC.7:11, ZSA.27, 10:12; 13:28, 16:21, 1K.1:2, 1CH.19:13...

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(b) **Events:** Modification, State/Process

verb, qal; adjective; noun

= to happen or take place with intensity, ST events

**Intensity:** Apparition; Providence to be strong (on someone; said of the hand of the Lord) ISA.3:11; EZK.3:14

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### 3.2.2 OTHER METAPHORS IN BIBLICAL HEBREW

Let us turn now to the more “accidental” cases of metaphors. I will try to show you that they are not always as accidental as they might seem. Let me remind you once again that every cognitive category or lexical semantic domain has a number of attributes and that the different attributes ought to be reflected in the definition of an entry or subentry.

In addition, each event has an argument structure. Here we are not talking about **syntactic** arguments, such as **subject, object, adjunct,** etc., but about **semantic**
arguments, such as statant, agent, causer, etc. SDBH lists the arguments that each event requires, including the type of object or event that is found in each argument slot.

Now many metaphors in biblical Hebrew can be explained as follows: The focus shifts to one particular attribute of a given object or event. As a result of that the lexical meaning changes and the object or event in focus shifts to another cognitive category and/or another cognitive context. I would like to label this as an attribute shift.

Alternatively, there can be a change in the argument structure of a particular event. The argument structure itself does not change, but the type of object or event that is found in one or more of the argument slots changes. For this type of metaphor I would like to use the term argument shift.

In certain cases, attribute shifts and argument shifts go hand in hand.

A few examples will illustrate this.

Let us start with a case of attribute shift: חֵקָה "wall".

<table>
<thead>
<tr>
<th>חֵקָה</th>
</tr>
</thead>
<tbody>
<tr>
<td>noun, fem</td>
</tr>
<tr>
<td>(a) <strong>Objects:</strong> Products / Scenery</td>
</tr>
<tr>
<td>= structure surrounding a building, a collection of buildings, or a town</td>
</tr>
<tr>
<td>&lt;&lt; made out of stone; &gt;&gt; provides protection; ~ associated with strength, safety, and the ability to resist attacks from outside (a)</td>
</tr>
<tr>
<td><strong>Towns / House / Sanctuary wall (of a town, house, or temple)</strong> LEV 25:29,30,31; DEU 3:5, 28:52; JOS 2:15,15; 6:5,20; ISA 31:10,12; 2SA 11:20,21,24; 18:24 ...</td>
</tr>
</tbody>
</table>

Here is what we could call the basic meaning of חֵקָה. Its definition lists information regarding four attributes.

- **Description (=):** high structure surrounding a building, a collection of buildings, or a town
- **Source (<<):** made out of stone
- **Function (>>):** provides protection
- **Connotation (~):** associated with strength, safety, and the ability to resist attacks from outside

<table>
<thead>
<tr>
<th>(c) <strong>Objects:</strong> Scenery &gt; Attribute, State/Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>as [a], but with focus on the description: = enormous quantity of a certain substance rising up high into the air like a wall; ST substances: liquids</td>
</tr>
<tr>
<td><strong>Towns &gt; Quantity; Liquids a wall (of water)</strong> EXO.14:22,29</td>
</tr>
</tbody>
</table>

This is subentry (c). It is undoubtedly related to subentry (a), but a number of things have changed. According to the introduction to the definition there has been an attribute shift: "as [a], but with focus on the description." Here the focus is on the description in the definition of subentry (a). It is the shape of the wall that is in focus.
here: “an enormous quantity of a certain substance rising up high into the air like a wall.” This actually is a shift from an object to an event. A quantity is not an object; it is a state, which, according to the theoretical framework underlying SDBH, is a type of event. This event belongs to the category Attribute. Let us not mix up things here: The term attribute can refer both to a category for events and to an element of a definition. The right wedge (>) is used to indicate a change in category. Please take note of the changes at the contextual level as well: **Towns > Quantity; Liquids.**

| (e) | **Objects:** Scenery > Attitude, Causative  
as [a], but with focus on the function: = to cause other people to feel safe and well-protected; CA deities, people; ST people  
| **Towns > Strength; Care wall > protector ISA 25:16**  
| **Towns > Strength; Care; Fire; Providence שָׁלֹום > protector ZEC 2:9** |

The next subentry is subentry (e). There is another attribute shift here, which puts the focus on the function of a wall: “a person who shares some of the characteristics of a wall, in, by his/her strength, providing safety and protection to others.” Again, there are a number of shifts in context.

We will see some more examples of attribute shift later. Let us have a look at a number of examples of argument shift now. A good entry to illustrate this from is Sunday "to pour".

| verb | נַשַּׁב, הנשיה | **(a) Events:** Location, Causative  
verb, qal; verb, nif.  
to pour out a liquid or dry substance; CA people, ST substances  
| **Liquids to pour out (a liquids or dry substance) EXO 49; LEV 14:41; JDD 6:20**  
| **Liquids: Animals; Food to pour out (the blood of an animal before eating) LEV 17:13, DEU 12:24, 15:22**  
| **Liquids: Animals; Sacrifice to pour out (the blood of an animal as part of a sacrificial ritual) EXO 29:12, LEV 4:7, 18, 22, 30, 34**  
| **Liquids; Sacrifice to pour out (water or wine as part of a religious ritual) ISA 7:8; ISA 57:6**  
| **Liquids; Siege תַּחֲלֶמֶת > to pour (sand for a siege) **  
mound > to cast up a siege-ramp ISA 30:15, EX 19:32; ISA 37:33, JER 6:6, EZK 42, 17:17, 21:27, 26:8, DAN 11:15**  
| **Liquids; Flood; Providence to pour (water over the earth) > to cause a flood (said of God) AMO 5:8, 9:6** |

**וַיְמַשֵּׁה** is an event belonging to the lexical semantic domain of Location. It is a causative, requiring two semantic arguments, a causer (the object that causes the change in location) and a statant (the object that undergoes the change in location). The definition is quite simple and has only one relevant attribute: “to pour out a liquid or dry substance.” The statant is the main argument in a state or process that usually has a zero semantic function; in this case it has to be an object belonging to the category Substances. The causer invariably is a human being. Both qal and
niphal derivations are found with this lexical meaning. In addition, it is used in a number of different cognitive contexts, the most prominent of which is **Liquids**. A pretty straightforward case.

(c) **Events**: Location, Causative > Cognition, Causative verb, qal

as [a], but extended to parts of self, literally: to pour out part of one’s self before someone else, hence: = to communicate one’s emotions to someone else; CA people, ST parts: people

**Liquids** > **Heart**: Communication; Devotion

לבק 나타 / לבק (לבק) to pour out one’s heart/self (before God) > to share one’s emotions (with God)

ISA 1:15; Psa 69:9; Lam 2:19

**Liquids** > **Heart**: Reflection

לבק 나타 (לבק) to pour out one’s self (over oneself) > to reflect on (one’s own) emotions Psa 42,5

However, this verb is used in the Old Testament in different creative ways. This is subentry (c), which is a nice example of an argument shift. There is a change in statant: Instead of a liquid, somebody decides to pour out his/her לב or אשת לב, which apparently is possible too. This argument shifts results in two other shifts here:

- A shift in lexical semantic domain: **Location** > **Cognition**
- A shift in contextual semantic domain: **Liquids** > **Hearts**; this latter contextual domain covers all contexts involving “the inner person.”

(d) **Events**: Location, Causative > Cognition, Causative verb, qal

as [a], but extended to events; literally: to pour out an attitude, hence: = to communicate one’s attitude or emotion to someone else, either through words or through actions; CA deities, people, ST events

**Liquids** > **Anger**: Punish, Reward, Providence

לבק 나타 / לבק (לבק) to pour out (one’s) anger > to show one’s anger (by punishing people; said of God) Psa 69:25, 79:6, Isa 42:25, Jer 6:11; 10:22, Lam 24; 41:11, Ezek 7:8, 9; 14:19, 20:8, 13:21, 33:34, 21:36 ...

**Liquids** > **Grief**: Communication; Devotion

לבק 나타 (לבק) to pour out (one’s) complaint (before God) > to tell (God) one’s sorrow Psa 102:1, 142:3

**Liquids** > **Status**: Providence

לבק 나타 (לבק) to pour out contempt (over) > to show contempt (said of God) Job 12:21, Psa 107:40

Subentry (d) is a little different. In this case an event is poured out. The type of event in focus here is an attitude or emotion, such as anger, contempt, or grief. I believe the lexical semantic domain of this subentry is the same as the one found in the previous subentry. It is a case of cognition, a communication of an attitude or emotion even though the actual communication may take place through a number of actions. People may disagree with me on that.
Subentry (e), finally, is closely related to (d) though somewhat different. Again, what takes place is the pouring out of an event, though the lexical semantic domain here is *Occurrence*. Somebody causes someone else to undergo an event. I must admit though that some cases that are listed under (d) may have to be moved down to subentry (e) or vice versa.

This, finally, is an example of a Hebrew event that shows a number of metaphorical extensions of meaning of both kinds: attribute shifts and argument shifts.

It is the verb **דָּלָה** “to be sharp”, which belongs to the lexical semantic domain *Attribute*. Let us have a look at the definition that shows some of the attributes of this category of events:

Description (=): to have a thin cutting edge
Function (>>): in order to make it useful and effective as a tool
Connotation (~): often associated with violence and danger

An event like this only requires one argument:

Statant (ST): an object belonging to the category Products

(b) **Events:** Attribute, Causative
verb, hit.; verb, hof. (passive)
= to cause an object to have a thin cutting edge; + with an iron tool; >> in order to make it useful and effective as a tool; ~ often associated with violence and danger; ST products; CA people

**Crafts to sharpen** PRO.27:17

**Crafts > Violence to sharpen** (a sword which symbolizes violence) EZK.21:14,15,16

The next subentry of רוח is closely related. It actually is the causative of subentry (a). This definition shows the following attributes:

Description (=): to cause an object to have a thin cutting edge
Instrument (+): with an iron tool
Function (>>): in order to make it useful and effective as a tool
Connotation (~): often associated with violence and danger

This event requires two semantic arguments:

Statant (ST): an object belonging to the category Products
Causer (CA): an object belonging to the category People

(c) **Events:** Attitude, State/Process
verb, qal
as [a], but extended to animate objects and with focus on the connotation: = to be inclined to violent and dangerous activity, as dangerous as a sharp knife; ST animate creatures

**Violence fierce, dangerous** HAB.1:8

Now we are getting to subentry (c). This is a metaphoric extension of meaning of subentry (a). Here we find both an argument shift and an attribute shift. Instead of an inanimate Product, this event requires an animate object. More important here is the attribute shift. The focus is on the connotation of subentry (a), hence the definition: "to be inclined to violent and dangerous activity, as dangerous as a sharp knife." This subentry has a different lexical meaning and belongs to the category Attitude.

(d) **Events:** Cognition, Causative
verb, hif.
as [b], but extended to people and with focus on the result: = to increase someone's ability to assess different situations and react in an effective way; CA people; ST parts: people

**Wisdom; Success, Failure to sharpen** (someone's) face > to sharpen (someone's) mind PRO.27:17
Subentry (d) is an extension of meaning of subentry (b). Again, we find both an argument shift and an attribute shift. Instead of an inanimate Product, this event requires an human being; to be precise: someone’s face. In addition, there is an attribute shift. The focus is on the function of subentry (b). A knife is sharpened in order to increase its effectiveness. People’s faces are sharpened in order to increase their ability to assess different situations and react in an effective way. This subentry belongs to the category Cognition.

4 CONCLUSION

The purpose of this presentation was to give you further information about the Semantic Dictionary of Biblical Hebrew. This time the main focus was on the role played by cognitive linguistics which has been a tremendous help in building a semantic framework that tries, as much as possible, to do justice to the system of experience, beliefs, and practices behind the Hebrew language. We are not using dictionaries to find mere translation equivalents. We are using dictionaries to understand what a given text tries to communicate. We are dealing with an ancient text here, and I realize that this is a dangerous undertaking. Yet the biblical Hebrew text does provide us with some tools to help us do this. One of these tools is the way this languages handles metaphors. Understanding the different ways a language is used figuratively helps us to understand the world behind the language.

We have a team of about 10 people working on this dictionary now. There is always room for more volunteers. The results are published on our website, which has a search engine that allows you to look up entries online. There is always room for more volunteers on our team. If you are interested, please contact me.