

# Metaphoric and Metonymic Conceptualization of the Nose in Hebrew and Twi

**Charles Owiredu**

*Daniel Institute, Central University*

## Abstract

This paper examines the metaphorical and metonymic structure of the “nose” in Biblical Hebrew and Twi, a Kwa language spoken in Ghana, West Africa. The study is done within the framework of the Conceptual Metaphor Theory propounded by Lakoff and Johnson (1980). The aim is to analyze the ways in which the body part **ḥṣ** (nose) is used in the Hebrew Bible to express human experiences, and to compare them with their translations in the Akuapem Twi Bible (*ATB* 1964). The data reveal that there are some striking cross-conceptual and cross-linguistic similarities and differences between Hebrew and the Twi language with respect to the metaphorical and metonymic conceptualization of anger in relation to the locus of emotion. While Biblical Hebrew locates anger in the nose, Twi locates it in the chest. The Biblical Hebrew term for “nose,” **ḥṣ** also refers to the “face,” the “eyebrow,” and the “whole person” in various contexts. The difference in the language-specific conceptualization

may be attributed to the cultural model embedded in the two languages.

## 1. Introduction

Recent years have witnessed a good number of studies which focus on the conceptualization of external body organs in many languages. The metaphoric and metonymic conceptualization of body parts such as the head, face, heart, and hand have recently drawn the interest of scholars (e.g., Wolters 2011; Moshenrose 2012; Blechmen 2005; Fan 2017; Dzokoto et al. 2016). Additionally, there has been considerable progress in the discussion of the nose in the Hebrew Bible. Recent contributions have been made on the subject by Amzallag (2017, 2018), Kotzé (2005), and Wrenn (2020). However, previous research has overlooked the metaphorical and metonymic pattern of nose conceptualization in the Hebrew Bible and its

## Keywords

nose, anger, metonymy, Conceptual Metaphor Theory, Twi Hebrew

## About the Author

Prof. Charles Owiredu is a Langham Scholar. He holds a PhD from the University of Durham, England. He studied ancient languages including Hebrew, Greek, Ugaritic, Syriac, and Egyptian (Hieroglyphics). He teaches Biblical Languages in various universities in Ghana. He speaks three major Ghanaian languages fluently, some Modern Hebrew and some Modern Greek. He is a member of faculty, Daniel Institute, Central University, Ghana. He has published several books in the area of biblical studies. His main interests are in languages, anthropology, and biblical studies.

translation as well as interpretation in Ghanaian languages. The present study aims to fill the gap.

Kruger (2000) has noted that the subject of emotions in the Hebrew Bible is a most-neglected theme that deserves an extensive treatment. Kotzé (2005) observes that the cognitive model of anger, as understood by the ancient Israelites, was motivated by experiential factors such as bodily changes associated with the emotion and aspects of nonverbal communication of anger. The word  $\eta\aleph$  has various meanings, including nostril, nose, face, eyebrow, and anger. Johnson (1949, 11) connects metaphorical references to body parts and the physiological changes resulting from the experiencing of certain emotions. With reference to metonymy in the case of the Hebrew word  $\eta\aleph$ , Johnson observes that the word primarily means “nostril,” but that it is used more frequently of a quick nasal breathing or explosive snort that is indicative of anger. The meaning of  $\eta\aleph$  as “being angry” is derived from the rapid breathing associated with passion. It also refers to the countenance. Hot nose means “anger,” while elongated nose means “forbearing.” Occasionally,  $\eta\aleph$  refers to a person.

The connection between the nose and other parts of the body and emotions in Biblical Hebrew idioms needs a systematic description from a cognitive linguistic perspective. The present study aims to provide an analysis on nose-related conceptualizations in the Hebrew Bible and their translation in Twi. Various mappings for the nose in Biblical Hebrew and their equivalent to the relevant chest expressions in Twi are explored. The focus is on establishing which cross-conceptual and cross-linguistic differences the two languages manifest in relation to the conceptualization of the nose. This focus distinguishes the study from previous cited works on metaphorical and metonymic conceptualization of external body parts and emotions.

This paper relates linguistic expressions to human cognitive experience. It particularly identifies different nose expressions and their metaphorical and metonymical conceptualization in the Hebrew Bible. It also discusses the physiological reference to the nose as a physical body part, its extension in meaning to the face, of which it is part, and its figurative reference to anger. In this paper, I mark all the conceptual metaphors and metonymies using capital letters (uppercase). All Twi translations are taken from the Akuapem Twi Bible (1964). The English translations of the Hebrew Text are the author’s translation.

In both Biblical Hebrew and Twi Language, the nose is a body part regarded as a site of emotions. However, both languages designate the nose as relating to different emotions. Emotions related to the nose in Hebrew are rather attributed to the heart and chest in the Twi Bible. The present study uses the Conceptual Metaphor Theory developed by Lakoff and Johnson (1980). Various scholars, including Semino (2008), Yu (2004), and Kövecses (2010) have also contributed to the discussion on conceptual metaphor.

This paper comprises the following sections: Section 1 is the introduction; section 2 presents an overview of the Conceptual Metaphor Theory and Conceptual Metonymy Theory which provides a theoretical background for the current study; section 3 presents language, data, and a mode of analysis selected for the study; section 4 considers conceptualization of the nose in Biblical Hebrew and Twi; section 5 deals with the differences and similarities in the metaphors and metonymies of the nose in Biblical Hebrew and their Twi translations. Finally, section 6 presents the conclusions of the study.

## **2. Theoretical Background**

In this study, two cognitive processes, metaphor and metonymy, are particularly important in conceptualization. Meanings of metaphorical

expression cannot be deduced only from literal senses of the word; therefore, we need to understand and rely on both the literal and the conceptual meanings (Agyekum 2004). Metaphor is no longer understood as a mere textual, stylistic decoration, an ornamental figure of speech whose only contribution is to the expressiveness of the text. Instead, a cognitive approach promotes the centrality of metaphor to the process of meaning, construction of meaning and understanding, and to the conceptual system. A theory of language based on a cognitive approach takes human perception, experience, body parts, and understanding of the world as the basis for the structure of human language (Gyekye 1987; Yu 2004, 664).

According to Lakoff and Johnson (1980, 5), metaphors are grounded in physical and mental experience (Lee 2005, 6). Metaphor is about the conceptualization of one domain in terms of another (Lakoff and Johnson 2003, 6). Kövecses (2010, 4) defines metaphor as “understanding one conceptual domain in terms of another conceptual domain.” It is the basis of cognition in general (Gibbs 2017). Research by psycholinguists has demonstrated that conceptual metaphors influence how we produce and understand language (Gibbs 1994, 2017). Conceptual metaphor can simply be defined as a conceptual mapping—that is, a set of correspondences between two conceptual domains in which a conceptual representation of one cognitive model, previously stored, is employed to provide a structured understanding of another. Kövecses (2010, 6) explains that conceptual metaphors use a more abstract concept as target and a more concrete or physical concept as their source; thus we can see that abstracts are physical.

There is a partial mapping from a familiar source domain onto a less familiar target domain. The formula “TARGET DOMAIN IS SOURCE DOMAIN” represents the metaphorical link between the two domains, where complex and abstract concepts (target) are understood in terms of conceptually simpler and more concrete notions (source). This is something close to our

physical, embodied experience (e.g., TIME IS MONEY). This is an indication that cross-domains mappings support the primacy of metaphorical reasoning over the linguistic realizations (Lakoff and Johnson 1999, 116). A very important aspect of metaphor mapping for this study is the principle of unidirectionality in which more abstract notions or less familiar notions are conceptualized in terms of more concrete and easily assessable source concepts (Sweetser 1990; Heine et al. 1991).

Since its original conception by Lakoff and Johnson (1980), the Conceptual Metaphor Theory (CMT) has gone through various updates and modifications (Gibbs 2017). According to Gibbs, metaphorical relations, rather than concrete properties, may characterize some source domains. Gibbs’s metaphorical source domain hypothesis challenges the widely-accepted nature of conceptual metaphors being target domains grounded in concrete source domains. Evans (2010) presents a theoretical account of figurative language understanding. Situating this account within the Theory of Lexical Concepts and Cognitive Models (LCCM Theory), he argues that an account of figurative language understanding from this perspective complements the “backstage cognition” perspectives of Conceptual Metaphor Theory.

Barcelona (2003, 4) notes that metonymy is basic to language and also cognition. According to Gibbs (1994, 321), metonymy is a process by which “people take one well-understood or easily perceived aspect of something to represent or stand for the thing as a whole.” Metonymy is a conceptual projection whereby one domain is partially understood in terms of another included in the same experiential domain (Barcelona 2000). This distinguishes metaphor from metonymy, in that metaphor is understood as a conceptual projection whereby one conceptual domain maps onto another conceptual domain. Metaphor is based on similarity or predictability between two domains of experience, while metonymy is based on contiguity,

that is, on elements that are parts of the same idealized cognitive model. It has been observed that some directions of metonymic mappings more frequently become conventionalized than others. For example, the PART FOR THE WHOLE metonymy (e.g., “England” for “Great Britain”) is more common than the reverse, WHOLE FOR PART metonymy (e.g., “America” for “USA”). Kövecses and Radden (1998) discuss other cognitive factors which result in the prevalence of some metonymies in relation to their reverse, for example, CONTAINER FOR CONTAINED, EFFECT FOR CAUSE, CONTROLLER FOR CONTROLLED.

We cannot easily draw a strict difference between metaphor and metonymy. However, some scholars view metaphor and metonymy as a continuum of related processes rather than two rigidly distinguished notions as they often co-occur (Kövecses and Radden 1998; Goosens 2002; Peirsman and Geeraerts 2006). Some authors are of the opinion that all metaphors are essentially metonymically-based (Kövecses and Radden 1999; Niemeier 2000; Barcelona 2000). Radden (2000, 93) defines a metonymy-based metaphor as “a mapping involving two conceptual domains which are grounded in, or can be tracked to, one conceptual domain.” Kövecses and Radden (1998, 61) posit that, “it may not be unreasonable to suggest that many conceptual metaphors derive from conceptual metonymies.” In illustrating this, they employ the metaphor ANGER IS HEAT as an example. This example is based on the metonymic relation between subjectively felt body heat while angry. Subsequent sections of this study will lend support to the metaphor-metonymy relation.

Image schema, in cognitive linguistics, is understood as “a recurring, dynamic pattern of our perceptual interactions and motor programs that gives coherence and structure to our experience” (Johnson 1987, 14). The image schemas “make it possible for us to use the structure of sensory and motor operations to understand abstract concepts and draw inferences about

them” (Johnson 2005, 24). The container image schema is a very fundamental schema used in abstract reasoning. Several conceptual metaphors used in reasoning and conversation are motivated by the container image schema. The schema comprises three structural elements, namely: an exterior, an interior, and a boundary. Johnson (2005, 19) observes that this schema is a gestalt structure where parts are understood within the framework of a larger whole. In other words, you cannot have one of the structural elements (e.g., an interior) of the container image schema without the other (an exterior and boundary). In the same sense, an exterior cannot exist without an interior and the boundary, and the boundary cannot exist without an interior and exterior. Several emotion metaphors—those motivated by the container schema—conceptualize the body and body parts as containers and emotions, and emotions as substances (fluids and gases) held in these containers. One conventional metaphor where the body is conceived as a container for emotions is THE BODY IS A CONTAINER FOR EMOTIONS. In this major metaphor, Loos et al. (1999) suggest that the emotions occupy a certain level wherein they can overflow or even be suppressed, erased, or extinguished. Present in this study are some of the metaphorical expressions that manifest this conventional metaphor.

In most languages, the body is seen as an integral part of the symbolism employed in the expressions of effective experience by speakers (Dzokoto and Okazaki 2006, 129). The same can be said of the Biblical Hebrew language and the Twi language as well. Works that have explored the metaphorical conceptualization of the heart include Blechman (2005), Swan (2009), and Siahann (2008) who study the conceptualization of the heart in Western culture. Yu (2009) has paid attention to the Chinese portrayal of the heart. Afreh (2015) has also studied the metaphorical conceptualist of the heart in the Twi language. However, not much has been done on the nose as has

been done on the heart—particularly in religious discourse, and especially in the Hebrew Bible.<sup>2</sup>

### 3. Language, Data and Analysis

#### 3.1 Languages

This analysis engages biblical Hebrew and not modern Hebrew. However, the idiom and the meaning of the expressions of the nose remain the same in both modern and biblical Hebrew. The biblical Hebrew data were gathered from the Hebrew Bible.

The term “Twi” refers to an Akan language spoken in Ghana and the Ivory Coast. It is studied at undergraduate and graduate levels in Ghana and the United States. There are two dialects of the Twi language, namely, Akuapem and Asante. The first version of the Akuapem Twi Bible (1871) was translated by the German ethnolinguist J.G. Christaller and his Ghanaian colleagues, D. Asante, T. Opoku, P. Bekoe, and P. Keteku. Several editions followed this version, including those by the Bible Society of Ghana (1964, 1994, 2012) and the International Bible Society (2020). In this study we will look at how the term  $\text{נֶסֶם}$  (nose) in the Hebrew Bible was translated in the 1964 Akuapem version of the Twi Bible (ATB).

#### 3.2 Mode of Analysis

The data elicited from the Hebrew Bible and the Twi Bible were gathered by using the source-domain-oriented approach. Initially, a group of items related to the source domains, LIVING ORGANISM (PERSON, ANIMAL, PLANT),

---

<sup>2</sup> Amzallag (2017) has studied the metaphors of the nose. However, there is still a gap this study fills in the study of the metaphoric and metonymic conceptualization of body parts. That is, the metaphorical creativity in the conceptualization of the nose in Biblical Hebrew, and its rendering in another language, like Twi spoken in West Africa.

CONTAINER, SOLID OBJECT/MATERIAL, and so on, are selected. The items,  $\text{נֶסֶם}$ -expressions in the Bibles, are then investigated and grouped into their major metaphorical and metonymical mappings for the analysis.

In other words, I consulted the Old Testament Hebrew texts to find out how  $\text{נֶסֶם}$ , (nose) is used, and cross-checked the translations of these expressions in the Twi Bible. From here, I described the metaphorical and metonymical structure of the nose in Biblical Hebrew and compared it with the data for Twi. In my comparative analysis, I employed the methodology suggested by Barcelona (2001) and Kövecses (2010) in relation to identification and description.

### 4. Conceptualization of the Nose in Biblical Hebrew and Twi

#### 4.1 Nose Metaphors and Metonymies in Hebrew

Unlike the heart, which is prominently conceived as a significant source of emotions and feelings in many cultures, the nose has not featured as prominently in the Hebrew Bible. Biblical Hebrew language sees the term  $\text{נֶסֶם}$  as referring not only to the nose, but also, in some contexts, to the face. It also identifies the nose as a site of emotions as seen in anger-expressions that use  $\text{נֶסֶם}$ . An angry man is referred to as  $\text{אִישׁ-נֶסֶם}$  “ANOSEMAN” (Prov 29:22). A few references not discussed here are in Genesis 27:45, 2 Kings 24:20, Psalms 76:7, and Proverbs 22:24. Amzallag (2018) observes that, beyond denoting nose and anger, God’s  $\text{נֶסֶם}$  also signifies burning wind, consuming fire, and the pouring of hot water. Wrenn (2020) discusses how anger can express both disappointments with God and desire for God’s presence.

Unfortunately, no work exists that explores the dynamics involved in the translation of the Hebrew conceptualization of the nose into the Twi language. What follows in this section is the conceptualization of the nose

in the Hebrew Bible with the translations of the different instances into Twi. In this section we look at the main metaphorical and metonymic categories and the various models that fall under them.

### 4.1.1 The nose is a person

[1] Deuteronomy 33:10

HEB: <sup>3</sup>יְשִׁימוּ קְטוֹרֶת בְּאַפֶּיךָ

ENG: they shall put incense before you (*lit.*: they will put incense in your nose)

TWI: wɔde aduhuam betua wo hwene ano

ENG: they will put incense before your nose (*lit.*: they will put incense at the mouth of your nose)

In example [1], Deuteronomy 33:10, the nose refers to a person, specifically God, to whom the offering of incense is being made. The idea of אָפֶיךָ standing for the person is indicated by the expression בְּאַפֶּיךָ, meaning “before you” (*lit.*, “before your nose”). This idea instantiates the metaphor, THE NOSE IS A PERSON. Also implied here is the metonymy “THE NOSE FOR THE PERSON,” which belongs to the metonymic model “THE BODY PART FOR THE PERSON” (i.e., THE PART FOR THE WHOLE).

### 4.1.2 The nose is a container

The metaphoric conceptualization, THE NOSE IS A CONTAINER, can be classified into the following sub-categories: THE NOSE IS A CONTAINER OF BREATH and THE NOSE IS A CONTAINER OF EMOTIONS.

(a) THE NOSE IS A CONTAINER OF BREATH

The metaphor THE NOSE IS A CONTAINER rests on the CONTAINER image

schema. In order to explain this schema, we will first have to understand the type of bodily experience that causes the emergence of the schema, list its structural elements, and explain the underlying logic.

According to Johnson (1987, 21), “[o]ur encounter with containment and boundedness is one of the most pervasive features of our bodily experience.” Kövecses (2006, 209) observes that we function within larger objects as containers—for example, buildings and rooms which contain us. Besides, our bodies are containers for our bodily organs, blood, other fluids, and so on (206). In dealing with the nose as a container in Biblical Hebrew, we focus on this latter kind of experience.

The CONTAINER image schema comprises the following structural elements: “interior,” “exterior,” and “boundary.” Johnson (1987, 61) notes that “it is the organization of [its] structure that makes [it an] experientially basic meaning pattern in our experience and understanding.” Major parts of the body can be conceptualized as containers (Yu 2009). The CONTAINER image schema is understood to be inherently embodied. The container may be filled or emptied. The prepositions “in” and “out of” are markers of the CONTAINER image schema. The contents that the body parts carry may be poured out or spilled. In the CONTAINER schema, the nose is conceptualized as a bounded space with its outside and inside, where content is stored. In this section, our focus is more on the content of a container than the mere container. Note the following expressions about the nose for breathing:

[2] Genesis 2:7

HEB: וַיִּפַּח בְּאַפָּיו נְשָׁמַת חַיִּים

ENG: and breathed into his nostrils the breath of life

TWI: na ohuw nkwa home guu ne hwene mu

ENG: and breathed the breath of life into his nostrils (*lit.*, and he blew the breath of life into his nostrils)

---

<sup>3</sup> The Hebrew text is taken from the Lexham Hebrew Bible (2012).

[3] Genesis 7:22

HEB: כָּל אֲשֶׁר נִשְׁמַת־רוּחַ חַיִּים בְּאַפָּיו

ENG: all in whose nostrils was the breath of the spirit of life

TWI: *wɔn a nkwa honhom ahome wɔ wɔn hwenem*

ENG: all in whose nostrils was the breath of the spirit of life (lit., they in whose nostrils was the breath of life spirit)

[4] Job 27:3 (compare Gen 2:7)

HEB: וְרוּחַ אֱלֹהִים בְּאַפִּי

ENG: and the spirit of God is in my nostrils

TWI: *na Onyankopɔn ahome da so wɔ me hwene mu yi*

ENG: and the breath of God is in my nostrils (lit., and the breath of God is still in my nostrils)

The examples in [2], [3], and [4] indicate that, in the Hebrew Bible, the nostril expressions are often used in reference to the nose's presumed content, that is, breath, smoke, or fumes. The "spirit of life" in [3] is the same as the "spirit of God" in [4], as both refer to the רוּחַ (breath or spirit) of God. Example [2] indicates God filling the nose of the human being with breath. All the expressions in examples [2]–[4] substantiate the metaphor THE NOSE IS THE CONTAINER OF BREATH. Example [2] indicates a substance being carried from outside and put into a container, [3] and [4] indicate a substance already in there, stored in a container. These expressions also suggest that the nose is the locus of vitality. When there is no breath of life the person dies. So, if the nose stands for the person, then the expressions focus on the presence of breath, the animating principle of life, inside a person's nose. If the person's nose has no breath in it, then it is empty (the nose is conceptualized as a container without content), which implies the absence of life. All the examples indicate that the nose is filled with breath. This is based on the activation of the metaphor, LIFE IS BREATH, and the

metonymy, BREATH FOR LIFE, which in turn instantiates the metonymy LOSS OF BREATH FOR DEATH.

Generally, the nose is for smelling various kinds of fumes which could be the content of the nose and not breath only. There are also references to the nose being filled with incense. For example, the expression in [4] instantiates a metaphor THE NOSE IS A CONTAINER OF INCENSE (see also Ps 115:6).

(b) THE NOSE IS A CONTAINER OF EMOTIONS

Emotions are fundamental to the human experience. There is a long tradition of studies on emotions through embodiment, including Lakoff and Johnson (1980) as early contributors, followed by others like Kövecses (2000) and Maalej (2008). In many languages, one can find the conceptualization of organs of the body as loci of emotions. Many scholars have confirmed a metonymic link between experiencing an emotion and a physically felt bodily sensation (Lakoff and Johnson 1980; Kövecses 2000). In many studies devoted to the conceptualization of emotions, we see posited metaphors of the schema, LOCUS OF EMOTIONS IS A BODY PART. Body organs generally included in the "LOCUS OF EMOTION" figurative concept are the heart, cross-culturally (Deignan and Potter 2004; Neimeier 2000; Yu 2008; Kraska-Szlenk 2005a, 2005b; Afreh 2015; Maalej 2008), the liver in Indonesian (Siahaan 2008), and the stomach/belly in Japanese (Berendt and Tanita 2011).

Explaining what metaphonymy means, Goosens (2002, 368) states "it implies that a given figurative expression functions as a mapping between elements in two discrete domains, but that the perception of "similarity" is established on the basis of our awareness that A and B are often "contiguous" within the same domain. The frequent contiguity provides us with a 'natural', experiential, grounding for our mapping between two discrete domains.". We may analyze the nose-locus of emotion by looking

at a metonymic chain where a metaphor LOCUS OF EMOTION IS NOSE results in the conventionalized figurative meaning of the lexeme, “nose,” as a container of emotions. This then serves as a vehicle for the metonymy of NOSE FOR EMOTIONS (an instantiation of the general scheme, CONTAINER FOR CONTENTS) and its subsequent NOSE FOR SPECIFIC EMOTIONS, that is, GENERIC FOR SPECIFIC, which is interpreted in Biblical Hebrew as “anger.”

The nose does not contain only breath but also עָשָׁן, literally meaning “smoke.” Here it is important to note that Hebrew involves the thermal metaphor in a way that demonstrates how intense anger could cause the nose to emit smoke. This is depicted in metaphorical expressions like:

[5] Psalm 18:8[9]

HEB: עָלָה עָשָׁן בְּאַפוֹ

ENG: went up a smoke out of his nostrils

TWI: *Owusiw tu fii ne hwenem*

ENG: There went up a smoke out of his nostrils (lit., smoke flew out of his nostrils)

The example in [5] indicates that the עָשָׁן (lit., smoke), which is “vapor,” is the content of the nose (the container). It is the smoke that is generated by the fire in the nose, as the saying clearly describes, “there is no smoke without fire,” as expressed in the statement, “such people are smoke in my nostrils, a fire that keeps burning all day (Isa 65:5).” Here, God refers to “obstinate people” as smoke in his nostrils, meaning they provoke him to anger.

The same expression in [5], about smoke going out of God’s nostrils, is also found in 2 Samuel 22:9 and Job 41:20. In Job 41:20, it says “smoke pours from God’s nostrils as from a boiling pot over a fire of reeds.” Such an expression instantiates the metonymy SMOKE FOR FIRE. This expression is used in describing divine anger. Because God was angry (Ps 18:8), smoke

came out of his nostrils (Ps 18:9). Anger had filled his nose like smoke, and had to pour out of his nose. Figuratively, עָשָׁן means anger. From the examples above, we also see metonymy instantiated by the nose-container: NOSE FOR EMOTIONS (CONTAINER FOR CONTENT) in the cases where smoke and incense are the CONTENT. Anger is the emotion in a container. Anger, which is abstract, is expressed by smoke, a more concrete substance. It is the anger that caused the smoke to rise. The negative effect of anger is conceptualized as smoke pouring out of the nostrils. Here the nose is an open CONTAINER. The Hebrew expression [5] indicates that anger implies “one’s nose becoming smoky.” Smoke represents polluted air that can disrupt normal breathing of pure air, thereby creating irritation and annoyance. Moreover, smoke represents the fire that causes it. In this context, the metonymy SMOKE FOR FIRE makes the metaphor ANGER IS FIRE meaningful. Thus, in the case of the Hebrew Bible, we can have the metaphor, ANGER IS FIRE IN THE NOSE.

We have realized that the nose stands out in the Hebrew Bible for being the place where the emotion, anger, is located. Therefore, we can establish the metaphor, THE NOSE IS A CONTAINER OF EMOTIONS. However, the fact that anger is located in the nose does not constitute a universal because there are several other cultures in which anger is metaphorically reified in other parts of the body. For example, the Twi language of Ghana and Ivory Coast locates anger and patience in the heart or chest. Comparatively, Hebrew thought sees the nose and the heart as complementary domains of feeling. Furthermore, the Hebrew Bible introduces a number of metaphoric and metonymic expressions with the nose as a source domain.

### 4.1.3 The nose is an object/material

The metaphoric conceptualization, THE NOSE IS AN OBJECT, may be classified into the following sub-metaphors:



#### (a) THE NOSE IS AN ELASTIC OBJECT

Hebrew conceptualizes the nose as an elastic object, meaning, it is stretchy, capable of being stretched, and resumes its original length after stretching or compression. Another basic reification consists of granting the nose a particular length. We may consider a cognitive model length which consists of the following features:

- (i) Objects vary in length, ranging from very short to very long ones.
- (ii) A long object seems to be more accommodating than a short one.
- (iii) A long object seems potentially to be less harmful than a short one.

This cognitive model possesses an experiential basis arising from our interaction with short and long objects, which makes us produce diverse generalization. For example, short objects have less space for accommodation and are potentially more harmful, bearing rather negative connotations. From this cognitive model, it follows that the elongation of the nose has positive connotations, which include patience, longsuffering, and coolness.

The nose is an expandable object (elastic). It seems when the nose is elongated, its surface area is enlarged and spread to enhance rapid cooling. When objects burn, they shrink. When the nose “elongates,” it carries positive connotations, but when it “shrinks” or is “shortened,” it carries negative connotations. Thus, “short” is conceptualized as negative whilst “long” is conceptualized as positive.

The conceptualization of the nose as an elastic object is reflected in Hebrew, for example, in the expression in [6]. It suggests that in Hebrew thought, the nose is an object that returns to its original length after being stretched or compressed. LENGTH means the measurement or extent of a thing from end to end, that is the longer or the longest dimension of an object. The idea is of an object that is stretchable in the sense that

it can decrease or increase in length. Thus, the nose can either shrink or be elongated. When God is “slow to anger,” (אַרְךָ אַפַּיִם) he is said to have “elongated nostrils”:

[6] Exodus 34:6

HEB: יְהוָה אֱלֹהֵי רַחוּם ... אַרְךָ אַפַּיִם

ENG: The Lord God, merciful ... slow to anger (lit., long-nosed)

TWI: *Awurade, Onyankopɔn, mmɔborohunufɔɔ ... nea n'abodwo kyɛ*

ENG: The Lord, God, merciful ... slow to anger (lit., the Lord, God, merciful ... he whose chest cools down for a long time)

Does God have a nose which is shortened or elongated? When the Hebrew Bible talks about God's anger, it chooses to use physical language drawn from the human body. Thus, אַרְךָ אַפַּיִם stands for a longsuffering person, whose nose, metonymically standing for that person, is able to tolerate all the frustrations and provocations of another person for a long time. In other words, the length of the nose is an indication of how long one can accommodate being provoked to anger. This instantiates the metonymy PATIENCE FOR AN ELONGATED/STRETCHED NOSE. By contrast, when God's anger was kindled, חָרָה אָפוּ (“his nostrils burned”) is used. This indicates that his nose shrinks. The metaphor implied here, is that THE NOSE IS A CHANGEABLE OBJECT, a Hebraic idea that does not exist in Twi.

#### (b) THE NOSE IS AN INFLAMMABLE OBJECT

The Biblical Hebrew conceptualizes the nose as an inflammable or combustible material or object. Anger is one of the fundamental human emotions. This section discusses the metaphorical expressions of the nose in relation to anger. In the opinion of Lakoff (1980) and Kövecses (1986), one fundamental physiological effect of anger is the increase in body heat. The same can be said of Hebrew thought, where the physiological effect of anger is increased heat of the nose. In Hebrew, the nose, like the heart, is one vital

organ of the body which is associated with the cognitive, psychomotor, and affective domains of the human being, which explains its use in metaphor. Biblical Hebrew uses the high temperature of the nose for the articulation of negative emotions. A hot nose implies anger or hot temper as expressed in the examples below:

[7] Genesis 30:2

HEB: וַיִּחַר־אַף יַעֲקֹב בְּרַחֵל

ENG: Then Jacob's anger burned (was kindled) against Rachel

TWI: *Na Yakob bo fuw Rahel*

ENG: Then Jacob was angry with Rachel (lit., Then Jacob's chest became weedy against Rachel)

[8] Exodus 22:25[24]

HEB: וַחֲרָה אֲפִי

ENG: My wrath shall wax hot (lit., my nose will wax hot)

TWI: *na m'abufuw ano ayε den*

ENG: and My anger will be strong (lit., the weediness of my chest will increase/ the inner cavity of my chest will grow weedier)

[9] Deuteronomy 29:24[25]

HEB: מַה חֲרֵי הָאֵף הַגָּדוֹל הַזֶּה

ENG: what does the heat of this great anger mean?

TWI: *Abufuw kεse hyewhyew yi yε den?*

ENG: what is the meaning this very hot anger? (lit., what is this great burning weedy chest?)

[10] Deuteronomy 32:22

HEB: כִּי־אֵשׁ קִדְחָהּ בְּאַפִּי

ENG: For a fire is kindled by my anger (lit., "in my nostril")

TWI: *Na ogya asε m'abufuw mu*

ENG: For a fire is kindled by my anger (lit., For a fire is kindled in my weedy chest)

[11] Judges 2:14

HEB: וַיִּחַר־אַף יְהוָה בְּיִשְׂרָאֵל

ENG: and the anger (nose) of the LORD was kindled against Israel

TWI: *Na Awurade bo fuw Israel*

ENG: and the Lord was angry with Israel (lit., and the chest of the Lord became weedy against Israel)

[12] Exodus 32:10

HEB: וַיִּחַר־אַפִּי בָהֶם

ENG: that my wrath (nose) may burn hot against them

TWI: *ma me kwan na me bo nhuru nhyε wεn.*

ENG: allow me to be angry with them (lit., give way for my chest to boil against them)

When we consider examples [7] and [8], we realize that, given the general metonymic principle that the physiological effects of an emotion stand for the emotion, we can identify a typical conceptual metaphor in Biblical Hebrew to express anger. This gives us the metaphor THE NOSE IS A HOT OBJECT, which generates two other metaphors: ANGER IS HEAT and ANGER IS FIRE.

The metaphor ANGER IS HEAT is implied in examples [8], [9], and [10–11]. Discussing the cognitive model of anger in the Hebrew Bible, Kotzé (2004) observes that the ANGER IS HEAT metaphor seems to have its basis in the experience of bodily heat. The *אָפוֹ חָרָה* expressions indicate “a kindling of anger.” Literally, the Hebrew expression means “setting the nose on fire” or “making the nose burn.” When God's anger was kindled, “his nostrils burned *hot*.” The same expression is found in Genesis 39:19, where his wrath (nose) was kindled (*וַיִּחַר אָפוֹ*; Twi: *ne bo fuwii*) (see also Exod 4:14). Divine anger is described as being “fierce” (Exod 32:12) and it burns (Gen 48:18). In Deuteronomy 9:19, anger (*אָף*) is associated with

hot displeasure (הַחֶמֶץ). In example [11],  $\eta\aleph$  (lit., nose) is rendered *bo fuv* in Twi.

Another metaphor, ANGER IS FIRE, is instantiated by example [7], [10], and [12]. Anger is fire that heats up a solid object. The fire does not consume the nose, but only heats it up. The Twi expression in [12] literally means, “permit me to let my chest boil against them.” Here the body part “nose” in Biblical Hebrew is replaced with the body part “chest” in Twi. This is because the Twi language has no direct equivalent that uses the nose as a locus for anger. The same expression is found in [12], translating  $\eta\aleph$  as *bo huru*, “boiling of the chest,” which can be found in Exodus 32:11.

The examples in [7]–[12] indicate that in Biblical Hebrew, the nose is an inflammable organ because it can easily be set on fire. In [7], [8], and [12] we see the Hebrew word  $\eta\aleph$  for the body part, “nose” or “nostril,” translated “anger.” This instantiates the metonymy THE NOSE STANDS FOR ANGER and the metaphor ANGER IS HEAT. In [9], the literal translation could be, “what means the burning of this great nose?” This indicates that anger can be expressed in terms of “a burning nose,” hence the metaphor ANGER IS A BURNING NOSE. The expression also yields the metonymy HEAT FOR ANGER.

Anger is seen as fire or intense heat that burns the nose, hence becomes the metaphor ANGER IS FIRE IN A CONTAINER. The data demonstrates that in Hebraic culture, anger is counted among “hot” emotions whose locus is the nose. Regarding divine anger, Amzallag (2018) observes that “ $\eta\aleph$  refers to a specific mode of action closely associated with metallurgy and volcanism.” Amzallag adds that these observations, together with the combination of wind and fire, suggest that the word  $\eta\aleph$  represents the blowing apparatus of a furnace. The expression in example [10] describes God’s anger as fire in his nose (see also Jer 15:14; 17:4). This indicates that anger is fire contained in the nose, hence the metaphors ANGER IS FIRE, THE NOSE IS A CONTAINER FOR FIRE and the metonymy, THE NOSE FOR ANGER. Examples [8] and [12]

indicate that the Lord’s anger was hot (see also Josh 7:1; Judg 2:20; 3:8; 6:39; 10:7).

Kövecses (2000) observes that emotion is often expressed via the domains of heat and fire. Normally, the consequential action of fire is that the person experiencing the emotional state becomes either energized or dysfunctional (Kövecses 2000, 76). In the Hebrew context, anger is seen as FIRE (high temperature or high degrees of heat) IN A CONTAINER (nose). We see here an instantiation of the CONTENT FOR CONTAINER metaphor (ANGER FOR NOSE).

#### 4.1.4 The “Nose” is a living organism

In the context of this study, to say THE NOSE IS A LIVING ORGANISM is tantamount to saying ANGER IS A LIVING ORGANISM. This understanding stems from the Hebrew word  $\eta\aleph$  meaning both “nose” and “anger.” Simply put,  $\eta\aleph$  IS A LIVING ORGANISM. From this we can derive an ANGER IS AN ANIMAL metaphor.

In the summary of conceptual metaphors associated with anger, Kövecses (2010) includes in his list, ANGER IS FIRE and ANGRY BEHAVIOR IS AGGRESSIVE ANIMAL BEHAVIOR. Beside this, both Lakoff (1987, 392–395) and Kövecses (1986, 23–25) have explored the ANGER IS A DANGEROUS ANIMAL metaphor. This general metaphor describes anger as a dormant animal that is dangerous when awakened, an animal with an insatiable appetite and that needs to be restrained (see Lakoff 1987, 393). The conceptualization of anger as an animal with a voracious appetite is an entrenched phenomenon in many cultures. It is not a new way of thinking about anger in Biblical Hebrew. For example:

[13] Amos 1:11

HEB: וַיִּטְרַף לְעַד אָפוֹ

ENG: and his anger did tear perpetually (lit., and his nose tore continuously)

TWI: *na n'abufuw see ade ara*

ENG: and his anger did destroy continuously (lit., and his weedy chest kept on destroying things)

In example [13] the metaphor maps the source domain of ANIMAL onto the target domain of ANGER. Thus, a ferocious beast domain gets mapped onto such a wild emotion state as anger. Similar to other cultures, in Hebrew understanding angry behavior is understood as aggressive behavior and anger is conceptualized in terms the behavior of a violent animal. “Tearing into pieces” is an angry gesture understood in terms of animal behavior, which can be classified under the general metaphor ANGRY BEHAVIOR IS AGGRESSIVE BEHAVIOR. The Hebrew expression for “and tore in pieces” (וַיִּטְרַף) suggests that anger (אָפֹ) is a predator. It is an expression of raging anger like a beast devouring its prey voraciously without stopping to rest (see also Job 16:9). We see here an ANGER IS TEARER/DEVOURER/PREDATOR metaphor and an ANGER FOR WILD BEAST/PREDATOR metonymy.

The Twi translation in [13] does not bring out the full picture, as it simply renders “tear in pieces” as *see ade*, meaning “to destroy things,” thereby suggesting that ANGER IS A DESTROYER. Thus, both Hebrew and Twi conceptualize anger as A LIVING ORGANISM.

#### 4.1.5 The nose for the face<sup>4</sup>

While אָפֹ refers to the nose, it can cognitively represent the face, which Biblical Hebrew considers to be another center of various emotions. The nose is an organ situated on the face. Since the nose is part of the face, אָפֹ could also be translated “face.”

[14] Genesis 42:6

HEB: וַיִּשְׁתַּחוּ-לוֹ אַפְיָם אַרְצָה

ENG: and bowed down to him [with] their faces to the earth

TWI: *bekotow no de wɔn anim butubutuw fam*

ENG: bowed down to him putting their faces on the ground

[15] Genesis 3:19

HEB: בְּזַעַת אַפֶּיךָ תֹאכַל לֶחֶם

ENG: In the sweat of your face (of your brow) shalt thou eat bread

TWI: *W'anim fifiri mu na wubedidi*

ENG: In the sweat of your face will you eat

In both [14] and [15], אָפֹ, is translated “face” in the English Bible. These instantiate the metonymy THE NOSE FOR THE FACE. The example [14] bears the same literal meaning of falling on the ground with their noses, literally, touching the earth. A similar expression of falling prostrate with face (nose) on the ground is seen in the case of Lot meeting the angel that visited him: “and bowed himself with his face (lit., his nose) toward the ground (Gen 19:1).”

#### 4.2 The Nose Metaphors and Metonymies in Twi

Idioms using the nose are uncommon in the Twi language. One that comes to mind is the expression, *ne hwene mu bɔn no*, “s/he smells foul odor in his/

<sup>4</sup> See also Gen 19:1; 42:6; 48:12; Num 22:31; 1 Sam 20:41; 24:9; 25:41; 28:14; 2 Sam 14:4, 33; 18:28; 24:20; 1 Kgs 1:23, 31; Isa 49:23; 1 Chr 21:21; 2 Chr 7:3; 20:18; Neh 8:6.

her own nose.” It refers to a person who is standoffish, haughty, unfriendly, snobbish, distant, and cold in manner. This person often withdraws, finding it difficult to accommodate others because “others easily become stench in his/her nose.” In this case “the stinking one” (often one who does not belong to his/her class or the one despised) becomes offensive. Standoffishness is thus an emotion contained in the nose. This instantiates the metaphor THE NOSE IS A CONTAINER. Standoffishness can provoke anger when the person being avoided keeps coming closer. This instantiates the metonymy STANDOFFISHNESS FOR ANGER (based on the CAUSE FOR THE EFFECT metonymy) or THE STINKING NOSE FOR ANGER (based on THE PRODUCER FOR PRODUCT metonymy). This is because there is no direct relationship between the nose and the emotion of “anger” in Twi.

## 5. Differences and Similarities

Temperature is one of the concrete dimensions associated with specific bodily sensations such as anger. Studies have shown that representations of heat facilitate the categorization of anger (Wilkowski et al. 2009). Anger is usually referred to in terms of heat-related metaphors and metonymies.

This study shows that, in Biblical Hebrew, the nose is understood as the locus of emotion, specifically anger. The conceptualization of the nose in relation to anger indicates that the nose burns, it is set on fire, it feels heat, it becomes hot, and it increases in temperature. All these thermal associations instantiate the metaphors ANGER IS HIGH TEMPERATURE, ANGER IS HEAT, and ANGER IS BEING “HOT-NOSED.” In Hebrew association between temperature and anger, heat is negative and coolness is positive.

In Twi, the metaphors discussed in the study map the source domains of CONTAINER and PLANT onto the target domain of ANGER. In [12], the Twi translation *me bo nhuru*, is literally “that my chest may boil.” This compares with the conceptualization of anger as heat in Hebrew. Since growth is also

conceptualized as a process that generates heat, the opposite of anger is described as cooling down the chest cavity, *abodwo*. In Twi, anger is located in the heart/chest.

In examples [9] and [10], the metaphoric expressions describe anger in terms of a plant. Thus, THE CHEST IS A CONTAINER FOR PLANTS. However, the Twi Bible translates all the Biblical Hebrew nose-related anger expressions with Twi chest/heart-related anger expressions. The Twi expression *bo afuw*, “to become angry,” comes from two words, the noun *bo* (chest) and the verb *fuw* (to sprout). Here we may consider the analogy-based prediction method. The word “sprout” is associated with the source domain of PLANT. In Twi, ANGER IS A PHYSICAL ENTITY. A physical entity can be a plant that covers or fills the container (chest) as observed in the Twi expression “bo afuw.” The picture painted here is one of a “weed-filled chest cavity.” This Twi conceptualization shows that this space is like soil which can produce vegetation. When plants sprout to fill the space, it is said the chest cavity is weedy or overgrown, and that represents anger. This yields the metaphor ANGER IS PLANT OVERGROWTH IN THE CHEST, that is, the metonymy ANGER FOR WEEDINESS. As Agyekum (2015a) observes, one of the dimensions of anger in Twi is ANGER IS WEED. The trimming of weed calms down anger. Thus, patience has to do with keeping the growth at bay. Any process of appeasement is therefore synonymous with “weeding” or “cutting down the growth.”

The intensity and continuity of anger which lingers is conceptualized as growing inside the chest like a plant. This yields the metaphor ANGER IS A LIVING ORGANISM, or more specifically, ANGER IS A PLANT as opposed to the Hebrew metaphor, ANGER IS AN ANIMAL. There is a difference in source domain here. From example [13], we see anger presented as A LIVING ORGANISM (ANGER IS A DANGEROUS ANIMAL), portraying a zoological conceptualization in the Hebrew, as opposed to the botanical conceptualization in Twi.

Another Twi word used as a translation for  $\eta\aleph$  is *abohuru*, found in [12]. This compound word comprises *bo* (chest) and *huru* (to boil). Agyekum (2015a, 6), defining this term as “provocation,” sees the term as close to the idea of anger. The chest can assume a higher level of heat, to the point of boiling. In this sense, both Hebrew and Twi hold the same concept of anger meaning boiling, which instantiates the metonymy ANGER FOR HEAT.

Another observation is the various metaphors used to portray patience. The Twi word, *aboterε*, rendered patience, literally means, “the chest is wide and large.” In this example the body part is “*bo*” (chest). Another synonym is *abodwo*, literally, “the cooling down of the chest” (Agyekum 2015b). But the Twi term that could be said to be the closest in meaning to the Hebrew expression, longsuffering (elongated nose), is *abodwokyεre*. It is composed of *bo* (chest), *dwo* (to cool down), and *kyεre* (to last longer). This gives us a conceptual metaphor PATIENCE IS A WRESTLE/STRUGGLE.

The CONTAINER metaphor has been employed in the discussion of anger. Kövecses (1990) makes note of two kinds of CONTAINER metaphors in the domain of emotion: in the first, emotions are conceived as the HEAT of a fluid inside a closed container. Examples of this feature include anger and sexual desire as indicated in the Twi expression *bo huru*, referring to the “boiling of the chest” in example [12]. In the second, the image of the container is visualized as fluid without indicating heat. In this second case, if the container is portrayed as closed, then the increase in emotions leads to the fluid exerting increased pressure on all sides of the container leading to its bursting. If the container is seen as being open, the increase in emotions leads the fluid to overflow. An example is “She is overflowing with anger,” which we see in the Hebrew Bible portrayed as “smoke in the nostrils” as indicated in example [8]. So, we observe that while Hebrew involves the depiction of an open container, in the case of the nose, Twi sees a closed container in which the increase in emotion leads to bursting or explosion

as found in the case of the chest. However, in both cases we can see another version derived from the container metaphors that says ANGER IS HIGH TEMPERATURE and ANGER PRODUCES PRESSURE ON THE CONTAINER. Again, the Hebrew language conceptualizes the nose as something that can be heated up due to anger. Thus, both languages share a similar conceptualization of anger as heat.

In relation to the reshaping of body parts, the expression in [6] illustrates the Hebrew conceptualization of anger as a contraction-orientation in relation to the ELONGATION/SHORTENING image schema. In Hebrew, the compressed or shortened structure of the nose is among the typical characteristics of anger and the size or structure of the nose is not fixed. In the sense of [6], the metaphor has a metonymical basis (THE OUTSTRETCH ORIENTATION OF THE NOSE FOR PATIENCE). Thus, the nose is a stretchable object. “Elongated nose” means “suffering for a long time.” “Shortening of the nose” connotes “short-temper.” Such a conceptualization of the elasticity of the nose, in relation to emotion, is absent in Twi.

In both languages we can see anger as a physical entity that fills the container, instantiating the CONTENT FOR CONTAINER metonymy. The underlying logic of the nose as a container presupposes content filling it or pouring/leaking out of it. While the Hebrew has ANGER FOR THE NOSE, the Twi has ANGER FOR THE CHEST.

Comparing the metaphorical conceptualization of anger in Hebrew and Twi, this study reveals that though these two languages share the source domain, HEAT, LENGTH OF OBJECT is not applicable in Twi, and WEEDINESS is not found in Hebrew. The major difference in both languages in relation to anger is the locus of this emotion. Since Twi uses the chest in conceptualizing anger, nose expressions in Hebrew are translated using chest expressions in Twi, as demonstrated by this paper.

The Hebrew language conceptualizes the NOSE AS STANDING FOR THE FACE as indicated in examples [14] and [15]; Whilst, in Twi, anger is expressed in the face (e.g., *wakumkum n'anim*, he has folded his face, or literally, “he has killed his face”) and with the mouth (*waso n'ano mu*, he has held his mouth), anger has nothing to do with the nose.

## 6. Conclusion

The paper attempted to answer the questions, “What are the nose metaphors and metonymies in the Hebrew Bible and how are they translated in the Twi Bible?” I discussed the metaphorical and metonymic use of  $\eta\aleph$  in the Hebrew Bible. Considering CONTENTS, breath in [2]–[4] and incense in [1] have positive connotations of life, whilst smoke in [5] has a negative connotation to anger. I have also compared and contrasted the general metaphoric and metonymic conceptualization of  $\eta\aleph$  in relation to emotion in Hebrew and Twi. In this study, I have demonstrated that the Hebrew Bible recognizes anger by interpreting the expression of the nose, while the Twi employs the chest for such emotions.

Chen (2010, 74) observes that, in the metaphorical mechanism, emotional changes can be reflected through physiological reactional emotions. This supports the Hebrew view of the nose. The Biblical Hebrew language interprets anger with physiological explanations as either the heating up of the nose or its shortening in length. We have also seen from our data that in Biblical Hebrew anger is depicted as having the characteristics of a burning fire that flames within the nose of an angry person.

So, we can conclude that Biblical Hebrew is full of nose metaphors and metonymies with reference to the face, the whole person, and anger. However, Twi neither uses nose expressions—to refer to the whole person or the face—nor does it see the nose as the locus of anger. Therefore, in translating, nose-anger expressions in the Hebrew Bible, translators are

forced to employ equivalent expressions in Twi found in the chest expressions. We may attribute the similarities and difference in the conceptualizations to the universality of human experience, as well as the thesis of embodied cognition.

Since this study is limited to texts in the Hebrew Bible, research on a larger corpus could help us broaden our understanding of nose expressions in the various languages into which the Bible is translated.

## Works Cited

- Afreh, Esther Serwaah. 2015. “The metonymic and metaphorical conceptualizations of the heart in Akan and English.” *Legon Journal of Humanities* 26(1):38–57.
- Agyekum, Kofi. 2004. “The sociocultural concept of face in Akan communication.” *Journal of Pragmatics and Cognition* 12(1):71–92.
- . 2015a. “Metaphors of anger in Akan.” *International Journal of Language and Culture* 2(1):87–107.
- . 2015b. “Metaphors and metonyms of patience in Akan.” *International Journal of Language and Communication (RASK)* 43:35–65.
- Amzallag, Nissim. 2017. “What are the ‘long nostrils’ of YHWH?” *Religion* 8(9):190.
- . 2018. “Beyond nose and anger—a reinterpretation of  $\eta\aleph$  in YHWH’s context.” *Revue Biblique* 125(1):5–28.
- Barcelona, Antonio. 2000. “The cognitive theory of metaphor and metonymy.” In *Metaphor and Metonymy at Crossroads: A Cognitive Perspective*, edited by A. Barcelona, 1–28. Berlin/New York: Mouton de Gruyter.
- . 2001. “On the systematic constructive analysis of conceptual metaphors: case studies and proposed methodology. In *Applied Cognitive Linguistics II: Language Pedagogy*, edited by M. Pütz, S. Nieimer and R. Dirven, 117–146. Berlin/New York: Mouton de Gruyter.

- . 2002. "Clarifying and applying the notions of metaphor and metonymy within cognitive linguistics: an update. In *Metaphors and Metonymy in Comparison and Contrast*, edited by R. Dirven and R. Pörings, 207–277. Berlin/New York: Mouton de Gruyter.
- . 2003. "Metonymy in cognitive linguistics: An analysis of a few modest proposals." In *Motivation in Language. Studies in Honor of Günter Radden*, edited by Hubert Cuyckens, Klaus-Uwe Panther, and Thomas Berg, 223–255. Amsterdam: John Benjamins.
- Berendt, Erich A. and Keiko Tanita. 2011. "The 'heart' of things: a conceptual metaphoric analysis of heart and related body parts in Thai, Japanese and English." *International Association Intercultural Communication Studies* 20(1):65–78.
- Blechmen, Robert K. 2005. "The heart of the matter: an exploration of the persistence of core beliefs." *Proceedings of the Media Ecology Association* 5:1–16.
- Chen, Peilei. 2010. "A cognitive study of 'anger' metaphors in English and Chinese idioms." *Asian Social Science* 6(8):73–76.
- Deinan, Alice and Liz Potter. 2004. "A corpus study of metaphors and metonyms in English and Italian." *J. Pragmatic* 36(7):1231–1252.
- Dzokoto, Vivian. A., Nicole Senft, Lily Kpobi, and Princess-Melissa Washington-Nortey. 2016. "Their hands have lost their bones: exploring cultural scripts in two West African affect lexica." *Journal of Psycholinguistic Research* 45(6):1473–1497.
- Dzokoto, Vivian and Sumie Okazaki. 2006. "Happiness in the eye and heart: somatic referencing in West African emotion lexica." *Journal of Black Psychology* 32(2):117–140.
- Evans, Vyvyan. 2010. "Figurative language understanding in LCCM theory." *Cognitive Linguistics* 21(4):601–662.
- Fan, Hui. 2017. "A Study of 'hand' metaphors in English and Chinese: cognitive and cultural perspective." *Advances in Literary Study* 5(4):84–93.
- Gyekye, Kwame. 1987. *An Essay on African Philosophical Thought: The Akan Conceptual Scheme*. Philadelphia: Temple University Press.
- Gibbs Jr., Raymond W. 1994. *The Poetics of Mind: Figurative Thought, Language and Understanding*. Cambridge: Cambridge University Press.
- . 2017. *Metaphor Wars: Conceptual Metaphors in Human Life*. Cambridge: Cambridge University Press.
- Goossens. L. 2002. "Metaphtonymy: The Interaction of Metaphor and Metonymy in expressions of linguistic action." In *Metaphor and Metonymy in Comparison and Contrast*, edited by R. Dirven and R. Porings, 347–377. Berlin: De Gruyter.
- Heine, Bernd, Ulrike Claudi, and Friederike Hunnemeyer. 1991. *Grammaticalization: A Conceptual Framework*. Chicago: University of Chicago Press.
- Holy Bible in Twi: Akuapem*. 1964. Accra: The Bible Society of Ghana.
- Johnson, Aubrey R. 1949. *The Vitality of the Individual in the Thought of Ancient Israel*. Cardiff: University of Wales.
- Johnson, Mark. 1987. *The Body in the Mind: The Bodily Basis of Reason and Imagination*. Chicago: University of Chicago Press.
- . 2005. "The Philosophical Significance of Image Schemas." In *From Perception to Meaning: Image Schemas in Cognitive Linguistics*, edited by B. Hampe. Berlin: Mouton de Gruyter.
- Kotzé, Zacharias. 2004. "The Conceptualization of Anger in the Hebrew Bible." PhD diss., University of Stellenbosch.
- . 2005. "Metaphor and metonymies for anger in the Old Testament: A Cognitive linguistic approach." *Scriptura* 88(1):118–125.



- Kövecses, Zoltan. 1986. *Metaphors of Anger, Pride and Love*. Amsterdam: John Benjamins.
- . 1990. *Emotion concepts*. New York: Springer-Verlag Publishing.
- . 2000. *Metaphor and Emotion*. Cambridge: Cambridge University Press.
- . 2006. *Language, Mind and Culture: A Practical Introduction*. Oxford: Oxford University Press.
- . 2010. *Metaphor: A Practical Introduction*. 2nd ed. Oxford: Oxford University Press.
- Kövecses, Zoltan and Günter Radden. 1998. "Metonymy: Developing a Cognitive Linguistic View." *Cognitive Linguistics* 9(1):37–78.
- Kövecses, Zoltan and Günter Radden. 1999. "Towards a Theory of Metonymy." In *Metonymy in Language and Thought*, edited by Klaus-Uwe Panther and Günter Radden, 17–59. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Kraska-Szlenk, Iwona. 2005a. "Metaphor and metonymy in the semantics of body parts: a contrastive Analysis." In *Metonymy-Metaphor Collage*, edited by Elzbieta Górska, and Günter Radden, 157–175. Warszawa: Warsaw University Press.
- . 2005b. "The semantic network of Swahili *moyo* 'heat': a corpus-based cognitive analysis." In *Studies of the Department of African languages and Cultures* 37:47–80. Warsaw: University of Warsaw.
- Kruger, P.A. 2000. "A cognitive interpretation of the emotion of anger in the Hebrew Bible." *Journal of Northwest Semitic Language* 26(1):181–193.
- Lakoff, George. 1987. Image Metaphor. *Metaphor and Symbolic* 2(3):219–222.
- Lakoff, George and Mark Johnson. 1980. *Metaphors We Live By*. Chicago: University of Chicago Press.
- . 1999. *Philosophy in the flesh*. New York: Basic Books.
- Loos, Eugene E., Susan Anderson, Dwight H. Day Jr., Paul C. Jordan, and Douglas J. Wingate, eds. 1999. "What is a body-as-container-for-emotions metaphor?" *Metaphors in English*. LinguaLinks Library, Version 4.0. Dallas: SIL International. Accessed January 11, 2020. <http://www.sil.org/resources/archives/2364>.
- Lee, David. 2005. *Cognitive Linguistics: An Introduction*. Oxford: Blackwell Publishers.
- Maalej, Zouheir A. 2008. "The heart and cultural embodiment in Tunisian Arabic." In *Culture, Body and Languages: Conceptualizations of Internal Organs across Cultures and Languages*, edited by F. Sharifian, R. Dirven, N. Yu and S. Niemeier, 45–47. Berlin/New York: Mouton de Gruyter.
- Mosenrose, Sara. C. 2012. "Faces and Orientational metaphors." MSc diss., Victoria University of Wellington.
- Niemeier, Susanne. 2000. "Straight from the heart—metonymic and metaphorical explorations." In *Metaphor and Metonymy at the Crossroads: A Cognitive Perspective*, edited by A. Barcelona, 195–213. The Hague: Mouton de Gruyter.
- Peirsman, Yves and Dirk Geeraerts. 2006. "Metonymy as a prototypical category." *Cognitive Linguistics* 17(3):269–316.
- Radden, G. 2000. "How metonymics are metaphors." In *Metaphor and Metonymy at the Crossroads: A Cognitive Perspective*, edited by A. Barcelona. The Hague: Mouton de Gruyter.
- Semino, Elena. 2008. *Metaphor in Discourse*. Cambridge: Cambridge University Press.
- Shaver, Philip, Judith C. Schwartz, Donald Kirson, and Cary O'Connor. 1987. "Emotion knowledge: further exploration of a prototype approach." *Journal of Personality and Social Psychology* 52(6):1061–1086.

- Siahaan, Poppy. 2008. "Did he break your heart or your liver? A contrastive study on metaphorical concepts from the source domain organ in English and in Indonesian." In *Culture, Body and Languages: Conceptualizations of Internal Organs across Cultures and Languages*, edited by F. Sharifian, R. Dirven, N. Yu and S. Niemeier, 45–47. Berlin/New York: Mouton de Gruyter.
- Swan, Toril. 2009. "Metaphors of body and mind in the history of English." *English Studies* 90(4):460–475.
- Sweeter, E. 1990. *From etymology to pragmatics: Metaphorical and cultural aspects of semantic structure*. Cambridge: Cambridge University Press.
- The Lexham Hebrew Bible*. 2012. Bellingham. Lexham Press.
- Wilkowski, Benjamin M., B.P. Meier, Michael D. Robinson, M. Carter, and R. Feltman. 2009. "'Hotheaded' is more than an expression: the embodied representation of anger in terms of heat." *Emotion* 9(4):464–477.
- Wolters, Al. 2011. "Head as metaphor in Paul." *Koers Bulletin for Christian Scholarship* 76(1):137–153.
- Wrenn, Rachel. 2020. "Is the Psalmist angry at God: Psalm 88 and the absent nose." *World & World* 40(3):236–245.
- Wudie, Alelign Aschale. 2014. *The Human Body Metaphors: A Critical Analysis of the Metaphoric Extensions vis-à-vis Amharic and English Languages*. Critical Analytic Research 13. Retrieved from <https://addisababa.academia.edu/AlelignAschale>.
- Vainik, Ene. 2011. "Dynamic body parts in Estonian figurative description of emotion." In *Embodiment via Body Parts*, edited by Z. Maalej and N. Yu, 41–70. Amsterdam: John Benjamins Publishing Company.
- Yu, Ning. 2004. "The eyes for sight and mind." *Journal of Pragmatics* 36:663–686.
- . 2008. "The Chinese Heart as the Central Faculty of Cognition." In *Culture, Body and Languages: Conceptualizations of Internal Body Organs across Cultures and Languages*, edited by F. Sharifian, R. Dirven, N. Yu, and S. Niemeier, 131–168. Mouton de Gruyter.
- . 2009. *From Body to Meaning in Culture*. Amsterdam: John Benjamins Publishing Company.