



HÁSKÓLI ÍSLANDS

Hugvísindasvið

Conceptual metaphors in perception verbs

A comparative analysis in English and Icelandic

Ritgerð til B.A.-prófs í ensku

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Maí 2013

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B.A. Essay

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May 2013

Abstract

Cognitive linguistics team George Lakoff and Mark Johnson were the first to explore conceptual metaphors in an academic manner with their book *Metaphors we live by* in 1980. A decade later, Eve Sweetser expanded partly on their research by inspecting the semantic development in English perception verbs. She maintains there to be a systematic link between their earlier, concrete meanings and the later, abstract senses.

This thesis applies Sweetser's theory in a comparative analysis by examining conceptual metaphors found in perception verbs in both English and Icelandic. The main objectives are to investigate whether the number of parallels found verifies the cross-linguistic claim, as well as inspecting the metaphorical scope initially proposed. In addition to a clarification of the relevant linguistic terms, the etymology of the perception verbs is reviewed. The thesis moreover examines the metaphorical theory in a wider, cross-linguistic context. Comparable studies in other languages are discussed, exploring how cultural circumstances can further affect human cognition.

The metaphorical analysis illustrates a prominent association between the two languages, as they both show a high number of analogous conceptual metaphors, supporting the semantic development within Indo-European languages. While comparable studies in other languages illustrate some inconsistency in the theory, recent studies display that the complex interaction between the human mind and cultural aspects account for such discrepancies. It is consequently apparent that much is yet to discover how that intricate relationship affects our cognition.

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Introduction

The human body is our primary device to comprehend our immediate surroundings and absorb the various data therein, but it employs several distinct senses that enable us to perceive the world in a multilayered manner. The detailed precision involved has consequently led to an immense number of linguistic expressions that apply these physical perceptions to internal sensations. Such phrases are examples of metaphors, a phenomenon that has only in recent times sustained systematic and academic research.

In 1991, the American linguist Eve Sweetser published a book where she attempts to explain the link between the concrete and abstract meanings within perception verbs in English. An example of the disparity in meaning is evident in the phrases *I see a girl* (physical) and *I see your point* (abstract). She maintains that an underlying metaphorical structure is at work, namely conceptual metaphors, an idea that was investigated only ten years earlier by George Lakoff and Mark Johnson in their book *Metaphors we live by* (1980). This proposal has as a result been explored in various languages, demonstrating that metaphorical cognition appears to be a widespread phenomenon in human thought. Studies in the field have also recently taken into account the assorted cultural, social and environmental factors that additionally condition our internal perception.

In order to better comprehend Sweetser's theory, chapter one clarifies the necessary linguistic concepts, specifically conceptual metaphors and perception verbs. The theory is subsequently summarized in chapter two, in addition to an etymological analysis. Therein the historical courses of the English words studied are traced for further corroboration, in addition to Icelandic examples when relevant and viable.

Chapter three consequently discusses the principle in depth, along with a practical application, but numerous metaphors from each of the five senses are explored and compared in both Icelandic and English. The aim with the analysis is both to discern whether the theory's universality claim is evident in addition to inspect if the scope of the metaphorical mappings is consistent and possibly broader than initially suggested.

Chapter four furthermore examines the cross-linguistic potential by discussing additional, equivalent studies and comparisons in other languages, both Indo-European ones and from other language families. The chapter moreover looks into recent investigations that explore the significance and added complexity of cultural, social and other exterior factors. The thesis subsequently closes with general conclusions on the topic.

1 Conceptual metaphors and perception verbs

1.1 What are conceptual metaphors?

Chances are the word *metaphor* calls to mind poetic and literary expressions, such as Shakespeare's "Juliet is the sun" or Burns' "O my Luve's like a red, red rose". While the latter would be made distinct in literary studies as a simile, these are nonetheless both examples of linguistic expressions of metaphor. Such metaphorical discourse occurs extensively in non-literary utterance, and copious commonplace expressions rely on conceptual metaphors (Stockwell, 2002, p. 109). Since the two terminologies overlap considerably, it is paramount to distinguish between a conceptual metaphor and metaphorical linguistic expressions (Kövecses, 2002, p. 4). The first concept represents the core metaphor in our thoughts that underlies all plausible superficial phrases, which are then represented in speech as metaphorical expressions, such as the literary ones illustrated above.

While the existence of metaphors have been recognized since Aristotle (Kövecses, 2002, p. 5), Lakoff and Johnson's innovative work *Metaphors we live by* (1980) is considered the classic study that gave conceptual metaphorical analysis its academic foundation (Kövecses, 2002). Therein they maintain that these patterns are in fact so widespread and established that it affects the way we speak, think and even act, thus being a dominant character in our everyday life (Lakoff & Johnson, 1980, p. 3). They ultimately assert that metaphors go beyond mere words and that our thought processes are largely metaphorical in nature (p. 6).

Kövecses (2002) defines a conceptual metaphor as "understanding one conceptual domain in terms of another conceptual domain" (p. 21). In essence, there are two elements labelled as *source* and *target* cognitive models, or domains (Stockwell, 2002).

The Shakespeare quote cited above would consequently be JULIET (target) IS THE SUN (source). Conceptual metaphors are written in small capital letters as per scholarly tradition, however the wordings do not literally materialize in language and only indicate the underlying concept (Kövecses, 2002). Cognitive linguistics describes the set of systematic correspondences as mapping of properties between the two domains (Stockwell, 2002).

As metaphors are frequently used to demonstrate or better understand a theoretical concept, it appears intuitive to use a more concrete concept for further clarification. Conceptual metaphors therefore commonly apply more abstract concepts for the target domains and more definite or physical concepts for the source (Kövecses, 2002, p. 6). Stockwell (2002) supports this by claiming the tangible world around us is a typical basis to comprehend the more abstract ideas. Kövecses (2002) furthermore explains that this accounts for the unidirectionality of conceptual metaphors, that the metaphorical process generally goes “from the more concrete to the more abstract but not the other way around” (p. 6). To use the Shakespeare quote once more, it would be highly unusual to liken the astronomical sun to the dramatic character of Juliet.

A classic example from Lakoff and Johnson (1980), LOVE IS A JOURNEY, is used here to further clarify conceptual metaphors. Kövecses (2002) lists numerous linguistic expressions of the conceptual metaphor, such as *we’re at a crossroads*, *we’re stuck* and *we’ll have to go our separate ways*. Those who hear these expressions in context interpret the “we” not as actual travellers but lovers, and the journey as their romantic relationship (p. 6). Sentences such *we’re at a crossroads* indicate not physical paths but choices lovers have to make in their relationships (p. 6). The following mappings further demonstrate some of the source and target domains (p. 7), but the arrows illustrate the unidirectionality previously explained:

Source: JOURNEY		Target: LOVE
the travellers	➔	the lovers
the vehicle	➔	the love relationship itself
the distance covered	➔	the progress made

Table 1: Metaphorical mappings of LOVE IS A JOURNEY

Even though the scope of conceptual metaphors is exceedingly vast, some domains are more prominent than others and have as a result received more study. Kövecses (2002) enumerates some of the more conspicuous ones, such as animals, plants or buildings for source domains (p. 34) and emotion, morality or politics for target domains (pp. 38–39). A particularly notable source domain is the human body (Kövecses, 2002; Stockwell, 2002), but as previously discussed, the primary, natural world appears as a common source domain. Our own bodies are therefore an ideal reference point as it is something we can all relate to and accurately describe. Kövecses refers to a study by one of his students, which concluded that out of 12,000 English idioms, over two thousand are associated with our bodies (2002, p. 33).

Another systematic metaphorical mapping has to do with our thoughts, but the human mind is a common target domain (Kövecses, 2002). Being such an abstract concept, it is not surprising we employ metaphors for better comprehension (p. 21). A further, specific category within our mind relates to perception, such as hearing or feeling. Seeing how pervasive these domains are in metaphoric use, it should not come as a surprise to see them combined in Sweetser's innovative principle, the MIND-AS-BODY theory (1991). The thesis is further discussed in a later chapter, but it is moreover the foundation on which the major, subsequent analysis is based.

1.2 Perception verbs

Semantic studies classify five different perception fields, namely vision, hearing, touch, taste and smell (Ibarretxe-Antuñano, 1999). Numerous distinct verbs are related to these senses, such as *see*, *look*, *hear*, *touch* and *feel*, but these perception verbs are of chief interest in the group of mental verbs, due to their intricate polysemy and cross-linguistic consistency (Viberg, 2008). Various scholars have studied the complexity of these verbs regarding the semantic role of the subject involved (Ibarretxe-Antuñano, 1999), but the following structure was proposed by Viberg (1984, 2008):

Sense modality	Experience	Activity	Phenomenon-based
VISION	<i>see</i>	<i>look</i>	<i>look</i>
HEARING	<i>hear</i>	<i>listen</i>	<i>sound</i>
TOUCH	<i>feel / touch</i>	<i>touch / feel</i>	<i>feel</i>
TASTE	<i>taste</i>	<i>taste</i>	<i>taste</i>
SMELL	<i>smell</i>	<i>smell / sniff</i>	<i>smell</i>

Table 2: The basic model of English perception verbs

The distinction made in the table above is significant before further analysis is made. The first category, Experience, refers to an “uncontrollable state” (Viberg, 2008, p. 124) where the subject is a passive observer of the perception involved (Ibarretxe-Antuñano, 1999). One such example is *Peter saw the birds* (Viberg, 2008, p. 124). The second category, Activity, pertains to controlled circumstances where the subject is an active agent in the process (Ibarretxe-Antuñano, 1999). An example is *Peter was looking at the birds* (Viberg, 2008). In these two categories, the verbs employ a living being with mental understanding as their subject. As these groups can be quite similar, Ibarretxe-

Antuñano (1999, p. 4) refers to Gisborne’s “*deliberately* test” (1996) in order to distinguish between the two. Gisborne presumes that the adverb *deliberately* can occur alongside those verbs with an active subject, while those that are unable to do so demonstrate unintentional action. The third and last category, Phenomenon-based, takes the stimulant as a subject (Ibarretxe-Antuñano, 1999, p. 45), as the verbs are based on the source itself. An example of that is the sentence *Peter looked happy* (Viberg, 2008).

To further explore the cross-linguistic regularity found in verbs of perception, as claimed by Viberg (2008), the same classification is applied to Icelandic in Table 3, the language analyzed along with English in a later chapter. Icelandic has a lexical item for all senses in the first and second categories. The third one is slightly more problematic in regard to the senses of touch and taste. The latter uses the same verbs as in the category of Activity, but it has to be in the passive voice in order to be intelligible. As for touch, there are no verbs directly linked to that perception used in this manner, however the noun *viðkoma* “touch” is customarily used in its place, and in the dative case. An example is *hún var mjúk viðkomu* “she was soft to the touch”. This digressive example illustrates an intriguing disparity between the two languages, displayed in the following table, along with the other senses:

Sense modality	Experience	Activity	Phenomenon-based
VISION	<i>sjá / horfa</i>	<i>líta á</i>	<i>líta út</i>
HEARING	<i>heyra</i>	<i>hlusta / hlýða</i>	<i>hljóma</i>
TOUCH	<i>finna</i>	<i>snerta / koma við</i>	-
TASTE	<i>bragða</i>	<i>smakka</i>	<i>smakka / bragða</i>
SMELL	<i>lykta</i>	<i>þefa / hnussa</i>	<i>lykta</i>

Table 3: The basic model of perception verbs in Icelandic

In addition to the cross-linguistic tendencies demonstrated so far, Viberg (1983, 1993) observed that a lexicalization hierarchy appears evident within the five senses. Based on data he used from about 50 languages (1993), the following, simplified form illustrates the proposed order:

Vision > Hearing > Touch / Taste / Smell

Table 4: Hierarchy within verbs of perception

This ranking is indicated in language in various manners. It is mainly evident in a language's vocabulary, but were it to have only one such perception verb, it would be "see" (Viberg, 1993, p. 347). Were they two, it would be "see" and "hear". If a language however has any verbs related to "touch", "taste" or "smell", it always has "see" and "hear" in addition (Viberg, 2008). The opposite is however not always correct, demonstrating the near unidirectionality of the hierarchy. The verbs belonging higher in the order can moreover extend their meanings over the ensuing senses, but not the other way around (Viberg, 2008).

Viberg consequently altered his original hierarchy from 1984 where he maintained that touch would be the third sense in the order, while taste and smell would share the last and fourth step. He has however retracted that claim and put touch alongside the last two (2008). Ibarretxe-Antuñano supports this modification in her doctoral dissertation (1999). She contradicts Viberg's original hierarchy by observing that the Basque verb *sumatu* "to perceive" is derived from the noun *suma* "smell" but is commonly used for the sense of touch (p. 48). The position of touch however appears to be somewhat fluctuating, as recent studies (Allan, 2008) still cite Viberg's original order, suggesting it has not been refuted altogether and requires further research to be definite.

2 The MIND-AS-BODY theory

2.1 The theory explained

Having clarified conceptual metaphors and perception verbs, they are integrated into the pioneering MIND-AS-BODY theory, which was laid out by linguist Eve Sweetser in the early nineties. Sweetser (1991) explored both polysemy and semantic change and concludes that such shifts do have regular patterns, in opposition to the prevalent belief of the time. While preceding etymological research has been carried out concerning perception verbs and their abstract meanings (Ibarretxe-Antuñano, 1999 cites Buck, 1949), any link between the two was not properly investigated within the field (Ibarretxe-Antuñano, 2002, p. 93).

Using cognitive linguistics as a frame, Sweetser's goal was to produce a motivated reason, meaning one that exceeds the linguist's instinct only (1991, p. 3), for the relationships between the different senses of single words or morphemes (Ibarretxe-Antuñano, 2002). While Sweetser acknowledges that some relations can be explained psychologically, such as to have *emotional tension* (1991, p. 29), other expressions not directly linked to the physical should be considered metaphorical in nature.

Sweetser (1991) points out that previous linguistic work considered semantic change as "random, whimsical, and irregular" (p. 23) but semantic and etymological research was largely deemed non-scientific by the linguistic field. She compares the study to phonology, another branch of linguistics, that has limited or tangible data for analysis, such as the human vocal tract. Semantics is however restricted only by our cognitive potential, which is far more immense and abstract than the physical data used for phonology (p. 24). As Sweetser herself explains it:

The vocabulary of physical perception thus shows systematic metaphorical connections with the vocabulary of internal self and internal sensations. These connections are not random correspondences, but highly motivated links between parallel or *analogous* areas of physical and internal sensation. (p. 45)

Sweetser furthermore maps the following correspondences metaphorically between the five physical perceptions and their abstract source domain, as simplified by Ibarretxe-Antuñano (1999, 2005):

<i>Target domain</i>		<i>Source domain</i>
VISION	➔	KNOWLEDGE
HEARING	➔	HEED / OBEY
TOUCH	➔	FEELINGS
TASTE	➔	LIKES / DISLIKES
SMELL	➔	DISLIKEABLE FEELINGS

Table 5: Sweetser's correspondences of perception verbs

While the metaphorical set proposed by Sweetser observes the correspondences between our cognitive state and external events, she additionally asserts it is not an isolated event (1991). She proposes that these metaphors are in fact part of the larger system of conceptual metaphors, originally presented by Lakoff and Johnson (1980), as discussed earlier. A large amount of Sweetser's work is based on meaning change in reconstructed Indo-European roots, placing her research across the fields of cognitive, historical and semantic linguistics. She furthermore claims these metaphors to be cross-cultural phenomena, possibly universal in human thought and speech (1991, pp. 31, 45).

Despite Sweetser's inventive research from 1991, Durkin (2011) claims that some dispute is nonetheless present within the field, chiefly regarding her methodology. He adds however that cognitive linguistics is still a fairly new branch and encourages more investigation to obtain a clearer view. Ibarretxe-Antuñano has researched extensively on the subject (1999, 2005, 2008), supporting Sweetser's original thesis. She moreover asserts the metaphorical scope of perception verbs to be even more extensive than initially declared (2002). Allan (2008) additionally expands on Sweetser's theory, while bearing in mind recent research within the discipline, such as Evans' and Wilkins' application to Austronesian languages (2000). In spite of the conflicting perspectives and current lack of conclusive evidence, the compelling claims put forth by Sweetser and other scholars warrant further investigation.

2.2 Etymology

In order to clarify the link between the early, concrete meanings and the later, abstract meanings of perception verbs, Sweetser maps their historical course (1991). Her reasoning for this analysis is to shed light on the semantic and synchronic relationships between lexical domains, in addition to explicate the causes for shifts of meaning in the linguistic past (pp. 45–46). She refers to early reconstruction of Indo-European languages, which focused on mapping phonological and morphological relations within the family (p. 26), but maintains that much work is ahead in realistic semantic reconstruction and understanding the motivation behind meaning change. It is beneficial to briefly outline the routes mapped by Sweetser for English perception verbs, along with comparable Icelandic etymology when applicable, before proceeding to the a more extensive discussion on metaphorical analysis in the following chapter.

The acronym PIE stands for Proto-Indo-European, which refers to the reconstructed ancestor of the Indo-European language family. Those roots are marked with an asterisk. The word reflex signifies a later word that has its etymological origin from said ancestral language. The *Indo-European Lexicon* (IELEX) database and Magnússon's *Icelandic Etymological Dictionary* (IED) were additionally referred to for the Icelandic examples and further information regarding the English words.

Just as Table 5 illustrates, the primary target domain of vision is linked to knowledge and intelligence, but Sweetser (1991) claims a basic set of Indo-European roots have been linked to vision as far they can be traced historically (p. 33). Ibarretxe-Antuñano (1999) furthermore inspects in her research that these visually linked roots are etymologically related to “knowledge, light and guarding” (p. 93). Many of their descendant verbs in English are both concrete and abstract in nature, but as the number of vision-related roots is quite extensive, only the most salient ones are reviewed.

The most productive of visual roots is **weid-*, but 106 English words trace their origin to it through assorted later forms, such as French via Latin or Old English (Allan, 2008). Some common English words related to the physical sense are *vision* or *witness*, but *wise* and *witty* demonstrate the more abstract sense related to the intellect (IELEX). Icelandic reflexes are however only associated with the latter, cognitive sense, examples being *vita* “to know” and *vísidómur* “wisdom” (IED). Ibarretxe-Antuñano cites Buck (1949) and states that the **weid-* root split into two semantic fields, with the “to see” meaning evolving within the Latin, Greek and Balto-Slavic language branches, while the “to know” related meanings advanced within the Greek, Celtic, Germanic and Indo-Iranian branches (1999, p. 92). This observation appears consistent with the data presented here, but Icelandic is a Germanic language and thus only possesses the “to know” meaning. English however has borrowed vocabulary extensively from various

languages, such as from Old French via Latin (Durkin, 2011), consequently obtaining both meanings of the original PIE root.

The second root **spek-* is also pervasive in the visual domain, producing an extensive number of both physical and abstract meanings of English reflexes, such as *spectator* and *prospect*. The Icelandic reflexes are alternatively scarce, but the noun *spá* “prophecy” demonstrates its link to abstract vision, specifically foresight (IELEX). The noun *spegill* “mirror” however illustrates the more physical, visual sense of the root. The last root worth mentioning is **seqʷ-*, only for it generated the most prevalent verbs in both languages related to vision, namely *see* in English and *sjá* “to see” in Icelandic (IELEX). There are however no metaphorical or knowledge-related words that stem from the root (IELEX).

Indo-European words for hearing usually originate in the physical, anatomical domain (Sweetser, 1991). Examples are English words such as *audience* or *obey* that derive from the Latin verb *audire* “to hear”, which in turn descends from the PIE root **aus-* “ear”. The Icelandic noun *eyra* “ear” is another reflex of that root (IELEX). A further productive PIE root, **kleu-* “hear”, has generated numerous common reflexes, such as English *hear* and *listen*, and Icelandic *hljóð* “sound” and *hlusta* “to listen” (IELEX). Interestingly, many IE derived verbs of hearing do not represent the physical sound being heard, but consistently signify the “content of heard speech” (Sweetser, 1991, p. 35). Words for the actual sound are therefore mainly onomatopoeic, such as English *bang* or *pop*, or related to the *son-* root in Latin (p. 35), such as *sound* (IELEX). Derived words from the aforementioned “hear” root are in many cases concerned with “glory”, “fame”, “news” or something else that is heard (Sweetser, 1991).

The sense of touch appears to be intricately linked to our mental state, but numerous Indo-European languages have words related to emotions or feelings that stem from the physical feeling of touch (Sweetser, 1991, p. 37). The aforementioned hierarchy by Viberg (1984) within perception verbs is applicable here, but Sweetser furthermore maintains that all Indo-European languages use a verb that indicates “to feel” over a more general perception, not counting vision and hearing (1991, p. 35). An example is the Latin verb *sentire* “to feel”, denoting both internal and physical feelings. The same applies to English and Icelandic tactile-related verbs. The English verb *touch* is most likely derived from the Old French verb *touchier* via Latin, introduced in Middle English, but also found in the Romance language branch (Ibarretxe-Antuñano, 1999). The other English verb *feel* is however of Germanic descent, **foljan* “to feel” and was in Middle English as *felen* “to examine by touch” (Ibarretxe-Antuñano, 1999, p. 97).

The root **g'eus-* “taste” separated early into two distinct routes (Sweetser, 1991, p. 36), but its Greek and Latin descendants are concerned with taste, such as Latin *gustare* “to taste, enjoy”. The Germanic and Celtic cognates however mean “to choose”, the verb illustrating its English reflex. It is also found in the Icelandic verb *kjósa* “to choose, vote” (IELEX). The original “taste” root consequently appears to have an early association with personal preference and linked to the physical sense itself, which possesses accurate discernment by nature.

The sense of smell appears to be linked to more specific physical sensations than the other senses, possibly to distinguish it from the other more general senses (Sweetser, 1991, p. 36). Most Indo-European verbs related to smell stem from the PIE root **od-*, such as English *odour*, but there are no Icelandic cognates (IELEX). Sweetser also mentions the possible connection between *smell* and *smoulder*, most probably via the meaning of “vapor” or “steam” (1991, p. 36).

3 Comparative analysis

Having clarified the necessary concepts along with the MIND-AS-BODY metaphor, the thesis is applied in a comparison between Icelandic and English. The framework laid out in Ibarretxe-Antuñano's work (1999, 2002) is used here as a foundation, which she in turn built largely on Sweetser's original study from 1991. Ibarretxe-Antuñano systematically maps the same perception verbs metaphorically and compares the ones located in English with Spanish and Basque. She concludes in her dissertation (1999) that the metaphorical usage of perception verbs is a cross-linguistic phenomenon and even more pervasive than Sweetser (1991) originally proposes.

For convenience, the same metaphors used in Ibarretxe-Antuñano's dissertation thesis (1999) are analyzed in English and consequently applied to Icelandic in order to inspect whether Sweetser's theory appears cross-linguistic. The semantic scope of the metaphors is additionally examined in order to see if Sweetser's original mapping additionally applies to Icelandic. The properties of each sense are moreover discussed and explained in depth before the metaphors are compared.

The online Icelandic dictionary Snara.is was used for the majority of the expressions used, with a few expressions from the *Oxford English Dictionary* online (shortened as OED). Some of the unmarked English phrases were incorporated from both sources, and several Icelandic phrases without identification were constructed with the author's native knowledge on the language. While some phrases in both languages may not be widespread, they were nonetheless used as they were a plausible construction within the language.

3.1 Vision

Starting with vision seems logical as it is “by far the most studied sense of the five” (Ibarretxe-Antuñano, 1999, p. 55). Allan (2008) supports this claim by declaring it the most significant of the senses, but around 77% of the entries in her research were associated with vision. Numerous researches on visual verbs have been conducted, illustrating the extensive amount of polysemy associated with vision (Ibarretxe-Antuñano, 2002). Sweetser observes that vision is associated with “the objective and intellectual mental domain” (1991, p. 37) but Ibarretxe-Antuñano (1999) further subcategorized visual perception into four classes (p. 55). This organization is used as a foundation, however the last one concerning social correspondence (such as “to meet”) is not linked to intelligence and is consequently not relevant to this study.

The verbs used for the subsequent analysis are *see* and *look* in English and *sjá* and *líta* in Icelandic. It should however be noted that in the case of the Icelandic verb *sjá*, it is more often than not necessary to add supplementary words in order to deduce the metaphorical meaning.

3.1.1 Knowledge and intellect

Compared with the other senses, there are numerous reasons for vision to be associated with the objective and intellectual. Sweetser (1991) claims the reason is because the visual sense is our “primary source of objective data about the world” and also considered “the strongest and most reliable” (p. 39). She mentions child language acquisition studies that observe vision to be the earliest sense to develop in children, as children are not able to use the other senses as readily, such as smelling and tasting each object, to discover their surroundings. Sjöström (1999) corroborates this and cites

further studies that assert vision as the most significant factor when distinguishing the early environment. The distance of vision is also an advantage as it can be both dangerous and socially unacceptable to gather data with the other senses (Sweetser, 1991). Furthermore validating its association with objectivity, vision is moreover uniform for different people who share the same physical point of view (Sweetser, 1991).

Allan (2008) elaborates on Sweetser's original model by adding 'light' as a distinct class to the intellect domain of vision (p. 45). Sweetser links it with her analysis of vision, but she mentions transparency in regard to our mental vision and gives examples of arguments being "clear" or "muddy", and how ideas can be "bright" or "brilliant" (1991, p. 40). She argues that it has to do with how knowledge is linked to illumination and being previously "in the dark" (p. 40). Allan regards it however as a separate subcategory and extension of vision but Sjöström (1999) had already endorsed this notion previously by stating light as being a precursor to vision.

Ibarretxe-Antuñano (2002) expanded the KNOWING IS SEEING metaphor, originally constructed by Lakoff and Johnson (1980) and repeated in Sweetser's work (1991), by separating it into several sub-categories. She maintains it is preferable to separate them as the mappings contain "different mental activities" (2002, p. 120), such as "to imagine" or "to foresee".

Sweetser (1991) likewise had several groups within vision, one of which relate to "physical manipulation and touching" (p. 38) as a source domain. She observed the difference between physically collecting visual stimuli (sight used in its primary sense) and grasping information (in the meaning "to understand"). There are verbs such as *discern* that can now cover both meanings, but the verb's original root has the meaning "to separate" (Sweetser, 1991), its abstract sense of "to grasp" is a later addition.

Sweetser (1991) describes the manipulation of gathering data as “evidence of control” (p. 38) since visually identifying facts, or understanding them, is similar to having the matter under control. Alm-Arvius (1993) supports these claims and observes “that the ‘perceive’ quality of the principal sense of *see* could analytically be said to consist of two functionally overlapping facets, and I spoke of them as ‘pick up’ and ‘make out’ respectively” (p. 266).

Adding to the discussion of intellectual comprehension, the first metaphor is consequently UNDERSTANDING IS SEEING, and is demonstrated in the following examples:

(1) *He didn't see the point of the story.* (Snara)

(2) *Ég sé enga lausn á málinu.* (Snara)

“I see no solution to the matter.”

FORESEEING IS SEEING is a little different from the grasping concept, but it has to do with one's mental vision and seeing things that have yet to happen (Ibarretxe-Antuñano, 2002). The Icelandic example uses the preposition *fyrir* “for” in order for the meaning to be clear.

(3) *I can see this will not end well.*

(4) *Enginn gat séð fyrir að þetta endaði svona illa.*

“No one could see that this ended so badly.”

Another metaphor associated with our inner vision is when we visualize hypothetical circumstances or a situation that already happened. The Icelandic verb utilizes the words *fyrir mér* “before me” to conclude the meaning. IMAGINING IS SEEING is displayed in the following examples:

- (5) *He saw himself as the saviour of his country.* (Snara)
- (6) *Ég sé hana ljóslifandi fyrir mér í rauða kjólnum.* (Snara)

“I can imagine her vividly in the red dress.”

Still in the mental domain, an additional meaning of seeing that does not involve actual visual perception is a verbal construction related to “judging”, “regarding” or “viewing” things in a certain way (Alm-Arvius, 1993). The ensuing examples demonstrate the metaphor CONSIDERING IS SEEING:

- (7) *They see him being a burden.*
- (8) *Við skulum sjá aðeins til, þetta lagast kannski.* (Snara)

“Let’s see about it, it might improve.”

The last metaphor relating to mental activities is STUDYING/EXAMINING IS SEEING, where vision is seen as having the capability of inspecting one’s circumstances or researching a case (Ibarretxe-Antuñano, 2002).

- (9) *I have to see how I fix it.* (OSD)
- (10) *Máttu vera að því að líta á tölvuna fyrir mig?* (Snara)

“Could you look at my computer for me?”

3.1.2 Reliability and certainty

As previously mentioned, vision is considered to be the most reliable and objective of the human senses for gathering data. It is therefore reasonable that the sense should include metaphors that have to do with such ascertaining actions. The first such metaphor is FINDING OUT IS SEEING, described by Alm-Arvius: “they appear to relate how the individual(s) represented by the subject argument intentionally attempt(s) to

acquire information concerning the question voiced in the complementation clause” (1993, pp. 244–245).

(11) *See what the trouble is.* (Snara)

(12) *Geturðu séð hvernig á að setja tækið saman?* (Snara)

“Can you see how to put this device together?”

The second mapping of this group is MAKING SURE IS SEEING:

(13) *See that the children have enough food.*

(14) *Ég skal sjá til þess að þetta komi ekki fyrir aftur.* (Snara)

“I will ensure that this will not happen again.”

The third example in this category is TAKING CARE OF SOMETHING IS SEEING SOMETHING and is illustrated as follows:

(15) *Can you see that it gets done?*

(16) *Hver ætlar að sjá um að bréfið komist til skila?* (Snara)

“Who will take care of the letter being delivered?”

English has one additional metaphor that is not found in the Icelandic language, but the metaphor WITNESSING IS SEEING describes the person seeing the action as a “passive witness” (Ibarretxe-Antuñano, 2002, p. 101). It is a bit of an oddity as it fits in neither of the previous two categories related to intellect or reliability.

(17) *She has seen better days.*

Omitting the last irregularity, all the metaphors discussed are frequent and salient in both languages. English and Icelandic consequently both display compelling evidence that link the sense of vision with knowledge.

3.2 Hearing

Similar to vision, hearing has also been linked to comprehension (Allan, 2008) but with a different emphasis. Following Sweetser's (1991) model, hearing is linked to interpersonal and internal receptivity or obedience. What the sense has in common with vision is its ability to gather data from a distance, but as not everything "emits auditory stimuli" (p. 41) it is not as useful as such. According to Sweetser, vision is more of a physical activity, as we must be facing a certain way and have our eyes open for the sense to function. She claims however that hearing is mostly a mental process, as it requires more concentration and effort to pick out one specific noise in a loud environment (p. 41). Allan (2008) supports this claim and mentions that people generally find auditory data less reliable than visual ones, as terms such as *eyewitness* demonstrate.

Despite these drawbacks in comparison to vision, the hearing sense has an additional function, specifically linguistic communication. Hearing is our main tool for influencing each other and letting ourselves be understood (Sweetser, 1991). There are always two subjects involved in the application of this sense, the hearer and the speaker (which could be a person or an object). It therefore appears natural that such a sophisticated communication tool would be linked to comprehension and consequently heedfulness and obedience (Ibarretxe-Antuñano, 2002).

The different conceptual metaphors connected to receptivity and obedience are discussed by using the verbs *hear* and *listen* in English, and the verbs *heyra*, *hlusta* and *hlýða* in Icelandic.

3.2.1 Internal receptivity

As speech is our major communication tool for exchanging information and thoughts, the act of hearing is not surprisingly associated with the internal process of understanding (Sweetser, 1991). It is however the communicative aspect only that is taken into account, namely the comprehension of information. It therefore differs from the deeper, intellectual understanding linked with vision. Associated with receptivity, the metaphor UNDERSTANDING IS HEARING is demonstrated in the following examples:

(18) *If I heard him right, then this is the correct answer.*

(19) *Ég heyri það alveg á henni að þetta hefur verið erfið reynsla.* (Snara)

“I can hear from her that this has been a difficult experience.”

In a similar vein, being told information can be extended as “knowing” or “being informed” of some specific particulars (Ibarretxe-Antuñano, 2002). Then the hearer implies that he now possesses the information gathered from the speaker. As such, the following examples illustrate the following metaphor, KNOWING/BEING INFORMED IS HEARING:

(20) *Have you heard the news?* (Snara)

(21) *Ég var að heyra að hún væri að koma til landsins.* (Snara)

“I heard that she was coming to the country.”

3.2.2 Heedfulness

The first metaphorical mapping is associated with obedience observes how hearing goes beyond the physical task of absorbing nearby noises, as the speaker additionally demands the attention of the hearer (Ibarretxe-Antuñano, 2002). The following examples illustrate the metaphor PAYING ATTENTION IS HEARING:

(22) *Listen to your father.* (Snara)

(23) *Hlustaðu á móður þína.* (Snara)

“Listen to your mother.”

Similarly, the upcoming metaphor brings the heedfulness definition still further. There are examples of hearing verbs that later came to mean *heed* and eventually *obey* (Sweetser, 1991). The Danish verb *lystre* originally meant “to hear” but its principal meaning now is “to obey”. Sharing the same etymological root is the Icelandic verb *hlýða* “to obey” (the noun *hlýðni* furthermore means “obedience”) but its original meaning “to listen” is now secondary. The verb itself it derived from the noun *hljóð*, meaning “sound”, confirming its semantic source (Magnússon, 2008). It is noteworthy how a subsequent metaphor managed to override the primary sense of the verb, illustrating the link between the physical sense of hearing and internal receptivity or compliance.

The speaker not only requests the attention of the hearer but now also asks of his heedfulness (Ibarretxe-Antuñano, 2002). The following metaphorical mapping, OBEYING IS HEARING, is demonstrated in the ensuing examples:

(24) *They didn't listen to the instructions of the teacher.*

(25) *Hann segist skipa fyrir, við eigum að hlýða.* (Snara)

“He claims to order, we are supposed to obey.”

An additional metaphor only found in Icelandic seems to be a further extension of the interpersonal receptivity linked to hearing. While not as frequent in usage as the previous examples, the sense of ownership or belonging has been used in association with hearing. Two following examples illustrate the possible metaphor BELONGING IS HEARING:

(26) *Á þessum tíma heyrðu eyjarnar Noregi.* (Snara)

“At this time, the islands belonged to Norway.”

(27) *Slík framkoma heyrir ekki svo virðulegi embætti.* (Snara)

“Such behaviour does not belong to such an honourable office.”

The specific link between comprehension, and furthermore compliance, and the sense of hearing appears as prominent in Icelandic as it is in English. Aside from the last metaphor discussed, the previous ones are all frequently found in both languages.

3.3 Touch

Different from vision and hearing, both senses that are considered more distant and suitable for gathering data, the sense of touch requires close contact to be useful (Sweetser, 1991). Sweetser states however that tactical data input can be dangerous or indeed impossible to gather, as well as being socially improper (p. 44). The sense is therefore not connected to the intellect as the previously discussed senses, but its primary function relates to emotion and feelings (p. 44). Ibarretxe-Antuñano (1999) supports this by citing Buck (1949) who mentions that early forms of verbs meaning “to feel” in West Germanic languages referred to both emotional and physical perception.

Sweetser (1991) likewise observes that “there is not a simple and tidy way to divide physical perception from emotion” (p. 44) and that the manner people respond to both pleasure and pain can vary immensely. Such stimulus consequently affects the psyche, as any serious physical pain or pleasurable sensation invariably result in an unhappy or cheerful emotional state (p. 44). She furthermore adds that it can function in the opposite fashion, but contemporary medicine acknowledges that emotional

conditions can affect the body (p. 44). The incentive for mapping the internal state onto our physical condition is therefore a compelling one. Ibarretxe-Antuñano (2002) mapped several metaphors linked to the emotions as explained above, but she explores additional metaphors that reach beyond that scope. For the following analysis, the English verb *touch* is used and the Icelandic verbs *snerta* and *hræra*.

3.3.1 Feelings and contact

The first metaphor explored deals with the abstract side of touch, such as being moved emotionally, and is mapped as AFFECTING IS TOUCHING. The following examples illustrate it:

(28) *I was so touched by your letter of sympathy.* (Snara)

(29) *Ég neita því ekki að leikritið snart mig djúpt.* (Snara)

“I do not deny that the play touched me deeply.”

A special note is needed on the Icelandic verb *snerta* “to touch”, as it is used differently depending on whether the emotional or physical meaning is implied. When used in its primary, corporeal sense, the verb uses a weak inflection, but the strong inflection is applied only with the emotional sense of the word. In the example above, the weak inflection *snerti* “touched” (3. person singular) could not be used, as it would only suggest actual, physical touch. Additionally, the strong past participle for both verbs listed, *snortinn* and *hrærður* “touched”, are used exclusively for emotional states and are utilized in the same way as the metaphor illustrated above.

Another metaphor associated with touch is DEALING WITH SOMETHING IS TOUCHING. It is possible that the Icelandic sense would be more appropriately mapped as USING IS TOUCHING, but those senses overlap a fair amount.

(30) *I wouldn't touch that business.* (Snara)

(31) *Hann snertir ekki vín lengur.* (Snara)

“He does not touch wine anymore.”

Ibarretxe-Antuñano (2002) furthermore observes a sub-meaning of the previous metaphor as where touch is used in the sense of “to deal with superficially” (p. 109). As with the English verb, the Icelandic verb requires the preposition *á* “on” as well.

(32) *He barely touched on the subject.*

(33) *Hann snerti varla á matnum.*

“He barely touched his food.”

An additional possible metaphor in Icelandic only, similar to the first one discussed, is CONCERNING IS TOUCHING.

(34) *Þetta mál snertir mig ekkert.* (Snara)

“This case does not concern me.”

As all metaphors found in English were additionally used in Icelandic, in addition to the last one that is exclusive to Icelandic, it appears that the abstract meaning of tactical sense is ingrained in both languages.

3.4 Taste

While vision is considered the most distant and objective sense, taste is arguably the most subjective and personal sense, but it is associated with our “internal self” and personal preference (Sweetser, 1991, p. 43). Unlike the other senses discussed so far, it is considered the most varying one as physical taste can differ exceedingly for individuals, even more than touch. It would therefore seem appropriate to link our individual likes and dislikes to the sense of physical taste (Sweetser, 1991). Ibarretxe-Antuñano (1999) additionally refers to the ancient Hindus, who had sixty-three plausible combinations of taste (p. 82), illustrating the precise and descriptive nature of the sense. Allan furthermore states the sense as being personal as only the taster is involved in the task of choosing what to taste, an action that one has great control over (2008, p. 49).

Whereas vision gathers its data from a distance, taste is on the opposite side of the spectrum by being the most “close” sense, but it requires physical contact. A person must consume an object in order to taste it and consequently deduce any information regarding said object. Similar to touch, this sense is an inconvenient source for information, as tasting every item can be both unsuitable socially and dangerous for the individual (Allan, 2008, p. 49). Allan furthermore claims it to be fairly unproductive, as the taste of objects does not give us the information necessary (p. 49).

Even though the sense is not reliable for accumulating information, tasting is still considered a positive term by default, instead of a neutral one (Allan, 2008). The saying *to have taste* suggest that one has “a good taste” (p. 49). Viberg (2008) supports this concept and refers to Swedish, where the default understanding of *to taste* is positive (p. 158). Icelandic resembles Swedish in these matters, but phrases such as *ég vona að þetta hafi smakkast* “I hope it tasted” express the wish of food having a good taste. Ibarretxe-

Antuñano (2002) ultimately notes in her analysis that a negative form is a necessary addition in order to infer a negative meaning linked to taste, indicating its primary form to be favourable (p. 117).

A few metaphors associated with tasting were mapped by Ibarretxe-Antuñano (2002) and are explored in the following examples. The English verbs *taste* and *savour* are used, and the Icelandic verbs *smakka* and *bragða*.

3.4.1 Involvement and preference

Ibarretxe-Antuñano (2002) begins by mapping two different metaphors, the first one being EXPERIENCING SOMETHING IS TASTING. Icelandic does have a similar metaphor, although it seems to focus on the negative side of experiencing something, in contrast to the English metaphor. It might appear more appropriate to map the Icelandic metaphor as EXPERIENCING SOMETHING BAD IS TASTING.

(35) *She has tasted the joys of freedom.*

(36) *Hann fékk að bragða á eigin meðali.*

“He got a taste of his own medicine.”

The next metaphor mapped by Ibarretxe-Antuñano is ENJOYING IS TASTING (*He savoured the moment*). She later expands it as the more general PRODUCING A FEELING IS TASTING (2002, p. 117) as there are additional examples of dislike in Spanish, the opposite of enjoyment. Such a metaphor might accordingly be more suitable with the cross-linguistic approach in mind. Icelandic however does not have active metaphors similar to the one described above. The verb *smakka* “to taste” can only be used for food and drink but the verb *bragða* “to taste” has a slightly larger scope, as illustrated in the

metaphor above. While it is possible to use positive terms with the verb without sounding unnatural, such a process does not seem to be as productive as the more negative one.

There is however another metaphor in Icelandic that could be mapped as TRYING IS TASTING. While slight overlaps are present between it and the first metaphor discussed, EXPERIENCING IS TASTING, it is distinct enough to warrant a separate category.

(37) *Menn hafa bragðað að fleyta hér bát.* (Snara)

“Men have tried to float a boat here.”

Unlike the first three senses discussed so far, taste both appears to have a lesser amount of metaphors in language, as well as the scope being somewhat disperse in comparison. The underlying concept of taste is however apparent in both languages, although additional and further expressions appear to have developed separately.

3.5 Smell

According to both Sweetser (1991, p. 43) and Ibarretxe-Antuñano (1999, p. 77), smell has fewer metaphorical definitions in comparison with the other senses. It is not as closely related to one distinct target domain, such as vision with knowledge, and its metaphors therefore appear somewhat arbitrary in nature (Ibarretxe-Antuñano, 1999). This is the only sense that Sweetser (1991) does not link directly to a specific domain, except for the vague association with “dislikeable feelings”, mentioned in a previous chapter. The sense of smell is furthermore described by Sjöström (1999) as “more problematic” when compared with the senses of vision, hearing and taste (p. 67).

However, Viberg (2008) has named smell a “hedonistic sense” (p. 158) and associates it primarily with the feeling of unpleasantness, similar to Sweetser’s original proposal (1991). In his research on Swedish perception verbs, Viberg notes that the default meaning of *to smell* is “bad” (2008, p. 158). He maintains this tendency to be general in other languages, although it has not yet been studied in an orderly manner. Viberg (2008) does mention that English appears exempt from this tendency, as the general meaning of *to smell* is most often neutral and generally requires additional adjectives to specify any further connotations (p. 158). Icelandic however is similar to Swedish, as the default meaning of the verb *lykta* “smell” is interpreted as “bad”.

Viberg (2008) proceeds to explain that additional adjectives in Swedish are not mandatory when conveying a negative meaning with smell, while positive ones are necessary for the opposite meaning (pp. 158–159). Icelandic is identical in these matters and the verb *lykta* ‘smell’ can be combined with both negative and positive adjectives to convey the proper meaning. Icelandic does have other verbs, the synonyms *anga* and *ilma* ‘to give off a pleasant smell’ that are unable to combine with negative words.

While Sweetser (1991) did not map the target domains for smell in a systematic fashion, Ibarretxe-Antuñano (2002) still maintains that there are numerous linked metaphors connected to the sense that are discussed below. The English verbs *smell* and *sniff* are used, and the Icelandic verbs *þefa* and *hnussa*.

3.5.1 Intuition

Three out of the four metaphors mapped by Ibarretxe-Antuñano (2002) are associated with suspicion and guessing. She mentions that it seems linked to the inaccuracy of the sense of smell itself, as it is not as reliable in comparison to the other senses (p. 111). If

one should exchange the suspicion metaphors with a different sense, such as vision, the overall meaning is altered from doubt to certainty. The two metaphors related to intuition analyzed by Ibarretxe-Antuñano (2002) are SUSPECTING IS SMELLING and GUESSING/SENSING INTUITIVELY IS SMELLING, but the third, INVESTIGATING IS SNIFFING AROUND, is marginal in this sense and is discussed below. Surprisingly, neither of these metaphors is found in Icelandic. That is particularly noteworthy, considering the various verbs the language has related to smell. The English metaphors listed above both utilized the neutral verb *to smell*, but its Icelandic counterpart *að lykta* has only its physical and primary sense of “smelling something with your nose”.

Conversely, Ibarretxe-Antuñano (2002) analyzes two additional metaphors that apply the English verb *to sniff*. Icelandic is rich of synonyms of *to smell* that have specific meanings, both positive and negative, and some of those verbs are made use of. In the metaphor INVESTIGATING IS SNIFFING AROUND, smells are understood metaphorically as traces of information that can be found through the act of smelling (Ibarretxe-Antuñano, 2002).

While this metaphor is also associated with intuition, as some suspecting is required, its meaning is not as uncertain as in the other metaphors discussed. In order for this metaphor to be clear in English, the additional word *around* is needed, but the word *uppi* “above” is also necessary for the meaning of the Icelandic metaphor to be inferred.

(38) *A couple of journalists are sniffing around.* (OED)

(39) *Leynilögreglan er lagin við að þefa erlenda njósnara uppi.* (Snara)

“The FBI is skillful in tracking down foreign spies.”

3.5.2 Miscellaneous

The metaphor SHOWING CONTEMPT/DISAPPROVAL IS SNIFFING illustrates the negative connotation the sense smell often seems to have by default, as previously observed by Viberg (2008). The Icelandic verb used is *hnussa* and means “to snort” or literally “to blow air out of your nose”, similar to one of the definitions of *sniff*, but the verb requires the preposition *í* “in”. This metaphor only seems to apply with direct speech (OED).

(40) *‘You’re behaving in an unladylike fashion,’ sniffed Mother* (OED)

(41) *Það hnussaði í honum af óánægju.*

“He sniffed in discontent.”

A possible metaphor found only in Icelandic is FAMILIARIZING YOURSELF LIGHTLY IS SMELLING. It may seem similar to the metaphor of INVESTIGATING IS SNIFFING AROUND as it involves gathering information. It differs however in the sense that specific investigations are not required but only minor awareness of the topic at hand. The word *af* “off” is imperative to deduce the meaning.

(42) *Hún ætti nú að þekkja lögin, hefur hún ekki þefað af lögfræði?* (Snara)

“She should know the regulations, has she not studied a little law?”

Sweetser (1991) originally claimed smell having a fragmented and smaller scope within conceptual metaphors and linked it largely to dislikeable feelings. That was further supported by Viberg (2008) associating smell with “bad” by default. It seems however that Icelandic links it to a wider scope, and not all inherently negative. The overall metaphorical meanings within the sense are however much more scattered compared to the other senses discussed. Keeping Viberg’s (2008) hierarchy in mind, listing smell last, along with taste, appears to prove accurate with the data presented.

4 Cross-linguistic evidence

The preceding analysis illustrated that a large number of conceptual metaphors are found in both Icelandic and English, two languages that are closely related, while not superficially apparent. They are both of the Germanic branch within the Indo-European language family, although English is of the West sub-family and Icelandic of the North one (Clackson, 2007). Allan (2008) assumes that if conceptual metaphors are a universal phenomenon, they should be found in non-Indo-European languages as well. She however adds that culture and tradition play a large role in affecting the language in various, uncertain ways and should therefore be taken into account (p. 59). As well as exploring the range of the conceptual metaphors discussed thus far in additional languages, the role of social settings are also explored in the ensuing chapter.

Remaining within Indo-European languages, studies in Swedish (Viberg, 1984, 2008) and German (Whitt, 2011) have observed a clear link between verbs of perception and understanding, particularly prominent within vision. As this observation in English and Icelandic demonstrated, the thesis appears eminent within the Germanic language branch. A more distant relative is however Old Church Slavonic, the earliest language of the Slavic branch (Clackson, 2007). A recent study applied Sweetser's theory to its perception verbs and numerous polysemous and metaphorical structures were consequently discovered (Grkovic-Mejdzor, 2011). While the pervasive evidence presented appears compelling, it is urgent to deduce whether this link is entirely arbitrary or has genuine linguistic motivation behind it.

Still remaining largely within the same language family, Ibarretxe-Antuñano's frequently cited research compared English, Spanish and Basque (1999). While the three languages chosen for her investigation represent considerable linguistic variety, Spanish

and English are still related in the Indo-European family, with Spanish being of the Romance branch (Clackson, 2007). Basque is however a language isolate, signifying it has no known language relatives (Austin, 2008), making it an appropriate candidate for a diverse comparison. Ibarretxe-Antuñano (1999) concluded in her research that verbs of perception portray a highly polysemous semantic field, as most of the metaphorical meanings investigated were found in all three languages (p. 88-89). She founded her study substantially on Sweetser's theory from 1991 and subsequently infers that the thesis not only has significant motivation to be cross-linguistic, but is even more extensive than originally proposed.

Different from the previous examples, Allan (2008) made use of non-Indo-European language databases for a cross-linguistic comparison on perception verb polysemy. She cites Ehret's study on Proto-Afroasiatic (1995) and Tryon's *Comparative Austronesian Dictionary* (1995) in order to deduce any evidence that link the senses together with intelligence. While she asserts that the evidence is sporadic in both language families, she observes numerous roots that illustrate a "mental-physical link" (2008, p. 60). Similar to the earlier studies cited, Allan discerns the greatest links are within the senses of vision, hearing and touch, while taste and smell appear to have less prominent bonds to the intellect. The more specific association between hearing and heedfulness was additionally represented in some Afroasiatic languages (Allan, 2008). Allan however ultimately concludes, that while numerous parallels were found outside of the Indo-European scope, she emphasizes that further studies on the concept of metaphor itself and its fundamentals are required before further deductions are made (2008, p. 66).

4.1 Cultural context

In a comprehensive study by Evans and Wilkins (2000), Sweetser's thesis (1991) and Viberg's hierarchy (1984) were applied to perception verbs in Austronesian languages. They infer Viberg's theory to endure the scrutiny, while Sweetser's proposal regarding vision verbs and their association with intellect did not. They however discovered that the target domain of intelligence was firmly linked to the source domain of hearing instead. While this illustrates the first major deviation from the principle, it is still well within the field of perception verbs. This same observation in Austronesian was supported by Allan (2008) and Ibarretxe-Antuñano (2008) in their respective studies. They both conclude that additional factors, such as geography or culture, may be more influential elements than previously assumed.

Another non-Indo-European language is Mandarin Chinese, of the Sino-Tibetan language family (Austin, 2008). Yu has explored the issue of metaphors within Chinese considerably (2004, 2008), focusing on conceptual metaphors within perception verbs but moreover the broad impact of cultural conditions. He has discovered numerous parallels between Mandarin and English conceptual metaphors, especially within vision, citing metaphorical expressions such as KNOWING, UNDERSTANDING and PAYING ATTENTION IS SEEING all being particularly prominent in both languages (2004). Yu however stresses the significance of various cultural settings and alludes to how Chinese traditions differ markedly from Western societies (2008). He refers to examples such as the *yin-yang* and the five different elements, both well ingrained in Far Eastern culture, maintaining them to be giant metaphors that shape Chinese thought and expression (2008). Similar to Allan's conclusions (2008), Yu essentially regards that sociocultural factors need further scrutiny within the study of metaphor for a deeper understanding of the topic.

Furthermore on that subject, Ibarretxe-Antuñano (2008) has recently expanded her scope outside of Indo-European languages and also given more attention to the cultural context of languages in her recent studies. She compares the senses of vision, hearing and smell with the common target domain of intellect, but these senses have all been linked to understanding to varying degrees. In this recent research, she states that while the polysemy within perception verbs is indeed motivated, as concluded in her earlier study (1999), the surrounding culture restricts these semantic extensions (p. 29). She explains that cognitive linguistics have relied on the human body to be a consistent, universal source domain, as all humans have the same physical mechanisms for perception and other bodily experiences (2008). The importance of society has however only recently come to light within the field, observing that the human body is not an isolated unit but has to be understood in wider, cultural context.

Ibarretxe-Antuñano (2008) consequently proposes a new solution to the motivation behind conceptual metaphors. She emphasizes that while our biological perceptions are indeed universal, the significance of social effects should be further studied. Using the example of Austronesian languages and their association with hearing and the intellect, Ibarretxe-Antuñano (2008) explains that the same properties are at work as in the Western model. These are assets such as “identification” or “directness” (p. 28), both associated with knowledge, however they are applied to two different perceptions, namely vision and hearing. She calls this “a *shift* of prototypical properties” (p. 28), suggesting that her new model can be applied to additional semantic extensions within verbs of perceptions and further source domains. She adds that the next step in better understanding metaphor and metonymy in perception verbs is to uncover what factors within specific cultures lead to the differing choices made (2008, p. 26).

In the same way, Kövecses (2002, 2005) has recently focused on these external factors, supporting the previous statements. He maintains that while embodied experience can lead to universal metaphors (2005, p. 285), it is the social-cultural elements that condition it further. He calls it a “differential experiential focus” (p. 246), meaning that individuals’ bodies respond differently to target domains, or that they can ignore or downplay certain aspects of their physical functions. Embodiment can furthermore be either physical, such as feeling warm when angry, or entirely cultural, suggesting that universal embodiment can be overridden by the social factors (p. 293).

Kövecses (2005) nonetheless asserts that the possibility of universality within conceptual metaphors is prominent (p. 285), citing pervasive samples such as HAPPINESS IS UP and TIME IS MOTION, but moreover emphasizes the significance of incorporating the social-cultural, historical and personal context (p. 286). He ultimately stresses that embodiment and cultural systems must be studied together in order to comprehend human thought, as “the mind is equally the product of culture and embodiment, or, even more precisely, the three are likely to have evolved together in mutual interaction with each other” (p. 294).

5 Conclusion

The result of the metaphorical comparison between English and Icelandic illustrates a pronounced link between abstract and physical meanings in perception verbs. As the two languages are closely related, the high number of parallel metaphorical phrases suggests that the similarity goes beyond a whimsical coincidence, supporting Sweetser's theory of a systematic, semantic development within perception verbs. The etymological analysis validates the proposal, as it appears that the abstract meaning developed early within the Indo-European language family. That development is still evident in the two inspected languages, as the comparison confirmed.

The several deviations within the two languages illustrate two matters. First, that metaphorical phrasing is a productive method, as most of the exceptions still adhere to the constraints of the principle, namely the systematic, metaphorical mappings already documented. Examples are within the sense of taste, but while some metaphors were identical between the languages, they still have to do with target domain of personal preference. Second, that the few mappings found that did not abide by the original correspondences, are still employing the same metaphorical functions. It demonstrates that the underlying principle is still operating, but within a larger metaphorical scope.

In addition to the number of analogous metaphors found between the two languages, the digressions within them also confirm that the fundamental structure of metaphorical thought is dominant in linguistic expressions. It furthermore illustrates that the correspondence scope originally proposed within perception verbs is even larger than initially believed. Ultimately the thesis of conceptual metaphors within the verbs of perception appears consistent within Indo-European languages, as the comparison between Icelandic and English demonstrated.

The scope of this analysis is however not large enough to confirm the cross-linguistic universality claimed by Sweetser, although this research does concur with comparable studies carried out in related languages, demonstrating a type of metaphorical cognition that appears pervasive within Western societies. Occidental thought is however prominent in more than Indo-European languages only, such as Basque or Chinese, illustrating that more than linguistic factors are at work. Cognitive linguistics have recently observed the additionally impact of elaborate sociocultural elements, realizing that the environment conditions our perception. This appears validated when languages outside of Indo-European languages are explored, but some cultures value the target domains within perception verbs distinctly from the West. While these discoveries somewhat alter the basis of metaphorical theories like Sweetser's, current research is making steady progress to better comprehend the interaction between all relevant components.

Sweetser, Lakoff and Johnson were some of the pioneers within the young field of cognitive linguistics, paving the way with their innovate groundwork. While their original theories have since been examined and modified by later scholars, such scrutiny should only be encouraged, as this is how new and deeper knowledge on the topic is acquired. Cognitive studies are making constant advances and the metaphorical investigations thus far demonstrate much potential to better understand how the human mind perceives its surroundings. By applying interdisciplinary methods from fields such as linguistics, anthropology and psychology, a more comprehensive perspective of the relationship between human mind and body is attained.

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