From usage patterns to meaning construction
Evidence from ear and eye figurative constructions

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The present study investigates the meaning construction emerging from figurative constructions involving ear and eye in Modern Greek. The study concerns authentic language data retrieved from a corpus search. Analysis takes into consideration the embodiment hypothesis, the development of chained metonymies and the interaction of metaphor and metonymy as the motivation for the usage patterns under investigation. The constructions analyzed reveal that the sense of vision is prioritized over hearing. Furthermore, constructional parameters of meaning show how ears and eyes are perceived in MG language and culture. Eye is attributed the agent role in the constructions, while ear is the entity acted upon. Moreover, eyes are mainly perceived as reflections of different dimensions of the selfhood, while ears are perceived as containers. A broader polysemy thus emerges for the eye than for the ear.

Keywords: corpus-based study, usage pattern, construction, ear, eye, metaphor, metonymy, embodiment, polysemy, culture, Greek

1. Introduction and background

Body part nouns are known to be a rich source of figurative meaning (Goossens, 1995; Niemeier, 2000; Lindquist & Levin, 2008; Foolen, 2017). The present study represents an attempt to investigate naturally occurring language data, i.e., usage patterns for the ear and eye in Modern Greek (MG), located in a corpus search carried out for the purposes of the study. The patterns found in language use were investigated for their underlying conceptual patterns, so as to gain a fuller understanding of the meaning construction emerging from those usage patterns.
The analysis of usage patterns takes into consideration the development of chained metonymies. In his investigation of meaning construction in relation to body part terms, Hilpert (2007) found numerous productive semantic extensions. Most of these have a clear motivation, either through metaphor or metonymy or the interaction of metaphor and metonymy, which latter are investigated in this paper. In addition, the discussion is enriched with the ‘embodiment’ hypothesis, interrelated with the universal character of metaphors, i.e. the notion that abstract concepts are grounded in human experience. At the same time, culture variation in metaphors is discussed in instances where the body functions as a universal source of metaphors, with culture acting as a filter that shapes that kind of experience.

To proceed with the discussion on meaning construction, constructional parameters are taken into consideration. Close investigation of the lexical environment of the body part term shows whether that environment plays any significant role in constructing the meaning of the usage patterns, i.e. whether specific conceptualizations lead to specific constructions and specific lexical choices within the construction. In addition, comparison of eye and ear constructional parameters of meaning reveals whether culture specific conceptualizations regarding the perception of the eye and the ear are active.

The paper is organized as follows: Sections 1.1. to 1.2.1. present the relevant literature, Section 2 discusses the corpus search and Section 3 focuses on meaning construction in the usage patterns under investigation.

1.1 Metaphor and metonymy and their interaction in figurative language

According to Conceptual Metaphor Theory (CMT), metaphor is a cognitive process by which abstract domains are understood in terms of more concrete ones. Metaphors involve conceptual mappings (correspondences) from structures in one domain (the source) to structures in another (the target) (Lakoff, 1993; Kövecses, 2010).

Metonymy, on the other hand, is a cognitive process in which one conceptual entity, the source, provides mental access to another conceptual entity, the target, within the same domain or functional domain (Barcelona, 2011). The source content and the target content of a metonymy are linked by conceptual contiguity (Croft, 1993; Ruiz de Mendoza, 2000; Panther & Thornburg, 2007; Barcelona, 2010; Kövecses, 2010).

Metonymic links do not exist by conceptual necessity. In a metonymic relation the target content is brought to the foreground, while the source content is

1. Additionally, a concrete domain can be mapped onto a concrete domain: Achilles is a lion.
retained in the background (Panther & Thornburg, 2007). The source domain is connected to the target domain by imposing a perspective on it, not by projecting its structure on it, as in metaphor (Barcelona, 2007, p. 53). In other words, metonymically linked (sub)domains do not normally exhibit any degree of structural similarity or equivalence, there is an asymmetric mapping of the source onto the target (Barcelona, 2011).

The interplay between metonymy and metaphor was first discussed by Goossens (1995), according to whom *metaphonymy* interaction patterns can be found in figurative expressions. Discussing conceptual interaction, Ruiz de Mendoza (2000) and Ruiz de Mendoza & Galera-Masegosa (2011) argue that in metaphor and metonymy interaction patterns metonymy is subsidiary to and thus part of – metaphor. In a similar way, combination of a conceptual metaphor with a conceptual metonymy resulting in the same expression is discussed in Barcelona (2002, 2011). As far as MG is concerned, metaphor realization in specific constructions is discussed in Thomou (2008, 2010, 2013, 2017, 2019); Veloudis (2005). In addition, Thomou (2016) deals with the interaction between metaphor and metonymy in non-idiomatic Greek language data, showing that the interaction patterns revealed are closer to the ‘metaphor from metonymy’ type of interaction (Goossens, 1995). In the example:

\[(1) \text{piroteōdis prosphāties ja na perioristi i katastrophy tou perivalondos} \]

‘Feverish efforts in order to limit the destruction of the environment’

*efforts/tries are feverish*, whereas feverish is a condition normally associated with humans. This forms a metaphorical phrase which instantiates the metaphorical schema *ACTION IS PERSON*. Beyond the apparent metaphoricity, it is understood that efforts/tries cannot have a fever and this noun is just the source for referring to the target, which is the person making the efforts. This is a realization of a metonymic schema where the *ACTION*, efforts/tries, stands for the *AGENT*, the person who makes the efforts. Metaphorical mapping is perceived first. On a second inference a metonymic mapping is realized.

Metaphor and metonymy may have a strong experiential motivation, as is discussed in the following section.

### 1.2 Experiential basis of metaphor and metonymy and their interaction in figurative language

One of the central principles of CMT is ‘experiential motivation’, i.e., the ways in which humans experience the world (Grady, 2007). For example, coldness and lack of emotion are not related concepts, yet they are associated in our experience inasmuch as ‘distant’ relations can entail physical distance leading to
lack of body heat. Language tends to reflect our physical interactions with the world and abstract concepts are linked to physical experiences through metaphor (Littlemore & Taylor, 2014). Metonymy may have an experiential basis as well. The two domains linked by metonymy may be grouped under an overall functional experiential domain, are situation-based, and connected by a pragmatic function. In other words, pragmatic inferences are generated via metonymy (Barcelona, 2011; Radden, 2018; Littlemore and Taylor, 2014).

The experiential motivation of metaphor and metonymy is widely discussed in the literature of embodiment. Our conceptual and linguistic systems are grounded in human, physical, cognitive and social embodiment (Rohrer, 2007; Littlemore & Taylor, 2014; Bergen, 2015). Systematic patterns of linguistic structure and behavior are motivated by recurrent patterns of embodied experience, which are often metaphorically extended (Gibbs, 2005, p.12).

According to Rohrer (2007, p.31), two broad approaches to the term embodiment have arisen in the literature. The first refers to dimensions that focus on the subjective experiences of language speakers, and the second to those emphasizing the physiological and neurophysiological bodily substrate. These two usages of the notion of embodiment “work together” with conceptual metaphors in conceptualizing abstract concepts.

As far as the first usage is concerned, conceptual metaphors are based on correlations in bodily experience between a sensorimotor and a subjective experience. For example, upward orientation and the idea of quantity yields the metaphor more is up (Kövecses, 2010, p.116). Experiential motivation gives rise to primary metaphors, patterns which map fundamental perceptual concepts onto non-directly perceptual ones, for example, heavy onto difficult, bright onto happy, forward onto success, sweet onto appealing, etc. (Grady, 2007).

Another dimension of embodiment is related to the metaphorical perception of image-schemas. Among others, the container image schema (involving an inside and an outside capable of containing people and objects) is strongly related to embodiment, literally or metaphorically (Oakley, 2007). Metaphorically speaking, ideas, emotions and thoughts are objects coming in and out of our body, which is a container for them.

Regarding the second usage of the term embodiment, the conceptual metaphor anger is the heat of a fluid in a container (Kövecses, 2010) has a physiological basis in universal bodily experiences of elevated skin temperatures (Rohrer, 2007, p.43). In our data, many language patterns ground the physiological basis in universal bodily experiences of elevated skin temperatures.
ical or behavioural reaction for the emotion (Kövecses, 2010) metonymic pattern; for example, *ta matja mu labun* (the eyes possess shine [with joy]). In such cases, bodily changes are observed.

Within the Conceptual Metaphor tradition, embodiment is associated with the discussion on the universality and culture-specificity of metaphors. Kövecses (2010) comments on universal conceptual metaphors, i.e., those found in many languages and cultures, such as those for HAPPINESS, or the CONTAINER metaphor for anger. The (near-) universality of metaphors arises from universal aspects of the human body. At the same time, in addition to universality, Kövecses (op.cit.) argues for cultural variation in metaphor and metonymy. Research into metaphors in the field of EMOTIONS has indicated cross-cultural variation, for example, in the BODY IS A CONTAINER for the emotion metaphor in languages such as English and Hungarian.

In taking a composite approach, Yu (2008) has suggested that metaphors emerge from the interaction between body and culture. More specifically, the body functions as a universal source of metaphors, whereas culture acts as a filter that shapes that kind of experience. Figurative expressions involving the face in English and Chinese emerge from the interplay between some biological facts about the face and cultural understanding of it (Yu, 2008, p.249). Through the metonymy FACE FOR FEELING, the body functions as a source for the culturally filtered metaphorical mapping DIGNITY IS FACE, as seen in the example (Yu, 2008, p.252):

(2) He refused to admit he made a mistake because he didn’t want to lose face.

Similarly, Marmaridou (2011) argues that apart from embodiment, figurative extensions of the prototypical sense of MG *prosopo* (face) exhibit strong cultural motivation: “The human face embodies not only conception of personhood, but also psychological and social aspects of the self, such as emotion, character and social standing” (ibid. 36), as can be seen in the data:

(3) *prosopo jemato stenoxoria* (‘face full of sorrow’) = access to one’s emotion
    *dixno to praymatiko mu prosopo* (‘one shows one’s real face’) = access to one’s character
    *den exo prosopo na* (‘one has not face to’, meaning ‘one is ashamed of oneself’) = access to one’s social standing

The interaction between metaphor and metonymy and the experiential basis of figurative language is discussed in several studies on MG. Theodoropoulou’s (2012) paper on metaphor-metonymies of joy and happiness in Greek shows that the ‘metaphor within metonymy’ pattern is active. For instance, in the expression *Kodepse na spasi i karðja mu apo ti xara mu* (‘My heart almost broke out
of joy’), the metonymy PHYSIOLOGICAL REACTION STANDS FOR EMOTION, highlighting a body part (heart), works together with the metaphorical pattern HEART IS A FRAGILE OBJECT (broke), highlighting the great intensity of the emotion (Theodoropoulou, 2012, p.160). The same interaction pattern, metaphor within metonymy, is found by Xioufis (2017) in the figurative language of romantic love. Along the same lines as Theodoropoulou (2012), he argues that in such cases the metonymy highlights the body, while the metaphor expresses the experience.

In a further study, Athanasiadou (2014) showed that the interplay between metaphor and metonymy is a very important operation in the conceptualization of no emotion in MG. Salient body parts stand for the expression of no emotion (metonymy), and the mapping from the physical to the emotional world is metaphorically conceptualized. A metonymic basis (HUMAN BODY FOR EMOTIONS) for metaphorical understanding (EMOTIONALLY CLOSED IS PHYSICALLY CLOSED) is claimed, as seen in the example:

(4) ... ime klistos anθropos (‘I am a “closed” person’: not showing emotions)

In sum, the discussion in the above section has shown that conceptual blending in figurative language is motivated by human interaction with the physical, social and cultural environment.

1.2.1 Body parts and chained metonyms

This subsection discusses the development of chained metonyms in constructions with a body part term. In his investigation of meaning construction in relation to body part terms across languages, Hilpert (2007) found chained metonyms, i.e. instances involving multiple conceptual shifts motivated by human experience. In his sample of 76 languages, body part terms were identified as a productive source of extensions both lexical and grammatical. Most meaning extensions of body part terms have a clear motivation either through metaphor or metonymy. As far as metonymic extensions of meaning are concerned, chained metonyms are detected. For instance, the polysemous expression with an eye on may convey EYE FOR VISION, VISION FOR ATTENTION, ATTENTION FOR DESIRE, depending on the context of use. Although nothing disallows a single mapping from EYE TO DESIRE, the chained metonymy suggested breaks up complex conceptual mappings into simple, well-motivated mappings with strong experiential motivation; people watch the things they pay attention to, and pay attention to the things they desire (Hilpert, 2007, p.81). The aforementioned study found common chained metonymic mappings across languages. The four conceptual mappings that function as first steps in the lexical extensions of meaning are as follows:
a. The organ of perception for perception metonymy
   ear for hearing, eye for vision
b. The instrument for action metonymy
   tongue, mouth for speech
c. The container for contained metonymy
   belly for pregnancy
d. The objects are humans metaphor
   head meaning ‘top part’ (e.g., head of the chair)

The theoretical background of the study will serve as our guide in exploring the metonymic semantic extensions of the body part terms investigated in this study. Let us now turn to the corpus research and its methodology.

2. Corpus studies and methodology

Using a corpus to research metaphor, metonymy and figurative language offers researchers the opportunity to test out theoretical claims (made by CMT, for example) on authentic language data. Researchers in language description try to account for patterns found in language in use, and theories on language and cognition are attested in these usage patterns.

At the same time, it is difficult for researchers to carry out corpus research on figurative language, i.e. language revealing metaphorical and/or metonymic conceptual patterns. The difficulty lies in retrieving the relevant data, given that conceptual mappings are not linked to particular linguistic forms. The only strategy suitable for extracting such data is by searching for source domain vocabulary, as metaphorical and metonymic expressions always contain lexical items from the relevant domain (Stefanowitsch, 2006).

Previous corpus-based study of body part terms (nose, mouth, eye, heart) in English and Italian has shown that non-literal language is extremely common, often accounting for a substantial proportion of the corpus citations of a given word. Additionally, a very high proportion of metaphors and metonymies appear in expressions that have some degree of fixedness (Deignan & Potter, 2004). The same cross-linguistic study suggests that “while universal bodily experience may motivate many figurative expressions, the process is sometimes complex, and will not necessarily result in equivalent expressions in different languages, for cultural and linguistic reasons” (ibid. 1231).

In his corpus-based study of metonymic patterns associated with the eye, Hilpert (2006) found that more of the 65% of the data is organized in a limited array of patterns. Metonymic expressions differ from literal expressions with
respect to collocation and colligation. He suggests a construction-based account of metonymy interpretation, since the investigated data form patterns. “In these patterns, the lexeme receives its metonymic extension by virtue of the construction in which it occurs” (ibid. 126).

Lindquist & Levin (2008) draw a basic distinction between the term ‘n-gram’ for recurring strings and ‘pattern’ or ‘phrase’ or ‘construction’ for meaningful, linguistically structured recurring sequences of words. In their study of foot and mouth phrasal patterns, they see that metonymy and metaphor play a major role in the creation and extension of new phrasal patterns, as at least half of the tokens in the corpus occurred in patterns.

It has already been pointed out (Deignan, 2005) that analyzing naturally occurring data may reveal potentially significant patterns not otherwise noticed. Intuition alone cannot account for the patterns of human thought. All the above studies stress the need for such an approach, i.e. the use of corpora in the investigation of semantic issues.

### 2.1 Methodology

The study outlined here aims to describe usage patterns found in the electronic corpus of MG known as the Hellenic National Corpus (HNC). A search was carried out for two (2) parts of the human body: mati (‘eye’), and afti (‘ear’). The patterns found in language use were then investigated for their underlying conceptual patterns, metaphor, metonymy and the interaction between them. The choice of body part nouns was theory-driven, according to the notion of embodiment; the two terms in question were chosen because they constitute the basic organs/instruments of vision and hearing. The corpus study follows a bottom-up methodology.

More specifically, corpus analysis was organized into the following steps. The investigation started from the individual lexical items, i.e. one single query was made for each of the above body part terms. Given that they essentially belong to the source domain vocabulary, obtaining figurative language data for investigation was a simple matter. Secondly, the query results were manually sorted, and literal uses of the body part term (the body part as a physical entity) were discarded. Examples containing non-literal uses were then identified, collated and

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3. HNC contains 97.000.000 words of written texts from several media (books, periodicals, newspapers etc.), belonging to different genres (articles, essays, literary works, reports, biographies etc.) and various topics (economy, medicine, leisure, art, human sciences etc.). See http://hnc.ilsp.gr.
studied in more detail. Thirdly, non-literal uses were further analyzed and sorted by construction or pattern, with a form and a meaning being attributed to each.

For the purposes of this study, a construction-based account of the data is adopted, in which the terms ‘pattern’ and ‘schematic construction’ are used interchangeably. According to Goldberg (2006, p. 5) “any linguistic pattern is recognized as a construction as long as some aspect of its form or function is not strictly predictable from its component parts or from other constructions recognized to exist”. Furthermore, constructions are not completely fixed, but include schematic categories (open slots), admitting a wide range of possible words and phrases to instantiate those categories.

The term ‘pattern’ or ‘schematic construction’ is used here in its qualitative dimension, and issues of frequency of use are not taken into consideration. Figurative linguistic data was identified using criteria developed by phraseology theory (Melčuk, 1998; Wray, 2002; Granger & Paquot, 2008) for multi-word units (non-compositionality, fixedness), which are compatible with construction-based theories. For a detailed discussion on multi-word units as schematic constructions in the Greek language, see Thomou (2020). Let us now turn to the meaning construction emerging from the schematic constructions under investigation.

3. Meaning construction in usage patterns with body part terms

Examination of the examples from the MG corpus reveals that the body part terms under examination are used figuratively in 1403 out of 3067 examples: 774/1067 instances of afti (‘ear’), and 629/2000 of mati (‘eye’). One hundred and fifty-five (155) usage patterns or schematic constructions were recorded in the corpus examples.

In what follows we analyze the metonymic and metaphorical nature of the patterns found in the HNC. Additional discussion is devoted to the constructional parameters of meaning.

3.1 Metaphor-metonymy and their interaction in ear usage patterns

“Hearing and vision are distant senses ... the object giving off the stimuli may be distant” (Sweetser, 1990, p. 44). The HNC contains sixty-two (62) patterns for figurative use of the ear. The following discussion concerns the whole set of patterns. The first metonymic mapping is ear for hearing, listening (organ for perception), δεν πιστεύω στα αυτή μου (‘one does not believe one’s ears’ = what one is hearing). Then, ear for hearing, listening and listening for attention is a conceptual shift found in the corpus, as seen in the patterns such as ime olos aftiα
‘I’m all ears’=I’m listening very carefully), stino afti (‘one sets ear’=eavesdrops), exo aftja (‘one has ears’, meaning one is willing to pay attention). Consider the example:

(5) δen exis aftja na akusis tis prooðus ke ta parapona mas
You don’t have ears to hear our progress and our complaints
‘You don’t want to pay attention to our progress and our complaints’

Hilpert (2007) mentions that the concept of paying attention is a deliberate action in relation to hearing; in this case, the perception for attention metonymy maps an involuntary process onto an action which is deliberate and controlled.

In the usage pattern X exi afti (‘X has ear’), meaning X has the ability, or better, the sensibility to decode the sounds (of music), ear stands for listening for sensibility to sounds, as can be seen in the example:

(6) δieðete spanio musiko talendo, ixe aristo afti, ekseretiki musiki mnimi
‘(She) had (a) rare music talent, she had (an) excellent ear, (an) excellent musical memory’

Furthermore, ear through listening maps onto knowing (ear for listening for knowing) in interaction with the metaphor knowing is hearing, as seen in the example:

(7) ... apopsis pu ftanun sta aftja mas
... opinions/views that reach our ears
‘We are informed about these views’

The above show that ear may extend into the figurative meaning of a “tunnel” through which outside information or knowledge is acquired (Kraska-Szlenk, 2014). To go further, many usage patterns containing the ear illustrate that the image schema metaphor ear is a container in interaction with the aforementioned metonymic mappings (ear for attention, ear for knowing) is highly active in Greek. Examples show that plirofories (‘information’), ixi lekseon (‘sounds of words’), ipopsies (‘suspicions’), nea (‘news’), musiki (‘music’), yem-izun (‘fill in’), benun (‘enter’), vyenoun (‘go out of’), pernun (‘come across’), ftanun (‘reach’) sta aftja poss (‘ears poss’), apo to ena afti beni apo to alo vyeni (‘from one ear it enters and from the other it goes out’ [it goes in one ear and comes out the other] =one is not willing to listen to what is said). Furthermore, in all the above, motion oriented towards the ear is involved. Additionally, humans aniyun (‘open’), klinun (‘close’) ta aftja tus (‘their ears’) depending on their like or dislike of information, i.e., on whether or not they are willing to pay attention to the information given:
The abovementioned conceptualizations show that ear operates as a locus or container in which knowledge and information is kept. As a sensory organ, the ear participates in linguistic communication (Sweetser, 1990). From the previous discussion, it is more than obvious that the metonymic and metaphorical mappings with ear highlight this function of the organ, and that additional meaning extensions are provided.

Additionally, as part of the human body, the ear operates as one of the exits for the emotions contained therein (body is a container of emotions). Consider the patterns vγazo kapnus apo ta aftja (‘one takes smokes out’ = has smoke coming out of one’s ears [out of anger]), NPemotion ksexilizi apo ta aftja poss (‘overflows from the ears poss’) in the example:

(9) perifanja ke ikanopiisi ksexilizan apo ta aftja tu
‘Pride and satisfaction overflowed out of his ears’

Enthousiasm and testosterone (metonymically standing for desire) were also found in the corpus examples to overflow out of the human ears. That construction is characterized by exaggeration.

At this point another mapping should be mentioned. Usage patterns found in our data instantiate the ear for listening metonymy in interaction with the listening is touching conceptual metaphor. Vocabulary from the touching domain: xaiδevun ta aftja tu politi (‘they massage the ears of the citizen’ = they say things the citizen likes [what citizens want to hear]), pjani to afti poss (‘one’s ear catches [a sound]’ = one is able to hear a sound) illustrate that the two domains (of listening and touching) are conceptually related for meaning construction.

3.1.1 Constructional parameters of meaning in ear usage patterns

In this section we will focus on the role played by usage patterns in constructing meaning. More specifically, we will closely investigate the lexical environment of the body part term to ascertain whether it plays any significant role in constructing the meaning of usage patterns. Marmaridou (2010, 2011) has already stressed how lexical and constructional semantics interact in motivating the meaning of MG collocations and idioms involving psixi (‘soul’) and prosopo (‘face’).

In Construction Grammar Theory both collocations and idioms are considered constructions. Constructions have their own meaning, but the lexemes in them contribute to their overall meaning as well. As far as ear constructions are concerned, a superordinate transitive construction [ NP(subject) V aftja(object) ] may contain one of three subordinate constructions:

(8) kliste ta aftja sas ke mi δinete simasia se osa yinonde
‘Close your ears and don’t pay attention to what is happening.’
1. X (agent and experiencer) does something to X’s ears

aniyo (‘open’), klino (‘close’), eksasko (‘train’), stino (‘set’) to afti/ta aftja (‘the ear/ears’) mu (poss)

[ NP(human) V afti/aftja accusative poss ]

Via these specific verbs, ear is extended in the construction to attention

2. X (agent) does something to the ears of Y

troo (‘eat’), vomvarðizo (‘bomb’), xaiðevo (‘massage’) ta aftja (‘the ears’) of Y

[ NP(human) V aftja NP genitive (human) ]

In this construction, ear is extended to listening. The verbs troo and vomvarðizo carry negative connotations, while the verb xaiðevo carries positive ones.

3. An NP related to listening does something to X’s ears

NP γemizi (‘fills in’), ksekurazi (‘rests’), tripai (‘pierces’), xaiðevi (‘massages’), karfoni (‘nails’), perni (‘takes’) ta aftja mu

[ NP(sound) V aftja accusative NP genitive (human) ]

In this construction ear is extended to listening. Ear is a container that holds sounds or is reached by them. In all of the above cases, the body part term is the object of the transitive construction, attributed the theme role. An agent acts on their own ears, acts on someone else’s ears or a sound acts on someone’s ears. Ears are rarely attributed the agent role: pjani/arpazi (‘catches’) leksis (‘words’), sizitisi (‘discussion’), ixo (‘sound’) to afti (‘the ear’), kati/to pire to afti mu (‘my ear got it’). The above discussion shows that in most constructions, the ear is the entity acted upon rather than being attributed the agent role.

In the superordinate pattern [ NP(subject) V sta aftja ((in)to ears) ], the prepositional phrase sta aftja operates as an adverbial denoting space. The semantic extensions noted depend on the verb and noun in the construction, and can refer to either the listening or the knowing domain. Consider the examples:

(10) i foni tis erxete akomi sta aftja mas (‘her voice is still coming into our ears’)

(listening)

i plirofories pu ftanun sta aftja mas alitheven (‘the information that reach our ears are true’) (knowing)

In the superordinate pattern in question, ear operates as a container in all the instantiated constructions, and it is this characteristic that is profiled.

Data analysis has shown that an ear-headed nominal construction is instantiated, i.e. [adjective of quality/quantity] ears: xiliaðes aftja (‘thousands of ears’), perierγa (‘curious’), aðiakrita (‘indiscreet’), evesðita (‘sensitive’) aftja

4. Theme: the entity that directly receives the action of the verb, that undergoes the event.
(‘ears’). In this case, ear is used to refer to a person and the part-whole image-schema is in operation. The image-schema is based on the cultural model of the fragmented self: a person consists of several parts, and the part can stand for the whole person (Marmaridou, 2010).

The above discussion reveals that specific conceptualizations are expressed by specific constructions and specific lexical choices within the construction. In particular, the ear as a container conceptualization is mainly instantiated in se (into) and apo (from) prepositional phrases constructions, whereas the part-whole conceptualization (ear for person) is more easily instantiated in a nominal (adjective+ear) construction. This can occur because the structure of the construction with the modification function of the adjective allows the conceptualization to be realized in language.

3.2 Metaphor-metonymy and their interaction in eye usage patterns

The HNC contains ninety-three (93) patterns for the figurative use of eye. The following discussion concerns the whole set of patterns. Vision is our primary source of objective data about the world, and direct visual evidence is the strongest and most reliable source of data (Sweetser, 1990). In the discussion below, relevant literature on eye has been taken into consideration (Yu, 2004; Hilpert, 2006).

The first metonymic link found is, as expected, eye for seeing or watching. The pattern δεν πιστεύω στα μάτια μου (‘not to believe one’s eyes’=not to believe what one sees) is an instantiation of this metonymic mapping. The meaning of the construction is further developed as ‘it is difficult for me to accept something (even if I see it). In this case, a further metonymic extension EYE FOR SEEING FOR ACCEPTING is noticed. The EYE FOR SEEING mapping feeds a second metonymic shift which is EYE FOR WATCHING AND WATCHING FOR PAYING ATTENTION, as can be seen in the usage patterns exo ta μάτια μου δεκατεσέρα (‘one has poss eyes fourteen=one is very careful’ [“has one’s eyes peeled”]). The above-mentioned metonymic mappings quite frequently interact with the conceptual metaphor UNDERSTANDING IS SEEING, which belongs to the central mapping MENTAL FUNCTION IS PERCEPTION OR MIND IS BODY (Barcelona, 2002; Radden, 2002; Yu, 2004). The instantiation of this metaphor is highly pervasive in MG data, as can be seen from the patterns: anιψ ω τα μάτια μου (‘one opens eyes poss’in order to understand), kλινω τα μάτια μου πρεπος. PHRASE (‘one closes eyes poss to’=one does not understand), exo μάτια κε νλεπο (‘one has eyes and [is able to] see’=understand), kανω τα στραβά μάτια (‘one makes the blind eyes [turns a blind eye’=pretend not to notice wrongdoing], riξνο σταξτι κατα μάτια poss (‘X throws ashes in Y’s eyes’=so that Y does not understand what is happening, X disorients, deceives Y [“X pulls the wool over Y’s eyes”]). Consider the example:
EYE is extended from ATTENTION to DESIRE as can be seen in the construction vazo NP sto mati (put NP in the eye) meaning one is interested in NP or likes\(^5\) NP. For example:

(12) \textit{exi vali ki aftos sto mati ti Mari}  
He has put in eye Mari  
‘He is interested in / he likes Mari’

This extension is well motivated and is based on experience; humans are used to looking and paying attention to the things they desire.

To dig deeper in our analysis, seeing can involve spatial movement and physical contact, whereby SEEING IS REACHING OUT AND TOUCHING (Yu, 2004). In this case, the eye ‘moves’ in space and ‘reaches’ the objects being viewed. Thus, to mati (‘the eye’) perni (‘takes’=sees) NP, pefti se (‘falls on’=sees) NP. Furthermore, karfono ta matja mu se NP (‘one ‘nails’ the eyes poss on NP’)

(13) pefti to mati tus stin tileorasi  
Their eye falls on the TV  
‘They are looking at the TV’

(14) se pire to mati mu sti jitonja  
My eye took you in the neighborhood  
‘I caught sight of you in the neighborhood’

(15) karfosa ta matja mu sta xerja mu  
‘I nailed [=fixed] my eyes on my hands’

In the above examples TOUCHING is semantically enriched: in (13) the eye falls and is stuck onto the TV, in (14) it grasps the human, while in (15) the eye sticks on the hands. In the domain of TOUCHING, a further extension of meaning is found in MG. The expression \textit{me pjani to mati} (‘eye catches NPhuman’) means that X watches Y and ‘catches’, influences Y in a negative way. Understanding the expression necessitates a metaphorical extension of SEEING into CATCHING/GRASPING (FORCE). Usage patterns like the above fall within the realm of culture specific figurative extensions.

We shall now move on to a different kind of meaning construction. Although the \textit{heart} is the inner organ best known as the locus of emotions, visible outer

\(^5\) This construction may also carry negative connotations.
body parts such as the eye or face\(^6\) are conceptualized as sites for displaying emotion on the outside (Krska-Szlenk, 2014). Relevant literature (Barcelona, 2002; Deignan & Potter, 2004; Yu, 2004; Hilpert, 2006) has stressed the relation between the eyes and the expression of emotions. MG data yield similar findings: eyes mirror human feelings, instantiating the eye FOR OCULAR BEHAVIOUR FOR EMOTION metonymy. More specifically, eyes stand for ocular behaviour, an activity in which a person uses his eyes (Barcelona, 2002). Different usage patterns are found depending on the feeling of the experiencer. Consider the following examples: vlepo me kalo, θetiko, filiko mati NP (‘one sees with good, positive, friendly eye NP’=like NP), vlepo me kako, arnitiko mati NP (‘one sees with bad, negative eye NP’=dislike NP), vlepo me miso mati NPhuman (‘one sees with half an eye NPhuman’= one is suspicious of NPhuman):

(16)  
\[
i nei synγrafis vlepun me kalo mati to rolo ton adzendiδon
\]
‘The young writers see with good eye the role of the agents’

To go further, NPemotion, like fovos (‘fear’), panikos (‘panic’), kaθreftizete sta matja poss (‘is mirrored in one’s eyes’).

In a similar way, the metonymy EYE (FOR OCULAR BEHAVIOUR) FOR EXPRESSION OF EMOTION interacts with the image schema metaphor EYE IS A CONTAINER (OF EMOTIONS), as can be seen in such patterns as ta matja ine γemata NPemotion (‘eyes are full of NPemotion’), exo sta matja mu NPemotion (‘one has in one’s eyes poss NPemotion’). Lexical choices like γemizi (‘fills in’) in the construction δe mu γemizi to mati (‘X doesn’t fill in Y’s eye’=Y is suspicious of X), aδja (‘empty’) in the construction matja aδja (‘eyes empty [of feelings]’), ksexilizun (‘overflow’) in ksexilizun apo (‘overflow from’) NP(Feeling), and miso (‘half’) in the construction kitazo NP me miso mati, (‘X looks Y with half an eye’=X is suspicious of Y) profile the conceptualization of the eyes as containers of emotions (Barcelona, 2002). Emotions are conceptualized as substances “filling” or “emptying” the eyes.

In the domain of emotions, expressions like jalizi to mati mu (‘eye poss shines [with anger / insanity]’), xamilono ta matja (‘one lowers the eyes [out of embarrassment]’), ta matja mu labun (‘the eyes poss shine [with joy]’), trivo ta matja mu (‘one rubs eyes poss [to show surprise]’), klino to mati PREPOS. PHRASE (‘one closes the eye to someone else [to express liking, fondness]’), instantiate the (BEHAVIOURAL) REACTION FOR EMOTION metonymy. The conceptualization of the eye as a metaphoric mirror reflecting and communicating emotions is experientially based, as features of the eyes do indeed change physically when people

\[\text{6. Marmaridou (2011) discusses the use of prosopo (‘face’) for access to one’s psychological state and emotion and as a container of the emotion.}\]
become affected by particular emotions or want to communicate a specific emotion via their behaviour. In the second case, a high degree of culture specificity is exhibited.

Moving on to a further kind of conceptualization, analysis of the MG data shows that watching is mapped onto the eating domain through the patterns xorteni to mati NP (‘the eye feels full with NP, meaning that one feels pleasure at what one sees’), troo NP me ta matja mu (‘one eats NP with eyes poss=one is watching NP intently, with desire’). Consider the example:

(17) o nearos tin etroγe me ta matja tu
    The young guy was eating her with his eyes
    ‘The young guy was watching her intently (with desire)’

In this case, it seems that one physical domain (seeing) is mapped onto another physical domain (eating), i.e., seeing IS eating. As is easily understood, expression of emotion is involved in the conceptualization in question. Desire is conceptualized as a physiological force, namely, hunger (desire IS hunger, Kövecses, 2010). What should be mentioned in this case is that seeing serves as the target domain of the mapping and not the source, as applies in all previous mappings.

Finally, the eye feeds the eye for person metonymy in the pattern vlepi kapjo mati NP (‘sees some eye NP’=somebody sees NP)

(18) an sas δi kanena mati
    If some eye sees you
    ‘If anybody sees you’

The same metonymic pattern is found in the Greek proverb matja pu de vleponde γυιυορα lizmoniunde (‘eyes=persons that are not seen are soon/quickly forgotten’).

All the usage patterns with the eye discussed above reflect the importance of the eyes as organs of sight and cognition in general (Yu, 2004). The pattern δen klino mati (‘NEG one closes eye’) means that one cannot sleep, while the pattern klino ta matja mu (‘one closes the eyes poss’, only in perfective aspect) means that one dies. The above patterns highlight the relationship between the eyes and life, while simultaneously activating the effect for cause (insomnia, death) metonymy.

In conclusion, eyes seem to play an important role as part of our body. They are the organs for perceiving and understanding the world, and function as ‘windows’ into our mind, showing what we think and feel (Yu, 2004).

3.2.1 Constructional parameters of meaning in eye usage patterns

This section focuses on specific constructions, closely investigating the lexical environment of eye terms in order to ascertain whether they play any significant
role in constructing the meaning of usage patterns. The first construction to be discussed is the superordinate pattern [NP(subject) V sta matja mu (into the eyes poss)] . The pattern in question is instantiated by eleven constructions and happens to be polysemous. The meaning attributed to the construction depends on the verb in the construction. More specifically:

1. the constructions NP kseδiplonete/ ksetiliγete (‘unfolds’) sta matja mu (‘into the eyes poss’) and NP erxete/ftani (‘comes’) sta matja mu (‘into the eyes poss’) refer to the seeing domain, the physical sense of vision;
2. the construction NP ine/fenete (‘is/seems’) sta matja mu (‘into the eyes poss’) (san) (like) [ADJECTIVE/NOUN] refers to the understanding domain;
3. in the constructions exo/ine (‘have’) NP (feeling) sta matja mu (‘into the eyes poss’) and kitazo ton alo (‘look somebody’) sta matja (‘in the eyes’), the prepositional phrase is extended to mean expression of emotion;
4. in the constructions NP aneveni (‘rises’) sta matja mu (‘into the eyes poss’) and sikono (‘raise’) NP sta matja tu (‘in the eyes of Y’), the prepositional phrase is extended to refer to the social self of the experiencer.

The polysemy of the construction is explained via the cultural model of selfhood (Marmaridou, 2006, 2010). According to this model, a cultural understanding of the self distinguishes between: (a) the physical self as the locus of physical characteristics and sensations; (b) the rational self as the locus of consciousness and judgement; (c) the non-rational self as the locus of emotions and; d) the social self as the locus of social roles and interactions (Marmaridou, 2006, p.408; Marmaridou, 2010, p.73–74). In the construction segment sta matja mu (‘in[to] the eyes poss’), a different dimension of the self is seen to be profiled in each case. Matja can stand for the whole person.

The same polysemy is observed in the [NP(subject) V me ta matja (with the eyes)]. More specifically:

1. in the constructions, V me klista matja (‘with closed eyes’), vlepo (‘see’) me ta iðja mu ta matja (‘with my own eyes, have evidence of something’), the prepositional phrase refers to the seeing domain;
2. in the construction andikrizo (‘face, front’) me alla matja (‘with different eyes’), V me klista matja (‘with closed eyes’), the prepositional phrase refers to the understanding domain;
3. in the constructions troo (‘eat’) NP me ta matja mu (‘with the eyes poss’), milao/leo kati (‘talk/say something’) me ta matja (‘with the eyes’), the prepositional phrase refers to the emotion domain.

In a similar way, matja can stand for the whole person, while a different dimension of the self is profiled in each construction.
The superordinate pattern [ (exo) (one has) [ADJECTIVE] matja (eyes) ] is instantiated in constructions such as θlimena matja (‘sad eyes’), tromaymena matja (‘scared eyes’), yelasta matja (‘smiling eyes’), etc. In each of these instantiations eye stands for person, and the feeling of the person expressed by the adjective becomes an attribute of the eyes via the adjective + noun collocation. Instantiations of the pattern may either be solely metonymic in nature (as above), or metonymic in interaction with a metaphor: γlika (‘sweet’) matja, πayomena (‘cold’) matja, matja aδja (‘eyes empty [of feelings]’).

Eye or eyes are the subject of the predicate in many constructions. The body part term is the agent of the verb action: mati/matja (‘subject’), pefti (‘falls on’), kolai (‘glues to’), pjani (‘catches’), perni (‘takes’), vlepi (‘sees’), fτani (‘reaches’), saronun (‘scan’), fevγun apo (‘go away from’), katefθinonde se (‘direct to’). In all these cases the constructions refer to the seeing domain.

The above discussion has shown that the polysemy observed in the eye constructions sta matja, me ta matja is well motivated. Eye for emotion is explained through a broader sense of experience. Additionally, the cultural model of self-hood describes an emotional (non-rational) self, which is most probably profiled in the constructions in question.

3.3 Overall discussion and comparison

We now move on to closer discussion of the similarities and differences in meaning construction of the two body parts examined in this study. As far as the number of usage patterns is concerned, eye is the body part with by far the most patterns in MG, followed at some distance by ear.

Turning first to similarities, in the usage patterns under consideration both the ear and the eye are metaphorically conceptualized as different kinds of containers. Ear contains abstract entities related to attention and knowing, while eye is a container of emotions. Most of the usage patterns for the body parts examined link bodily experience with mental processes (Sweetser, 1990); our physical selves constantly reflect our mental states (Deignan & Potter, 2004). The mental domain is linked to the physical one, and the abstract becomes concrete. The particular body parts serve as containers strongly related to the embodiment hypothesis.

With regard to the embodiment and development of metonymic extensions of body parts, usage patterns for the ear should be viewed in the narrow sense of embodiment, to the extent that all metonymic extensions develop through the sense of hearing and listening, i.e. EAR FOR LISTENING FOR ATTENTION, EAR FOR LISTENING FOR SENSIBILITY TO SOUNDS. Things work differently for eye usage patterns. In this case, embodiment should be considered in its broader sense: on the one hand, there are metonymic extensions which arise through the bodily expe-
rience of seeing (eye for seeing for attention, eye for seeing for desire), but on the other hand, the metonymic extension concerning the emotions (eye for ocular behaviour for emotion) relies on human experience in a broad sense, viewed as our interaction with the physical, social and cultural environment. In better accounting for this mapping, it is important to draw on cultural understanding of the self.

As already mentioned, many usage patterns with eye participate in the conceptualization of emotions: emotions are mirrored in the eyes, and eyes are containers of emotions. This is not true for any ear usage pattern. When it comes to emotions, ear is conceptualized as the upper part of the body, which is in turn conceptualized as a container of emotions. Any extra quantity of emotion overflows from the ears (NPemotion kse xīlizi apo ta a ftja poss = ‘overflows from the ears poss’). This observation establishes the ontological metaphor emotions are things, meaning that they acquire attributes of things such as quantification and qualification as positive or negative (Kraska-Szlenk, 2014, p. 23). With respect to the reaction for emotion metonymy, apart from the eye usage patterns already discussed, (jalizi to mati mu (‘eye poss shines [out of anger]’), trivo ta matja mu (‘one rubs eyes poss [to show surprise]’), ta matja mu labun (‘the eyes poss shine [out of joy]’), xamilono ta matja (‘one lowers the eyes [out of embarrassment]’), klino to mati prepos. phrase (‘one closes the eye to someone else’ (to express liking, fondness), usage patterns such as ime me ena xamoyelo os ta aftja (‘one is with a smile until the ears’=‘smiling from ear to ear’ [to express happiness]), δen iðroni to afti mu” (‘one’s ear does not sweat meaning that one does not get upset’) are found in the corpus. These usage patterns have strong cultural motivation confirming the intimate connection between cultural experience and embodied behaviour (Gibbs, 1999, p. 146 in Marmaridou, 2011, p. 23). The reaction could be either physiological or behavioural. The metonymic mapping in question instantiates the superordinate effect for cause pattern.

Comparing usage patterns for eye and ear in relation to the metaphorical mapping observed, it is clear that both usage patterns link seeing and listening with the touching domain, but do so in different ways. In ear usage patterns, entities ‘reach’ the ear, whereas in eye patterns the organ ‘moves in space’ and ‘reaches the entities’. In both cases, a physical domain, seeing and hearing, is mapped onto another physical domain, touching, i.e. seeing/hearing is touching. A similar mode of conceptualization, from physical to physical, is evident in the mapping of eating onto seeing (seeing is eating), as in xorteni to

7. Athanasiadou (2014) reports on this usage pattern by saying that a cold and indifferent person does not sweat and especially in the ear. People use to perspire out of intense emotions.

8. See the earlier discussion on the role of the ear and the agent role of the eye.
mati NP (‘the eye feels full with NP’, meaning that one feels pleasure at what one sees) and troo NP me ta matja mu (‘one eats NP with eyes poss’=one is watching NP intently, with desire). The usage pattern X mu troi ta aftja (‘X eats Y’s ears meaning that Y gets tired of X’s talking or insistence’) also exploits the eating domain (HEARING IS EATING), but in this case negative qualities of the domain emerge, i.e., eating is understood as harming somebody. In all of the above cases reverse mapping is noted, i.e. SEEING OR HEARING operate as target rather than source domains.

To go further, eye and ear are used as metaphorical instruments via which outside knowledge is acquired (Kraska-Szlenk, 2014). At this point, it should be noted that while usage patterns for both feature a link between the physical and the mental, those for eye extend to UNDERSTANDING, whereas those for ear only reach ‘as far as’ KNOWING, but not UNDERSTANDING, even though in prototypical terms listening could potentially give access to the understanding extension. The constructions under discussion thus reveal that the sense of vision is prioritized over hearing, and predominates in metaphors of acquiring knowledge and understanding.

Moreover, it is worth noting that eye is conceptualized as a valuable object (EYE IS VALUABLE OBJECT) in the usage pattern vyazo ta matja poss (‘take off the eyes poss’, meaning that one is harming himself). No usage patterns were found showing that ear is conceptualized as a valuable object. This may be a fact showing that cultural understanding intervenes in the way embodiment is realized.

To move on, we should take into consideration the interaction between metaphor and metonymy as cognitive processes in the usage patterns found. The examples investigated involve metonymic mapping (e.g., EYE FOR SEEING), multiple metonymic extensions (e.g., EYE FOR SEEING FOR ATTENTION) or metonymic extensions in combination with metaphorical mapping (e.g., EYE FOR SEEING AND UNDERSTANDING IS SEEING). In the last case, our data strongly support the interaction of the two processes. More specifically, the usage patterns show that metonymy is subsidiary to – and thus part of – metaphor (Ruiz de Mendoza, 2000; Ruiz de Mendoza & Galera-Masegosa, 2011). In other words, a combination of a conceptual metaphor with a conceptual metonymy in the same expression (Barcelona, 2011) is noticed: metonymy first ‘clears out’ the concept that is being communicated (which content is foregrounded) and metaphor then extends the concept into another domain. This is further supported by the fact that the grounding of metonymic concepts is “in general more obvious than is the case with metaphorical concepts, since it involves physical or causal association” (Lakoff & Johnson, 1980, p.39 in Theodoropoulou, 2012, p.158).

As far as constructional parameters of meaning are concerned, ears mainly seem to be understood as containers. In the MG constructions examined, ears are
generally attributed the theme role, whereas *eyes* are usually agents. Additionally, *eyes* can easily stand for ‘person’, the meaning of which calls for cultural understanding of the self. It is also clear that in constructions with the *eyes*, four dimensions of the self can be expressed, i.e., the physical self (seeing), the rational self (understanding), the emotional self and the social self. Precisely which one of them is expressed depends on the construction. On the other hand, such polysemy does not apply to the *ear*, as associated constructions mainly express the physical self, HEARING-LISTENING domain, or the rational self, KNOWING domain.

In conclusion, one of the main reasons for entering into the above detailed discussion of non-literal usage patterns for *eye* and *ear* in MG was to investigate how the main (literal) perception sense of the body parts in question extends to meaning construction. More specifically, authentic MG language data retrieved from a corpus demonstrate that body part terms are quite often used figuratively. Investigation of the examples revealed specific usage patterns, involving the development of chained metonymies and the interaction of metaphor and metonymy as cognitive processes. Our analysis confirms the notion of embodiment found in relevant literature: examining constructional parameters of meaning reveals culture specific conceptualizations that differentiate the perception of the *eye* and the *ear*. *Eyes* are perceived as reflections of different dimensions of the selfhood, whereas *ears* are perceived as containers.

**Acknowledgements**

We would like to thank the two anonymous reviewers for their useful suggestions. We would also like to thank Maria Antoniou, teaching staff, University of Athens, for reading the final manuscript and making useful comments on it. The research was funded by the University of Crete Special Account of Research (10641).

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Publication history

Date received: 7 September 2020
Date accepted: 23 June 2021
Published online: 8 December 2022