

# Visual perception verbs in Old Anatolian Turkish

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This study aims at describing the verbs of the visual sensory domain in Old Anatolian Turkish (OAT), including basic and compound verb forms. We shall specifically focus on intra-field and trans-field meaning extensions of visual perception verbs such as *bağ-*, *nağar et-*, *ğor-*, and *ğorin-/ğözük-*. Our findings are based on a corpus consisting of 11 texts both in prose and poetry from the 13th to 15th centuries. There are mainly two types of verbs that conceptualise mental and emotive states through visual perception: one pertains to idiomatic expressions with *ğöz* 'eye', such as *ğöz-(ün) aç-* (eye-POSS.ACC open), *ğöz-den düş-* (eye-ABL fall), and *ğöz dut-* (eye hold). The second form includes basic verbs including *bağ-* (to look at), *ğor-* (to see), *nağar et-* (to look at) and *ğor-in-/ğöz-ük-* (to appear). We shall show that visual perception constitutes a rich source for expressing emotive states, and the use of vision verbs for the expression of emotions is as productive as it is for mental states. Similar to Sweetser's BODY IS MIND metaphor, we suggest that VISION IS EMOTION. The domain of visual perception in OAT texts displays a strong connection to intellection; however, there is no evidence in our data indicating that the verbs *ğor-* and *bağ-* have meaning extension to 'to know'. The phenomenon-based verbs *ğorin-* and *ğözük-* have mainly two meaning extensions: one is related to physical existence, as in 'occur' and 'appear' in English. When these verbs co-occur with nouns and adjectives, they reflect the speakers' judgements and beliefs by means of a metaphor.

**Keywords:** visual perception verbs, Old Anatolian Turkish, conceptual metaphors, evidentiality, epistemic stance

## 1. Introduction

The verbs of perception, i.e., verbs coding sight, sound, smell, touch, and taste are receiving increasing attention in linguistic research. The polysemy of perception

verbs has been studied extensively. These studies mainly focus on three aspects of perception verbs. First, intra-field and trans-field meaning extensions from universal and cultural perspectives (see e.g., Evans & Wilkins 2000; Gisborne 2010; Ibarretxe-Antuñano 2008, 2019; van Putten 2020; Sweetser 1990; Viberg 1983, 2015, 2019); second, their relation to evidentiality and epistemic modality (Aijmer 2009; Whitt 2011; Grund 2016); and third, the semantic relationship between physical experiences, emotions, and sensory modalities (Firestone 2016; Strik-Lievers & de Felice 2019). Among the sensory modalities, vision merits the highest amount of interest, since vision is related to several aspects of human perception and cognition, and cross-linguistic findings show that visual perception verbs display the highest number of meaning extensions in the languages of the world. Although there are plenty of works with a synchronic point of view, there are only a few studies on the diachronic aspects of visual perception verbs, and most of these studies describe Indo-European languages. The main purpose of our study is to provide data from Old Anatolian Turkish, a language rarely described in terms of semantic change of visual perception verbs and to describe their intra-field and trans-field meaning extensions. We also aim at comparing our data with those presented earlier in literature for Indo-European languages.

Before presenting our data, we would like to give simple definitions for perception, sensory, and mental verbs, which are distinct but related terms. Perception refers to the processing of stimuli from the environment that are successively interpreted as meaningful information (Viberg 2015:97). What we perceive is transformed into certain linguistic structures such as verbs, adverbs, and grammatical categories such as modality. Perception relies on the senses of seeing, hearing, smelling, tasting, and touching, and we observe the world through our senses. Therefore, perception verbs refer to concepts related to physical sense verbs. For example, the verb *to see* as a sense verb means to perceive a vision; however, it also has a meaning extension to understand, recognise, be aware of, etc. (Merriam Webster, entry 'see'). We should note here that perception verbs have meaning extensions to mental processes that are characterised as mental verbs in natural languages such as *to know*, *to perceive*, *to understand*, etc. In this study, we shall focus on visual perception verbs and their meaning extensions for certain physical and mental processes.

Viberg (1983) classifies perception verbs in terms of base selection (theta roles) features and the sensory modalities. There are two basic categories: experiencer-based verbs such as 'hear' and 'listen to' assign an EXPERIENCER or AGENT role to their subjects. They are transitive. Experiencer-based verbs are further divided into two types: activities such as 'listen' and 'look' are controlled activities and assign an agent role, while verbs such as 'hear' and 'see' are uncontrolled and assign an experiencer role to their subjects. We shall use 'agent-

oriented' to refer to verbs with the feature [+control] and 'experiencer-oriented' for [-control] verbs. The second category includes phenomenon-based verbs. They take the perceived object as their syntactic subjects, such as the verbs *to sound* and *to seem* in English. We use the term phenomenon-based verbs to refer to this category.

Perception verbs in the languages of the world share a common feature: they are polysemous and have meaning extensions either within the sensory domain, or they develop from the sensory to another semantic domain. Following Matisoff (1978), we refer to the meaning extensions within the sensory domain as *intra-field* meaning extensions. For example, in Modern Standard Turkish (MST), the sight verb *bak-* 'to look' is also used to denote gustatory experiences in expressions such as *tadına bak-*, which literally means 'to look at its taste' (taste-POSS-DAT look). This is an *intra-field* extension from visual sensory modality to gustatory modality. *Trans-field* meaning extensions are derived by mapping from one sensory domain to another semantic domain. For example, in OAT, the verb *gör-* has a meaning extension 'to understand' as in *gözüñ aç gör neye uğraduñ* (eye-POSS2SG open-IMP.SG see-IMP.SG what-DAT encounter-PRET-2SG) (MN 6a4–5), which means 'open your eyes and see/understand what happened to you'. This is a *trans-field* extension from a sensory domain to a mental domain. *Trans-field* extensions are metaphorical in nature (Sweetser 1990).

Drawing on the results of his cross-linguistic typological research on perception verbs, Viberg (1983) claims that there is a unidirectional hierarchy among perception verbs in terms of the *intra-field* meaning extensions. The perception verbs at the left of the hierarchy have the highest number of meaning extensions, while those on the right side have the lowest number:

Sight > Hearing > Touch > Smell, Taste

According to this hierarchy, sight verbs have the highest number of meaning extensions towards other sensory modalities. Viberg also claims that this hierarchy is unidirectional, which implies that it is not possible, for example, for a hearing verb to develop meaning extensions to seeing and related mental activities such as thinking and understanding. However, recent findings show that hearing verbs along with sight verbs can also be a source to conceptualise mental states of understanding and knowing (Evans & Wilkins 2000; Vanhove 2008; van Putten 2020).

In her pioneering work *From Etymology to Pragmatics*, Sweetser (1990) defines meaning extensions of perception verbs as a conceptual metaphorical mapping from the sensory domain (source domain) to the mental domain (target domain). Elaborating on the work of Lakoff and Johnson (1980), she uses the MIND AS BODY metaphor to explain how the multiple meaning extensions of perception verbs are related to mental and social activities. Physical experience is a

source of expressing mental states. According to Sweetser, there is a universal pattern for metaphorical extensions of perception verbs, and vision is used to express *knowledge*. There are two main conceptual features of SEE as a physical activity: grasping and controlling. Meaning extensions for mental activities are produced by mapping these features from the source domain BODY to the target domain MIND. Hence, like grasping a vision, we grasp ideas. Just as we control the distance between ourselves and a vision, we control an idea, a mental activity, and we understand it. Having a vision can be under our control like looking at something, or we may simply experience it like seeing something (Sweetser 1990: 22–34). We shall use Sweetser’s framework to describe the meaning extensions from the sensory domain to the mental domain and present the conceptual metaphors we observed for visual perception verbs in OAT. We also argue that vision is not only related to knowledge, but also to heeding (in the sense of “paying attention”, cf. Sweetser 1990: 35).

## 2. Methodology

Since there is no electronic corpus representing the Old Anatolian Turkish period, first we had to build our own corpus. Although there are several texts that are said to belong to the 14th and 15th centuries, some of them were copied in later periods, and we cannot be sure whether the writers copied the original texts without making any changes. We should also note that only a few texts are transcribed. Hence, to ensure that our corpus represents the period from the 13th to 15th centuries, we selected texts that were dated by the persons who copied them or texts that include information that reveals the time of the copied material. In cases of doubt, we compared the transcribed material to the original text. We also paid attention to keeping a balance among the types of texts. We used narrative texts in prose and poetic forms. Among them, *Gülistan*, *Marzubân-nâme*, *Qıřař-ı Enbiyâ*, and *Münhacüř Şehâde* are narrative prose texts, while *Yûsuf ve Züleyhâ*, *Ġarîb-nâme*, and *İskender-nâme* are *mesnevis* in poetic form. We also used descriptive texts such as *Mücerreb-nâme* and included a total of 11 texts from the 13th to 15th centuries. Below is a list of the texts from which we collected data:

### Data sources

- GL: Maḥmūd bin Kāzî-yi Mānyās, *Gülistan* (1430), ed. Özkan 1993.  
GN: Ařık Pařa, *Ġarîbnâme* (14th c.), ed. Yavuz 2000.  
İN: Ahmedî, *İskendername* (15th c.), eds. Akdoĝan & Kutsal 2019.  
KE: Qıřař-ı Enbiyâ (14th–15th c.), eds. Yılmaz et al. 2013.  
KK: Şeyhoĝlu, *Kenzül-Kübera* (2nd half of the 14th c.), ed. Yavuz 1991.

- MN: Şadrü'd-dîn Şeyhoğlu, *Marzubān-nāme* (2nd half of the 14th c.), ed. Korkmaz 1973.
- MŞ: Minhācî'ş Şehāde (2nd half of the 14th c.), ed. Kocabaş. 2007.
- MÜN: Sabuncuoğlu Şerefeddin, *Mücerreb-nāme* (15th c.), ed. Uzel & Suveren 1999.
- SN: Mes'ūd bin Aḥmed, *Süheyl ü Nev-Bahār* (1350), ed. Dilçin 1991.
- TN: Sinan Paşa, *Tazarru'-nāme* (15th c.) ed. Tulum 2014.
- YZ: Şeyyād Ḥamza, Yūsuf ve Züleyḥā (13th c.), eds. Dilçin 1946; Demirci & Korkmaz 2008.

We tagged all the visual perception verbs manually and made a list of meaning extensions of sight verbs and verbs from other sensory domains we found related to vision and mental states.

The study of historical texts poses several challenges, such as a lack of native speakers (to investigate speaker judgements) and, sometimes, discourse contexts. While studying the meaning of perception verbs, one may also face the difficulty of determining the meaning extension of a given verb in a specific text type. We tried to set measures to prevent false interpretations. One of them is to provide a rich dataset and textual variety. When we limit our observation to a single text, it may not be possible to decide whether the given metaphor was a unique literary trope, an idiolect feature that can be associated with the writer, or a conceptual metaphor that represents the language in a certain period. For example, in the *Marzubān-nāme*, we came across the expressions *'aql kulağı* (mind ear-POSS), literally 'the ear of the mind', and *'aql gözi* (mind eye-POSS), 'the eye of the mind'. First, we thought that they might be examples of literary metaphors or a kind of idiosyncratic expression. However, we came across *'aql kulağı* and similar constructions such as *gönül<sup>1</sup> gözi* (mind eye-POSS) 'the eye of the mind' and *gönül kulağı* (mind ear-POSS) 'the ear of the mind' in other texts as well, which provides evidence that it was common to conceptualise the body-mind relation with names of sensory organs. We found a sufficient number of tokens to generalise that not only sight, but also the auditory and tactile domains were used to conceptualise the mind. To obtain a more objective picture, first we tagged the verbs independently and subsequently compared our descriptions, discussed contradictory findings, and tried to discover pieces of evidence to support our observations. We made use of discourse context and certain syntactic and lexical clues, namely complementation patterns, to understand the type of meaning extension. There are studies in the literature supporting the idea of a correlation between syntactic

1. *Gönül* is a polysemous word in old Turkic and OAT. In our examples, it means 'mind'. See Clauson (1972).

patterns and semantic structures (Caplan 1973; Whitt 2010). We suggest that there are three main criteria that help us define the polysemous meanings of perception verbs in historical texts:

1. Discourse mode: we use the term “discourse mode” for the linguistic environment in which the verb occurs, be it a conversation or a narrative mode, etc. It also matters whether the verb is in the imperative when the author addresses the reader/interlocutor to give advice, or whether the verb is in the third person indicative, reporting an event.
2. Complementation pattern, i.e., the syntactic structure in which the perception verb occurs, e.g., whether it has a finite or non-finite complement. For example, when the verb *gör-* ‘to see’ takes a non-finite complement, it is highly probable that it refers to its basic sensory meaning ‘to grasp a vision.’ However, when a finite clause follows, there is usually a mental state meaning extension.
3. Collocation pattern, i.e., the string of words in which the perception verbs occur in a given context. For example, the phenomenon-based verb *görünmek/gözükmek* ‘to appear, to seem’ has two meaning extensions in OAT: one is related to physical appearance as in *Görünür nesnelere âlemi* ‘the world of things that are visible’ (Tazarrunname: 173), while the other is related to the speaker’s inference about the situation, as in *göziñe nice haķır görinürse* ‘if it seems despicable to your eyes.’ When we have the second meaning, it may co-occur with the word *gözüme* ‘to my eyes’ and the postposition *gibi* ‘like’, which reveals that the speaker makes an inference about the object. Luraghi (2020) argues that valency patterns help to determine the meaning of see verbs in ancient Greek. Since ancient Greek does not have separate lexical items for seeing and looking, it is almost compulsory to study the arguments the verbs co-occur with in order to understand if the verbs refer to looking or seeing (115–127).

### 3. Visual perception verbs in OAT

Table 1 presents the vision verbs in OAT. The experiencer-based sight verbs include *baķ-* and *naķar t-* for looking; and *gör-* for seeing. *Görin-* and *gözük-* are both phenomenon-based verbs.

We should also note that sensory modalities display a wide range of verb forms derived from organ names. The visual perception verbs enjoy the highest amount among them, such as *gözet-* ‘to watch over’, *göz-ük-* ‘to appear’, *göz dut-* ‘to look’, *göz aç-* ‘to open eyes’, and *göz-den düř-* ‘to fall from grace’, all connected to the noun *göz* ‘eye’. Most of these derivations are in compound verb form and are metaphorical.

Table 1. Basic sight verbs in OAT

Sensory modality	Experiencer-based		Phenomenon-based (the source of perception as the syntactic subject)
	Agent (+control)	Experiencer (-control)	
Sight	bak-, nazar et-/eyile- (to look)	gör- (to see)	görin-, gözüük- (to seem)

(1) *göz-ün aç, gör ne-ye uğra-du-ñ*  
 eye-POSS2SG open.IMP2SG see.IMP2SG what-DAT encounter-PRET-2SG  
 ‘Open your eyes and see what happened to you.’ (MN, 6a.4)

(2) *göz-üm-den düş-di*  
 eye-POSS1SG-ABL fell-PRET  
 ‘He fell from my eyes.’  
 ‘He fell from grace.’ (KE 376.2)

(1) and (2) provide examples for metaphorical usages of the compound verbs *göz aç-* ‘to open eyes’ and *gözden düş-*, literally ‘to fall from the eye’. In (1), opening one’s eyes is a way of describing paying attention to understand something better. *Gözden düş-* in (2) is a metaphor for losing someone’s respect and becoming worthless. To be in one’s sight (*göze gir-*, lit. ‘to enter the eye’), on the contrary, means to gain someone’s appreciation. We suggest that both *gözden düş-* and *göz aç-* derive from the conceptual metaphor of EYE IS AN ENTRANCE TO THE MIND, which is like a DOOR for the body. The underlying conceptual metaphor is the BODY AS HOME metaphor (see Ning 2008; Kövecses 2015 for a detailed discussion of how the body is conceptualised as a construction). Hence, opening the door to let someone/something in is like opening one’s eyes to let knowledge enter one’s mind, and kicking someone/something out is like throwing something/someone out of our sight. We have the experiencer-oriented verb *gözden bırak-* (lit. ‘to put from the eye’) in OAT, meaning to drop someone out of one’s sight. Likewise, being inside corresponds to *göze gir-* and falling from the eye to *gözden düş-*. Both *göze gir-* and *gözden düş-* are phenomenon-based verbs. Table 2 presents a list of the verbs derived from ‘göz’.

We can see a pattern when we investigate the types of these verbs: the experiencer-oriented verbs are mostly related to emotive states such as anger or affection, while agent-oriented verbs are related to mental states such as paying attention or becoming conscious of a state. Moreover, they specify a physical property of looking, such as staring or opening or closing eyelids. There are a few tokens in the phenomenon-based form such as *gözden düş-* and *göz-e gir-*, which are also somehow related to emotions. *Göz* ‘eye’ itself is a rich source of expressing

**Table 2.** Compound verbs and idiomatic expressions derived from ‘göz’ in OAT

Type	Compound verb	Literal translation	Meaning
Agent-oriented	göz ét- (eye make)	to make an eye	to look
	göz aç- (eye open) (İN 3951)	to open one’s eyes	to look at carefully/pay attention
	göz ır- (eye turn) (GN3519)/ göz çevir- (KE 667.8)	to turn one’s eyes from somewhere/something	to ignore
	Göz yum- (eye close) (KE 10.3)	to shut one’s eyes to something/someone	to turn a blind eye to something/let someone do something
	göz-den bırak- (eye-ABL.drop) (KK 117a.7)	to drop someone or something from one’s eyes	to ignore/ not to give importance
	göz-in-i dik- (eye-POSS-ACC erect)/göz dut- (eye hold) (GN 845)	to keep an eye on something to look	to stare to wait for
Experiencer-oriented	göz-i aydınlan- eye-POSS enlighten) (KE 290.12)	one’s eyes to become enlightened	to feel happy
	göz-i aç-ıl- (eye-POSS open-PASS) (KK61b.10)	one’s eyes to be opened	to become aware of something
	göz-i kız- (eye-POSS get angry) (SNB 4485)	one’s eyes to get angry	to be angry
	göz-i giriş- (eye-POSS get familiar) (KK 117a.7)	to get in someone’s sight	to be familiar
	göz-i kamaş- (eye-POSS get dazzled) (KE 375–1)	one’s eyes to become dazzled	to feel affected by someone or something/to admire
	göz-i karar- (eye-POSS get dark) (KE 11–13)	one’s eyes to get dark	to feel angry
Phenomenon-based	göz-den düş- (eye-ABL.drop) (KE 376.2)	to fall from the eyes to enter the eyes	to fall from grace to gain someone’s appreciation
	Göz-e gir (eye-DAT enter)		

the mind. Using the manner of looking, such as opening or blinking, as a source to define thoughts and emotions by metaphors seems to be a tendency in OAT, as we found tokens of them in almost all the texts. We also know that some of

these verbs, including *göz aç-*, appear in the earlier periods of Turkic (such as the *Kutadgu Bilig* and *Dīvān Lughāt al-Turk*, Karakhanid Turkic, 11th c.). The tendency to conceptualise mental and emotive states by using organ names survives in MST and most of these verbs are still widely used (see Baş 2022 for an extensive discussion on the semantic extensions of *göz* in MST). It is beyond the scope of this research to investigate the anthropological and cultural reasons behind this phenomenon; however, we should note here the need for cross-linguistic research to understand it.

Another aspect of these compound verbs concerns the relation between the manner of looking and metaphorical mappings. For example, blinking of the eyelids is associated with the feeling ‘admiration’ (*gözü kamaş-*) and is a source for the metaphorical mapping of affection. Cognitive linguistics has long debated the possibilities of embodiment (Lakoff & Johnson 1999; Gibbs 2008; Bergen 2015) and the OAT data provide some clues for understanding the conceptualisation of perception and cognition. Abstract concepts, such as affection and attention are mapped from a concrete source, namely ‘eye movement’ as a means of physical experience.

### 3.1 Intra-field and trans-field meaning extensions

Turkish is a language using separate verbs for agent-oriented and experiencer-oriented vision. *Nazar et-* (sometimes with the auxiliaries of *eyle-* or *kıl-* instead of *et-*) and *bak-* assign agent roles to their subjects, and they are synonymous. *Gör-* has experiencer subjects without control. *Nazar* is an Arabic word meaning ‘glance’. It is combined with the auxiliary *do-* verbs *ét-/eyle-/kıl-*. *Bak-*, on the other hand, is a Turkic verb. There are also instances in which the noun *nazar* is combined with a verb of seeing, such as *hoş nazarla bak-* literally ‘to look with a pleasant glance’, which means ‘to tolerate’. The phenomenon-based verbs *görün-* and *gözüük-* are presented in detail in Section 3.3.

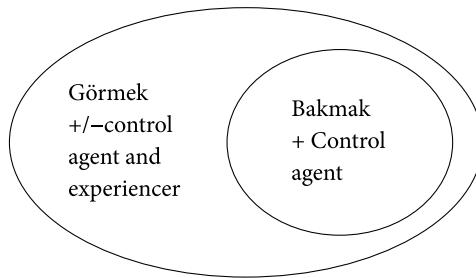
Our first observation is related to the semantic relation between *look* verbs and *see* verbs. Most researchers assume that perception verb pairs constitute mutually exclusive terms in a binary opposition control vs. non-control for the action (Viberg 1983; Sweetser 1990; Evans & Wilkins 2000; Whitt 2011; van Putten 2020). Viberg expresses this distinction explicitly as follows:

The distinction between an activity and an experience is illustrated by pairs such as *look at* vs. *see* and *listen to* vs. *hear*. *Activity* refers to an unbounded process that is consciously *controlled* by a human agent, whereas *experience* refers to a state that is *not controlled*.  
(Viberg 1983: 123, emphasis added)

Sweetser also uses the term *control* to explain the various meaning extensions of visual verbs: if the image is grasped, then it is controlled by the subject; if the subject is exposed to the image, it is not controlled (Sweetser 1990: 38). This assumption also entails that *look* and *see* verbs are in mutually exclusive (“equipollent”) opposition. However, we observed many instances that the verb *gör-* displays a meaning shift to *bak-* but not vice versa. There is no single instance of the verb *bak-* with a meaning shift to *gör-* in the physical sense. Vision verbs do not seem to have a dual structure, a mutually exclusive relation to each other in terms of the variable [+control]; instead, they seem to have an inclusive relation as in (3):

- (3) *gör-ün eger Yusuf-un gönleg-i ön-ün-den yırt-ıl-mış=sa...*  
 see-IMP2PL if Yusuf-GEN shirt-POSS3 front-POSS3-ABL tear-PASS-PRF=COND  
 ‘See Yusuf’s shirt. If it has been torn from the front...’  
 ‘Look at Yusuf’s shirt. If it has been torn from the front...’ (KE 250.1)

(3) illustrates that the verb *gör-* ‘to see’ has a meaning shift to *bak-* in the sense of ‘to look’, and therefore assigns an agent subject. Sentence (4) is in imperative mode which makes the meaning shift clear since the imperative mood usually implies +control. We can conclude that the verb *gör-* assigns both agent and experiencer subjects while *bak-* can assign only agent subjects during the OAT period as illustrated in Schema 1 below:



Schema 1. Privative opposition between *bakmak* and *görmek*

We suggest using the term *privative opposition* (Kastovsky 1982: 37–41; cf. Trubetzkoy 1936) to describe this semantic relation between *gör-* and *bak-*. As illustrated in Schema 1, the semantic content of the verb *gör-* includes *bak-*. At this point, we should also note that we observed the same phenomenon between the auditory verb pair *dinle-* for listening and *êşit-* for hearing. This leads to a new discussion about the nature of perception verbs, and exclusive (equipollent) binary opposition may not be a universal feature for visual and auditory verbs from a diachronic perspective.

Our observations on the intra-field and trans-field meaning extensions among perception verbs lend support to earlier findings in literature. Vision verbs have the highest amount of meaning extensions when compared to other sensory modalities, and the amount of the trans-field extensions is far higher than intra-field extensions. Considering the rich variety of texts and text lengths, one cannot argue that this rare occurrence of intra-field meaning extensions is due to the insufficient amount of data. We should also note here that intra-field meanings extensions of vision verbs are also sparse in MST. There is only one case, which is *tadına bakmak*, literally ‘to look at its taste’.

The verb *gör-* in OAT has an intra-field extension to the auditory sensory domain as illustrated below:

- (4) Ol melik söyle-r yūsuf-a gör söz-in  
 DEM king tells-PRS Yusuf-DAT see-IMP2SG word-POSS3ACC  
 ‘The king says to Yusuf, *see/listen to his words*.’ (YZ 19/10)

- (5) ve bu-nuñ dost-lar-ı zārī-sin gör-üp eyit-di-ler  
 and DEM-GEN friend-PL-POSS3 wailing-POSS3ACC see-CVB tell-PRET-3PL  
 ‘And his friends *saw/heard* his crying and told him that...’ (GL 45a.3)

We also found several examples in which *gör-* and *bak-* have an extension to the gustatory domain as in ‘seeing the taste of something’ and ‘looking at its taste’.

- (6) ne lezzet var=dur anda gör-e-sin  
 what taste existent=COP DEM-LOC see-OPT-2SG  
 ‘you shall *see* what *taste* has it’  
 ‘See its taste.’ (GN 3088)

- (7) imdi ol ta‘ām-uñ ve şarāb-un-a bak  
 now DEM food-GEN and wine-POSS3-DAT look-IMP2SG  
 ‘Now *look at the food and wine...*’  
 ‘Now taste the food and wine...’ (KE 724.11)

Intra-field meaning extensions within the sensory domain in OAT support Viberg’s hierarchy. There is a unidirectional extension from sight to auditory and gustatory domains, but not vice versa. However, we observed that the auditory domain was a source for expressing intellect and knowledge in relation to trans-field extensions. As mentioned earlier in Section 2, we found expressions such as *‘aql kulağ-ı* (mind ear-POSS) and *göñül kulağ-ı* (mind ear-POSS) ‘the ear of the mind’ in our corpus, which made us consider that there is a mapping from the auditory to the mental domain to conceptualise intellect and related mental activities (see Rentzsch & Erk Emeksiz 2022 for a detailed description of sensory verbs in OAT).

### 3.2 Trans-field meaning extensions

Our data show that visual perception verbs in OAT texts are highly polysemous and have a wide range of trans-field extensions to various semantic domains. We classified the semantic domains we observed in the texts mainly as mental, emotive, and social-communicative. The mental domain simply refers to mental activities such as understanding, thinking, and knowing. The emotive domain is related to emotions such as anguish, admiration, or sympathy. The social-communicative domain refers to social activities such as reading, waiting for something, or paying attention. Table 3 illustrates the trans-field meaning extensions we found in the texts.

**Table 3.** Trans-field meaning extensions of visual perception verbs in OAT

Semantic domains	Visual perception verbs		
	<i>nazar et-</i> (look-agent-oriented)	<i>bak-</i> (look-agent-oriented)	<i>gör-</i> (see experiencer-oriented)
Mental	To think, to consider, to notice	to think (gönül gözüyle bakmak ‘looking at something with the eyes of the mind’), to observe, to consider, to notice	To notice, to understand, to evaluate/consider (consider something/someone as X) to learn
Emotive	To feel anguish against someone, to feel sympathy, to tolerate	to admire, to feel anguish against someone, to feel ashamed, to tolerate	To feel X / to experience X (to feel pain, to condemn, to have trouble, to tolerate)
Social & Communicative	to pay attention, to give importance, to be concerned with	to pay attention, to give importance, to read, to examine (someone), to wait for, to deal with, to depend on, to look for	To come across, to read, to experience, to examine (someone), to be exposed to something, to deal with

*Nazar et-* and *bak-*, which are synonymous in the domain of physical perception, display overlapping but not identical trans-field meaning extensions. *Bak-* has more meaning extensions and is productively used in the social domain. Earlier studies in literature claim that the polysemy of perception verbs follows a universal semantic pattern. Viberg (1983) and Sweetser (1990) claim that meaning extensions of sight are predominantly related to intellection and knowledge, while

the auditory sensory domain is related to acts of *interpersonal communication* for “heeding” and “giving importance and obedience”. Our findings, on the other hand, provide evidence that this may not be a universal pattern. Unlike in Indo-European languages, *nazar et-* and *bak-* were predominantly used as a source for heeding. The most widely used metaphors for looking are LOOKING IS PAYING ATTENTION and LOOKING IS GIVING IMPORTANCE. In *mesnevis* (narrative poems), *bak-* frequently occurs with *gözün aç bak/gör* and *bak gör* in imperative mood when it means ‘to pay attention’.

### Paying attention

- (8) *göz-ün aç bak*  
 eye-POSS2SG open.IMP2SG look.IMP2SG  
 ‘Open your eyes and look’. (GN 850)
- (9) *sen dağı gönl-ün göz-in aç, bu iş-e gey*  
 you.SG too mind-POSS2SG eye-POSS3ACC open.IMP2SG this issue-DAT carefully  
*nazar eyle.*  
 look do.IMP2SG  
 ‘You also *open your mind’s eyes and look at* (pay attention to) this carefully’. (MN 8b.14)

In (8) and (9), heeding is conceptualised as paying attention by a mapping from a visual sensory domain to a communicative domain. The expressions *gözün aç* ‘open your eyes’ in (8) and *gey* ‘carefully’ in (9) strengthen our interpretation that both verbs are used to mean ‘paying attention’. We observe that both *bak-* and *nazar et-* are used to direct the audience’s attention to a given situation. In addition, both *bak-* and *gör-* are used frequently as discourse markers in *mesnevis* to attract the audience’s attention.

### Giving importance

- (10) *nefs-ünüz-e hoş gel-me-düg-in-e bak-ma-η*  
 self-POSS2PL-DAT pleasant come-NEG-VN-POSS3-DAT look-NEG-IMP2PL  
 ‘Don’t *look at* that it does not come pleasant to yourself’.  
 ‘Don’t give importance even if it does not appeal to yourself’. (MŞ 3b.9)
- (11) *bun-lar kamu ağla-ş-ur bak-maz-lar aş-a*  
 DEM-PL everybody cry-COOP-PRS look-NEG.PRS-3PL meal-DAT  
 ‘They all cry and don’t look at the food’.  
 ‘They all cry and don’t mind the food’. (YZ 72.10)

In (10) and (11), the verb *bak-* has a meaning extension to giving importance. In (10), the writer addresses the audience and advises them to do their religious duties whether or not it appeals to them and he states “don’t give importance to

your own desires”. Likewise, (11) describes some people who suffer so much that they cannot even care about what they eat.

Sweetser draws attention to the strong connection between sight and knowledge and argues that “see verbs” in Indo-European languages share common roots with the verb *sekk* in Hittite (*sakk-/sekk*), which means ‘to know’ (1990: 33). When compared to Indo-European languages, we observe a strong connection between vision verbs and intellection in OAT; however, no occurrence in our data indicates that the verbs *gör-* and *bak-* have the meaning extension ‘to know’. At this point, we should also note that the earliest occurrences of the verb *gör-* found in Orkhon Inscriptions (*kör-*) display the meaning extension ‘to be dependent on someone’ as in *tabgaç kaganka körmüş* (Kül Tigin East, 7–8);<sup>2</sup> yet intellection and vision are obviously related to each other in OAT texts. Vision in general is a source of defining the mind. For example, the metaphorical expressions *aql gözü* (mind eye-POSS3SG) and *göñül gözü* (mind eye-POSS3SG) ‘the mind’s eye’ (GN 3718; MN62a-1) and *ma’niye kılğıl nazar* (sense-DAT do-IMP2SG look) ‘look at the sense’ (TN p. 194) show that vision as a physical experience is mapped to the mental domain. The following line in *Garib-nâme* aptly illustrates the semantics of visual perception from a cognitive aspect:

- (12) *Göz-e gör-mek gel-di göñl-e anla-mak*  
 eye-DAT see-VN come-PRET mind-DAT understand-VN  
 ‘The eyes started seeing and the mind started understanding.’ (GN 4838)

The meaning extensions of *bak-* and *nazar et-* are related to intellection as ‘looking at something is similar to observing an idea or a phenomenon’ as illustrated in (13), and ‘looking is similar to thinking of somebody/something’ as in (14) and (15). In addition, we have samples showing that ‘looking is considering a fact’ as in (16). Hence, LOOKING IS OBSERVING/THINKING/CONSIDERING are the conceptual metaphors we found in OAT texts.

#### LOOKING IS OBSERVING

- (13) *iş-ler-ün öñ-in-e ve şoñ-in-a bak-ub fikr*  
 matter-PL-GEN beginning-POSS3-DAT and end-POSS3-DAT look-CVB thought  
 éd-er-em  
 do-PRS-1SG  
 ‘I look at the beginning and the end of matters and then think about it.’  
 ‘I observe the matters from beginning to the end and then I think about it.’  
 (MN 58b5–6)

2. In MST, *gör-* has no meaning extensions towards being dependent on someone or being loyal to someone. However, *bak-* has precisely this meaning as in *bir telefonuna bakar* ‘it just depends on your call’.

## LOOKING IS THINKING

- (14) bir *nazar kııl* ‘aql=ıla bu ma’ni-ye  
 one look do.IMP2SG mind=with DEM meaning-DAT  
 ‘Look at this meaning with your mind.’  
 ‘Think of its meaning with your mind.’ (GN 7229)
- (15) Gör-mek=ü bil-mek saña vér-di=yse haķ ög-ün-i  
 see-VN=and know-VN you.SG.DAT give-PRET=COND god mind-POSS2SG-ACC  
 dér göz-ün aç bir doğru baķ  
 collect.IMP2SG eye-POSS2SG open.IMP2SG one right look.IMP2SG  
 ‘If the Lord has given you the ability to see and understand, collect your mind,  
 open your eyes and look at it correctly.’  
 ‘If the Lord has given you the ability to see and understand, make up your  
 mind, open your eyes and think correctly.’ (TN 1230)

## LOOKING IS CONSIDERING

- (16) bu iki dil-e baķ-sa türk-ün dil-i çah  
 these two language-DAT look-COND Turk-GEN language-POSS3 precisely  
 ol=dur ki şâfî kıat-ın-da  
 DEM=COP COMP pure side-POSS3-LOC  
 ‘When one *looks at* these two languages, it is the Turkish language that is pure.’  
 ‘When one considers these two languages, it is Turkish language that is pure.’  
 (SN 5599)

The conceptual domain of *gör-* is predominantly related to understanding and realising a fact, which brings about the relation SEEING IS UNDERSTANDING and SEEING IS REALISING. In our data, *gör-* is widely used for understanding when it co-occurs with *baķ-*, e.g., in *baķ gör* ‘look and see’ and *gözün aç gör* ‘open your eyes and see’ in the imperative mode as illustrated in (17) and (18). This pattern shows that paying attention was considered to be a pre-condition for understanding a fact, which makes sense when we consider that most of the texts have the rhetorical function of giving advice. In (19), the verb *gör-* has an extension to a mental state in which the writer draws a conclusion on the subject matter. He *realises* that Turkish is a coarse language.

## SEEING IS UNDERSTANDING

- (17) göz-ün aç gör ne-ye uğra-du-ñ  
 eye-POSS2SG open.IMP2SG see.IMP2SG what-DAT encounter-PRET-2SG  
 ‘Open your eyes and see what happened to you.’  
 ‘Open your eyes and understand what happened to you.’ (MN 6a4–5)

- (18) *cebr=ile el-in şun-dı, gör-di ki ol-maz*  
 force=with hand-POSS3ACC put.forward-PRET see-PRET COMP become-NEG.PRS  
 ‘He stretched out his hand forcefully but saw that it was impossible.’  
 ‘He stretched out his hand forcefully but understood that it was impossible.’  
 (GL 186; 44a)

## SEEING IS REALISING

- (19) *gör-dü-m ki türkî dil-i ğalîz dil=dür*  
 see-PRET-1SG COMP Turkish language-POSS3 coarse language=COP  
 ‘I saw that Turkish language is a coarse language.’  
 ‘I realised that Turkish language is a coarse language.’ (GL p.132, 5b)

*Gör-* is also related to evaluation and judgements of the writers. It gains this trans-field extension for ‘evaluating/considering something as X’ when it is combined with an adjective. There are several instances such as *maslahat gör-* ‘to see appropriate’, *âsân gör-* ‘to see it easier’, *aceb gör-* ‘to see it strange’, *hor gör-* ‘to despise’, *caiz gör-* ‘to see it valid’, *kerîh gör-* ‘to see it inappropriate’, *za’îf gör-* ‘to see weak’, *şom gör-* ‘to see bad’, and *hoş gör-* ‘to see it joyful’ as exemplified by (20) and (21):

- (20) *ķurd bu söz-i maşlahat gör-di*  
 wolf DEM word-ACC appropriate see-PRET  
 ‘The wolf saw this word appropriate.’  
 ‘The wolf considered this proposal appropriate.’ (MN 5b6–7)
- (21) *‘aceb gör-ür-ven ki kişi bu gün-i yarın-a koy-a*  
 strange see-PRS-1SG COMP person DEM day-ACC tomorrow-DAT put-OPT  
 ‘I find it strange that somebody should delay this till tomorrow.’ (MN 6a8)

When the verb is combined with a noun, it gains a trans-field extension to social-communicative domain as experiencing a social process: *zahmet gör-*, *azab gör-*, *emek gör-*, *rahat gör-*, as illustrated in (22) and (23).

- (22) *gör-mez mi-sin ki ne zahmet gör-ür bir kişi ki*  
 see-NEG.PRS Q-2SG COMP what trouble see-PRS one person COMP  
*ağz-in-dan bir diş çıkar-a-lar*  
 mouth-POSS3-ABL one tooth pull.out-OPT-3PL  
 ‘Don’t you see how much pain a person feels when a tooth is taken out of his mouth.’ (GL 58a-3)
- (23) *gör-dü-η emek, çek-dü-η belâ*  
 see-PRET-2SG labour pull-PRET-2SG calamity  
 ‘You worked hard and suffered a lot.’ (YZ 28/8)

Cross-linguistic findings show that visual perception verbs are frequently used as a source for mental and social-communicative domains; however, some findings indicate that vision is also a source for the conceptualisation of emotions. We observed that both *look* verbs and *see* verbs are widely used to express emotions in OAT, and using vision for expressing emotions is as productive as it is for expressing mental states. As illustrated in Table 3 above, both *bak-* and *gör-* have meaning extension in the emotive domain. However, the verb ‘see’ differs from the verb *bak-* in terms of expressing the feeling of a physical pain as illustrated in (22). This suggests that the semantic domain of seeing in OAT is more related to expressing bodily experiences compared to looking.

Similar to Sweetser’s BODY IS MIND metaphor, we observe that VISION IS EMOTION. (24) presents an example of ‘feeling ashamed’ as *yüzine nice bakayın*, lit. ‘how shall I look into his/her face’. Hence, there is a mapping from looking into one’s face to the emotive domain, suggesting that if someone feels ashamed or guilty, he or she would have difficulty in looking at someone’s face. Likewise, *hakâret göziyile nazar ét-* ‘to look with the eye of contempt’ in (25) and *hor gör-*, lit. ‘to see despicable’ in (26) and *hoş gör-*, lit. ‘to see pleasant’ in (27) are used to reflect emotive states.

- (24) ‘*aceb ne éd-eyin ve ilan-uñ yüz-in-e nice bak-ayın*  
wonder what do-VOL1SG and snake-GEN face-POSS3-DAT how look-VOL1SG  
‘I wonder what I shall do and how I shall *look into the snake’s face*’. (MN 54b12)
- (25) *bir pâdişâh dervîş-ler tâyife-sin-e hakâret göz-i=yile nazar*  
one king dervish-PL class-POSS3-DAT contempt eye-POSS3=with look  
*ét-di*  
do-PRET  
‘A king *looked upon* the sect of dervishes *with contempt*’. (GL 168, 31a)
- (26) *düşmen-i çünkü za’if gör-e-sin lâf ur-up hor gör-me*  
enemy-ACC when weak see-OPT-2SG talk beat-CVB despicable see-NEG.IMP2SG  
*ki*  
PTCL  
‘When you see your enemy weak, do not see (despise) him with a sarcastic tone’. (GL 220, 14)
- (27) *hoş gör-me-di kim ol yér-i harap yat-a*  
pleasant see-NEG-PRET COMP DEM place-POSS3 ruined lie-OPT  
‘He did not see well those places in ruins.’  
‘He did not like those places in ruins.’ (KE 690.4)

### 3.3 Phenomenon verbs: *görin-* and *gözük-*

We have two phenomenon-based verbs in OAT texts, *görin-* and *gözük-*. *Görin-* is the reflexive form of *gör-* and is frequently attested in OAT data. *Gözük-* is a denominal form derived from *göz* ‘eye’. Due to its sparse occurrence in the data, we can say that *gözük-* is the less preferred form. These verbs exhibit two meaning extensions: the first is related to physical appearance, which corresponds to ‘to appear’ in English. The second is an extension that occurs in the contexts where the narrator describes a scenery over a metaphor to state how the subject perceives something. This usage is related to expressing judgements and evaluations.<sup>3</sup>

In our data set, three basic patterns occur frequently with the verb *görin-/gözük-*. Pattern 1, the basic pattern, is ‘Subject + Verb’. Both verbs are used to refer to physical appearance of objects as illustrated in (28) and (29).

(28) ol sebep-den ki her gün *görin-ür*  
 DEM reason-ABL COMP every day appear-PRS  
 ‘The reason is that it *appears* every day’. (GL, 26a.11–12)

(29) Benî isra’il-den bir kavm-a iblîs *gözük-di*  
 children.of.Israil-ABL one tribe-DAT devil appear-PRET  
 ‘The devil *showed* himself to a tribe from Israel’. (KE 77.11)

OAT exhibits a particular compound verb form constructed with the verb *gel-* ‘to come’ such as *burn-un-a koku gel-* (nose-POSS-DAT smell come) ‘a smell comes to one’s nose’, *kulağ-ın-a gel-* (ear-POSS-DAT come) ‘a sound comes to one’s ears’. When the verb *görin-* is combined with the auxiliary construction *-ü gel-* it has a meaning extension ‘to occur’.

(30) çün bak-a her nesne-ye gönjül göz-i / *Görn-ügel-e* an-da  
 when look-OPT every thing-DAT mind eye-POSS3 appear-AUX-OPT DEM-LOC  
 ol mañā yüz-i  
 DEM meaning face-POSS3  
 ‘When one looks at the world with the eye of the mind, the meaning of it will *occur* to him’. (GN 3720)

The verb *görnü gel-* in (30) refers to a mental activity ‘to occur to someone’. This form no longer exists in MST; however, we can find a semantically similar form, *aklına gel-* literally means ‘to come to one’s mind’, which also includes the component *gel-* ‘to come’.

3. On the function of these two verbs in MST, see Erk Emeksiz 2021.

Additionally, *görin-* and *gözüük-* are used in an Adjective/Noun Phrase + Verb pattern designating a simile for the object (Pattern 2). The simile also reflects the writers' inferences and judgements about the object. This pattern corresponds to 'seems to be/looks like' in English. *Bağ u bōstān görinür ol gözüüne* in (31), and *hoş görünmez* in (32) represent this pattern. They also reflect speaker/writer (S/W) judgements based on logical inference: for example, in (32) the narrator deduces that a piece of barley bread would not appear to be delicious to someone who is not hungry. In (31), a grave seems like an orchard since Yakub desires to be in the grave.

- (31) imren-ür gir-mek dile-r Yağüb sin-e bağ=u bostān *görin-ür*  
 envy-PRS enter-VN wish-PRS Yakub tomb-DAT garden=and orchard appear-PRS  
*ol göz-in-e*  
 DEM eye-POSS3-DAT  
 'Yakub envies and desires to be in the grave, and the grave *looks like* an  
 orchard to his eyes.' (YZ 1458)

- (32) éy tok! saña arpa etmeg-i hoş görün-mez.  
 o satiated you.SG.DAT barley bread-POSS3 nice appear-NEG.PRS  
 'O full! Barley bread would not *appear to be nice* to your eyes.' (GL 193, 12b.12)

Pattern 3 includes a postpositional phrase headed by *gibi* (corresponding to 'as' in English). This form follows the pattern X (to me/to my eyes) Y *gibi görin-*. It occurs in contexts where the speaker describes the situation over a metaphor as illustrated in (33).

- (33) müsülmān-lar kâfir-ler-e göre bir kara öküz-de ak beñ gibi  
 Muslim-PL infidel-PL-DAT according.to one black ox-LOC white spot like  
*görin-di*  
 appear-PRET  
 'The Muslims, compared to the infidels, *seemed to be a white spot* on a black  
 ox.' (MŞ 12)

In all instances of *görin-* following Pattern 2 and 3, the narrators use the verb to describe a situation over a metaphor, which is highly subjective, and they express their assumptions and judgements for given situations. Phenomenon-based verbs are often attributed to subjectivity and epistemic stance in many languages (Schepping 1985; Aikhenvald 2004; Cornillie 2007; Aijmer 2009; Whitt 2011; Luraghi 2020). In a broader sense, epistemic stance is mainly concerned with the degree of the speakers' subjectivity in discourse (Willett 1988). Before presenting our observations on *görin-* in OAT, we would like to briefly describe *görün-* in MST to explain how it is related to subjectivity and epistemic stance.

- (34) Cem iyi *görün-mü-yor*.  
Cem good appear-NEG-PROG  
'Cem does not seem to be well.'
- (35) Cem-i iyi *gör-me-di-m*.  
Cem-ACC good see-NEG-PRET-1SG  
'I do not think that Cem is well.'
- (36) *Öyle görün-üyor / görün-en o ki Cem iyi değil*.  
so appear-PROG / appear-PTCP DEM COMP Cem good NEG  
'It seems to be so that Cem is not well.'

We should note here that both (34) and (35) entail that the speakers have direct visual evidence of Cem's not being well. The difference between (34) and (35) derives from the epistemic stance they encode. The speaker in (34) marks a lower level of certainty, preferring the verb *görün-* instead of *gör-*. *Cemi iyi görmedim* in (35); on the other hand, he states a higher degree of certainty and is more subjective when compared to (34). The speaker can add his presence to his utterance by adding an object pronoun or *gözüme* 'to my eye'. The parenthetical forms<sup>4</sup> presented in (36) entail the lowest certainty level, and the speaker reflects an intersubjective stance (Erk Emeksiz 2021). Hence, *görün-* functions as a means of lowering the speakers' subjectivity and certainty level in discourse. As for OAT, we have several examples in which *görin-* co-occurs with *göz-üm-e/göz-ümüz-e/göz-ün-e* with the possessive markers *-Im/-ImIz/-I(n)* ('to my eyes/to our eyes/to his or her eyes') and the personal pronouns *başa/bize* 'to me/to us'. When compared to MST, *görin-* is a predominantly subjective stance marker in OAT. We have no instances of intersubjective parenthetical forms. This shows us that the semantic change of the verb *görin-* follows a path from the subjective to the intersubjective stance. More cross-linguistic research is required to understand whether or not this is a universal pattern.

#### 4. Conclusion

Our data sheds light on the semantics of visual perception verbs in OAT. We observed that there are mainly two visual sources to conceptualise mental and emotive states via visual perception: one is compound verb forms with organ names and the other is the use of basic verbs including *bak-*, *nazar et-*, *gör-*, and *görin-/gözük-*. The distribution of the compound verbs reveals that experiencer-oriented verbs are mostly related to emotive states, expressing various kinds of feelings such as anger or desire, while agent-oriented ones are related to mental

4. We use the term parenthetical as defined in Huddleston and Pullum (2002).

states, such as becoming conscious of a state. We suggest that the underlying conceptual metaphor for eye-related compound verbs is EYE IS THE ENTRANCE TO MIND, which is a subtype of the metaphor BODY IS CONSTRUCTION.

The experiencer-based verbs *bağ-* and *gör-* display a privative distribution. There are many instances in which *gör-* is used for looking, but not vice versa. Our data show that there are mainly three domains in which both agent-oriented and experiencer-oriented verbs display trans-field extensions: mental, emotive, and social-communicative. We observed that the extension to the emotive domain is as productive as to the mental domain, which indicates the conceptual metaphor VISION IS EMOTION.

As for phenomenon-based verbs, *göri-* and *gözük-* seem to have similar extensions. However, *göri-* appears to be the more widely used form. They were frequently used to reflect S/W judgements over a metaphor. In addition, most of the instances of *göri-* occur in subjective contexts. We did not find any instances of parenthetical forms of *göri-* that display a scale of subjectivity from subjective to intersubjective stance. Further research will be necessary to investigate whether this semantic change is universal or specific to Turkish.

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## Abbreviations




Glossing follows the conventions of the Leipzig Glossing Rules. In addition to the list of standard abbreviations mentioned there, the following abbreviations are used in this paper:

COOP	cooperative	PTCL	particle
lit.	literally	Q	question particle
MST	Modern Standard Turkish	S/W	speaker/writer
OAT	Old Anatolian Turkish	VN	verbal noun
OPT	optative	VOL	voluntative
PRET	preterit		

## References

- Aijmer, Karin. 2009. Seem and evidentiality. *Functions of Language* 68, 63–88.
- Aikhenvald, Alexandra Y. 2004. *Evidentiality*. Oxford: Oxford University Press.
- Baş, Melike. 2022. A Corpus Study of the Semantic Extensions of the Eye in Turkish. *Embodiment in Cross-Linguistic Studies*, ed. by Melike Baş & Iwona Kraska-Szlenk, 70–92. Leiden Boston: Brill.
- Bergen, Benjamin. 2015. Embodiment. *Handbook of Cognitive Linguistics*, ed. By Ewa Dąbrowska & Dagmar Divjak, 10–30. Berlin & München & Boston: De Gruyter Mouton.
- Caplan, David. 1973. A note on the abstract readings of verbs of perception. *Cognition* 2(3), 269–277.
- Clauson, Gerard Sir. 1972. *An etymological dictionary of pre-thirteenth-century Turkish*. Oxford: Clarendon Press.
- Cornillie, Bert. 2007. *Evidentiality and Epistemic Modality in Spanish (Semi-)Auxiliaries: A Cognitive-Functional Approach*. Berlin: Mouton de Gruyter.
- Dilçin, Dehri (ed.). 1946. Şeyyad Hamza. Yusuf ve Zeliha. (Türk Dil Kurumu C. 11. 28.) İstanbul: Kلیşecilik ve Matbaacılık T.A.Ş.
- Evans, Nicholas & David Wilkins. 2000. In the mind's ear: The semantic extensions of perception verbs in Australian languages. *Language* 76(3), 546–592.
- Erk Emeksiz, Zeynep. 2021. Visual perception verbs and degrees of certainty in Turkish: The case of görünmek and gözükmek. *Dilbilim Araştırmaları Dergisi* 32(2), 69–81.
- Firestone, Chaz. 2016. Embodiment in perception: Will we know it when we see it? *Goldman and His Critics*, ed. by Brian McLaughlin & Hillary Kornblith, 318–336. London: Wiley Blackwell.
- Gibbs Jr., Raymond W. (ed.). 2008. *The Cambridge handbook of metaphor and thought*. Cambridge: Cambridge University Press.
- Gisborne, Nicholas. 2010. *The event structure of perception verbs*. Oxford: Oxford University Press.
- Grund, Peter J. 2016. Seeing is Believing: Evidentiality and Visual Perception Verbs in Early Modern English Witness Depositions. *Studies in the History of the English Language VII: Generalizing vs. Particularizing Methodologies in Historical Linguistic Analysis*, ed. by Don Chapman, Colette Moore & Miranda Wilcox, 153–172. Berlin: Mouton de Gruyter.


- doi Huddleston, Richard & Geoffrey K. Pullum. 2002. *The Cambridge Grammar of English Language*. Cambridge: Cambridge University Press.
- Ibarretxe-Antuñano, Iraide. 2008. Vision metaphors for the intellect: Are they really cross-linguistic? *Journal of the Spanish Association of Anglo-American Studies* 30(1), 15–33.
- doi Ibarretxe-Antuñano, Iraide. 2019. Perception metaphors in cognitive linguistics: Scope, motivation, and lexicalization. *Perception Metaphors*, ed. by Laura J. Speed Carolyn O'Meara & Roque et al., 43–64. Amsterdam & Philadelphia: John Benjamins.
- doi Kastovsky, Dieter. 1982. Word-Formation: A Functional View. *Folia Linguistica* XVI. 181–198.
- doi Kövecses, Zoltan. 2015. *Where metaphors come from: Reconsidering context in metaphor*. Oxford: Oxford University Press.
- Lakoff, George & Mark Johnson. 1980. *Metaphors we live by*. Chicago: University of Chicago Press.
- Lakoff, George & Mark Johnson. 1999. *Philosophy in the flesh*. New York: Basic Books.
- doi Luraghi, Silvia. 2020. *Experiential Verbs in Homeric Greek*. Leiden: Brill.
- Matisoff, James. 1978. *Variational semantics in Tibeto-Burman: The 'organic' approach to linguistic comparison*. Philadelphia: ISHI.
- Merriam Webster: <http://www.merriam-webster.com/dictionary/see> (1 March 2023).
- Ning, Yu. 2008. Metaphor from body and culture. *The Cambridge handbook of metaphor and thought*, ed. by Raymond Gibbs, 247–261. Cambridge: Cambridge University Press.
- Putten, Saskia van. 2020. Perception verbs and the conceptualization of the senses: The case of Avatime. *Linguistics*, 58(2), 425–462.
- doi Rentzsch, Julian & Zeynep Erk Emeksiz. 2022. Perception verbs in Old Anatolian Turkish. *Turkic Languages*, 26 (1), 60–90.
- Schepping, Marie-Theres. 1985. Sehen und Betrachten. *Beiträge zu einem kontrastiven Wortfeldlexikon Deutsch-Französisch*, ed. by Christoph Schwarze. Tübingen: Gunter Narr Verlag.
- doi Strik-Lievers, Francesca & Irene de Felice. 2019. Metaphors and perception in the lexicon: A diachronic perspective. *Perception metaphors*. (Converging Evidence in Language Research 19.), ed. by Laura J. Speed, Carolyn O'Meara, Lila San Roque, & Asifa Majid, 85–104.
- doi Sweetser, Eve. 1990. *From etymology to pragmatics: Metaphorical and cultural aspects of semantic structure*. Cambridge: Cambridge University Press.
- Trubetzkoy, N. 1936. Essai d'une théorie des oppositions phonologiques. *Journal de Psychologie Normale et Pathologique* 33, 5–18.
- doi Vanhove, Martine (ed.). 2008. *From polysemy to semantic change: Towards a typology of lexical semantic associations*. Amsterdam: John Benjamins.
- doi Viberg, Åke. 1983. The verbs of perception: a typological study. *Linguistics*, 21(1), 123–162.
- doi Viberg, Åke. 2015. Sensation, perception and cognition. Swedish in a typological-contrastive perspective. *Functions of Language* 22(1), 96–131.
- Viberg, Åke. 2019. Phenomenon-based perception verbs in Swedish from a typological and contrastive perspective. *Syntaxe & Sémantique* 20, 17–48.

-  Whitt, Richard. 2010. Evidentiality, polysemy, and the verbs of perception in English and German. *Linguistic realization of evidentiality in European languages*, ed. by Gabriele Diewald & Elena Smirnova, 249–278. Berlin: Mouton de Gruyter.
-  Whitt, Richard. 2011. (Inter)subjectivity and evidential perception verbs in English and German. *Journal of Pragmatics* 43, 347–360.
-  Willett, Thomas. 1988. A cross-linguistic survey of the grammaticalization of evidentiality. *Studies in Language* 12, 51–97.

## Sources

- Akdoğan, Yaşar and Nalan Kutsal (eds.). 2019. *Ahmedî, İskendernâme*. Ankara: Türkiye Yazma Eserler Kurumu.
- Demirci, Ümit Özgür & Şenol Korkmaz (eds.). 2008. *Şeyyâd Hamza, Yûsuf u Zeliâ (Destân-ı Yûsuf Aleyhi's-selâm ve Hazâ Ahsenü'l-Kasasi'l-Mübârek)*. İstanbul: Kaknüs Yayınları.
- Dilçin, Cem (ed.). 1991. *Süheyl ü Nev-Bahâr*. Atatürk Kültür, Tarih ve Dil Yüksek Kurumu.
- Kocabaş, Yasemin (ed.). 2007. *Minhâcü'ş Şehâde*. Yüksek Lisans Thesis, Anadolu Üniversitesi.
- Korkmaz, Zeynep (ed.). 1973. *Sadru'd-dîn Şeyhoğlu, Marzubân-nâme Tercümesi. İnceleme, Metin-Sözlük, Tıpkıbasım*. Ankara: Ankara Üniversitesi Basımevi.
- Özkan, Mustafa (ed.). 1993. *Mahmud b. Kadi-i Manyas, Gülistan Tercümesi*. Ankara: Türk Dil Kurumu Yayınları.
- Tulum, Mertol (ed.). 2014. *Tazarru'-nâme*. İstanbul: Türkiye Yazma Eserler Kurumu Başkanlığı.
- Uzel, İlter & Kenan Suveren (eds.). 1999. *Sabuncuoğlu Şerefeddin, Mücerreb-nâme*. Ankara: Türk Tarih Kurumu Basımevi.
- Yavuz, Kemal (ed.). 1991. *Şeyhoğlu, Kenzü'l-Kübera*. Ankara: Atatürk Kültür, Tarih ve dil yüksek Kurumu.
- Yavuz, Kemal (ed.). 2000. *Aşık Paşa, Ğarîbnâme*. İstanbul: Türk Dil Kurumu.
- Yılmaz, Emine, Nurettin Demir, & Murat Küçük (eds.). 2013. *Qıtaş-ı Enbiyâ Türk Dil Kurumu Nüshası, İnceleme, Metin, Sözlük*. Ankara: Türk Dil Kurumu.

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