



***'The Church is Visible into the Hand':
Grammaticalization of the Estonian
Word 'käsi' (hand) and its Usage
with Verbs of Perception***

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The aim of this paper is to investigate the combinations of the Estonian word käsi ('hand') and perception verbs. The word käsi functions as a productive noun and as a grammaticalized item at the same time. The main function of the word is to refer to the body part hand, in which function it has the complete case paradigm that is persistently in use. Simultaneously with the meaning of a body part, käsi functions as a gram (=grammaticalized item, cf. Svorou 1993), which through its grammaticalization process has received a number of new functions in the Estonian language.

The gram käsi seems to combine very productively with several verbs, carrying different functions. In this survey the aim is to take a closer look at combinations of the gram käsi and perception verbs. Among various perception verbs, the ones denoting visual perception (with meanings such as 'see', 'be visible') seem to be particularly productive in that sense, followed by auditory perception verbs (meaning 'sound' and 'hear'). The language queries discussed in this paper investigate the usage of those verbs and reveal remarkable variety, especially within the group of verbs of vision, suggesting that some members of this group (particularly the agentive verb 'show' and the non-agentive 'be visible') occur with käsi more productively than other verbs of perception. In this paper I am going to find out the explanation for such differences. I will also discuss the function of grammaticalized usages of käsi in such combinations.

Keywords: Estonian language, cognitive semantics, grammaticalization, fictive motion, verbs of perception

1. Introduction

A human being typically conceptualizes locative relationships via his or her own body (Heine 1997; Ojutkangas 2001). Hence, the extension of body-part names to indicate various spatial and abstract relationships is altogether very natural and expectable. The Estonian word *käsi* ('hand') is prone to combine with various different verbs in the language. In the current paper I investigate the combinations of *käsi* and perception verbs, with the intention of showing what kinds of facets the gram foregrounds in the perceptive relationship, with special attention to the location of implicit perceivers and the point of view selected by the conceptualizer.

The historically original function of the word *käsi* is that of a noun indicating a body part, but this is not the only role it has in Estonian. Additionally it functions as a gram, which has led to its usage in numerous new contexts. The main function of the gram *käsi* is to express possessive relationship in certain non-canonical possessive constructions. In Estonian the canonical possessive constructions have metaphorically expanded from spatial relationships (Ojutkangas 2001: 86).ⁱ It has been shown on the basis of a corpus study that for example the adessive ‘on/at’ case has nowadays even more possessive than spatial usages (Laaksonen 2000: 84). According to Ojutkangas (2001: 92-94), verbs that typically co-occur with the gram *käsi* in Estonian can be divided into two groups according to the concreteness of the possessive relationship they indicate. The meaning of the verb, however, does not always correlate with the concreteness of the possessed entity. It is possible to express the possessive relationship of abstract entities by using verbs that are concrete in their meaning. Ojutkangas classifies these groups as follows. In the first group, there are concrete verbs that express some sort of giving or receiving, as in an example (1). In the same group there are ‘giving’ and ‘receiving’ verbs and motion verbs (2a, 2b) and the verb *olema* (‘be’) (3) that expresses a canonical possessive relationship. Ojutkangas suggests that the possessive relationship indicated by *käsi* has probably developed from meanings of giving, receiving and moving concrete entities.

- (1) Kogu raha võetakse käe-st ära.
 All money take.PASS. hand-ELAⁱⁱ away.
 ‘All money is taken away’

This first group also includes motion verbs that can be used to indicate both concrete and abstract motion (for the distinction, see Langacker 1991). Motion verbs are used metaphorically. They can express, e.g., motion in time (2a) but also changes of state (2b) (Ojutkangas 2001: 93).

- (2a) Jõulu-d jõud-si-d kätte.
 Christmas-PL arrive.PST.PL3 hand.ILL
 ‘Christmas arrived’.

- (2b) Olukord läks käe-st ära.
 Situation go.PST.SG3 hand-ELA away
 ‘The situation got out of hands’.

Also the verb *olema* (‘be’) indicates a possessive relationship when used with *käsi*:

- (3) Sinu võtme-d on minu käe-s.
 2SG.ACC key-PL be.PRES.SG3 1SG.ACC hand-INE
 ‘I have your keys’.

In the second group, there are speech act verbs (4) and mental verbs (5), which, compared to the first group, are abstract in meaning. With verbs of this group we usually express the acquisition of information, knowledge or skills:

- (4) Küsi-si-n tema käe-st nõu.
 Ask-PST-SG1 s/he.GEN hand-ELA advice.PAR
 'I asked her/his advice'.
- (5) Toiduvalmistamisoskuse omanda-s ta ema käe-st.
 Cooking_skill.GEN acquire-PST.SG3 3SG mother.GEN hand-ELA
 'Cooking skills s/he acquired from her mother'.

Perception verbs also belong to the second verb group. In such uses, perception verbs indicate the (potential) acquisition of information or knowledge (6).

- (6) Mäe-lt paista-b kätte minu maja.
 Hill-ABL show-PRES.SG3 hand.ILL 1SG.GEN house
 'My house shows from the hill'.

So, also abstract entities such as *skills*, *information* and *knowledge* can be received, given away and owned and thus expressed with *hand* as in (4), (5) and (6) despite the fact that they cannot physically be held in one's hand. (Ojutkangas 2001: 93-94).

Numerous studies have revealed that a large part of a human being's brain has been built up to process visual information, significantly more compared to any other sensory modality. We generally tend to rely more on perception of visibility as opposed to our other senses. (See Viberg 2001: 1306-1307 for references.) It has also been suggested that perception verbs can be hierarchically ranked according to their prominence in the following manner (Viberg 1983: 136):

Sight > Hearing > Touch > {Smell, Taste}

Verbs that are positioned higher on the scale (verbs of sight) are capable of partly or completely covering (e.g., expressing) other sensory modalities that are lower in this hierarchy (smell and taste). Verbs located higher in the hierarchy are also used more frequently (Whitt 2008). Also the results of the present study (introduced in section 6) confirm this tendency. Plentiful studies on perception verbs (cf. Sweetser 1990: 23-48) have also proved that visual perception verbs are significantly more polysemous than other perception verbs, which probably explains why among all perception verbs the verbs of vision have received the most attention in linguistic literature (cf. Sweetser 1990: 23-48). Also in cognitive linguistics, the concept of *fictive motion*, introduced by Talmy (see section 4) has been used to describe perceptual relationship namely on visual domain (Talmy 2000: 115-116). In short, the directionality of visual perception is the conceptualization of a static situation as involving dynamic features which then motivates the usage of dynamic linguistic elements in referring to them. (Talmy 2000: 115-116).

The phenomenon of combining the Estonian gram *käsi* ('hand') with perception words should be discussed for several reasons. First, what does

käsi have to do with perception words in the first place? What is the motivation and function for its use in such constructions? *Käsi* has developed from a full noun into a gram and is now able to express different relations in Estonian, such as possession, domination etc. It should not be forgotten that it still functions as a full-fledged noun as well. Second, perception verbs are dynamic, and they often indicate fictive motion which involves directionality. When combining with verbs of perception, the gram *käsi* takes on a locative case marking with its typical directionality oppositions ('to' vs. 'in/at' vs. 'from'), i.e., it can occur in the inessive, the elative or the illative case and thereby it also indicates directionality. It appears that the directions indicated by the two elements do not always converge. We need to ask, then, what is the function of each expression in such a complex construction.

This study is based on a language query. The participants, native speakers of Estonian, were asked to evaluate the possibility of combining various sensory perception verbs with the gram *käsi* and then compose sentences including them. As a result, I will show that the main functions of *käsi*, when used with verbs of perception, are to elaborate the verb's meaning by expressing 1) aspect-related features, indicating that the whole stimulus is completely and clearly perceived), 2) clarity of the perceptive relationship, and 3) the goal locations of the fictive motion included in the perceptive relationship.

2. The Estonian Body-part Term 'käsi' (hand) and its Grammaticalization Process

Before starting with a more detailed discussion of the usage of the gram *käsi*, I will first shed some light on the grammaticalization process it has undergone. As mentioned, the main function of *käsi* is still to refer to a body part 'hand'. Therefore it is used as a full-fledged, productive noun. The productive case inflection and the directionality opposition can be seen in examples (7–9).

Inessive ('in/at')

- | | | | |
|-----|----------------------|-------------|----------|
| (7) | Kinda-d | on | käe-s. |
| | glove-PL | be.PRES.3SG | hand-INE |
| | 'The gloves are on'. | | |

Elative ('from')

- | | | | |
|-----|--------------------------|----------|----------|
| (8) | Võta-n | kinda-d | käe-st. |
| | Take-PRES.1SG | glove-PL | hand-ELA |
| | 'I take the gloves off'. | | |

Illative ('[in]to')

- | | | | |
|-----|------------------------|----------|----------|
| (9) | Pane-n | kinda-d | kätte. |
| | Put-PRES.1SG | glove-PL | hand.ILL |
| | 'I put the gloves on'. | | |

The grammaticalization process of the word generally results in usages in more abstract functions, which is the case with *käsi* as well: acquisition of

new, more abstract meanings and usages in new contexts is expectable. The three stages of the grammaticalization process of *käsi* have been described as follows (cf. Metslang 2002: 169-170):

Stage 1:

- (10) Nuga lõika-s lapse parema-sse kätte
 sügava haava.
 knife cut-PST.3SG child.GEN right-ILL hand.ILL
 deep.ACC wound.ACCⁱⁱⁱ
 'A/the knife cut a deep wound into a/the child's right hand'.

In (10), *käsi* indicates purely the meaning of a body-part. The abstraction of the meaning has not yet started.

Stage 2:

- (11) And-si-n võtme-d venna kätte.
 give-PST-1SG key-PL brother.GEN hand.ILL
 'I gave the keys to [my] brother'.

In stage 2, *käsi* starts to express a relationship, in this case, possession and loses its referential function. Unlike to the case of referring to body part where the adjectival modifier 'right' was possible and natural (10), it would not be possible in (11) (= 'to my brother's right hand'). The body-part meaning is schematically present and quite transparent, but is already too remote to be specified in such way.

Stage 3:

- (12) Jä-i-n vihma kätte.
 get-PST-1SG rain.GEN hand.ILL
 'I got caught in the rain'.

There is no relation to the lexical meaning of 'hand' as a body part in stage 3 since there is no animate entity to which the body-part could belong. Complete loss of the lexical meaning has thus taken place, and the item is completely grammaticalized without any connection to its primary meaning left. The construction in example 12 expresses domination or control caused by the weather conditions.

Remarkably, productive case inflection with the oppositions between the inessive ('in/at'), the elative ('from') and the illative ('[in]to') are at work even in the grammaticalized uses of *käsi*. For instance, a lative possessive relationship (of benefaction) is often expressed by the illative *kätte*, literally meaning 'into [the] hand', where the element 'hand' denotes just the possessive relationship and no body-part any more. With the illative case we indicate the motion of an entity into someone's possession (11). Also the two other cases are in use in the possessive domain: with the inessive *käes*, literally 'in [the] hand', we express the static presence of an entity in someone's possession (13) and with the elative *käest* 'from the hand' the cessation of possession where the entity metaphorically leaves someone's possession (14).

(13) Võtme-d on venna käe-s.
 key-PL be.PRES.3SG brother.GEN hand-INE
 '[my] brother has the keys'.

(14) Võta-n võtme-d venna käe-st.
 take-PRES.1SG key-PL brother.GEN hand-ELA
 'I take the keys from [my] brother'.

Käsi also expresses domination and power. The body-part term here is used metaphorically and refers to a manipulation of our surroundings. Thereby, even in cases where the landmark is animate as in (15), *käsi* does not refer to a body-part, but expresses power:

(15) Võim on uue presidendi käe-s.
 Power be.PRES.3SG new.GEN president.GEN hand-INE
 'The new president holds the power'.

The relative *käest*, literally 'from [the] hand', in turn, can carry the meaning where control is lost over a situation, or some sort of negative change (Lehismets forthcoming).

(16) Pidu läk-s käe-st ära.
 Party go-PST.SG3 hand-ELA away
 'Party got out of hands'.

As already seen, the functions of *käsi* extend from the spatial domain to more abstract ones. It can convey the meaning of natural conditions, most often weather, as in example (12), and possession, as in examples (11) and (13-14). Furthermore, the meanings of domination (15) or loss of control indicating some negative change (16) can be expressed. As seen, *käsi* is still a full-fledged noun, but the grammaticalized usages are very extensive and involve all forms of the internal case paradigm.

3. The System of Estonian Perception Verbs and Participants of the Perceptual Event

Perception verbs can be classified on the basis of our sensory abilities: there are visual, auditory, tactile, olfactory and gustatory sensory perception verbs. In order to analyse the combinations of perception verbs and the gram *käsi*, a closer insight of perception verbs in Estonian is needed. A classification of these, based on the study of Finnish perception verb system by Huumo (2010: 53) is given below. As Finnish and Estonian are closely related languages, the pattern is adjustable for Estonian as well. The only addition is the verb 'show' in the right column, which is not included in Huumo's discussion, though there is a corresponding verb in Finnish.

Meaning	Perceptibility intransitive	Perceptive experience transitive, non-agentive	Perceptive activity transitive, agentive	Causation of perception, transitive, agentive
Vision	<i>paist-</i> 'be visible'	<i>näge-</i> 'see'	<i>vaata-</i> 'look; watch'	<i>näita-</i> 'show'
Hearing	<i>kost-</i> 'be audible'	<i>kuul-</i> 'hear'	<i>kuula-</i> 'listen'	
Smell	<i>lõhna-</i> '[emit] smell'	<i>lõhna tund-</i> smell.PAR feel 'feel a smell'	<i>nuusuta-</i> 'smell' [AG]	
Taste	<i>maitse-</i> '[emit] taste'	<i>maitse+t tund-</i> taste+PAR feel 'sense a taste'	<i>maitse-</i> 'taste'	
Touch	<i>tundu-</i> 'feel'	<i>tund-</i> 'feel'	<i>katsu-</i> 'feel'	

Table 1. Estonian basic verbs of perception (verb stems)

Perceptual relationships are typically conceptualized as directional (cf. Talmy 2000; Huumo 2010). In most cases, a relationship of perception involves at least two participants: an experiencer (the animate participant who perceives something) and a stimulus (the entity perceived). The nature of the potential experiencer is clearly defined - it must be an animate participant who is able to an act of perception (except in certain metaphorical uses I will not discuss here). The nature of the stimulus, on the other hand, is not restricted by basically any characteristics at all - it can be a concrete entity (as in *I saw a dog*), an event (*I saw a dogfight*), or some kind of a substance such as radiation (*I saw light*). Variety of the stimuli's nature is also evident in the results of the query I conducted (see section 6).

In constructions including perception verb+*käsi*, the gram often co-occurs with a locative expression and indicates the location of the experiencer. The location of the experiencer constitutes a landmark with respect to which the perceptual relationship is observed. In some cases *käsi* may also be used as an independent adverb, without an overt complement specifying the experiencer, which is therefore understood as generic. In general, Estonian marks the perceiver's location with the illative ('[in]to) form *kätte* ('into a/the hand'), whereas the inessive form *käes* ('in a/the hand') or the elative *käest* ('from a/the hand') are not used in this system. The illative marking of the gram demonstrates that the perceptive relationship is construed as involving the motion of a fictive signal (in the sense of Talmy 2000) towards the (overt or implicit) landmark of *kätte*. Thus in the Estonian constructions including the gram *kätte* the fictive signal moves in a direction from the stimulus towards the experiencer.

In many cases perception expressions make use of metonymy. Perceptual expressions often utilize the metonymy PERCEPTUAL EVENT FOR ITS CAUSE. For instance, in the case of hearing this can be seen in sentences where the expression itself metonymically to a signal but the literal referent is the entity emitting the signal. To illustrate, if we ask *What is that noise?* we expect to get an answer indicating the causer of the noise (such as *a tractor*) (Panther and Thornburg 2003: 225-229).

4. Fictive Dynamicity and Directionality of Perception Verbs

The usage of such directional elements together with perception verbs can be explained with the concept of *fictive motion* (Talmy 2000: 102). A general characteristic of fictive motion is the expression of a static position of an elongated entity with motion verbs and directional locative elements. In canonical expressions of fictive motion, there is no change in an entity's physical location, i.e., in a sentence like *The highway goes from Tartu to Tallinn* the highway does not actually move. Still, we use elements such as the prepositions *from* and *to* and the verb *go* to designate the motion and directionality. The directional elements occur in expressions of perceptual relations as well so that the process of perceiving is construed metaphorically as motion of a fictive signal along a path between the experiencer and the stimulus (for details, see Talmy 2000). E.g., in *I can see the church from here*, the preposition *from* stands for the directionality. The perceptive signal is interpreted as fictively moving along the path from the location of the experiencer towards the church.

In Estonian, the directionality of the fictive signal expressed with perception verbs can proceed in two ways: from the experiencer to the stimulus or in the opposite direction from the stimulus to the experiencer. The former strategy exposit the experiencer as an energy source that emits a fictive signal towards the stimulus, represented by (17).

- (17) Näe-n siit kiriku kätte.
 see-PRES.1SG here-ABL church.GEN hand.ILL
 'I can see the church from here'.

The latter case is an example of interpreting the stimulus as an energy source that emits a fictive signal moving towards the experiencer, illustrated by (18).

- (18) Kirik paista-b siia kätte.
 Church show-PRES.3SG here.ALL hand.ILL
 'The church is visible to here'.

As Huumo (2010: 62) points out, there are some (Finnish) verbs such as *nähdä* ('see') that permit both directionalities, e.g.

- (19a) Näe-n paraati-n {parvekkee-lta-ni/ parvekkee-lle-ni}.
 see-PRES.1SG parade-ACC balcony-ABL-1PX / -ALL-1PX
 'I [can] see the parade from [~to] my balcony.'

The case is similar in Estonian:

- (19b) Näe-n paraadi {rõdu-lt/rõdu-le}.
 see-PRES.1SG parade.ACC balcony-ABL / -ALL
 'I [can] see the parade from my balcony.'

These examples demonstrate that both the ablative ('from') and the allative ('to') case are possible options to code the location of the experiencer. In other words, the fictive signal can proceed from the stimulus to the experiencer, but vice versa as well. The former alternative is semantically more natural, carrying the idea that the speaker has several alternatives available where to watch the parade, but decides to do it on the balcony. The latter version with the allative emphasizes the experiencer's ability to perceive the stimulus and may for instance imply that the experiencer need not move to another location for the perceptive event to be possible. (Huumo 2010: 62).

5. Combinations of the Gram 'käsi' and Perception Verbs

Before moving on to the constructions involving perception verbs and the gram *käsi*, it is necessary to clarify the question that presumably rises when we take a look at the usage of different case forms of the gram *käsi*. As I pointed out before, in the grammaticalization process the whole paradigm of the word's locative cases has usually prevailed: the inessive ('in, at'), elative ('from') and illative ('to') forms are functional even in the grammaticalized usage. However, in the domain of perception not the whole locative paradigm of *käsi* is in use, but only the illative *kätte*. The explanation comes from the meaning: in those perceptual relationships where *kätte* is involved, the fictive signal always moves from the stimulus towards the experiencer. That in turn means that the experiencer is construed as receiving the signal. Since *kätte* is unambiguous in this respect, it can be used to disambiguate the possibility of two interpretations in examples where a locative expression can in principle be understood either way. E.g, in an example like (20), the stimulus *church* emits the signal and the experiencer receives it.

- (20) Kirik paista-b mu-lle kätte.
 Church show-PRES.3SG 1SG-ALL hand.ILL
 'I can see the church from here' [lit. The church shows to me to hand].

The illative form *kätte* also foregrounds the experiencer's location as involving a *cognitive dominion* - a conceptual region to which a particular reference point affords direct access (cf. Langacker 1993). The experiencer receives the new information into his consciousness or awareness, which can evoke a cognitive change in his/her mind. Note that the allative form *mulle* ('to me') in (20) is not a complement of the gram (it has local case marking itself) but codes the experiencer autonomously and by doing that once more emphasizes the event of receiving the signal.

It is also possible that neither the stimulus nor the experiencer of the perceptual relationship is explicitly marked. *Kätte* can then be used as an independent adverb, without an overt complement specifying the experiencer, which is therefore understood as generic.

- (21) Kirik paista-b kätte.
 Church show-PRES.3SG hand.ILL
 'The church can be seen / is visible' [lit. The church shows into hand].

Even though there is no explicitly coded experiencer the use of *kätte* is still possible here. In general, if the experiencer is left implicit, it means that the stimulus is perceivable to any possible experiencer (Huumo 2010: 56).

6. The Evaluation Tasks and the Results

In order to examine the possibilities of using combinations of perception verbs and the gram *kätte*, I conducted an evaluation task that consisted of 15 constructions of a perceptual verb + *kätte*. Such constructions were produced with all Estonian main perception verbs (see the table below). In the task, 21 native speakers of Estonian were asked to evaluate whether such constructions are natural, and if so, they were asked to form an illustrative example. The purpose of the test was to find out the answers to the following questions:

- 1) Are there any perception verb groups (visual, auditory, olfactory, tactile and gustatory) the members of which combine with the gram *kätte* more efficiently than members of other groups? As pointed out already before, several studies have confirmed that we tend to rely more on our visual abilities compared to other senses. (See Vïberg 2001: 1306-1307 for references.) So the prediction was that the combinations of visual perception verbs with the gram *kätte* are more salient than combinations of verbs from other perception domains.
- 2) Is there any variety inside the visual verb group, e.g. do some visual perception verbs combine with the gram *kätte* more productively than others? The prediction was that there might be varieties caused by the agentivity/nonagentivity and transitivity/intransitivity of the verb, as well as the number and directionality of locative elements in the sentence.
- 3) What is the basis for using the gram *kätte* with a perception verb? Is there any difference in meaning between pairs of expressions indicating a perception event where one expressions contains the *kätte* and the other does not? If that is the case, then what is the difference? It was my hypothesis that the constructions of perception verb + *kätte* probably emphasize the perceived stimulus more clearly.

The test consisted of several parts.

Task 1. In the first task test participants were given the construction *kätte* + perception verb in the following way:

Visual perception verbs:

Kätte+näitama ('show', agentive)

Kätte+paistma ('show', 'appear')

Kätte+nägema ('see')

Kätte+vaatama ('look')

Auditory perception verbs:

Kätte+kostma ('sound')

Kätte+kuulma ('hear')

Kätte+kuulama ('listen')

Also usages of olfactory, tactile and gustatory perception verbs together with *kätte* were tested. The informants were instructed to judge whether constructions like these were appropriate in Estonian and if so, to illustrate their judgment with an example.

As to the hypothesis that visual perception verbs are more prone to combine with the gram *kätte* than others, the results of the test showed that this was indeed the case - *kätte* combined most effectively with verbs of visual perception, followed by verbs of auditory, olfactory and tactile perception. There were no instances of combining gustatory perception verbs with *kätte*. The division between the different sensory verb groups is illustrated in the chart below, where the absolute number of sentences produced by the informants is given.

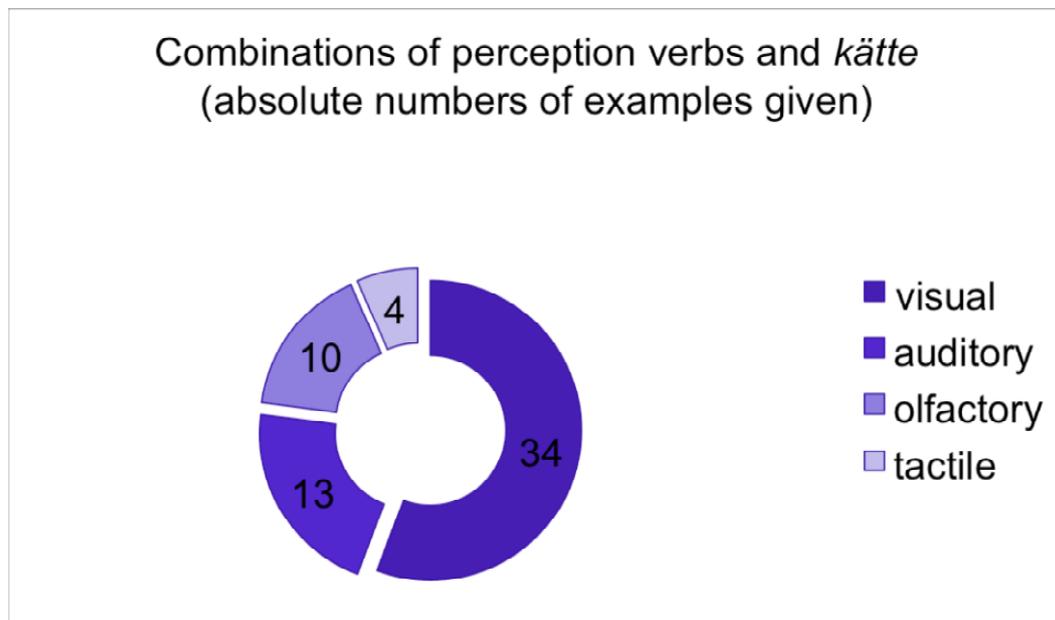


Chart 1. Combinations of perception verbs and *kätte*

One reason why the number of visual perception verbs is higher than that of the other groups is probably that there are simply more verbs in this group (4 verbs) than in others (3 verbs in each). As it appears, the combinations of visual perception verbs and *kätte* are very productive. There were also instances of auditory and olfactory verbs considered natural to co-occur with *kätte*, whereas the number of tactile perception verbs was remarkably lower,

and no instances of using gustatory perception verbs were given at all. Since visual perception verbs were considered outstandingly most natural, I discuss these instances in more detail below. I also discuss the instances involving combinations of auditory perception verbs and *kätte*.

6.1. Visual Perception Verbs + *kätte*

Verbs of visual perception differ in their ability to combine with *kätte*: some visual perception verbs are more prone to co-occur with the gram than others. I will next discuss some possible reasons for this. The example sentences produced by the informants will be discussed below.

Näitama ('show', agentive, transitive)

The combinations of *näitama* ('show', agentive, transitive) and *kätte* turned out to be very common in the results. All informants found this combination possible and were able to produce illustrative examples. I illustrate the reasons for this with example (22).

- (22) Me näita-si-me vana-le mehe-le suuna
 kätte.
 3SG show-PST-3PL old-ALL man-ALL direction.ACC
 hand.ILL
 'We showed the old man the direction'.

The first reason why this kind of combination seems so natural follows from the directionality of the fictive signal. Both *kätte* and the experiencer marked with the allative case (both lative in meaning) elaborate the motion of a fictive signal from the stimulus to the experiencer indicated by the verb *näitama*.

The other function of *kätte* in (22) is to emphasize the aspectual meaning of perfectivity: it foregrounds the fact that the old man comprehended the direction shown to him. If *kätte* were not present it would not be clear whether this was so. Thus *kätte* emphasizes that the activity of 'showing' results in a change in the experiencer's mental state: new information (knowledge about the direction) enters the old man's cognitive dominion of awareness.

Paistma ('show', intransitive)

Though *kätte* can be combined with the verb *paistma* in certain instances, these combinations are not as productive as those involving the verb *näitama* above. Yet roughly half of the informants (10 out of 21) considered combinations like this possible; cf. (23)

- (23) Kirik paista-b siia lausa *kätte*.
 Church show-PRES.3SG here.LAT even hand.ILL
 'The church can be seen from here' [lit. The church shows to-here even to hand].

To consider the directionality of the elements here, the verb *paistma* indicates a cognitive transfer from the stimulus to the experiencer. Other clausal elements also indicate a goal location of the fictive path, marked with the lative form (to) 'here', which also supports the same directionality. But there are two factors that do not lend support to the use of *kätte* here and might explain why this combination is not as natural as that with *näitama*. First, the verb's argument structure does not overtly code the experiencer, and thus the experiencer is understood as generic: any possible participant in the situation can act as the experiencer. Moreover, entailing a cognitive change is not part of the verb's meaning, i.e. the event of *showing* does not implicate a cognitive change in the generic experiencer's state of awareness. Even if such a reading is made, it is not as strong as in the case of *näitama* (transitive, 'show') where the experiencer gets new knowledge into his awareness and is able to use it. Thus the aspectual function of indicating completeness is often missing with *paistma*.

***Nägema* ('see', non-agentive, transitive)**

The acceptance of the combination *kätte* + the verb *nägema* ('see') was remarkably lower than with the two other visibility verbs discussed above. Only a few (3 out of 21) informants considered it acceptable. The ambivalent directionality of the verb is apparently the reason for the low frequency of the combination *kätte nägema*. (24) is an example of this usage.

- (24) Siit torni-st näe-n kätte ka
 oma kodu.
 Here.SEP tower-ELA see-PRES.1SG hand.ILL also
 own.ACC home.ACC
 'From this tower I can also see my house'

As pointed out before, the verb *nägema* is able to indicate a cognitive transfer from experiencer to stimulus, but also one proceeding in the opposite direction (from the stimulus to the experiencer). This means that also the illative 'to' case form would be possible:

- (25) Siia torni näe-n kätte ka
 oma kodu.
 Here.LAT tower-ILL see-PRES.1SG hand.ILL also
 own.ACC home.ACC
 'To this tower I can also see my house'

Intuitively, the meaning is more neutral in (24) than in (25) (cf. the Finnish examples of Huumo 2010: 62), but there is, again, incompatibility of the directionalities indicated. The directionality suggested by the elative form *tornist* ('from the tower') is of the type where the direction is oriented from the experiencer to the stimulus, as opposed to the direction from the stimulus to the experiencer indicated by the illative form *kätte*. *Nägema* prefers the directionality from the experiencer to the stimulus, but the illative case in *kätte* goes against this by indicating directionality from the stimulus to the experiencer. Thus in this case the locative elements are in conflict as regards

the directionalities they indicate.

Another reason for the rare occurrence of combinations of *kätte* and the verb *nägema* ('see') is that it is questionable whether *nägema* indicates any change in the experiencer's mental state. In Finnish, the 'see' verb *nähdä* has two aspectually different meanings: a) as a static state verb indicating a continuous state of seeing, and b) as a dynamic verb indicating a cognitive change and meaning 'notice by vision' (Huumo 2010: 55-56). The same ambiguity can be observed in Estonian. In examples (24) and (25) the 'see' verb seems to denote a state, not a cognitive change, which may also be the reason why *kätte*, often indicating the aspectual meaning of perfectivity, is not natural. Even if the example is understood as indicating a cognitive change, such a change is not as prominent as in the case of the verb *näitama* 'show'.

One more factor that does not support the usage of the gram *kätte* here is that the experiencer is not marked with any locative case, which would indicate directionality, but is coded as the subject of the verb. Thus there is no element indicating a conceptualization of the experiencer as being surrounded by a cognitive dominion. To sum up, there are few elements supporting the conceptualization with directionality, and this might be why the combination of *kätte* with *nägema* is rare.

***Vaatama* ('look', 'watch', agentive, transitive)**

This verb is totally unnatural with the gram *kätte*, according to every informant's opinion. The reason is probably that the verb is agentive, which would strongly favor a conceptualization where the fictive signal moves from the experiencer to the stimulus (cf. Huumo 2010), whereas the illative *kätte* would evoke the opposite directionality from the stimulus to the experiencer. So there are two directionalities that are not compatible with each other.

6.1.1 Variety of the Stimuli: Concrete vs. Abstract Stimuli

Another matter worth taking a closer look at is the nature of the stimuli, where oppositions arise from their concreteness vs. abstractness. When comparing different visual perception verbs, e.g. *näitama* ('show', transitive) and *paistma* ('be visible', 'show' intransitive), we notice that the former seems to accept both concrete and abstract entities as its stimuli. *Paistma* in turn seems to prefer concrete stimuli, since all examples produced by the informants involved a concrete visible object such as a church, a house or a mountain as the stimulus. In the Internet, instances of more abstract entities can be found as well, but there are much less of those than there are occurrences with concrete stimuli whose existence can be visually perceived. A Google search on *kätte paistma* shows that out of the 30 first hits, 25 have concrete, visually perceivable entities as their stimuli. A similar search on *kätte näitama* reveals that abstract entities prevail: 21 out of first 30 hits were abstract in meaning and could not be perceived.

Concrete stimuli produced by the informants in combinations of *kätte näitama* were e.g. house, table and road, to name just a few.

- | | | | | | |
|------|-------------------------------------|--------------|---------|-----------|----------|
| (26) | Kelner | näita-s | mei-le | laua | kätte. |
| | Waiter | show-PST.3SG | 2PL-ALL | table.ACC | hand.ILL |
| | 'The waiter showed us to the table' | | | | |

The interpretation of (26) is such that it is the location of the table that is actually shown. When we ask the waiter to show us the table we actually want to find out *where* our table is. *Kätte* has, again, the meaning of perfectivity, foregrounding the fact that the location of the table became clear. Another possible implication is that in the situation designated by this example the waiter actually took us to the table. The illative form *kätte* might give an impression of the experiencer's fictive stationariness (in the sense of Talmy 2000: 101): the experiencer stands motionless while the table fictively moves towards the experiencer and finally reaches him/her, literally moving 'into the hand'.

The general function of the combination *kätte paistma* with a concrete stimulus is to express the visibility of the stimulus rather than its location:

- | | | | |
|------|--|---------------|----------|
| (27) | Kirik | paista-b | kätte. |
| | Church | show-PRES.3SG | hand.ILL |
| | 'The church can be seen / is visible' [lit. The church shows into hand]. | | |

The intention here is to express the visibility of the church – that the stimulus itself is seen.

- | | | | | | |
|------|---------------------------------|--------------|---------|----------|----------|
| (28) | Õpetaja | näita-s | mei-le | ülesande | kätte. |
| | Teacher | show-PST.3SG | 2PL-ALL | task.ACC | hand.ILL |
| | 'The teacher gave us the task'. | | | | |

The examples with abstract stimuli usually imply that there will be some action that follows the experiencer 'us' starts to act on it. *Kätte* emphasizes the same point.

6.2 Auditory Perception Verbs + *kätte*

There is no agentive transitive auditory verb that would indicate the causation of perception and thus correspond to the visual perception verb *näitama* ('show', transitive) (see the table above). The more extensive coding of the visual perception verb domain, involving the verb *näitama*, may be one reason why there are remarkably fewer instances with other perceptual verbs, including auditory verbs. In this class, there is also no remarkable variety of stimuli, since all stimuli of the examples produced by the informants are sounds or entities producing a voice, except in some cases of metonymy.

According to the data produced by the informants, the intransitive *kostma* ('sound') and non-agentive transitive *kuulma* ('hear') are able to combine with *kätte*. In contrast, no informant accepted the combination of the transitive verb *kuulama* ('listen') with *kätte*.

***Kostma* ('be audible', intransitive)**

Nearly half (10 out of 21) of the informants found the combination *kätte kostma* natural and were able to form illustrative sentences of this combination, e.g.

- (29) Tema kisa kosta-b siia valjult
 kätte.
 SG3.GEN noise sound-PRES.3SG here.LAT loud
 hand.ILL
 'His/her noise sounds here loud' [lit. Noise sounds to-here even to hand].

Note that the directional elements here seem to support each other. The verb *kostma* indicates perceptibility that may be conceptualized as involving a fictive perceptual signal moving from the stimulus towards the experiencer. The locative marker *siia* ('to here') is also compatible with it, indicating the endpoint of the motion by the signal. They are both compatible with the illative form of *kätte*, which also indicates that the experiencer is receiving something.

***Kuulma* ('hear', non-agentive, transitive)**

Only few informants (4 out of 21) found that this combination is possible. Although there were only few instances, I demonstrate one example of such usage:

- (30) Ma kuule-n teda koju kätte.
 SG1 hear-PRES.1SG 3SG.ACC home.LAT hand.ILL
 'I can hear him/her even to home'.

Panther and Thornburg (2003: 225-229) have pointed out that in some cases we do not refer to a sound itself but metonymically to the causer of the sound, in other words, to the one who produces it. Thus in this example, the personal pronoun 'him/her' actually stands for the sound this person makes.

According to the data, the directional elements occur as follows: the verb *kuulma* 'hear' indicates the fictive motion of a perception signal moving from the stimulus to the experiencer. The example also indicates the end point of the fictive path, represented by the illative *koju* 'to-home'. Additionally, the illative *kätte* should support the same directionalities. It seems that this combination follows all the "rules" of directionality observed with visual examples above, but for some reason is pretty rare in the data received from the informants. Also a Google search shows that *kätte kuulma* is not productive in Estonian, since there were no instances of such usages.

***Kuulama* ('hear', agentive, transitive)**

None of informants would evaluate the combination of *kuulama* + *kätte* acceptable. The reason might be that the agentivity of the verb would imply a situation where the experiencer emits the fictive signal that then moves toward the stimulus. On the other hand, the illative form *kätte* contrarily evokes the directionality from the stimulus to the experiencer. Thus there

would be two directionalities that are not compatible with each other.

Task 2. The informants were given minimal pairs with two sentences describing a perceptual relationship. In the first version of each pair, the perception verb occurred alone, without the gram *kätte*. In the second version, the perception verb was accompanied by *kätte*, e.g.

(31) Kirik paistab.
Church show-PRES.3SG
'The church can be seen'

(32) Kirik paistab kätte.
Church show+PRES.3SG hand.ILL
'The church can be seen' [lit. The church shows to hand].

Similar task sentences were given of auditory perception verbs:

(33) Müra kostab.
Noise sound+PRES.3SG
'The noise can be heard'

(34) Müra kostab kätte.
Noise sound-PRES.3SG hand.ILL
'The noise can be heard' [lit. The noise sounds to hand].

The informants were asked whether they sense a meaning or acceptability difference between the two versions. If so, they were asked to characterize it. In the analysis I have taken into an account the informants' own comments of how they see the differences between the two versions, and additionally studied the answers and explanations further.

6.3 General Remarks on the Results of the Language Query

There were only few informants who did not sense any difference between the two alternatives, the one without a gram and the other one with a gram. In some cases, the informants characterized the sentence without a gram as "somewhat different" or "odd", but they were not able to explain what actually caused this. Such judgments point to the unmarkedness of the versions with *kätte* as opposed to the ones without it.

A semantic difference observed by the informants was that the gram *kätte* gives the impression of the stimulus being completely perceivable to the experiencer. For instance, in the sentence *Kirik paistab kätte* ('The church is visible', [lit. The church shows to hand]) the church is understood as being seen completely, no part of it remaining hidden. Correspondingly, in the test sentence indicating auditory perception, *Müra kostab kätte* ('The noise sounds', [lit. The noise sounds to hand]) the informants reported that the noise is probably heard very well, its audibility is good and nothing remains unheard. The version lacking *kätte* would not indicate such a completeness: *kirik paistab Ø* and *müra kostab Ø* just refer to general situations and are

natural to use when we do see or hear a stimulus, but not necessarily all of it and not completely.

Kätte also foregrounds the path along which the perceptual signal moves. We can conceptualize the seeing and hearing events as involving a path of a fictive signal. The perceptive signal starts from a certain place, traverses the path and reaches the ending point (Talmy 2000: 104-105). The gram indicates that there is nothing in the starting or ending point nor on the path itself that could possibly obstruct the visibility or audibility. *Kätte* designates the ending point of this path, emphasizing that the fictive signal actually reaches the endpoint and the cognitive dominion of the experiencer. In their characterizations, many informants tended to specify the endpoint of the fictive signal, e.g. *siia* ('to here'):

- (35) Kirik paista-b siia lausa kätte.
 Church show-PRES.3SG here.LAT even hand.ILL
 'The church can be seen' [lit. The church shows to hand].

The function of this sort of a directional locative element is to determine the location of the perceiver. Though the location of the church is not specified, it is considered as being away from the experiencer's location. Many informants had additionally used some emphasizing adverbs in their sentences. The role of such adverbs seems again to be highlighting of the aspect. Adverbs like *isegi* and *lausa* ('even') seem to denote the same, emphasizing a force-dynamic meaning: some effort is needed to actually see the stimulus, presumably because it is located further away from the experiencer's position. More adverbs were added to express the perfectivity or completeness, e.g. *täielikult* ('entirely', 'completely') or *otse* ('straight'):

- (36) Kodumaa paistis lennukiaknast täielikult
 kätte.
 Home country show+PST.3SG aircraft window.ELA completely
 hand.ILL
 'The home country shows completely from the aircraft window'.

- (37) Heli kostab otse kätte.
 Voice sound+PRES.3SG straight hand.ILL
 'The voice sounds straight here'.

The role of the adverb *completely* is, again, to stress that the whole object is visible; no part of it remains hidden. It seems that *kätte* has a strong tendency to appear with other adverbs emphasizing the meaning of completeness. Although *kätte* foregrounds such a completeness itself, there are often additional adverbs to emphasize it once more.

7. Summary

The Estonian gram *käsi* is compatible with many kinds of verbs, and its functions vary according to the verbs it occurs with. In this study, perception

verbs were in focus. It turned out that among the verbs of perception it is the class of visual perception verbs that most naturally co-occurs with the gram *kätte*. Verbs of vision are followed by verbs of auditory perception, also discussed in this study. On the basis of the data produced by my informants we can conclude that gustatory verbs are the only group of perception verbs that do not combine with the gram *käsi*.

A typical conceptualization of a perception event involves fictive motion. Perception is conceptualized as involving a signal that moves along a fictive path. When reaching the endpoint of the path, the signal also reaches the experiencer. That is the main function of the illative ('to') case form *kätte*: it indicates the endpoint of the perceptive path, where the experiencer is situated. Additionally, the perception event and reaching the experiencer can be seen conceptually related: PERCEPTION IS POSSESSION and PERCEIVING IS ACQUIRING.

The results showed that in the visual perception domain there are remarkably more instances of such combinations. The verb *näitama* is very common in this sense. There are several factors that influence the co-occurrence of particular verbs with *kätte*. The directionality of the elements in the sentence is one of the most important ones: in general, the better compatible the elements are, the more natural the sentence is judged. Another important factor is the existence of a starting point and an ending point of the path traversed by the fictive signal. *Kätte* also emphasized perfectivity and successfulness of the relationship: it indicates that the experiencer undergoes some kind of a cognitive change of state.

In the examples produced by the informants, there is also remarkable variation in the nature of the stimuli. Some perception verbs combining with *kätte* strongly prefer concrete entities as their stimuli, whereas others accept both concrete and abstract entities. *Käsi* is also used to emphasize the aspect of the clarity of the stimulus. The combination of a perception verb and the gram foregrounds such mentioned facets of meaning, making the meaning more specific. Informants found that alternative versions of the sentences (without *kätte*) left the meaning somehow unclear – it was their impression that the stimulus was seen but perhaps not perfectly or clearly.

Notes

- i In Estonian, the spatial relations can be expressed by using so-called internal and external case paradigms, both consisting of three local cases that often correspond to the prepositions in English: there is an opposition between the static cases, e.g., the inessive ('in/at'), the separative 'from' cases, e.g., the elative ('from'), and the lative 'to' cases, e.g., the illative ('[in]to').
- ii The following abbreviations are used in the glosses: ABL=ablative, ACC=accusative, ALL=allative, ELA=elative, GEN=genitive, ILL=illative, INE=inessive,

PASS=passive PL=(Xth person) plural, PRES=present tense, PST=past tense, PX=(Xth person) possessive suffix, SG=(Xth person) singular

- iii In the grammatical literature of Estonia form like this is usually referred to as genitive. For clarity, I use the term accusative here, since the grammatical function and historical background of the two forms are different.

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