

## TYPES OF EPISTEMIC QUALIFICATION WITH VERBS OF PERCEPTION

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### Background Preliminaries

The present paper will look at the types of epistemic qualification as dependent primarily upon various types of complements in post-predicate position of verbs of perception (PVs).

A distinction will be made between evidentiality and epistemic possibility/uncertainty. The purpose of this paper is to show that modal qualification conveyed by seeing and seeming verbs is different. Only seeing verbs can be considered to indicate the path via which the phenomenon described has come to the awareness of the speaker/experiencer, hence, the feature of evidentiality. Conversely, for the verbs of seeming the crucial element is speaker's assessment of the propositional content, which expresses doubt/uncertainty.

The data for the analysis have been collected from the Lithuanian Language Corpus *donelaitis* (<http://donelaitis.vdu.lt/indexa.html>) compiled at the Centre of Computational Linguistics, Vytautas Magnus University and the British National Corpus (BNC). Use has been made of:

- The BNC used at the Department of Linguistics and Phonetics, Lund University, Sweden<sup>1</sup>;
- The British National Corpus Online service (<http://sara.natcorp.ox.ac.uk/>), managed by Oxford University Computing Services on behalf of the BNC Consortium. All rights in the texts cited are reserved.

If not indicated otherwise the data cited are from the above corpora. Use has also been made of a great number of examples drawn from Lithuanian and English dictionaries and from various linguistic works the authors of which are given in parentheses.

Following Rogers (1971), Viberg (1984), Quirk et al. (1985), Croft (1993), Levin (1993), the verbs of perception (PVs) under investigation are subdivided into Exp(erience) or seeing verbs and St(imulus) or seeming verbs:

(1) Exp-verbs	St-verbs
E: <i>see</i>	<i>look, seem, appear</i>
LT: <i>matyti</i>	<i>atrodyti</i>

<sup>1</sup> My stay and research at the Department of Linguistics and Phonetics, Lund University was possible thanks to the Swedish Institute scholarship. I would like to thank Jan-Olof Svantesson for his kind assistance and support.

Both groups of perception verbs in English are said to express an evidential qualification in certain types of structures. It is generally accepted that in cases of finite complementation the Exp-verb *see* is used to describe cases of indirect perception, which can be accompanied by some modal qualification. Chafe (1986) and Woodbury (1986) consider this modal qualification to be evidential, i.e. indicating the path/source of knowledge via which it has reached the awareness of the speaker. Wierzbicka (1980:120-121) offers a somewhat similar interpretation of 'I see that ...' type of sentences by considering them as 'evidential inferences'. Similarly, verbs of seeming in English are claimed to convey a kind of meaning that can be considered modal (Poutsma 1926, Austin 1962, Poldauf 1972, Aijmer 1980, Wierzbicka 1980) and the latest studies claim that they are used as evidentials (Chafe 1986, Mithun 1986, Aijmer 1996, Barron 1997, Gisborne 1998). The English verb *seem* in *Sam seems tired* is claimed to be evidential because the given statement is based on appearance and "this specification of source can hedge probability" (Mithun 1986:90). There seems to be no polemic regarding the effect of raising<sup>2</sup> that brings about "a meaning which combines temporal properties with epistemic modality" (Rooryck 1997:44). In Usoniene (2000) an attempt has been made to show that the meaning of the English verbs of seeming can also be described in terms of directness/indirectness of experience. The given semantic opposition is claimed to be very much complement-type-dependent in that it is based on presence/absence of *to be*, which is said to function as a kind of a proposition marker (hence a 3rd-order entity). Thus, the structures *look/seem/appear*  $\emptyset P$  are used to describe direct impressions about the stimulus of perception. While *look/seem/appear to be P* contain a modal qualification of speaker's uncertainty (epistemic possibility: van der Auwera & Plungian 1998) regarding what is being asserted. Compare the following examples where St-verbs under (a) function as copulas and zero-complemented phrases denote various properties attributable to the grammatical subject of the sentence. On the contrary, examples under (b) contain phrases complemented by *to be* that cannot be regarded as properties which characterize the inner/outer looks of the Stimulus of perception. The complex structure expresses speaker's judgement, which conveys his/her uncertainty regarding the phenomenon described:

- (2) a. The cutting oil emulsifies in water and **looks the colour** and consistency of milk.  
 A window can be **made to appear larger** by fixing the track above the window reveals,  
 at ceiling height if necessary ...  
 Blood poisoning **seems the problem**.  
 I **look a mess** and you know I do!
- b. Christmas **looks to be a time** for burying the hatchet or exhuming it for re-examination.  
 Some children **seem to be thin** by heredity. (CCELD 1988:682)  
 The Constitution's main concern **appeared to be that of conservation**.

*To be P* complements in (2b) are linked to the grammatical subject of the sentence and the whole complex structure represents a propositional content, which cannot be either perceptually or mentally directly accessible to our senses. Verbs of seeming specify the relationship between a proposition asserted and the speaker. They are chosen to hedge the speakers' judgement and make it sound doubtful.

<sup>2</sup> The verb *seem* is considered to be an overt raising-to-subject out of sentential complement verb:

- a. It seems [<sub>CP</sub> that Alfred eats his vegies]  
 b. Alfred seems [<sub>AGRSP</sub> <sup>t<sub>Alfred</sub></sup> to eat his vegies] (Rooryck 1997:1)
- ↑

Similarly, finite and non-finite clauses used in the predicative complementation of the Lithuanian verbs *atrodyti/rodytis* ('look/seem/appear') denote propositions, as in:

- (3) *Atrodo, kad jie pasakojo mano istorijas.*

('It seems that they were telling my stories')

*Visiems rodės Gustį būsiant čiuiniu vaikeliu, nes buvo gana dailus.* (LKŽ 1978:792)

allDAT seem3Pst Gustis beGer childSgINS because be3Pst prettySgNOM

('It seemed to everybody that Gustis would be a nice child because he was rather pretty')<sup>3</sup>

On the contrary, copula use of the Lithuanian *atrodyti* ('look/seem/appear') found in the sentences below describes looks and appearances:

- (4) *Ievos balsas pirmąsyk išgirdus atrodė prikaimės, duslus, ...* (Dirgėla 1987:144)

('When first heard, Ieva's voice seemed husky and dull...')

*... raudoname fone ji atrodė visiškai juoda.*

('She looked absolutely black against the red background')

These descriptions represent Experiencer-Speaker's direct impressions about the world surrounding them. They are evaluative, subjective and not necessarily true.

## Epistemic Qualifications

The analysis has been basically devoted to the clausal type of complementation found in the following types of sentences:

- (5) a) *I looked back at the dock, I saw that it was no longer empty.* (Goddard 1992:350)

*From the data on cropping it was seen that grass made up by far the greatest proportion of arable hectares.*

*Buvo matyti, kad tai veikli moteris.*

('It was seen that she was an initiative woman')

*Galėjom kelti daugiau kandidatų, bet matėme, kad žmonės tam dar nėra pasirengę.*

('We could have put up more candidates but we saw that people were not ready for that')

- b) *When policy was seen to be hurting the colonies, some protested; but even the many who accepted that Britain's relations with its colonies were unsatisfactory saw this as a relatively minor blemish on an otherwise desirable system.*

*There was seen to be an urgent need to give much greater recognition to the potential contribution of NHS managers.*

*... ir tik prisitartinęs prie skardžio galėjai matyti pastatą esant visai nemenką.*

('Only on having approached the slope, you could see that the building was quite large')<sup>4</sup>

- c) *international politics looks to be influenced increasingly less by military factors... the Tories <pb n=200> increasingly appeared to be the party with more to offer ordinary people.*

*Well, we seem to be a society that is very much orientated to crisis management rather than prevention ...*

*Man vis atrodė, kad aš sapnuoju.*

('It still seemed to me that I was dreaming')

<sup>3</sup> I wish to thank Wendell Mayo for his advice on the translation of the Lithuanian sentences.

<sup>4</sup> An attempt has been made to preserve as much of the original grammatical structure and forms as possible. Therefore, the translation of the Lithuanian examples is nearly literal.

As can be seen from the examples above all the attention has been focused on finite and non-finite clausal complements of PVs. The aim is to show that the effects of the known extension/shift/change of meaning (Aijmer 1980, Chafe 1986, Palmer 1988, Dik and Hengeveld 1991, Duffley 1992, Verspoor 1996, Barron 1997, Rooryck 1997, Felser 1998) in these two groups of PVs are different. A distinction should be made between two types of modal qualification that these verbs can develop: evidentiality and epistemic possibility.

An attempt is made to show that, alongside the evidential *I see that...* type of sentences, the structures with passivized forms of *see* in (5b) followed by *to be P* should be also regarded as cases of indirect perception containing a modal qualification of evidentiality. The function of *to be* is assumed to be that of a proposition and indirectness marker in that it introduces a disjointed type of proposition with a verb of 'propositional attitude' interfering in between the subject and the main verb of the clause (*He was seen to be attacking the moral, manly roots of English public life with the aid of effeminate, aristocratic tastes*), which can be opposed to the structures with a bare complement phrase describing direct perception, as in: *Throughout North America, farmers' wives in country districts could be seen boarding local trains, often known as 'butter and egg specials'*. The structural opposition of these two examples is based on presence/absence of the introducing element in the Subject complementation. The situation described by "*farmers' wives boarding local trains*" is perceptually accessible to our senses, hence the meaning of direct perception as in: *I could see Father watching from the window, shaking his head in disbelief*. Zero-complemented non-finite ING-clauses of *see* satisfy the basic criteria for Immediate Perception of State of Affairs (IPSoA) structures found in Dik and Hengeveld (1991). They claim that the complement state of affairs should be perceivable and the complement state of affairs should be simultaneous with the main-clause state of affairs. The use of the introducing element *to be* in the Subject or Object complementation of *see* seems to block the interpretation of the state of affairs as being directly perceivable. Thus, the meaning of *see* shifts towards cognition, a path which is usually followed when this verb takes an abstract noun in the Stimulus position. Consider the meaning of *see* in the following examples, where in the left-hand column, it is used to describe direct or visually observable phenomena, while in the right-hand column, *see* is exploited as a cognitive verb and presupposes mental processing of sense data:

**(6) Direct perception**

*They challenged a man who was seen acting suspiciously at a horses' rest home near their RAF base.*

*... almost in front of the large window, at that moment filled with grey light and rain, my father's figure could be seen frozen in a posture that suggested he was taking part in some ceremonial ritual.*

*Beauty is everywhere, and even in the insignificant eyelashes there is seen a gateway worthy of the eyes – an archway of beams of rainbows more magnificent than the gateway of the greatest city.*

**Indirect (mental) perception**

*One could argue that since the Institute has to be seen to be acting in the public interest, complete openness along these lines is the only alternative.*

*Poverty is seen to be caused both by dependency and lack of opportunity. This is economics on a human scale.*

*There was seen to be a need to protect such witnesses as a Swiss banker who is prevented by Swiss law from disclosing bank details, or a French physician whose duty of professional secrecy is enforced under severe professional sanctions.*

The indirectness reading of *seen* can be triggered both by the use of a formal element *to be* and the lexical meaning of the noun (abstract) in the Subject position of the sentence, hence a propositional content. Thus, the passive forms of the verb *see* can be said to function as raising verbs (cp. *seem* above) and indicate the sensory source of the information contained in the proposition asserted.

The same structural and semantic variation can be observed in the complementation of verbs of saying, thinking and feeling, e.g.:

- (7) *If there are thought to be sufficient similarities between the markets in two or more countries, comparisons can be made of selected statistics from each.*

*Between men and women, too, there is said to be a barrier.*

*In any situation where there is felt to be problems, these will not exist independently of the human beings involved.*

*A room which is thoroughly comfortable when it is felt to be simply "untidy" becomes uninhabitable as soon as it is perceived as "dirty".*

As the *Longman Grammar of Spoken and Written English* by Biber et al. (1999) observe, the variation in the verb phrase in THERE-clauses is very limited. The authors admit that lexical verbs with the force of a hedge may take *to*-infinitive complements containing BE<sup>5</sup>.

Similarly, in Lithuanian *matyti* ('see') followed by a non-finite present/past/future gerundial clause with its subject case-marked in the Accusative case joins the domain of cognitive verbs and acquires their expression format.

- (8) *Iš piešinių matyti dailininką buvus geru piešėju, turėjus supratimą, kas vertinga.*

*('From the drawings one can see that the painter was a good drawer...')*

*Iš kai kurių rusų metraštininkų užuominų galima manyti juos buvus Mindaugo giminaičiais ir konkurentais*

*('... it is possible to consider them to have been Mindaugas's relatives and competitors')*

*Tik dėl to, kad balanas vadino skalutėmis, draugai jautė jį esant nevietinį.*

*('... his friends felt him to be a stranger')*

Thus, both functionally and semantically a parallel could be drawn between gerundial *būti* ('be') complements in Lithuanian and *to be* P complements in English. The Lithuanian gerunds are not marked for person, however they are marked for tense, which satisfies one of the basic criteria for the mental perception reading and evidentiality: there is no simultaneity between the complement state of affairs and the main-clause state of affairs (see Woodbury 1986; Dik and Hengeveld 1991).

The basic difference between *I see [S]* and *be seen to be P* structures could be explained in terms of the specification of the source of knowledge using Frawley's (1992) *Deictic Categorisation and Scaling of Epistemic Modality*. The structures containing a personal subject have an overt indication to the source of information (English: *I/you/we see, that, etc.*; Lithuanian: *matau/matote/matome, kad*), which falls under the category of 'To self' (Frawley 1992:413). On the contrary, the source of those with the passive form *seen* and the Lithuanian impersonal infinitive *matyti* should be considered as 'To other' or as 'intersubjective' (Nuyts 1993:946). Thus, the speaker should not be regarded as responsible for the judgement made in: *An historical event was seen to be constructed from a number of different 'happenings' perceived as having specific*

<sup>5</sup> "Be may also appear in a *to*-infinitive complement of a lexical verb with the force of a hedge: *happen to be, tend to be, appear to be, is said to be, etc.*" (Biber et al. 1999:944)

meanings. The source might be some common-sense knowledge of the world or any other external source. In the situations described by seeming verbs (in the structures like *X looks/seems/appears to be P*), the dimension is within the scope of the 'strength of knowledge' (which is possibility) and falls under 'From Self' or 'Other'. This means that the knowledge can come from any external source, which is outside the speaker; hence 'intersubjective inference'. The latter can also imply a 'shared' or common responsibility for the modal qualification, if I paraphrase Nuyts (1993:946).

Inference as a type of evidence (cp. Givón 1982, Anderson 1986, Palmer 1986, Salkie 1996, Botne 1997) seems to be present in many structures describing cases of direct mental perception/impression, though modally unmarked, might be evaluatively coloured, as in the examples below:

(9) **Direct mental perception**

*He saw the wisdom of this ploy and invited me to his next fight.*

*This time the men didn't tolerate John. This time they saw him as a public enemy.*

*Darius niekada nebuvo matęs tokio nevaldomo siaubo žmogaus akyse;*  
(Darius has never seen such an uncontrolled horror in a person's eyes')

**Direct (visual/mental) impression**

*It can make a small room appear more spacious, a large room seem cosier, and a cool room warmer.*

*I have a clear head, too, so things seem more fresh.*

*Jos tylėjimas Simonui įtartinas atrodė.* (Dirgėla 1987:104)

(Her silence seemed suspicious to Simon')

However, following Salkie (1996), inference is not regarded as a linguistic act because "first you make an inference, then you may or you may not report on it in words" (Salkie 1996:384). Its presence is clearly presupposed in certain structures with verbs of seeing, which actually triggers the meaning extension of these verbs both in English and Lithuanian. If somebody or something is seen as good or bad, the subject under attention cannot be directly perceived by our senses. It is quite obvious that mental processing of the sense data available to the experiencer was absolutely necessary to produce the following evaluatively charged impression about the stimulus. Therefore, direct mental perception or impressions are not considered to be modal, though they are clearly evaluative (*He looked a right Charlie ...*). Moreover, evaluation expressed by an introduced object complement as in *She sees women as having little self respect* can also trigger a change of meaning of *see* towards indirect (mental) perception, however void of any modal qualification.

## Concluding Remarks

Evidentials indicate the source of information, the path via which the evidence has reached the speaker's awareness and are regarded as modal expressions. It is claimed that in the languages under study the given specification of the source of knowledge is conveyed only by verbs of seeing in all the structures with finite clausal complementation. Indication of the source of knowledge is also present in cases of full infinitival and copula clauses following the passive form of the verb *see* in English, hence a raising passive verb *seen* (cp. Biber et al. 1999: a hedge). The same epistemic qualification of evidentiality can be developed by the Lithuanian *matyti* when complemented by non-finite gerundial clauses.

As inference is not regarded as a source or path indicating an evidential qualification, the verbs of seeming in the two languages are not considered to be able to develop a modal meaning

of evidentiality. They are claimed to express epistemic possibility. Moreover, this modal meaning is very much complement-type-dependent and is present only in cases of finite *that/kad-*complements and non-finite English *to-*complements or Lithuanian gerundial complements in PV complementation. Thus, seeming structures with full infinitival forms can be regarded as conveying information that is epistemically modal because they indicate the speaker's assessment of the situation in terms of greater/lesser degree of certainty regarding the truthfulness of the proposition asserted. By contrast, seeming structures with zero-complementation are considered as cases of non-modal unspecified perception reporting on the evaluatively charged qualitative characteristic of the stimulus.

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## EPISTEMINIO MODALUMO TIPAI SU JUTIMINIO SUVOKIMO VEIKSMAŽODŽIAIS

**Amelija Usonienė**

Santrauka

Straipsnyje apžvelgiami du episteminio modalumo tipai, kurie būdingi tam tikrų tipų sakiniams su jutiminio suvokimo veiksmažodžiais lietuvių ir anglų kalbose. Germanistikoje teigiama, kad matymo ir atrodymo veiksmažodžius turi akivaizdumo kategorijai būdingą reikšmę. Manoma, kad asmenuojamieji *that* ('kad') sakiniai žymi propozicijas ir vartojami postpredikatinėje veiksmažodžio *see* ('matyti') pozicijoje išplečia jo reikšmę nuo percepcinio iki mentalinio suvokimo. Be to, matymo veiksmažodis leidžia kalbėtojui/autoriumi nurodyti kalbamos informacijos šaltinį (regėjimas – pojūčiai – vizualinė percepcija), o tai yra svarbiausias akivaizdumo kategorijos požymis. Atliktas tyrimas rodo, kad tik matymo veiksmažodžiai tokiuose sakiniuose, kaip *matau, kad tu teisi; matyti ji buvus gabų mokinį* laikytini nurodančiais kalbamos informacijos šaltinį, t.y. mūsų pojūčius.

Atrodymo veiksmažodžius siūloma laikyti turinčius episteminio galimumo reikšmę. Jie perteikia kalbėtojo/autoriaus abejonę aprašomos propozicijos tikrumu. Inferencija, kaip būtina mentalinio suvokimo sąlyga, nelaikytina nei informacijos šaltiniu, nei akivaizdumo kategorijos požymiu.

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2002 gegužės mėn.