

ARTICLE

Marking one's own viewpoint: The Finnish evidential verb+*kseni* 'as far as I understand' construction

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Abstract

This article examines evidentiality in the frame of inferential adverbs in written interaction from the perspective of Finnish, a language that does not have evidentiality as a grammatical category. The analysis focuses on six adverbs, such as *käsittäkseni* 'as far as I understand' and *tietääkseni* 'to my knowledge, as far as I know'. Evidentiality and epistemic modality intertwine in their semantics, as these adverbs represent a writer's access to information, but also indicate her evaluation of its reliability. First, this article offers a description of the interactional functions of these adverbs such as marking a writer's opinion in contrasts, expressing slight hedging in order to anticipate corrections, to allow space for other opinions, or to create irony. Second, in the framework of cognitive grammar, the analysis focuses on the meaning of the evidential verb+*kseni* construction and the effect of different verb stems on it. These adverbs share similar functions in texts, which is due to their flexible constructional meaning. While varying from lexeme to lexeme, specific evidential and epistemic dimensions can either be foregrounded and relevant in a situation or remain backgrounded and not activated.

Keywords: cognitive grammar; epistemic modality; evidentiality; Finnish; hedging; inferentiality; online newspapers; reader comment

1. Introduction

The intersubjective and rhetorical aspects of evidentiality and epistemic modality is an increasingly important area in functional linguistics (e.g. Kärkkäinen 2003, White 2003, Simon-Vandenberg & Aijmer 2007, Stivers 2011, Hanks 2012, Heritage 2012, Marín Arrese 2013, Cornillie & Gras 2015, Foolen, de Hoop & Mulder 2018). At the core of epistemic modality is an estimation of the reliability of what is said. Evidentiality pertains to one's access to information, and the link between the information source and the utterance is somehow displayed and made relevant. However, when interlocutors use epistemic and evidential expressions, they not only express their estimations on the reliability of an issue, or refer to a source of information, but also perform interactional acts, such as making claims, giving justifications, or inviting a response from others. This analysis examines the

meaning of evidential-epistemic expressions that occur in a written dialogic genre. The focus will be on Finnish near-synonymous adverbs that express a writer's access to knowledge, derived from mental verbs, such as *käsittääkseni* 'as far as I understand, according to my understanding' and *tietääkseni* 'to my knowledge, as far as I know',¹ and the data consist of reader comments published in the online version of the leading Finnish daily newspaper, *Helsingin Sanomat*. The meaning of these adverbs is approached in two ways. First, this article aims to provide an overview of their interactional and textual functions in a written argumentative genre: What are the typical contexts where writers feel the need to refer to their own access to information? Second, it analyses the polysemy of near-synonymous adverbs that share the same morphological structure: How the writers, by selecting one of these adverbs, operate with different types of evidence and access to information?

In languages that do not have evidentiality as a grammatical category such as Finnish, speakers and writers can choose between different strategies when they refer to a source of information or a mode of knowing and their choices are motivated by the ongoing context.² When writers decide to use adverbs such as *tietääkseni* or *käsittääkseni*, they express that they rely on their own reasoning or experience, and the factuality of their expression is based on the information that they have access to. This easily leads to an epistemic interpretation of questioning the likelihood of the utterance. This type of hedging is illustrated in (1): The writer bases her statement concerning Google and Twitter on her own access to information, what she knows that has been stated in public discussion (she refers to different media earlier in the comment). This is explicitly conveyed by her use of *tietääkseni*.

- (1) ... Täytyy muistaa, että Google käytti aikaisemmin hauissaan Twitterin ns. "paloletkua" kunnes tämä kumppanuus kariutui. Tietääkseni tarkkaa syytä tähän välien rikkoon ei ole kerrottu. [...]

'... You have to remember that earlier Google used the Twitter "fire hose", until this partnership fell through. To my knowledge, the exact cause of this rift has not been stated. [...]

However, a hedging function may also be weak, and writers may also express highly detailed information and position themselves as knowing interlocutors, as in (2), when the writer presents precise numerical data concerning a special field.

- (2) ... Tuulimyllyn teho on riippuvainen tuulen nopeudesta kolmanteen potenssiin, kun tuulen nopeus laskee 10 m/s:sta 4 m/s:iin, niin myllyn teho laskee 1/15 osaan siitä mitä se oli 10 m/s tuulella. Käytännössä siis fysiikan lakien mukainen seikka. Lisäksi tuulivoimaa tuetaan 12 vuoden ajan syöttötariffilla, joka takaa tuulivoimayhtiölle tietääkseni 83,5 euroa megawattitunnilta. Nopea rakentaja voi saada jopa 105 euron takuuhinnan ensimmäiseksi viideksi vuodeksi. [...]

'... The power of a windmill is proportional to the cube of the wind speed. As wind speed decelerates from 10 m/s to 4 m/s mill power decreases to 1/5 of what it was at 10 m/s wind speed. This is all in accordance with the laws of physics. In addition, wind power is supported by a 12-year feed-in tariff which, to my knowledge, ensures a wind power company 83.5 euros per megawatt-hour. An efficient builder may, for the first five years, receive a guaranteed price of up to 105 euros. [...]

Even the figure that is in the scope of *tietääkseni* is expressed as a decimal, and this exactness combined with the reference to personal access to information emphasises the writer's ability to know. This type of example is not unique in my data. In addition to 'real' epistemic hedging, as a marker of uncertainty, the writers also use *käsittäökseni* adverbs in contexts with extensive expertise as in (2), or when they present certain opinions (e.g. *As far as I understand, electronic tobacco is a better choice than a traditional one*). Thus, this analysis for its part illustrates that the expression of hedging constitutes a particularly interactional action (e.g. White 2003; see also Fraser 2010), and in actual language use, hedging often merges with other functions, such as organising argumentation, rhetorical cohesion, or textual irony.

This analysis approaches the relation between evidentiality and epistemic modality through the evidential verb+*kseni* construction (a conventionalised form-meaning pair, see Langacker 2005:158; Goldberg 2006:5). This set of near-synonymous adverbs share the same morphological structure, which consists of the mental verb stem + translative case suffix (*-kse-* 'to, for') + possessive suffix (*-ni*) referring to the speaker/writer. A characteristic of these adverbs is that they occur flexibly with different subtypes of indirect evidentiality (see, for example Plungian 2001:353–354; Aikhenvald 2004:367; Squartini 2008:925; Marín Arrese 2017:199–200). They also perform similar interactional and rhetorical functions in the data. This multifunctionality, or semantic flexibility, reflects a layered semantic structure. In analysing the polysemy of the verb+*kseni* lexemes, I adopt the concept of profiling from Cognitive Grammar, where linguistic meaning has been characterised as a knowledge frame with elements that are foregrounded and backgrounded in the semantic structure of the expression (Langacker 2005:164; 2008:39, 66–67). A foregrounded element therefore functions as a focus of attention, which constitutes a conceptual profile. The verb+*kseni* lexemes profile, that is, explicitly express the writer's own access to knowledge, and that functions as a conceptual basis for their meaning. In addition, with each adverb, the specific aspects of epistemic and evidential processes are foregrounded or left backgrounded.

In order to gain a deeper understanding of these adverbs, I combine different approaches which complement each other: Cognitive Grammar provides a usage-based description of the semantic structure of the adverbs, and discourse analysis and interactional linguistics are applied to examine the textual and interactional features. The structure of this paper is as follows: First, I introduce the data and the verb+*kseni* construction in Section 2. Section 3 presents a discussion of evidentiality and epistemic modality in relation to the verbs used in the evidential verb+*kseni* construction. Section 4 provides a brief overview of their textual functions, and Section 5 focuses on the effect of the verb stems in their use. Finally, Section 6 concludes the results and discusses the different dimensions of inferential evidentiality that occur in written argumentation.

2. The data

The data are from the HS.fi Corpus (<http://www.csc.fi>), gathered from the internet site of the largest daily newspaper in Finland, *Helsingin Sanomat* (<https://www.hs.fi>).

Table 1. Constructional schema of evidential verb+*kseni* adverbs (first-person singular).

Mental verb stem + infinitive	Translative 'to/for'	Possessive suffix	Paraphrase
<i>tietä-ä- käsittä-ä-</i>	<i>-kse-</i>	<i>-ni</i>	as far as I know/understand, according to my knowledge/understanding

I focus on the reader comments, as the construction is extremely rare in news texts.³ The data used in this study consist of 86,971 comment texts (from September 2011 to September 2012). The comments on the site range from one-sentence notes to longer, thirty-sentence texts. The texts represent a relatively free style of writing but are written predominately in standard Finnish. I have retained the spelling in the examples (and marked the typos with [!]) but shortened the texts when necessary, indicated by . . .). The discussion forums in HS.fi are moderated, but the published texts are not edited. Contributors must register in order to submit their comments, but they may adopt a nickname or pseudonym.

Johansson (2017:9) makes an interesting observation on the comments submitted to news discussion to editorials in French journals. The participants typically express their 'everyday opinions based on individual and subjective expressions that emerge from users' private spaces' instead of expressing explicit sources or verifications (see also Johansson 2014:41). Likewise, the contributors to HS.fi rarely refer to any explicit source, but on the other hand, they negotiate evidential access in their discussions, that is, to what extent other speakers can know or understand the same as the writer. Within these negotiations, the evidential adverbs are used as tools.

In present-day Finnish, the verb+*kseni* form has two main interpretations: the purpose construction 'in order to do', and an evidential-epistemic construction 'as far as I know/understand, according to my knowledge/understanding' (Leino 2005), and the latter is analysed in this article. The purpose construction is fully productive, but the evidential construction is restricted to mental verbs.⁴ Both constructions are characteristic of written language. Table 1 illustrates the structure of the evidential construction in the first person.

The core of the construction is an infinitival verb form (formed with the infinitive marker *a/ä*), marked by the translative case ending (*-kse-*). The Finnish translative expresses change, and it typically marks NPs that express an endpoint, a purpose or consequence (Voutilainen 2008), which is compatible with the 'in order to do' meaning. The verb+*kse-* form is inflected in all persons, marked by a possessive suffix (*tietääkseni* 'as far as I know', *tietääksemme* 'as far as we know', *tietääkseen* 'as far as she/he knows', etc.). The evidential construction may also include an optional possessive pronoun (*minu-n tietääkseni* (1SG-GEN KNOW-TRA-3SG-POSS), *häne-n tietääkseen* (3SG-GEN KNOW-TRA-1SG-POSS) 'according to her knowledge').⁵ However, the first-person singular forms dominate in the evidential construction. The third-person form, marked by the third-person possessive suffix, is used in reported speech. This latter form occurs in the HS.fi data almost entirely in the news articles, whereas the extremely rare second-person form *sinun*

Table 2. The evidential verb+*kseni* adverbs in HS.fi corpus reader comments.

Verb	Adverb	Number of tokens (N)	Percentage of tokens (%)	Paraphrase
<i>käsittää</i> 'understand, comprehend'	<i>käsittääkseni</i>	442	33	as far as I understand
<i>muistaa</i> 'remember'	<i>muistaakseni</i>	333	25	as I recall, to the best of my recollection
<i>tietää</i> 'know'	<i>tietääkseni</i>	278	21	as far as I know, to my knowledge
<i>ymmärtää</i> 'understand, comprehend'	<i>ymmärtääkseni</i>	163	12	as far as I understand
<i>nähdä</i> 'see, understand'	<i>nähdäkseni</i>	72	5	as far as I can see
<i>uskoa</i> 'believe, suppose'	<i>uskoakseni</i>	40	3	as far as I believe, as far as I suppose
<i>luulla</i> 'suppose'	<i>luullakseni</i>	12	1	as far as I suppose
<i>arvata</i> 'guess'	<i>arvatakseni</i>	1	—	as far as I suppose
<i>kuulla</i> 'hear'	<i>kuullakseni</i>	1	—	as far as I have heard
Total		1342	100	

tietääkseni 'to your knowledge' can be found in the reader comments in questions or utterances in which the other writer is somehow challenged.

Table 2 introduces the basic data: all the tokens of the verb+*kseni* forms that are used as evidential-epistemic markers in reader comments.⁶

The most frequent verb+*kseni* adverbs in the data are *käsittääkseni* 'as far as I understand', and *muistaakseni* 'as I recall, to the best of my recollection'. The near-synonyms *käsittääkseni* and *ymmärtääkseni* account for almost half of the evidential verb+*kseni* tokens in the corpus (45%).⁷ The single occurrences of the forms *arvatakseni* (< 'guess') and *kuullakseni* (< 'hear') are interesting in that they illustrate the flexibility of the construction, as both stems typically create purpose reading (a few additional verbs are used in the construction in other data, and I will return to the list of possible verbs in Section 3). The adverb *muistaakseni* (< 'remember') is excluded from this analysis, as it pertains to memory processes and this leads to a specific type of usages of the word. The analysis is therefore based on a total of 1009 examples. From these data, I have analysed the following: the syntactic form of the verb+*kseni* sentence in terms of tense, voice, and construction type; the state of affairs in the scope of the adverb (generic, specific, personal; negotiable, irrefutable); and the preceding and following context of the verb+*kseni*

sentence such as whether it follows a question, quote, or a claim made in other texts. The analysis also focuses on the order of different points of view, especially whether the previous sentences express the writer's own claims or views, or those of others. When necessary, I have also examined the other texts from a discussion thread in order to recognise the different voices in a given text.

3. Epistemic and evidential categories and the verb+*kseni* adverbs

Since the 1990s, the relation between epistemic modality and evidentiality has been a permanent topic in linguistics. Functional linguistics often defines these two concepts as different but intertwining or overlapping (see van der Auwera & Plungian 1998; Squartini 2008; Aijmer 2009; Marín Arrese 2013, 2017; Langacker 2017; Nuyts 2017). From an interactional perspective, the most promising description of these concepts is to consider them as separate semantic features that arrange differently in linguistic expressions and that can also be analysed independently even though they often interlace in language use. For example, a statement that is based on direct experience is easily interpreted as more reliable than a statement based on either hearsay or inference. Finnish verb+*kseni* adverbs refer to the writer's own access to knowledge and understanding and in this sense, they index evidentiality. Moreover, these adverbs easily create epistemic interpretations by representing the writer's evaluation of her own level of knowledge.

The verb+*kseni* construction requires certain types of verbs to enable an evidential reading. The types of possible verbs fall into three categories: KNOW (*tietää* and *muistaa*), UNDERSTAND (*käsittää*, *ymmärtää*, and *nähdä*), and SUPPOSE verbs (*uskoa* and *luulla*). The KNOW and UNDERSTAND verbs differ from the third, SUPPOSE group in that the former are factive verbs, which means that the utterance in the complement clause expresses a proposition that the speaker/writer offers as true (see Kiparsky & Kiparsky 1971). Verbs that express supposing and believing do not create such an interpretation but instead leave the epistemic status of the proposition open and in this sense, they are non-factive.

The factive–non-factive dimensions intertwine with the different phases in the speaker's epistemic process. Langacker (2008:450–451) presents four epistemic steps, from assessing to truly knowing a fact: The initial step designates a writer's exploration ('assessment') of the possible validity of an utterance, which is expressed by verbs such as English *wonder*, *ask*, *consider* and *examine*. The second step involves verbs that describe the process of an approval or rejection of the proposition ('inclination'), such as the English verbs *think*, *believe*, and *suspect*. These two initial phases belong to the semantic domain of non-factive verbs, whereas the following two steps are expressed by factive verbs. Factive verbs promote the proposition as being real, but their difference lies in the construal of knowing. In the third step, verbs express a knowing as a process, an 'action of accepting' that something is real, such as *learn*, *find out*, *realise*, *decide*, and *conclude*. During the final fourth phase, expressions indicate the highest degree of certainty and, moreover, knowing is construed as a result of epistemic action, 'the stable situation where the proposition has already been incorporated in the [writer's] reality conception' (Langacker 2008:450).

Table 3. Classification of the verbs in the present study.

Construal of knowing	Non-factive verbs	Factive verbs
Knowing as a state		<i>tietää</i> 'know'
Knowing as a process of understanding		<i>käsittää</i> 'understand' <i>ymmärtää</i> 'understand' <i>nähdä</i> 'see, understand'
Knowing as a process of supposing and believing	<i>uskoa</i> 'believe' <i>luulla</i> 'suppose'	

Applied to the Finnish verb+*kseni* format, the evidential construction covers the three latest phases. The verbs that denote assessment (step 1) appear only in the purpose construction (e.g. *tutkiakseni* 'in order to examine'), but the other three steps can be expressed by evidential verb+*kseni* adverbs: supposing (step 2, *uskoakseni*, *luullakseni*), understanding (step 3, *käsittääkseni*, *ymmärtääkseni*, *nähdäkseni*) and knowing (step 1, *tietääkseni*). Table 3 summarises the division of these verbs in relation to their epistemic process and factuality.

Inference is often defined as a key concept between epistemic modality and evidentiality (e.g. see van der Auwera & Plungian 1998:85–86; Squartini 2008; Aijmer 2009:64; Marín Arrese 2013:417; Langacker 2017:19). For the semantics of the verb+*kseni* adverbs, this appears to be a relevant starting point. The verb stems that occur in the evidential verb+*kseni* construction are verbs of propositional attitude, referring to the semantic field of inference, which involves either assuming, understanding or knowing. What is expressed in the scope of the adverb is based on something the writer knows, thinks, or infers to be real, rather than the writer reporting a direct perception. Even sentences such as *kuva on nähdäkseni ulkona otettu* 'as far as I can see, the picture has been taken outside' emphasise the idea of the speaker's interpretation.

The construction nonetheless displays some flexibility in relation to verb stems. First, examples of other mental verbs used to express evidential meaning are rather easy to find, especially in non-formal media such as Internet discussion forums. This implies that the construction [mental verb+*kseni*] itself can trigger evidential meanings, and an appropriate mental verb, most easily SUPPOSE (*olettaa*, *otaksua*, *arvella* 'suppose', occasionally even *epäillä* 'doubt, suppose', a verb that can question the reliability of the proposition), can slip into the construction and become interpreted as evidential rather than a purpose construction.⁸ Second, due to their semantic structure, the evidential verb+*kseni* adverbs are interchangeable in many contexts, or the semantic difference is subtle (see Section 5). Most importantly, all the evidential verb+*kseni* lexemes profile the writer's access to knowledge and inference as an all-encompassing schema, conveyed through the combination of a mental verb stem and the suffixes. In addition to this profiled meaning, some meaning aspects are not necessarily activated in all contexts but can either become foregrounded and relevant in the situation, or remain backgrounded and not activated, such as implying the relevance of external information sources.

In the following sections, I will illustrate this semantic flexibility. Section 4 focuses on textual and interactional functions, and Section 5 offers an overview of the epistemic and evidential dimensions in relation to different verb stems.

4. Functions of the verb+*Kseni* in reader comments

The most fundamental feature in all the verb+*kseni* lexemes is the explicitly expressed conceptualiser's individual access to knowledge. This motivates the basic function of verb+*kseni* adverbs: to mark a given utterance as being the writer's opinion, claim, evaluation, etc. In addition to specific facts (example (2) above), the evidential verb+*kseni* adverbs combine easily with evaluations (how good, bad, suitable, or probable something is), as in example (3), and with sentences expressing expectations, as in (4).

- (3) Ymmärtääkseni on epäkohteliasta useimmissa kulttuureissa tarjota ruoaa[!] jota ei itse ole syönyt. [...]
 'As far as I understand, in most cultures, it is impolite to serve food that you have not eaten yourself. [...]'
- (4) ... Nähdäkseni vihreiden tulisi ottaa selkeämmin liberaali arvomaailma esiin politiikassa. [...]
 '... As far as I can see, the Greens should more clearly promote liberal values. [...]'

The verb+*kseni* adverbs construe a specific type of access and therefore index a specific type of dialogic orientation, a position toward the other and interpretation and anticipation of their actions (see Bakhtin 1981[1935]:280; White 2003). First, the other interlocutors are not expected to have similar access to knowledge. This meaning is created by the explicit first-person reference, but the interpretation is also supported by other constructions that express shared access (such as *meidän tietääksemme* 'as far as we know', or the productive passive participle construction, *ymmärrettävästi* 'understandably', *tiettävästi* 'as far as is known', see Jaakola 2012, 2018:131–134), and the writer can select the type of access to express. Another point is that through verb+*kseni* adverbs, the writers suggest and consider that in addition to their personal point of view, there might be other opinions or ways of understanding a given situation. Thus, the interactional function of verb+*kseni* adverbs is to 'expand' the dialogic frame in discourse, to keep the floor open for other viewpoints (see Martin & White 2005:98, 123; Simon-Vandenberg, White & Aijmer 2007:36). This, in turn, explains the emergence of hedging in texts (as in example (1)) and illustrates the interactional and rhetorical basis of this type of hedging strategy. The following sections illustrate the main functions of the evidential verb+*kseni* adverbs that typically occur in the reader comment data. These include hedging (Section 4.1), organising different voices (Section 4.2), and ironic uses (Section 4.3). Textual and interactional functions easily intertwine, but the aim of this section is to give an overview of the uses of this type of modal adverbs. The analysis is based on the position of the verb+*kseni* utterance in the text, most

importantly its relation to the argumentation and the different viewpoints in the discussion, and the nature of the presented information in the scope of the adverb (whether it is a generic, specific, or personal knowledge, negotiable or irrefutable fact).

4.1 Hedging

A specific outcome of the dialogic expanding is that the reader is not necessarily pressed to share the claim. Instead, writers often use these adverbs in their texts to create and maintain the impression of interlocutors arguing over different viewpoints. This is illustrated in (5) and (6), where the writers express their own viewpoints, but do not present them as the only possible alternatives. In (5), the scope of *ymmärtääkseni* is a claim that concerns which medicines are reimbursed by the Finnish Social Insurance system.

- (5) ... Mihin uutisen tiedot kaikkien tarkkaavaisuushäiriön hoitoon käytettävien lääkkeiden peruskorvattavuudesta perustuvat? Kelan sivuilla mainitaan ainoastaan Concerta yli 25-vuotiaille peruskorvattavana metyyliifenidaattina, joka siis palautettiin peruskorvattavaksi maaliskuussa. Kaikille ei kyseinen lääke sovi, eikä ymmärtääkseni muita lääkkeitä peruskorvata edelleenkaan. Onko jollakin tuoreempaa tietoa?

‘... What is the basis for the information in the news text that all ADHD drugs would be reimbursed? The Social Insurance Institution website mentions only that Concerta methylphenidate is reimbursed for patients older than 25 and this status was restored in March. This drug isn’t suitable for everyone, and as far as I understand, other medications are still not reimbursed. Is there any more recent information?’

The last question is directed to other readers and invites them to participate. The writer explicitly requests further information to either support or contest her knowledge, which also explains the meaning of the adverb *ymmärtääkseni* ‘to my knowledge, as I understand the situation to be’. Similarly, in (6), the writer initially uses the same evidential adverb and also describes her access to the information (her own experiences) in the second sentence.

- (6) Ymmärtääkseni kouluilla on jo nykyäänkin runsaasti rahaa käytössään. Käsitykseni perustuu puhtaasti siihen, että omat lapseni käyvät yksityskoulua[!], jossa on tarjolla ylimääräisiäkin oppitunteja ja valinnaisaineita, eikä siellä peritä oppilailta mitään koulumaksuja, vaan koulun saamat valtionosuudet riittävät[!] sen toiminnan pyörittämiseen.

‘As far as I understand, schools already have a vast amount of money at their disposal. My understanding is based purely on the fact that my children attend a private school, which offers also non-compulsory lessons and optional subjects. No tuition fee is required, as government grants are sufficient to operate the school.’

Through these explicit references to the writer’s own access, the readers can evaluate the claims and interpret the comment as a turn in discussion.

A specific type of hedging occurs when the scope of the adverb is a number, date, boundary, or an extreme value (see also example (2) above). The possible hedging in these utterances pertains to the accuracy of a particular detail (see Kaltenböck 2010:247–248):

- (7) ... Pääkaupunkiseudun ruokakunnista jo noin 40% on tietääkseni sinkkotalouksia, eikä sinkku tarvitse 75m² asuntoa. [...]

‘... In the Helsinki Metropolitan area, far as I know, about 40% of the households are already single-person households, and singles don’t need 75 m² apartments. [...]

- (8) Kun kovin monia tuntuu suuresti hämättävän nämä ymmärtääkseni jo pitkään(?) jatkuneet ongelmat, niin olisiko kohtuuton toivomus saada hieman seikkaperäisempi selvitys ongelmien syystä? [...]

‘Because so many of us seem to be extremely annoyed by these, as far as I understand, long-lasting(?) problems, would it be an unreasonable desire to get a slightly more detailed explanation for the cause of the problems? [...]

The question mark in parentheses in (8) confirms the interpretation that the writer has hedged on the duration of the problems, not their existence per se. Even in these examples, the choice of the verb +*kseni* is motivated by interactional goals. By constructing the specific number or other detail as slightly less definitive, the writer also anticipates possible corrections. This is an even more general principle; with a slightly less categorical argument the writer can make it stronger against counter arguments (Perelman & Olbrechts-Tyteca 1971; Hyland 1998:163,166). This effect of hedging a specific detail is most prominent with *muistaakseni* ‘as far as I remember’, but it is likewise prominent with other lexemes, of which more than one-third occur with a detailed or an extreme value.

4.2 Organising voices in the text

As I have pointed out, verb +*kseni* adverbs are also used when the reading of an epistemic hedge is weak, and they fulfil other, textual and interactional functions. As the reader comments are part of a written discussion with comments published after a minor delay, the writers use different means to refer or point to something that has been stated previously. In this regard, evidential adverbs also play a role in differentiating between the various claims and viewpoints that are expressed in the texts. The verb +*kseni* adverbs function as an explicit marker of a writer’s claim, and in this sense they are tools to organise polyphony in texts. In (9), the differentiating function is rather clear, as there are two different viewpoints. The writer of this extract first refers to the column and its claims and then expresses her own evaluation of these claims in a sentence that contains *nähdäkseni*.

- (9) Hämäläisen kolumni palauttaa kahdenkymmenen vuoden takaisin aikoihin. Kolumnissa toistuu kuitenkin kaksi väitettä joidenka totuusarvoa ei ole nähdäkseni riittävästi kyseenalaistettu: pankkikriisin hoitotapa sekä väite IMF:n holhouksesta. [...]

‘Hämäläinen’s column takes us back to twenty years ago. However, the column repeats two statements whose truthfulness, as far as I can see, has not been sufficiently questioned: How the banking crisis is treated and the allegation of the IMF’s guardianship. [...]

There are at least two possible evaluators: the writer of the column who did not question the issue sufficiently, the writer of this reader comment (who does), and possibly some other discussants. However, the passive voice (*ei ole kyseenalaistettu* ‘have not been questioned’) in the sentence leaves the evaluator open (since there is no subject referent), but *nähdäkseni* ‘as far as I can see’ defines the evaluator to be the writer of the comment text.

When the verb+*kseni* is placed at the beginning of a comment, readers interpret it in the frame of the news text or discussion. When this adverb occurs in the sentence-initial position, the typical interpretation is that the writer disagrees, or expresses some either additional or new viewpoint in relation to earlier texts, as in (10).

- (10) Ymmärtääkseni tuo koski vain poliisikoulun oppilaita ja univormu päällä matkustaessa heidän tuli avustaa konduktööriä häiriötilanteissa. Tuosta etuudesta on kuitenkin jo luovuttu.

‘As far as I understand, that only applied to the students at the police academy, and if they traveled in uniform, they were supposed to assist the conductors during disturbances. However, that benefit has already been abandoned.’

The writer in this example also appears to be rather knowledgeable on this issue, as the following declarative sentence indicates. As a consequence, the hedging function of *ymmärtääkseni* in this example is not as prominent as its dialogical and cohesive functions, as the adverb both links and contrasts the comment to previous texts.

The combination of a personal pronoun + verb+*kseni* rarely occurs in the data (34/1009), but the effect of the pronoun is obvious. The pronoun strengthens the interpretation of the writer’s own access, and this is predominantly found in contrastive positions, as in (11).

- (11) Mimmi Terävä väittää, että “Suomen virkakone on paisunut, väestöluvun suhteen se on 20 miljoonan väestön virkakone.” Minun tietääkseni valtion työntekijöiden määrä on viime vuosina jatkuvasti vähentynyt. [...]

‘Mimmi Terävä argues that “the Finnish civil service has over expanded in proportion to the population as it is a system for 20 million people.” As far as I know, the number of state employees has declined steadily over the last few years. [...]

About a quarter of the occurrences of the personal pronoun + verb+*kseni* are comment-initial and contrastive in relation to what has been said earlier in the thread (8/34), about a quarter are preceded by a (rhetorical) question (9/34), and also the remaining mark a somewhat dissenting claim or viewpoint in other position. Respectively, 17% of the plain verb+*kseni* adverbs in my data are comment-initial and 10% responses to (rhetorical) questions. The verb+*kseni* sentences that follow a question express a disagreement, or challenge a point made in the question, as in (12) and (13).

- (12) Kerrotko miten aineisto on anonyymiä? Ymmärtääkseni vastaukset on arkistoitujen nimien kanssa?

'Would you explain how the data are anonymous? As far as I understand, the answers are stored with the names?'

- (13) Miten ois turvavälin pitäminen? Ja edessä kulkevan liikenteen seuraaminen kaiken muun liikenteessä nähdyn oheistoiminnan sijaan? Käsittääkseni onnettomuuden aiheutti kääntyvän perään ajanut.

'How about keeping a margin of safety? And how about following the traffic instead of all kinds of other activities? As far as I understand, the accident was caused by the one who crashed the car that was turning.'

A contrastive claim may also follow a concession, as in (14).

- (14) Mahtoikohan professori todellakaan tarkoittaa imetyksen ja korvikkeen antamisen olevan samanarvoisia lapsen terveydelle? Siis jos otetaan mukaan myös lapsen mielenterveys ja henkinen sekä motorinen kehitys. Voin ihan hyvin uskoa, että ravintoarvoiltaan korvike ja rintamaito ovat ainakin lähes yhtä hyviä, mutta käsittääkseni ihokontakti ja rinnasta imeminen ovat lapsen kokonaisvaltaisen kehityksen kannalta parempia kuin pulloruokinta. [...]

'Did the professor really mean that breast-feeding and infant formula are equivalent for a child's health? I mean if we also take into account a child's mental health and mental and motor development. I can very well believe that the nutritional value of breast milk substitute is at least nearly just as good, but as far as I understand, the [infant's] skin-to-skin contact and sucking a breast are better for the child's overall development than bottle feeding. [...]

The adverb *ymmärtääkseni* occurs after the concessive sentence, and the adverb explicitly marks the sentence scope as the writer's claim. The verb+*kseni* adverbs may occur in a concessive pattern, which is a specific interactional formula consisting of an initial claim, a concession, and the writer's claim (see Antaki & Wetherell 1999; Barth-Weingarten 2003; Couper-Kuhlen & Thompson 2005), but these adverbs do not denote concession per se.

When the verb+*kseni* adverb occurs in a concessive sentence – and thus precedes the writer's claim – the entire sentence either describes a generic opinion or refers to

some other source than the writer. The first – the generic opinion – applies in (15), where the predicate verb is in the passive voice.

- (15) Tyhmintä minusta on se että terveydenhuollon rahat valuvat ulkomaille (puhumattakaan verojen kierrosta). Ymmärtääkseni ulkoistusta perustellaan aina sillä että se tulee kunnalle halvemmaksi. Mutta jos miettii koko maata, niin kannattavimmaksi tulisi että raha jäisi kotimaahan. [...]

‘I think it’s the dumbest thing that healthcare money flows abroad (not to mention tax evasion). As far as I understand, outsourcing is always justified because it will be cheaper for the municipality. But if you think of the entire country, it would be most profitable for the money to remain in the country. [...]

The concessive pattern in this extract emerges with *ymmärtääkseni* ‘as far as I understand’ and *mutta* ‘but’. By using *ymmärtääkseni*, the writer indicates that she is aware that such an opinion exists (‘outsourcing is always justified because it will be cheaper for the municipality’), and when the writer uses *mutta* ‘but’, she denies its rationality and continues with her own statement.

4.3 Irony

Finally, related to polyphony, an interesting context for verb+*kseni* adverbs are the comments in which in the scope the adverb is a factual, unquestionable piece of information, as in (16), or something the writer has experienced herself, as in (17).

- (16) Mitäköhän nämä professorit oikein höpää? 29 500e on hyvityssakon maksimimäärä, hyvityssakkoa on nyt määrätty 0e, joka on käsittääkseni vähemmän. [...]

‘What are these professors talking about? 29,500 euros is the maximum compensatory fine. In this case, it was set at €0, which as far as I understand, is less. [...]

- (17) Pahus kun sattuihin virhe itselleni. Luullakseni se oli ensimmäinen virhe, minkä olen koskaan tehnyt ;)

‘Damn, I was mistaken. I suppose it was the first mistake I have ever made ;)’

Both examples create an ironic or humorous tone, and the writer of these examples appears to be playing with the epistemic and evidential meaning of verb+*kseni*. The ironic interpretation in (16) emerges through a combination of mismatching knowledge frames (see Rahtu 2011): an undeniable fact (the sum of 0 euros is less than 29,500), and a hedge marker (‘as far I can understand’). The mismatch in (17) evolves between a hedge and a personal territory of knowledge (Heritage 2012). In other words, the writer indicates that she does not fully engage in the truthfulness of the utterance, even though she writes about her own experiences to which she has epistemic primacy. These ironic examples illustrate the use of the verb+*kseni* adverbs as a dialogical resource. In (16), the adverb invites the other readers to

question the competence of the experts interviewed in the news text. In (17), the mild swearword, *luullakseni* and the wink sign, each contribute to a tone that is conversational and addressee-oriented.

5. The effect of the verb stem

The propositions that occur within the scope of the verb+*kseni* adverbs are typically specific and non-conventionalised facts (excluding ironic utterances). Thus, these are negotiable issues. All the verb+*kseni* adverbs share the schematic meaning of reasoning that is based on a writer's access. However, they differ slightly in how that access is construed. The key difference between these adverbs lies in the verbs stem, which construe the knowing as a result (*tietääkseni* < 'know'), or an action (see Langacker 2008:451). The latter type divides into two: the process of understanding (*käsittääkseni*, *ymmärtääkseni* < 'understand', *nähdääkseni* < 'see, understand'), or supposing (*uskoakseni* < 'believe', *luullakseni* < 'suppose'), and the verb stems are respectively factive or non-factive (see Kiparsky & Kiparsky 1971:147; Hakulinen et al. 2004:§1487). Among these six adverbs, *tietääkseni* (< 'know') and *luullakseni* (< 'suppose') have the most specialised semantics, whereas *käsittääkseni* and *ymmärtääkseni* (< 'understand') are the most polysemous. Nonetheless, these adverbs are usually interchangeable in the sense that they trigger only slightly different interpretations.

Next, I will focus on the use of these adverbs in relation to evidence. This proves to be the main difference: whether a given lexeme typically combines with a reference to other texts or discourses, to personal experiences, or general (cultural) knowledge, and how this affects its meaning. Reader comments typically do not include an explicit reference to an information source (see also Johansson 2017). However, for news discussions, it is important to be able to differentiate voice, and all the verb+*kseni* adverbs are used to fulfill this function in the data. The basic interpretation is that the writers rely on their inference concerning their own observations on the issue, and when they do not explicitly refer to any external source of evidence, all the six adverbs are possible variants (see example (31) below), even though some differences arise in how the writer's inference is construed.

The outline of this section follows the division of mental verbs discussed in Section 3 (and summarized in Table 3 above): knowing as a state (Section 5.1), understanding (Section 5.2) and assuming (Section 5.3).

5.1 *Tietääkseni* 'to my knowledge, as far as I know'

The verb *tietää* 'know' is a factive verb that denotes knowing as a static state and it therefore represents the final step in the epistemic process (see Langacker 2008:451). This meaning is also reflected in the uses of the adverb *tietääkseni*. What is characteristic of *tietääkseni* is its unspecificity in relation to inferential processing and the evidential sources (whether the information is based on the other texts or discourses, or the writer's own experience). Compared to the other evidential verb+*kseni* adverbs, *tietääkseni* does not imply a linkage to the previous text in a discussion, but instead foregrounds the writer's own knowledge. The

tietääkseni in (18) marks a specific fact (the safe alcohol limit for women) to be something the writer knows.

- (18) Tietääkseni 0,5 - 1 litraan mietoa viiniä joka päivä 20 vuoden ajan ilman mitään muuta alkoholia aiheuttaa pienikokoiselle naiselle maksan tuhoutumisen. Eli aika pieniä ovat määrät loppujen lopuksi.

‘To my knowledge, 0.5–1 litre of mild wine every day for 20 years and no other alcohol causes a small woman to have liver damage. So, the amounts are quite small, after all.’

The comment does not reveal the source of the information, and it would even be odd if the writer had made an explicit reference to a news article as a basis for inference (?As far as I know, judged by the article). This is typical for the *tietääkseni* examples: In the immediate context, there either is no reference to other sources or the information source is displayed as not providing supporting evidence (e.g. Tietääkseni oikein mikään asiantuntijatieto ei puolla nuorten seksikokeilujen rajua tuomitsemista ‘As far as I know, no expert knowledge favours the condemnation of teen sex experiments’), or the statement is based on general knowledge, as in (19).

- (19) Tietääkseni takatalvella tarkoitetaan keväällä kasvukauden aikana sattuvaa kylmää jaksoa. Tosin toimittajat eivät muutenkaan tunnu tietävän asioista paljoa. Kirjoittaa silti pitää.

‘As far as I know, the cold snap in spring [lit.: ‘back winter’] is a cold period in the spring during the growing season. However, journalists do not seem to know much about matters. Still, they keep writing.’

The writers also combine *tietääkseni* with general and even irrefutable facts, as in (20), to create an ironic tone. While the writers declare themselves aware of the matter in the sense of ‘this is self-evident’, they invite the other discussants to see the prior issue in a questionable light.

- (20) äh, tietääkseni mikään ei estä miesopettajia puhumasta naiskollegojensa kanssa? Ymmärrän kyllä että sukupuolien välillä on joitakin eroja, mutta ne eivät estä ystävyystymistä saati sitten työasioiden puimista. [. . .]

‘uh, as far as I know, nothing prevents male teachers from talking to their female colleagues? I understand that there are some differences between the sexes, but they do not prevent friendships, let alone discussing work issues. [. . .]’

In general, *tietääkseni* differs from the other evidential verb+*kseni* forms in that it expresses a rather high epistemic commitment and an interpretation of an unspecificity of information source. Thus, *tietääkseni* triggers a reading that the writer relies on her own knowledge and sources that are independent from what has been written in the other texts. In this regard, the semantics of *tietääkseni* backgrounds an

inferential evaluation and instead particularly foregrounds the writer's personal knowledge on the matter.

5.2 *Käsittääkseni, ymmärtääkseni 'as far as I understand' and nähdäkseni 'as far as I can see'*

The Finnish UNDERSTAND verbs, *käsittää* and *ymmärtää*, are near-synonyms (Arppe 2005), and the adverbs *käsittääkseni* and *ymmärtääkseni* are interchangeable in all contexts (in the reader comment data, however, *käsittääkseni* is more frequent). The verbs *käsittää* and *ymmärtää* are factive, but they differ from *tietää* 'know' in the sense that they construe knowing as a process that involves an increase in understanding that leads to an awareness of a fact. This is also reflected in the semantics of *käsittääkseni* and *ymmärtääkseni*. What is foregrounded is the writer's own interpretation of whatever it is based on: previous texts in discussion, as in examples (21) and (22) below, other evidence, as in (23), or evidence that can easily be left implicit in the comment. (The evidence source is indicated in italics in the following examples and their translations.)

- (21) *Ymmärtääkseni, kommentteistasi päätellen, torjuntaase-järjestelmät[!] esim. ilma-torjunta-asejärjestelmät ovat ns. hyväksyttäviä. Mikäs siinä, sopii minulle, jos se pätee tasapuolisesti kaikkiin valtioihin. [...]*

'As far as I understand, judged by your comments, anti-weapon systems such as anti-aircraft weapon systems, are acceptable. Whatever, fine with me if it applies equally to all nations. [...]

- (22) *Tosi huono lähtee sanomaan onko kyse ollut turvavälistä niillä tiedoilla mitä lehdissä lukee. Käsittääkseni kyseessä ei ollut ketjukolari jossa kolmas auto olisi työntänyt toisena olleen ensimmäisen perään. Sillon[!] olisi ollut aika varmasti kyse turvavälistä. [...]*

'It is really hard to say whether it was a question of a poor safety margin, based on what can be read in the press. As far as I understand, it was not a pile-up where the third car would have pushed the second car. In that case, it would certainly have been a matter of the safety margin. [...]

- (23) *... Tutkimukset käsittääkseni osoittavat, että kuljettajat yleisesti ottaen ovat perillä renkaidensa kunnosta ja osaavat huomioida tämän määrällä. [...]*

'... As far as I can understand, studies indicate that drivers generally know the condition of their tyres and are able take that into consideration on wet roads. [...]

Since *ymmärtääkseni* and *käsittääkseni* foreground understanding and are neutral in relation to information sources, they have the widest variation of contexts of all the studied evidential verb+*kseni* forms. This flexibility also makes them an easy

option to replace all the other verb+*kseni* adverbs (including the *tietääkseni* (< ‘know’) examples mentioned above).

The third UNDERSTAND verb stem in the evidential verb+*kseni* group is *nähdä* ‘see’. The metaphorical extension from visual perception to understanding or knowing is documented in many languages (e.g. Sweetser 1990:33–34; Gibbs 1992), and the Finnish *nähdä* ‘see, understand’ is similarly polysemous (there are also other conventionalised epistemic-evidential derivatives of the verb stem, such as *nähtävästi* ‘presumably’). *Nähdäkseni* resembles *käsittääkseni* and *ymmärtääkseni* (< ‘understand’) by sharing the prominence of inferential processing. This allows them to be used in similar contexts, juxtaposed with reference to the news article or previous comments, to other texts, or without reference to evidence. In (24), the basis for the writer’s understanding is in the news article, and she explicitly refers to it.

- (24) Jos ymmärsin asian - *dramatisoidun otsikoinnin kautta* niin kyseessä on pari somaliaa[!] ja muutama muu jotka ovat rahallisesti tukeneet Somaliassa olevaa valtausta - nähdäkseni myös värvänneet porukkaa sinne. Mitä ryhmää he ovat siellä tukeneet *ei mainita* - joten jarruja päälle. Ei se nyt vaikuta kovinkaan terroristiselta toiminnalta. [...]

‘If I understand right – *through a dramatic headline*, there are a few Somalis and a few others who have financially supported the struggle for power in Somalia – as far as I can see/in my view, they also recruited a bunch of people there. The identity of the group *is not mentioned*, so take it easy. It doesn’t seem to be a very terrorist-like activity. [...]

The evidential readings in (21) through (24) are very similar ‘as far as I can see’, with ‘see’ used in the sense of understanding, and these adverbs would easily be interchangeable (if one ignores the effect of repeating the verb stem *ymmärtää* ‘understand’ in (24)).

However, the concrete meaning (perception) remains somewhat present in (24), and it is interesting that a typical context for *nähdäkseni* in the reader comment data is when writers base their interpretation on a prior statement, that is, on what they have been able to SEE (in both senses). Still, the visual perception (e.g. reading a text, or looking at the picture) is only the starting point, and the importance of the writer’s reasoning is present in all the usages of *nähdäkseni*, and even when a reference to direct perception is made, as in (25).

- (25) ... Nähdäkseni nuo alaskanmalamuutit ovat verrattain suden *näköisiä* koiria, varsinkin hämärässä kauempaa ... Epäilemättä koiria ja susia hyvin tunteva voi ne erottaa hyvissä olosuhteissa, mutta kaikki eivät ole asiantuntijoita eikä sellaista voida edellyttää. [...]

‘... As far as I can see, those Alaskan Malamutes are rather wolf-looking dogs, especially at twilight and farther. ... Undoubtedly someone who knows dogs and wolves well may be able to distinguish them under good conditions, but not everyone is an expert and cannot be required to be. [...]

The text refers to a comparison based on visual perception (between dogs and wolves), but *nähdäkseni* directs the argumentation from perception to inferential evaluation. This interpretation is confirmed by the following sentences in which the writer discusses the problems of identification (also the lack of a photo in the original news article).⁹ The form *nähdäkseni* in (25) particularly emphasises the writer's processing of the input instead of pure perception.

In addition to previous context types, *nähdäkseni* also occurs in reader comments when the writer relies on her own experiences. This experience is described explicitly in (26):

- (26) ... Idän uskonnot ja New age eivät kuulu helluntailaisuuteen, itsekunkin hengellinen elämä rakentuu Raamatulle ja sen raiteille opetukselle. Hypnoosi ja meditaatio ovat nähdäkseni New agea ja riski kokeisiin osallistujalle. *Jälkimmäistä harrastin ryhmässä itsekin rajatietoaikoinani*. Oli vähällä ettei se kaikki johtanut psykoosiin. Uskoontulo selvitti sopan. Kyseessä on enemmän kuin aivotoiminta.

'... Eastern religions and New Age do not belong to Pentecostalism. The spiritual life of each one is based on the Bible and its pure teaching. Hypnosis and meditation belong, as far as I can see, to New Age practices, and they pose a risk for those who participate in tests. *I did the latter myself when I was interested in occultism*. It was close that it all didn't lead to psychosis. Becoming a believer solved the problem. It not a question of only cerebral reasoning.'

In example (26), one justification for the statement (that hypnosis and meditation are both New Age phenomena) is based on what the writer herself has witnessed. As in the previous contexts, (24) and (25), *käsittääkseni* and *ymmärtääkseni* would also be natural in (26), but the difference lies in whether the link to the writer's own experience is foregrounded (by *nähdäkseni*) or not (by *käsittääkseni*, *ymmärtääkseni*). Since these two context types of *nähdäkseni* (reference to previous texts, or to own experience) dominate in the data, the writer's own perceptions and experiences are prominent in all uses of the word.

To conclude, the importance of the writer's reasoning is profiled in all the usages of *käsittääkseni*, *ymmärtääkseni* and *nähdäkseni*, but they differ in how the evidence is linked to the reasoning. Through the use of *käsittääkseni* and *ymmärtääkseni* (< 'understand') the sentence emphasises the writer's own reasoning, and leaves the evidence open, whereas *nähdäkseni* (< 'see, understand') foregrounds the evaluation of information in relation to some available evidence, or to prior experience.

5.3 Luullakseni 'as far as I suppose' and uskoakseni 'as far as I believe'

The least frequent evidential verb+*kseni* adverbs in the data are the forms derived from non-factive SUPPOSE verbs, *uskoakseni* (< 'believe') and *luullakseni* (< 'suppose') as these two lexemes cover only 4% of all the evidential verb+*kseni* adverbs in the reader HS.fi data (Table 2). On the epistemic scale, SUPPOSE verbs represent the initial step with propositional attitude, where speakers evaluate the truthfulness of a proposition, but expresses less strong commitment to its reliability than with the KNOW and UNDERSTAND verbs (see Langacker 2008:451). Moreover, the Finnish verb *luulla* tends to be interpreted as contrafactive 'erroneously assume

something' in all other forms except the first-person present tense (Lakaniemi 2019): With the past tenses, the interpretation of erroneous knowing (contrafactive) dominates in all persons, also in the first-person singular (e.g. *Luulin, että pitäisit siitä* 'I thought you would like it [but you obviously do not]'). In this sense, *tietääkseni* (< 'know') and *luullakseni* represent the two endpoints of an epistemic scale of the verb+*kseni* adverbs. This is illustrated in the examples in which these two are juxtaposed, as in (27).

- (27) ... Tietääkseni (tai luullakseni) Suomesta ei löydy kuitenkaan 60 000 nudistia, – vaikka lähes jokainen meistä käy alasti saunassa ja esiintyy häpeilemättä perhepiirissään ilman vaatteita. [...]

'... As far as I know (or as far as I suppose), one still can't still find 60,000 nudists in Finland, – even though almost every one of us is naked in the sauna and we act unashamedly without clothes on at home. [...]

The writer specifies the mild hedge (*tietääkseni* 'as far as I know') with another, somewhat more effective hedge (*tai luullakseni* 'or as far as I suppose'). The formulation resembles a self-repair as a rhetorical act with parentheses and the disjunctive conjunction *tai* 'or'.¹⁰

The meaning of hedging becomes more prominent in the semantic structure of *luullakseni* than with the other verb+*kseni* adverbs, which may partly explain its low frequency of occurrence in argumentation; it is rare in the reader comment data (12/1342), and its frequency is equally low in other data on internet discussions at csc.fi. After all, *luullakseni* in the data integrates assumptions and hedges, but erroneous understanding is not prominent in these comments (which is in line with the first-person present tense non-factive uses of *luulla*). Similar to other evidential verb+*kseni* adverbs, *luullakseni* creates an interpretation of an opinion that may change if any further information arises, as in (28).

- (28) En ota kantaa toimittajan kommenttiin, mutta tässä tapauksessa luotan viranomaisten tutkimusaineistoon ... Viranomaisilla on luullakseni paljon sellaista tietoa asiasta hallussaan joka ei vielä täysin ole median käytössä. Ei pidä ottaa kantaa viranomaisia vastaan ennen kuin on todistettavissa että he ovat väärässä. Tässä asiassa antaisin viranomaisille median puolelta täyden työrauhan. [...]

'I don't comment on the editor's statement, but in this case, I trust the authorities' data ... The authorities have, as far as I suppose, extensive information which is not yet fully used in the media. One should not take a stand against the authorities before it is proven they are wrong. In this case, I would give the authorities complete peace at work on the media side. [...]

It is interesting, however, that even though the *luullakseni* examples do not promote a contrafactual reading, the writers appear to prefer the other suppose-related verb+*kseni* forms.¹¹ In HS.fi data, *uskoakseni* (< 'believe') is slightly more frequent than *luullakseni*, and the other internet discussion data (e.g. Suomi24 discussion forum data in csc.fi) include other SUPPOSE stems, such as *otaksuakseni* and *olettaakseni* (< 'assume'). The contexts of *uskoakseni* can be roughly divided into two:

It serves as a neutral marker of an opinion (29), or it is combined with states of affairs that are supposed to occur in some other reality, either in the future (30) or in some hypothetical space.

- (29) Lapsettomuuden suurin syy on uskoakseni sopivan kumppanin puuttuminen. Perheinstituution ja perinteisten mielen ja naisen roolien alasajo vaikeuttaa kumppanin löytämistä ja kestävän parisuhteen luomista. [...]

‘The major reason for infertility is, as far as I believe, the lack of a suitable partner. The demise of the family institution and the traditional roles of man and woman make it difficult to find a partner and build a lasting relationship. [...]

- (30) ... Olen nyt 22-vuotias, enkä siis ole ollut töissä lähes kolmeen vuoteen. Täällä peräkyllillä päin kun ei vain ole minun alani työpaikkoja, joskin niitä uskoakseni tulee vuoden tai parin päästä, kun muutama uusi projekti potkaistaan käyntiin [...]

‘... I am now 22 and haven’t been working for nearly three years. There just are no jobs in my field in these remote villages, although as far as I believe, they will be within a year or two when a few new projects will be launched. [...]

Luullakseni and *uskoakseni* resemble the forms *käsittääkseni* and *ymmärtääkseni* (< ‘understand’) in that they all foreground knowing as a process but differ in that they indicate a slightly less strong basis for the claim. In this data set (although the frequencies are small), believing appears to be more convincing than supposing. This is in line with the uses of the respective finite verbs: It has been demonstrated that the first-person construction *uskon, että* ‘I believe that’ expresses the author’s stronger epistemic commitment than *luulen, että* ‘I suppose that’, as the former is often used in sentences that emphasise the author’s position, and even express a contrast (Juvonen 2011:245, 247, 249; see also Fetzer 2009).¹²

5.4 Section summary

Even though the different verb stems foreground different evidential and epistemic aspects, stems do not fully determine the usage of a given adverb, and the verb+*kseni* adverbs may even be interchangeable in the data. For many examples, any of the six adverbs would create a sensible and natural reading, while each of them foregrounds certain aspects that are evidential, modal or interactional. This is illustrated in (31). The topic concerns drugs, and the comment is oriented to the previous comment. No reference is made to information sources in this example, which makes the context even more flexible for all the six verb+*kseni* adverbs.

- (31) Vai että 30000e max 504 kasvista, meinaat siis että 1 kasvi tekee 6 grammaa kukkaa : P, puhumattakaan lehdistä joista voi tehdä hasista. Tuon 30k saa kolmesta kasvista vaatekaapissa kunhan olosuhteet ja kasvatustekniikka on kunnossa. Toki kilostakin pilveä voi pyytää vaikka 100 000e, mutta ymmärtääkseni tukkumääriä myydään 1/4 tavalliseen katuhintaan verrattuna, niin 30 000e saattaa olla kohtuullinen hinta 5kg pilveä, mene ja tiedä?

'So, 30,000 euros for a max. of 504 plants, you mean that 1 plant makes 6 grams of flower :P, not to mention the leaves that you can use to produce hash. One can get that 30,000 euros from three plants in the wardrobe as long as the conditions and growing technique are fine. Of course, it would be OK to even ask for 100,000 euros, but as far as I understand, the wholesale quantities are sold at 1/4 of the normal street price, so 30,000 might be a reasonable price for 5 kg of weed, who knows?'

The writer uses *ymmärtääkseni*, which like *käsittääkseni* (< 'understand'), focuses on the writer's reasoning, whereas *tietääkseni* (< 'know') would foreground the specific level of knowledge and the idea of the writer's mind as a 'Data Warehouse' serving as a basis for the claim. By contrast, *nähdääkseni* (< 'see') would emphasise the writer's experiences as a basis for the claim, or link to previous texts in a discussion. And finally, *uskoakseni* (< 'believe') and *luullakseni* (< 'suppose') would express a well-founded conjecture.

6. Discussion

This analysis illustrates the interactional nature of evidentiality and epistemic modality as well as the use of specific lexical means to construe dialogic frames in a communicative digital genre. These adverbs are evidential in that they denote to the writer's own inference and its evidence, but they are also epistemic because they indicate the writer's level of commitment to the reliability of the proposition.

In relation to textual and interactional functions, this study also reinforces the understanding of hedging as an interactionally motivated action (e.g. Kärkkäinen 2003, White 2003, Kaltenböck 2010). Within these adverbs, hedging often merges with other functions, such as anticipating other views, or creating textual polyphony and even ironic readings. The writers often offer their claims as one possible means of interpreting matters, but particularly the contrastive rhetorical patterns with verb+*kseni* adverbs also direct the addressee's attention to the utterance offered as the most promoted by the writer.

The effect of genre and media is also important because these adverbs are primarily a feature of written language. It may be that in written texts, due to the properties of written interaction, there is a specific functional demand for a variety of evidential and epistemic expressions as well as for near-synonyms. Reader comments are one part of internet discussions, and in addition to facts, the texts include a variety of dialogical and rhetorical elements. When the writer's access is expressed explicitly, this creates an impression of a dialogue in that people argue and discuss, and in this sense, this type of expression may have a role in the construal of the 'discussion forum text'.

The textual analysis reveals the semantic flexibility and even the interchangeability of the evidential verb+*kseni* adverbs. Despite each of these adverbs having a specific semantic structure in relation to evidential and epistemic dimensions, they also perform similar interactional and rhetorical functions in the data. The constructional meaning profiles the writer's own access to the information source and its processing as a basis for what will be claimed. What varies from lexeme to lexeme is the foregrounding of specific dimensions of the inferential basis, but at the same

time, the interplay between foregrounded and backgrounded dimensions also enables the polysemy of a certain lexeme. The verb semantics affect the use, but does not determine it, as the constructional meaning levels out the differences. Each of these lexemes foregrounds certain dimensions, but at the same time, semantic flexibility is characteristic of this adverb type in general.

The verb stems of these adverbs are verbs of propositional attitude, and their epistemic meanings play a role in the semantics of a respective adverb and in how reliable the speaker evaluates the evidence to be. When these adverbs occur in the reader comment argumentation, they are most often used as markers of understanding on the basis of the available evidence (*käsittääkseni*, *ymmärtääkseni* < ‘understand’ and *nähdäkseni* < ‘see, understand’) but also as markers of ‘pure’ knowing (*tietääkseni* < ‘know’). Lexemes with factive verb stems represent the highest writer commitment, and they form a core of the evidential verb+*kseni* adverbs. *Tietääkseni* (< ‘know’) foregrounds the specific level of knowledge and the knowing of a result, and with it, the writers express the highest commitment to the proposition. The near-synonyms *käsittääkseni* and *ymmärtääkseni* (< ‘understand’) are the most frequent, have the most flexible meaning and the widest contextual variety, that is, they occur in different positions of a comment and in different rhetorical patterns. The meaning of hedging may be rather weak, and the idea of the writer’s inference is the most prominent. Almost as flexible is *nähdäkseni* (< ‘see, understand’) which especially foregrounds the idea that reasoning is based on a certain information source (for example, the news article).

The adverbs with non-factive stems, *luullakseni* (< ‘suppose’) and *uskoakseni* (< ‘believe’) result in a more pronounced reading of hedging, or an interpretation of speculation as it pertains to a hypothetical scenario. However, these adverbs are infrequent in these data. This may indicate several things. Most importantly, the evidential verb+*kseni* adverbs are often used when writers are rather committed to the validity of their expressed opinions and claims, and the factive verb stems obviously offer a more suitable basis for argumentation. This, in turn, may also indicate that the usage of inferential adverbs in internet discussions is based more on the need to textually mark the writers’ personal opinions than to merely reduce the writers’ commitment to their claims. Different types of data would offer more insight into SUPPOSE stem adverbs, their use in various texts and interactional use (see also Footnote 12).

In relation to the more general taxonomies of evidentials (e.g. Plungian 2001; Aikhenvald 2004:367), the verb+*kseni* adverbs contribute to indirect evidentiality, and more specifically to the domains of inference (reasoning on the basis of evidence that can be perceived) and assumption (reasoning without perceivable evidence, including general knowledge). A characteristic of these adverbs is that they are not restricted to the expression of any specific type of information source (the multifunctionality of inferential expressions have been noticed in other languages as well, such as Simon-Vandenberg & Aijmer 2007; Cornillie 2009; Nuyts 2017:67). In the reader comment data, the verb+*kseni* lexemes indicate a small division of labour: *Nähdäkseni* (< ‘see, understand’) often combines with evidence that is based on the news article and thus resembles inference based on perceived evidence (see Aikhenvald 2004:367), whereas *tietääkseni* (< ‘know’)

promotes the general knowledge and assumption-type of indirect evidentiality, but the other lexemes blur the division between inference and assumption.

Finnish is an example of a language that has not a grammatical evidentiality system, and the semantic domain of evidentiality is primarily expressed through lexical elements. In such languages, hearsay and inferentiality seem to be the most frequent evidential meanings (Cornillie 2009:46). Expressing the source of information or the mode of knowing is a linguistic choice (as these can remain unspoken), and they are always accompanied by interactional acts (making claims, giving justifications, answering questions, storytelling, etc.). As evidenced in the data, inferential adverbs readily lead to epistemic interpretations in argumentative contexts, and in this sense, evidentiality and epistemic modality intertwine in their semantics.

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Notes

1 None of these paraphrases is a perfect equivalent, but together they open up the meaning of this type of adverbs.

2 Of course, the use of grammatical evidentials is also connected to interactional aspects (e.g. Aikhenvald 2004:Chapter 10; Mushin 2001).

3 The rare editorial texts occurrences are thus excluded from the data: four instances in news articles, all in quotations, and one in a column. The original HS.data (comprising eight million words), includes 6091 news texts.

4 The semantics of the purpose construction and its extensions (Leino 2005) and their relation to the evidential construction fall beyond the scope of this study.

5 Abbreviations: 1, 3 = first, third person; GEN = genitive case; PASS = passive; POSS = possessive suffix; PRS = present; PTCP = participle; SG = singular; TRA = translative case.

6 I have excluded instances of purpose constructions (*nähdäkseni* 'in order to see' (N = 5), *tietääkseni* 'in order to know' (N = 4), and *ymmärtääkseni* 'in order to understand' (N = 3)). Duplicates and occurrences in quotations have also been excluded, that is, extracts that are repeated in a comment.

7 The HS.fi corpus data are in line with previous studies, see Arppe's (2005) correspondence analysis on the inflectional profiles of the selected verbs denoting thinking and understanding, the frequency of the *kseni*-form is the feature that most clearly separates *käsittää* from *ymmärtää*.

8 The THINK verbs (*ajatella* 'think', *mieltää* 'consider', and *tuumia* 'ponder') trigger a purpose reading, but some forms can occasionally be found in evidential constructions (such as *ajatellakseni* 'in order to think' or 'as far as I can think'). Stems denoting direct perceptions, such as *kuullakseni* 'in order to hear', are purpose adverbs, but occasional evidential uses can be found ('as far as I have heard, to my knowledge', as in the HS.fi data), obviously due to the analogy of *nähdäkseni* (< 'see') which can have both purpose and evidential interpretations.

9 A thorough analysis of *nähdäkseni* would require a detailed comparison with the passive present participle form *nähtävästi* 'apparently' (see-PASS-PRS.TCP-ly, lit.: 'see-able-ly').

10 In the reader comment data, the only juxtaposed forms are *tietääkseni* (< 'know') and *luullakseni* (< 'suppose') (twice) but more combinations occur in other internet data, and a typical pairing is factive stem with a non-factive stem.

11 Another more frequent verb form is the passive participle, *luultavasti* 'probably, presumably' (lit.: 'suppose-able-ly'; 570 occurrences in the HS.fi corpus). It is used in similar contexts as *luullakseni* and even described as being replaceable with it (Hakulinen et al. 2004:§1524).

12 An additional observation is that other corpora have SUPPOSE stems (such as *olettaakseni*, *otaksuakseni*, and *arvellakseni* ‘as far as I suppose/see’), which may indicate that there are contextual reasons which compel the writers to select verb stems that allow more room for speculation when they express their own inference.

Data Source. A Cognitive Grammar of Finnish in comparison with other Finno-Ugric languages research project, Department of Finnish, Finno-Ugrian and Scandinavian Studies, University of Helsinki (2014). *The HS.fi News and Comments Corpus* [text corpus]. Kielipankki. Retrieved from <http://urn.fi/urn:nbn:fi:lb-2014052718> (accessed 10 May 2020).

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