

Evidentiality in Finnish

On the communicative functions of the reportative evidential *kuulemma* and the dubitative marker *muka*

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Evidentiality conveys information about the nature – and reliability – of the information source. This paper investigates the Finnish reportative evidential (hearsay particle) *kuulemma* and the dubitative particle *muka* ('supposedly, allegedly, as if'). I propose a unifying analysis of two seemingly divergent uses of *muka*, and show how they contrast with *kuulemma*. My analysis builds on and extends recent work on reportatives regarding the distinction between the Animator (the speaker who utters the sentence) and the Principal (the person whose commitments are being expressed). Furthermore, I suggest that the dubitative *muka* may point to the existence of non-assertive discourse moves and has implications for our understanding of the discourse role of 'Principal.' This work also informs typological work on evidentials and related expressions by providing a systematic investigation of reportative and dubitative markers in a non-Indo-European language.

Keywords: Finnish, evidentiality, dubitative, doubt, reportative evidential, hearsay, Principal, Animator, *muka*, *kuulemma*

1. Introduction

Evidentiality conveys information about the nature of the information source, e.g., whether a speaker has direct visual evidence for what they are describing, or whether they heard about it from someone else, or inferred it from other information (e.g., Willett 1988; Aikhenvald 2004). Since different information sources differ in their reliability – for example, visual information is considered more reliable than hearsay/reported information – evidentials can reflect a speaker's level of commitment to the target proposition. A related linguistic device that expresses

a speaker's level of commitment to a particular proposition – or more accurately, lack of commitment – are dubitative markers. However, while different kinds of evidential markers have received extensive attention in typological and theoretical work, dubitative markers are less well-researched. Furthermore, even within the class of evidentials, many questions remain open. For example, it has been noted that reportative evidentials (which signal that someone other than the speaker said the relevant information) may not be a uniform semantic class, and vary cross-linguistically in terms of the current speaker's beliefs regarding the reported proposition *p* – e.g., whether the speaker is skeptical about *p* or considers *p* to be at least possible (see, e.g., Caudal, Henderson & Faller 2011 for discussion).

This paper investigates the semantics and pragmatics of the reportative evidential particle and the dubitative particle in Finnish. (Finnish has no specialized affixal evidential morphology.) Whereas the reportative evidential ('hearsay') particle *kuulemma* indicates that the speaker is reporting information provided by someone else and is not committed to the truth of the proposition, the dubitative marker *muka* (roughly translatable along the lines of 'supposedly, allegedly, as if'; see, e.g., Nordlund & Pekkarinen 2014) is typically described as indicating that the speaker doubts the truth of the proposition, although *muka* can also have a reportative flavor.

To get a sense of how these particles work, imagine a context where someone tells me that Pekka doesn't have time to exercise, but I doubt this claim – I think he could make time for it if he really tried. In reporting this exchange to another friend, I could use any of the three options in (1): the reportative evidential *kuulemma* (1a), the dubitative marker *muka* (1b), or both combined (1c). The reportative evidential *kuulemma* indicates that *p* (Pekka doesn't have time to exercise) was said to me by someone else. The dubitative particle *muka* in (1b) can also easily be interpreted as signaling that I'm reporting someone else's statement – and in fact in descriptive discussion *muka* and *kuulemma* are often grouped together as both indicating that the information source is someone other than the speaker. Furthermore, unlike *kuulemma* in (1a), the dubitative *muka* in (1b) signals that I doubt the truth of this claim. The fact that both can co-occur without creating redundancy (1c) indicates that they make different discourse contributions.¹

1. Grammatical abbreviations used in this paper: NOM nominative, PART partitive, GEN genitive, ACC accusative, ADE adessive, ALL allative, ESS essive, ILL illative, SG singular, PL plural, Px possessive suffix, ADV adverb. For reasons of brevity and readability, verbs are not glossed, and no glosses are provided for examples where the syntactic or morphological details are irrelevant for the claims being made in this paper.

- (1) a. reportative evidential *kuulemma*
Pekka ei kuulemma ehdi urheilla.
 Pekka.NOM neg *kuulemma* have-time do-sports
 ‘Pekka doesn’t *kuulemma* have time to exercise’
 / ‘Pekka doesn’t have time to exercise, I heard.’
- b. dubitative particle *muka*
Pekka ei muka ehdi urheilla.
 Pekka.NOM neg *muka* have-time do-sports
 ‘Pekka doesn’t *muka* have time to exercise.’
 / ‘It’s claimed that Pekka doesn’t have time to exercise, but I doubt this.’
- c. reportative evidential combined with dubitative particle
Pekka ei kuulemma muka ehdi urheilla.
 Pekka.NOM neg *kuulemma muka* have-time do-sports
 ‘Pekka doesn’t *kuulemma muka* have time to exercise.’
 / ‘Pekka doesn’t have time to exercise, I heard, but I doubt this.’

In this paper I focus specifically on *kuulemma* and *muka*. However, see Section 2.2 and footnote 10 for brief mention of inferential evidential expressions related to the verb ‘to see’ (*näköjään* ‘I see, seemingly’ and *näemmä* ‘apparently’) as well as the pretense-related verbal compound construction ‘to be verb + *vinA(An)*’ (e.g., *olla lukevinaan* ‘pretend to read’) known as *kvasirakenne* (‘quasi-structure’). My focus in this paper is specifically on the discourse contributions of reportative evidential particles and dubitative particles, and thus I do not address inferential evidentials or verbal constructions.

This paper has three main aims. First, building on recent theoretical analyses of reportative evidentials (Section 1), I provide a systematic discussion of the discourse contribution of the reportative evidential *kuulemma* (Section 2). Second, I propose a new taxonomy of how the dubitative marker *muka* is used, extending the theoretical claims about reportative evidentials to a new empirical domain (Section 3) and highlighting the differences between reportative *kuulemma* and dubitative *muka*. Third, in Section 4, I propose an analysis that seeks to (a) unite the different uses of the dubitative *muka* in a systematic way, while also (b) arguing for a broader conceptualization and more fine-tuned distinctions in our definition of the discourse role of ‘Principal’ (the person whose beliefs are being reported). Section 5 concludes and identifies directions for future work. As will become clear below, in addition to having ramifications for our empirical understanding and theoretical representation of discourse roles, my proposed analysis also has implications for fundamental questions regarding the mapping between a sentence’s semantic type (e.g., declarative) and illocutionary potential (e.g., assertion).

1.1 Initial theoretical background: Discourse updates

Following recent work by Faller (2019) and Pancheva & Rudin (2019) on reportative evidentials, I make use of Farkas & Bruce's (2010) commitment-based model of discourse – the Table model – which has its roots in Stalnaker's (1978) work (see also Gunlogson 2001). This approach provides a means of characterizing how different linguistic expressions update the conversational record, while also allowing for a representation of conversational participants' commitments. Two Stalnakerian components that are relevant are the notion of Common Ground (the set of propositions that all discourse participants share, i.e., common beliefs shared by discourse participants) and Context Set (the set of worlds compatible with the propositions in the Common Ground).

Furthermore, the Table model incorporates the individual commitments of discourse participants: For every discourse participant X , there is a set DC_x (discourse commitments) of propositions that the participant is publicly committed to. (As we will see below, Faller 2019 argues that discourse participants' evidential commitments, in addition to the discourse commitments, also need to be tracked, and thus has a more articulated set of commitments for each discourse participant.)

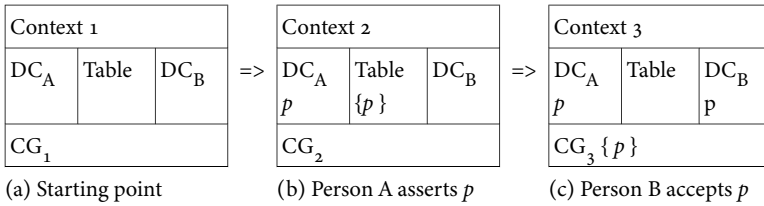
A speaker publicly commits to a proposition by asserting it. In other words, by uttering a declarative sentence denoting p , a speaker publicly commits to p . Although a public commitment to a proposition p does not directly equate to believing p (e.g., people can lie), if a speaker is assumed to be sincere (e.g., Grice 1989), someone asserting p can typically be inferred to indicate that they believe p .

The Table approach explicitly operationalizes the idea of putting something 'on the Table', i.e., the idea that a discourse update is first proposed (put on the Table), and must be accepted by the conversational participants (which can happen in quite tacit ways), before it is added to Common Ground. In other words, if discourse participant A puts an utterance on the Table (what Farkas and Bruce (2010) call the 'push' operation), this calls for a reaction from discourse participant B. (Just because one discourse participant publicly commits to something does not mean that the other participants do so.) Thus, the Table is a stack of issues (or questions) currently under discussion: By asserting a declarative sentence, a discourse participant puts the at-issue content of that sentence onto the Table – i.e., proposes it as an answer to the current QUD (Question under Discussion). Other discourse participants can then accept or object to the proposed update.

The basic process of Person A pushing an issue onto the Table by asserting it is shown in (2b). (The starting point before A asserting anything is shown in (2a)). If Person B accepts p , they also become discourse-committed to it, and p becomes

part of the Common Ground (as it is now in the discourse commitments [DCs] of both A and B), as in (2c).

(2) Simplified depiction of Discourse Structures



1.2 On the discourse contribution of reportative evidentials

In the preceding section, we focused on the discourse updates triggered by regular declaratives. However, utterances containing reportative evidentials differ fundamentally from normal declaratives. When a speaker utters a declarative containing a reportative evidential, they do not become publicly committed to the truth of the proposition *p* in the scope of the reportative (e.g. Faller 2002, 2019; Murray 2014; AnderBois 2014), in contrast to ‘regular’ declaratives whose utterance publicly commits the speaker to *p*. This is shown by the fact that a speaker can felicitously follow up a reportative-containing utterance by stating that they do not believe the reported proposition. This is illustrated in (3) for Finnish: whereas it is infelicitous to follow a regular declarative with ‘I don’t believe it’ (3a), this sequence is fine when the reportative evidential *kuulemma* is used (3b). This shows that by saying an utterance with a reportative evidential, the speaker does not become committed to the truth of *p*. I follow Faller (2019) in referring to this phenomenon as an *Absence of Commitment*.

- (3) a. #*Poika on rakastunut, mutta en usko sitä.*
 boy.NOM is in-love.PP but neg.1SG believe it.PART
 #‘The boy is in love, but I don’t believe that.’ (modified from Kuiri 1984)
- b. *Poika on kuulemma rakastunut, mutta en usko sitä.*
 boy.NOM is kuulemma in-love.PP but neg.1SG believe it.PART
 ‘The boy is kuulemma in love, but I don’t believe that’
 / ‘The boy is in love, I heard, but I don’t believe that.’ (Kuiri 1984: 32)
- c. *Poika on muka rakastunut, mutta en usko sitä.*
 boy.NOM is muka in-love-PP, but neg.1SG believe it.PART
 ‘The boy is muka in love, but I don’t believe that.’
 / ‘It is claimed that the boy is in love, but I don’t believe that.’
 (Kuiri 1984: 32)

The Finnish dubitative particle *muka* is also associated with an Absence of Commitment, as shown in (3c). Here, too, following up a statement containing *muka* with ‘I don’t believe it’ is entirely natural. This indicates that by uttering ‘*muka-p*’, a speaker does not become publicly committed to *p*.

Given that utterances with the reportative evidential and the dubitative marker exhibit this kind of Absence of Commitment, it is striking that utterances with *kuulemma* and *muka* can nevertheless be used to answer the Question Under Discussion (QUD) – in other words, to propose that *p* be put on the Table, as shown by the felicity of the question-answer sequences in (4). Faller (2019) reports similar patterns for reportative evidentials in Cuzco Quechua (see also Murray 2014 on Cheyenne; these publications do not focus on dubitatives). Following Faller, I refer to this phenomenon – i.e., the fact that utterances containing *kuulemma* or *muka* can be used to answer questions – as *Intention to Resolve the QUD*.

(4) **Speaker A:**

Mitä Matti tekee juuri nyt?
 what-PART Matti.NOM does right now?
 ‘What is Matti doing right now?’

Speaker B:

Se² lukee kuulemma/muka tentteihin.
 it.NOM reads *kuulemma/muka* exam.PL.ILL
 ‘He is studying *kuulemma/muka* for exams.’

Furthermore, this brings us to an intriguing asymmetry between *kuulemma* and *muka*, discussed in more depth in Sections 2 and 3: Although a proposition *p* in the scope of either *kuulemma* or *muka* can be put on the Table (i.e., put forth as a possible answer to the QUD) as shown in (4), *p* can only potentially enter the Common Ground if it is in the scope of *kuulemma*, but typically not if it is in the scope of the dubitative *muka*. I illustrate in Sections 2 and 3.

1.3 Prior discourse-update based analyses of the discourse contribution of reportative evidentials

As discussed above, reportative evidentials exhibit an asymmetry between (i) what their utterance makes at-issue (puts on the Table) and (ii) what the speaker

2. In many colloquial dialects of Finnish, the default for anaphoric reference to humans is *se* ‘it’; this form has no negative connotations in these dialects. In Standard Finnish, the default for anaphoric reference to humans is *hän* ‘s/he’. The examples in this paper use both forms; the distinction is not relevant for the key points being made here.

is committed to. This asymmetry is a challenge, since normally, in uttering a declarative sentence, these two things go together: the speaker expresses a public commitment to the proposition that the utterance makes at-issue. In the remainder of this section, we explore recent proposals to resolve this tension in reportatives within the Table approach.

As a preview: In some recent analyses, this asymmetry led researchers to analyze reportative evidentials as affecting the illocutionary force with which the proposition p enters the discourse (see, e.g., Faller 2002, 2019; Murray 2014). Rather than all declaratives having assertive force, Faller (2002, 2019) posits that, minimally speaking, declarative propositions are not asserted but merely *presented*. Presentations have a weaker illocutionary force than assertions: most relevantly for our present purposes, presentations do not commit the speaker to the truth of p . According to Faller, in the absence of reportative evidentials, presentations are typically strengthened into assertions, but reportative evidentials are a special kind of function that operates on the speech act of *presentation* and yields a situation where the speaker is not committed to p (details below).

Related work by Pancheva & Rudin (2019) opts for a more streamlined approach and argues that reportative evidentials do not need to be analyzed as special update operators and instead can be captured within the standard view that declarative sentences uniformly function as assertions, thereby allowing us to maintain a uniform characterization of assertion.

Because the analyses proposed by Faller (2019) and Pancheva & Rudin (2019) both make use of a distinction between two distinct agents in reportatives, I review this distinction in the next section, before providing an overview of the key elements of their claims.

1.3.1 *Animator and principal*

An important insight is the idea that reportative utterances involve two separable agents: the *Animator* and the *Principal*. This approach has its roots in early work by Goffman (1979). The Animator (a) is the speaker, the one who ‘animates’ (utters) the sentence. The Principal (pr) is the person whose commitments are being expressed by the Animator. In Goffman’s words, the Principal is “the party to whose position the words attest.” Goffman’s descriptions are provided in (5). Typically, in assertions, the Animator and the Principal are the same person: the speaker is committed to the proposition expressed by the sentence. However, the two roles are distinct in reportatives ($a \neq pr$), because the Animator is not describing their own commitments in uttering the reported proposition p , but rather ‘animating’ someone else’s commitments. For example, in (4) with *kuulemma*, Speaker B is the Animator, and the Principal is the person from whom Speaker B heard that Matti is studying for exams (i.e., the individual who is committed to the

truth of the proposition). This more fine-grained breakdown in speech act roles plays a central role in Faller (2019)'s and Pancheva & Rudin (2019)'s analyses of the discourse contributions of reportative evidentials.

- (5) *Animator*: “individual active in the role of utterance production”
(Goffman 1979:17)
- Principal*: “someone whose position is established by the words that are spoken, someone whose beliefs have been told, someone who has committed himself to what the words say” (Goffman 1979:17)

It is important to point out that Faller (2019)'s and Pancheva & Rudin (2019)'s analyses of reportative evidentials focus on Principals whose beliefs/commitments have been linguistically expressed – i.e., Principals who are publicly committed to *p* by virtue of having previously (linguistically) asserted *p*. As Pancheva & Rudin note, a discourse commitment only occurs as a result of a conversational move, i.e., the person must have said something.

However, as I explain below, in my discussion of the Finnish data, I explore a broader conceptualization of the notion of Principal, one that includes not only individuals whose discourse commitments have been expressed in prior utterances, but also (i) individuals whose beliefs/commitments can be *inferred* based on prior non-linguistic evidence such as behaviors/actions, as well as (ii) individuals who may come to be committed to *p* in the future even though they are not yet ‘pre-existing’ Principals.

More concretely, I argue that to capture differences in the discourse profiles of the reportative *kuulemma* and the dubitative *muka*, we should allow for a more fine-grained definition of ‘Principal’ – one that can, in some cases, include not only individuals who are discourse-committed to *p* (let us call these *discourse-committed Principals*, which corresponds to what Faller (2019) and Pancheva & Rudin (2019) call ‘Principal’) but also individuals who can be inferred to believe *p* even in the absence of an explicit discourse commitment (let us call these *inferable Principals*). These concepts will be elucidated by means of examples in the rest of the paper and summarized in Section 4.2. In addition, I suggest that in some contexts the discourse participants’ goals target potential future Principals, and that acknowledging this allows us to capture key aspects of the use of the dubitative *muka*.

1.3.2 Faller (2019): Reportative evidentials as functions on speech act operators

Let us first review Faller's (2019) approach. In her analysis of Cuzco Quechua reportatives, Faller refines her analysis of the speech act operator *present* (shown in (6a)) by means of the Animator–Principal distinction. Basically, *present* (which builds on Farkas & Bruce's (2010) *Assert* operator) takes as its arguments the at-

issue content of an utterance (p), the speaker a and the input context K_i . Faller's model tracks both truth commitments (TCs; what Farkas & Bruce call discourse commitments, DCs) and a set of evidential commitments (see (6b)). As shown in (6a), in the default situation, the speech act operator *present* puts p on the Table (i), renders p part of the Principal's truth commitments (TC) (ii), and part of the Animator's evidential commitments (AeC) (iii), and the Animator and the Principal are the same person (iv).

- (6) a. $\text{PRESENT}(p, a, K_i) = K_{i+1}$ such that
- i. $T_{i+1} = \text{push}(p, T_i)$
 - ii. $(\text{TC}_{pr;i+1} = \text{TC}_{pr;i} \cup \{p\})$
 - iii. $(\text{AeC}_{a;i+1} = \text{AeC}_{a;i} \cup \{p\})$
 - iv. $(a_{i+1} = pr_{i+1})$ (from Faller 2019: 31–32)
- b. TC_x = the set of propositions the truth of which x is committed to
 AeC_x = the set of propositions for which x is committed to having adequate evidence
 RepC_x = the set of propositions for which x is committed to having reportative evidence (quoted from Faller 2019: 22)

On Faller's analysis (2002, 2019), the use of the term *present* reflects the fact that, in using a declarative, a speaker (animator) "minimally presents p for consideration by the discourse participants." In other words, the only "hard-wired discourse effect is to put p on the Table T" (Faller 2019: 24). Faller posits that the weaker force of *presenting* is strengthened to *assertion* by default, unless an illocutionary marker (e.g., a reportative evidential) overrides this. Importantly, on her analysis, uttering p does not publicly commit the Animator to p ; the Principal is the one who is committed to p . With standard declaratives, though, the Animator is also the Principal, so this distinction collapses.

Now let us consider reportatives. On Faller's analysis, the semantics of the Cuzco Quechua reportative evidential are as shown in (6c). This is a function from speech acts to speech acts. (The actual reportative form in Cuzco Quechua is *=si*; I present it here in more general terms as *REP*.) The presence of a reportative evidential on a declarative utterance overrides the defaults associated with the *present* speech act operator shown in (6a) – specifically, the reportative evidential means that the Animator and Principal are distinct ($a \neq pr$) and overrides the $a = pr$ default of the speech act *present* ((iv) in (6a)).

- (6) c. $\text{REP}(\text{PRESENT})(p, a, K_i) = \text{PRESENT}(p, a, K_i)$ such that
- $$\text{RepC}_{a;i+1} = \text{RepC}_{a;i} \cup \{p\} \quad \text{add } p \text{ to the reportative commitments of } a$$
- $$a_{i+1} \neq pr_{i+1} \quad \text{require } a \text{ and } pr \text{ to be distinct}$$
- (from Faller 2019: 32)

This means that although normally the truth commitments are assigned to the Principal (6a (ii)) and the Animator is the Principal ($a=pr$, 6a (iv)), the reportative evidential overrides the $a=pr$ default of *present* and requires the Animator and Principal to be distinct. As a consequence, only the Principal, not the Animator, is committed to the truth of p (6a (ii)). On Faller's analysis, this explains why the Animator is not understood as proposing that p be added to the Common Ground. However, in her analysis p is still put on the Table, which explains why it is at-issue (and can be used to answer the QUD). The Discourse Structure in (7) shows the situation where Person A has said a sentence where the proposition p is in the scope of a reportative evidential. Thus, p is presented as part of the Principal's truth commitments ($TC_{Pr,Pr\neq A} \cup \{p\}$) and the Animator's reportative commitments ($RepC_A \cup \{p\}$). In addition, p has been put on the Table.

It is important to note here that p has been put on the Table based on the Principal's truth commitments, not the Animator's truth commitments. This means that p is available not only for the addressee or other people to (dis)agree with, but also for the *Animator* to agree or disagree with. In other words, the Animator is not committed to the truth of p . Thus, p can be added to Common Ground if the conversational participants agree to this – but also that either Person A or Person B can disagree with it. (Building on Walker (1996) and Farkas & Bruce (2010), Faller assumes that absence of disagreement will typically be interpreted as agreement.)

- (7) Simplified depiction of the discourse structure after Person A has uttered p modified by a reportative evidential

Person A	Table	Person B
$TC_{Pr,Pr\neq A} \cup \{p\}$ AeC_A $RepC_A \cup \{p\}$	p	TC_B AeC_B $RepC_B$
CG		

As shown above, on Faller's analysis, the reportative adds p to the Animator's set of reportative commitments ($RepC$), not their TC (truth commitments). (p is in the Principal's TC set, not the Animator's.) If a sentence can only introduce one kind of reportative commitment, this also explains why, in the presence of a reportative, p is not added to the Animators's evidential commitments (AeC ; see Faller 2019: 33 for further discussion).

1.3.3 Pancheva & Rudin (2019): Reportative evidentials as presuppositions

A related analysis of reportative evidentials that also makes use of the Animator vs. Principal distinction is proposed by Pancheva & Rudin (2019). Unlike Faller

(2019), Pancheva & Rudin do not propose a special speech act operator or functions that apply to speech act operators. They instead argue that sentences with reportative evidentials are assertions. In their analysis, following Farkas & Bruce (2010), an assertion of a sentence denoting p by an animator a is a function from an input context k_i to an output context k_o as in (8a). On Pancheva & Rudin's analysis, when a speaker a utters a declarative sentence, they become committed to the Principal pr being discourse-committed to p (denoted as $COMM(pr,p)$). (Pancheva and Rudin use the notion of discourse commitments, DC, following Farkas & Bruce, in contrast to Faller who distinguishes between different kinds of commitments as shown above.) In doing this, the current speaker a (the Animator) also puts p on the Table (8a, ii) and thus makes it at issue.

- (8) a. Assert(a, p, k_i) $\rightarrow k_o$ such that
- i. $DC_{a,o} = DC_{a,i} + COMM(pr, p)$
 - ii. $Table_o = Table_i +_{push} P$
 - iii. In all other respects, $k_o = k_i$

Crucially, Pancheva and Rudin propose that the only independent contribution of reportative evidentials is to presuppose that the Animator is distinct from the Principal. Under their view, this is the entire meaning contribution of reportative evidentials (8b). Thus, rather than proposing a special update function as Faller does (6c), Pancheva and Rudin treat the contribution of reportatives as a presupposition.

- (8) b. i. $\llbracket \text{rep} \rrbracket^c$ is defined iff $a_c \neq pr_c$
 ii. If defined, $\llbracket \text{rep} \rrbracket^c$ is an identity function

Under this view, in regular assertions without reportative evidentials, the Animator is the Principal ($a=pr$) and thus (8a,i) – the speaker being committed to the Principal being committed to p ($COMM(pr,p)$) – also entails that the speaker herself is committed to p ($COMM(a,p)$). However, when a reportative evidential is present, the presupposition that $a_c \neq pr_c$ is accommodated and the prior entailment no longer holds.

In other words, even though the speaker (Animator) is committed to the Principal being committed to p , in a sentence with a reportative evidential the speaker herself (Animator) is not committed to p . Use of a reportative does not indicate who pr is, just that it is not the current speaker a . (See also Fabricius-Hansen & Saebo 2004 for related work.)

Thus, both Faller (2019) and Pancheva & Rudin (2019) capture the fact that with reportatives, the speaker is not committed to the reported proposition, but that the reported proposition is nevertheless at-issue and put on the Table. Furthermore, recall Faller's point that, because p is on the Table, it is available for

the Animator or others to (dis)agree with, which means that it can potentially be added to Common Ground. Similarly, Pancheva & Rudin allow for p to potentially be added to Common Ground. They suggest that whether p should be made part of Common Ground can depend on whether the Animator trusts the Principal or not.

Pancheva & Rudin note that an advantage of their analysis is that it allows for a uniform approach to context update: On their analysis, declarative sentences update the context via the *assert* function, and there is no need for special discourse update operators.

It is also worth pointing out that, as Pancheva & Rudin note, separating Animator and Principal makes an important prediction regarding prior communicative events that – as we will see – is relevant for understanding the distinction between the Finnish reportative evidential *kuulemma* and the dubitative marker *muka*. In particular, recall that on their analysis, in uttering *REP-p*, the speaker *a* commits to the proposition that *COMM(pr,p)*. In other words, the speaker commits to the proposition that the Principal is committed to p . Given the standard view of speakers' discourse commitments, the only way *pr* can be committed to p is if there exists a prior communicative event whose speaker (Animator) was *pr*. In other words, for *REP-p* to be uttered felicitously, there must exist a prior communicative event, and the speaker of that event made a commitment to p .

A difference between Faller (2019) and Pancheva & Rudin (2019) is that Faller's more complex approach argues in favor of linguistic elements acting as illocutionary modifiers: She analyses the Cuzco Quechua reportative evidential as a function that operates on speech acts – in other words, it modifies the discourse update effected by a speaker uttering a proposition modified by the reportative. In contrast, Pancheva & Rudin aim to treat all declarative utterances as assertions and analyze reportative evidentials as presuppositions that can be accommodated.

2. Features of the reportative *kuulemma*

Having reviewed prior analyses of reportative evidentials, in the next sections I systematically assess the discourse behavior of the Finnish reportative evidential *kuulemma* (Section 2) and dubitative marker *muka* (Section 3), before turning to my proposal in Section 4.

In this section, I present the discourse profile of the Finnish reportative *kuulemma*. I show that it exhibits largely the same core properties that Faller (2002, 2019) identifies for Cuzco Quechua evidentials (also echoing the behavior of reportative evidentials in other languages). I also confirm that, in line with the

predictions of Pancheva & Rudin's (2019) approach, felicitous use of *kuulemma* requires the existence of a prior communicative event whose speaker made a commitment to *p* – in other words, felicitous use of *kuulemma* requires a discourse-committed Principal. This section provides an important contrast to Section 3, where we will see that the dubitative *muka* exhibits some striking differences in allowing not only for discourse-committed Principals, but also for what I call inferable Principals and potential future Principals.

The reportative evidential *kuulemma* is used to express that the speaker received the information from someone else (Example 9a–b) (e.g., Kittilä, Jalava & Sandman 2018). As shown in (9c), this information source can be – but does not need to be – explicitly identified (see also Pancheva & Rudin 2019; Aikhenvald 2004). Furthermore, this 'someone else' (i.e., the discourse-committed Principal of the prior speech event) can, at least in some cases, be the person who is being talked about in the sentence with *kuulemma*. For example, in (9a), the third-person pronoun *hän* 's/he.NOM' could refer to the information source (as in the English paraphrase). The key point is simply that *kuulemma* indicates that the current speaker is reporting second-hand information from someone else.

- (9) a. *Hän kuulemma työskentelee öisin.*
 s/he.NOM *kuulemma* works nights.ADV
 'S/he *kuulemma* works nights.' ('I hear she works at night time.')
- (Hakulinen et al. 2004: 1425)
- b. *Olen kuulemma joskus viikonlopun jälkeen lapsena sanonut,*
 am *kuulemma* sometimes weekend.GEN after child.ESS said
*että*³ ...
 that
 'As a child, I *kuulemma* sometimes said, after the weekend, that...'
 ('I've been told that as a child, after the weekend I would sometimes say...')

- c. (Context: Someone is reporting on what they heard from the dentist during a recent visit)
Kaikki neljä viisaudenhammastani on poistettu opiskeluvuosien aikana,
 ‘All four of my wisdom teeth were removed during my college years,
ja se on kuulemma hammaslääkäriin mukaan hyvä
 and it.NOM is kuulemma dentist.GEN according good.NOM
juttu...⁴
 thing.NOM
 and that is kuulemma according to the dentist a good thing.’

The reportative particle is a free-standing trisyllabic word; it does not inflect, and typically occurs after the finite verb or after the subject. Morphologically, it is presumably derived from a combination of the verb ‘hear’ and the first-person pronoun in non-canonical verb-subject order (*kuulen ma* ‘hear I’) (see Sadeniemi & Vesikansa 1989), but in present-day Finnish *kuulemma* does not have the syntactic distribution of a verb and functions as a particle.

In the rest of this section, I present examples showing that with *kuulemma*, the speaker (the Animator *a*) is not committed to the truth of the reported proposition *p* (Section 2.1), the information in the reported proposition must have been communicated linguistically by someone else beforehand (i.e. the Principal must be discourse-committed) (Section 2.2), and the reported proposition is at-issue information – i.e. *p* is put on the table – and can be used to answer the QUD and can potentially be added to the Common Ground (Sections 2.3–2.4). I also show that *kuulemma* itself expresses not-at-issue information (Section 2.4).

In this paper, I use both constructed examples and naturally-occurring examples identified through Google searches (indicated via footnotes). Using naturally-occurring examples from present-day Finnish to complement constructed examples is helpful because such examples provide insights into the rich contextual factors that are at play.

2.1 Absence of commitment to the reported proposition

The expression *kuulemma* is neutral with respect to the current speaker’s (Animator’s) commitments/beliefs regarding the reported proposition (e.g., Kuiri 1984: 248, 262): A speaker who uses *kuulemma* may think that the reported proposition *p* is true or may doubt it, as in (10) – or the context may leave this open. Examples (10a) and (10b) are corpus examples of speakers expressing disbelief and belief in *p*, respectively. In (10a), the speaker explicitly expresses their doubt.

4. <https://www.hillastenlund.com/2021/02/suun-terveys-on-osa-kokonaisvaltaista-hyvinvointia/>

In (10b), instead, the speaker's follow-up question indicates that they assume p to be true.

(10) a. Disbelief in p

(Context: someone is discussing how her parents answer her question about how they chose her name, Katriina)

...he vastasivat; "Isä avasi keittiön kaapin ja siinä oli Kulta Katriina". Ja siitä se kuulemma tuli. En usko tuohon, liekkö 1970-luvulla myyty Ruotsissa koko kahvia.⁵

'they answered, "Dad opened the kitchen cupboard and there was a pack of Kulta Katriina [a brand of coffee]". And it kuulemma came from that. I don't believe this, one wonders if that coffee was even sold in Sweden in the 1970s'

b. Belief in p

Talvella on kuulemma vielä kylmempi. Millaista se sitten on?⁶

'In the winter it's kuulemma even colder. What is that like?'

Thus, *kuulemma* simply indicates that the speaker heard p from someone else, without providing information about the speaker's level of commitment to p – unlike regular declaratives and akin to reportative evidentials in other languages (see e.g., Faller 2002; AnderBois 2014; Faller 2019).

2.2 Existence of prior linguistic communicative event

For use of *kuulemma* to be felicitous, the information must have been previously communicated linguistically (spoken or written) by someone else – it is not enough for the information to be merely inferred from someone's behavior or other non-linguistic inferential evidence (see, e.g., Kuiri 1984: 33; Hakulinen et al. 2004, Section 1606: 1524). In other words, *kuulemma* is not felicitous in contexts where no one has linguistically expressed the reported proposition (11a).

(11) a. *Olen (#kuulemma) ollut töissä koko päivän paita väärinpäin. Huomasin tämän vasta nyt, kun katsoin peiliin. Miksei kukaan huomauttanut tästä minulle mitään?*

'I have (#kuulemma) been at work the whole day with my shirt on inside out. I only noticed this now when I looked in the mirror. Why didn't anyone say anything to me about this?'

5. <https://www.iltalehti.fi/perheartikkelit/a/201805042200919844>

6. <https://www.hs.fi/ulkomaat/art-2000008236477.html>

In this regard, *kuulemma* differs from the Finnish inferential evidential form *näköjään* ('I see', 'seemingly') which is used in cases involving an inference based on visual observation (11b), (e.g., Kittilä & Sandman 2013; see also Kittilä, Jalava & Sandman 2018).

Another related form is *näemmä* 'apparently' (which shows morphological parallels to *kuulemma* in that it appears to consist of the combination of the verb 'see' and the first-person pronoun in non-canonical verb-subject order (*näen mä* 'see I', see Sadeniemi & Vesikansa 1988). However, Hakulinen et al. (2004, Section 1606) point out that *näemmä* has a more abstract meaning in that it indicates some kind of inference process on the part of the speaker but does not necessarily provide information about how the speaker received the information (e.g., visually or via a prior communicative event). I leave a detailed analysis of these forms for future work.

- (11) b. *Kymmenen uutisten jälkeen Teemu meni nukkumaan, näköjään jo täysin kidnappauksensa unohtaneena.* (example from Hakulinen et al. 2004, section 1557)
 'Teemu went to bed after the ten o'clock news, having näköjään already fully forgotten his kidnapping.'

In sum, felicitous use of *kuulemma* requires that there exists a prior communicative event where an individual (other than the current Animator) expressed the reported proposition. Simply put, *kuulemma* requires a discourse-committed Principal.

2.3 The reported proposition is at-issue

In this section I use two standard tests for at-issue/not-at-issue status of information (e.g., Simons et al. 2010; Tonhauser 2012; and others) to show that the reported proposition *p* contributes at-issue meaning. This shows that the Finnish reportative *kuulemma* resembles reportative evidentials in other languages (e.g., Murray 2014; AnderBois 2014; Faller 2019): It can be used to put *p* on the Table. First, the Question-Under-Discussion (QUD) test shows that the reported proposition *p* can answer the QUD. This is shown in (12a), which indicates that *p* is at-issue.

- (12) a. QUD test
Speaker A:
Mitä Matti tekee juuri nyt?
 what.PART Matti.NOM does right now?
 'What is Matti doing right now?'

Speaker B:

Se lukee kuulemma tentteihin.

it.NOM reads kuulemma exams.PL.ILL

‘He is studying kuulemma for exams.’

A second test identifying not-at-issue information is the direct deniability / challengeability test (e.g., Tonhauser 2012). According to this test, at-issue meaning can be directly challenged or denied, but not-at-issue meaning cannot be directly challenged or denied.⁷ The felicity of Speaker B’s response in (12b) shows that *p* can be directly denied (12b), which indicates that this reported proposition is at-issue. Thus, this test corroborates the QUD test in (12a). In terms of Farkas & Bruce’s (2010) Table model, being at issue means that in uttering *REP-p*, the Animator puts *p* on the Table.

(12) b. Direct deniability test

Speaker A:

Matti lukee kuulemma tentteihin.

Matti.NOM reads kuulemma exam.PL.ILL

‘Matti is kuulemma studying for exams.’

Speaker B:

Ei lue. Se nukkuu sohvalla.

neg read it.NOM sleeps sofa-ADES

‘No, he’s not. He’s sleeping on the sofa.’

Although the QUD test cannot be easily felicitously applied to the content of the reportative *kuulemma* itself, the direct deniability test shows that the information conveyed by *kuulemma* is not accessible to be felicitously denied (12c), indicating that it is not-at-issue. Speaker B’s response in (12c) is designed to specifically target only the meaning of *kuulemma*, just like B’s response in (12b) was designed to target only the meaning of *p*. The response wording in (12c) is directly adapted from Faller’s (2019) Example (19); similar responses are also used in other work on reportative evidentials by Faller (2014), Murray (2010, 2014) to show that the content of reportative evidentials in various languages is not-at-issue.⁸

7. Although not-at-issue content cannot be *directly* denied, it can be *indirectly* denied. More specifically, it is possible to deny not-at-issue content with more specialized (more marked) linguistic forms such as “hey, wait a minute” (see, e.g., Shanon 1976; von Stechow 2004; Potts 2005; Pearson 2010; Faller 2014 for related discussion).

8. Sometimes the reply “That’s not true” is used as a means to test for at-issue/not-at-issue information. However, Korotkova (2020) – building on Snider (2017) – notes that the interpretation of this response may be driven by what kinds of antecedents are available for proposi-

- (12) c. Direct deniability test

Speaker A:

Matti lukee kuulemma tentteihin.

Matti.NOM reads kuulemma exams.PL.ILL

‘Matti is kuulemma studying for exams.’

Speaker B:

#Ei, ei kukaan kertonut sinulle tätä.

no, neg anyone told YOU.ALL this.PART

‘#No, no one told you this.’

2.4 The reported proposition can be added to the common ground

So far, we have seen that *kuulemma* is neutral with respect to the speaker’s commitment to the reported proposition *p*, but that *p* nevertheless constitutes at-issue information. This combination of properties raises the question of whether *p* can be added to Common Ground, like assertions. Indeed, it seems that *p* can be, but does not need to be, added to Common Ground.

For example, in (13a), the second person’s reply commenting on how easily an animal can suffer signals that this person has accepted as true the reported proposition in the preceding post, put on the Table by the Animator, about Lintulahti never having encountered such a poorly cared-for horse. Thus, in this context *p* (although it is in the scope of *kuulemma*) gets accepted as part of Common Ground, as neither the speaker nor the addressee disagrees with it (see Faller 2019 for related discussion).

- (13) a. Post in online discussion forum

*Aarne Lintulahti antoi Korvenojalle palautetta, ei kuulemma ole koskaan saanut käsiinsä niin huonosti hoidettua ja valmennettua hevosta kuin Orgolio oli tullessaan.*⁹

‘Aarne Lintulahti gave feedback to Korvenoja, he has kuulemma never dealt with a horse as poorly cared-for and trained as Orgolio was when he arrived.’

tional anaphora (e.g., ‘that’) and thus it may not be well-suited for testing (not-)at-issueness (though, as she notes, this depends on how one views the relation between at-issue status and availability for propositional anaphora). Furthermore, as will become clear when we consider the pretense uses of the Finnish dubitative *muka*, which involve intentional delusion and make-believe contexts, responses using the word ‘true’ would be hard to interpret in certain contexts. In light of these complications, I do not use the phrase “that’s not true” in the direct deniability/challengeability tests in this paper.

9. <https://ravia.netcode.fi/message/979670/aarne-lintulahti-antoi-korvenojalle>

Someone replies:

Elukan saa helposti ja nopeasti huonoon kuntoon jos laiminlyö hoidon.

‘An animal can quickly and easily end up in bad shape if you neglect its care.’

The same point is made by the constructed example in (13b). Here, Speaker A’s request that Speaker B ask Mikko if he can interpret/translate the speech presupposes the reported proposition that Mikko speaks Italian. Speaker B’s response also presupposes this. Thus, this provides further evidence that reported propositions in the scope of *kuulemma* can be added to Common Ground (again, if the speaker intends this and the addressee accepts it, see Faller 2019).

(13) b. **Speaker A:**

Toimitusjohtajan puhe alkaa tunnin päästä. Sain juuri tietää, että se pitää tulkata italiaksi. Mikko puhuu kuulemma italiaa. Voitko pyytää hänet tulkiksi?

‘The CEO’s presentation starts in an hour. I just found out that it needs to be translated/interpreted into Italian. Mikko speaks kuulemma Italian. Can you ask him to serve as interpreter?’

Speaker B:

Joo, otan häneen heti yhteyttä.

‘Yeah, I will contact him right away.’

However, as we already saw above, propositions modified by *kuulemma* are *not automatically* added to Common Ground. In Example (3b) in Section 1, the speaker introduces the reported proposition but then immediately says s/he does not believe it. In this case, the speaker does not intend the reported proposition to be added to Common Ground.

Thus, while a reported proposition in the scope of *kuulemma* can update the Common Ground similar to assertions, it does not need to do so. Following Faller’s (2019) analyses of Cuzco Quechua reportatives, I assume that “a reported proposition can update the discourse in ways similar to regularly asserted propositions, but only if the speaker intends this and if the addressee recognizes this intention” (Faller 2019: 8).

So far we have seen that in using *kuulemma*, (i) the speaker (current Animator) is neutral about whether the reported proposition is true or not, (ii) the information that constitutes the reported proposition must have been communicated linguistically – which entails that there exists another person (the Principal) who is publicly committed to the proposition, (iii) the reported proposition is at-issue information (i.e., put on the Table) that can potentially be added to the Common Ground, whereas (iv) *kuulemma* itself expresses not-at-issue information. These key properties are summarized in Table 1. Thus, Finnish *kuulemma* exhibits an

Absence of Commitment to the reported proposition and can also exhibit *Intention to Resolve the QUD*, to use the terms Faller (2019) uses in her analysis of Cuzco Quechua reportative evidentials.

Table 1. Summary of the properties of reportative evidential *kuulemma*

Speaker's (Animator's) commitment to truth of p ?	neutral
Prior communicative event conveying p ?	must exist
Existence of another individual (Principal) who sincerely believes p ?	yes (discourse-committed Principal)
Is p at-issue? (put on the Table)	yes
Can p be added to Common Ground?	yes

2.5 The Finnish reportative *kuulemma* in light of current analyses

The preceding sections provide a systematic investigation of the discourse profile of the Finnish reportative evidential *kuulemma*. The characteristics summarized in Table 1 can be derived both using (i) Faller's (2019) analysis which relies on the speech act called *present* and treats the reportative as a function from speech acts to speech acts (i.e., it treats reportatives as special discourse update functions), and using (ii) Pancheva & Rudin's (2019) more unified approach, which only makes use of assertion as the speech act associated with declaratives, and treats reportatives as contributing a presupposition that the Animator and the Principal are distinct.

However, as we will see in the next section, the dubitative marker *muka* provides an empirically and theoretically informative contrast to the properties of *kuulemma*. I show that although the existence of a Principal is relevant for both, to describe the discourse profile of *muka* we need to both broaden and fine-tune our definition of who can count as a Principal: I will argue that in the case of *kuulemma*, only discourse-committed Principals are relevant, whereas *muka* can be used with a broader range of Principals. In addition, I show that the discourse contributions of *muka* have implications for the fundamental question of whether declarative sentences can uniformly be characterized as involving assertion or whether special update operators are needed.

3. Features of the dubitative particle *muka*

Having considered the empirical properties of the reportative *kuulemma*, I now turn to the dubitative marker *muka*. Historically, the dubitative particle *muka*

evolved from a reportative evidential (Nordlund & Pekkarinen 2014). However, in present-day Finnish, in descriptive terms *muka* is characterized as having two main functions: it can be used to (i) express *doubt* (Example (14a), Section 3.1) and to (ii) express *intentional pretense* (see (14b), Section 3.2).¹⁰ In (14a), the use of *muka* indicates that the speaker doubts the proposition that Liisa lives in Lahti. In (14b), the use of *muka* indicates that the person is pretending to admire the view, even though she really isn't impressed with it at all. Moreover, as discussed in Section 3.2, the pretense use of *muka* has two subtypes: *muka* can be used both in contexts where there is an intent to delude someone into believing *p* (as in 14b), and also in make-believe contexts (e.g., children's pretend play) where everyone agrees *p* is not true.

(14) a. Doubt use

Liisa asuu muka Lahdessa.

'Liisa muka lives in Lahti'

/'It has been claimed that Liisa lives in Lahti but I doubt this'

b. Pretense use

(Context: visiting an apartment they want to rent and want to impress the owner)

*se siveli tapetteja ja ihaili muka maisemaa, jossa ei muuta näkynyt kuin vastapäisen talon kauhtunut seinä ja seinässä oleva purukumimainos...*¹¹

'she stroked the wallpaper and admired muka the view, where all that was visible was the worn wall of the opposing house and the chewing gum advertisement poster on the wall'

Prior work has tended to focus mostly on the doubt use, with much less attention given to the pretense use. Even when both uses are mentioned (e.g., Kangasniemi 1992; Nordlund & Pekkarinen 2014), they are largely treated as distinct; no formal analyses of their relation have been proposed (to the best of my knowledge). In the present work, I propose that they are more similar than they might initially seem. I consider their properties in the subsequent sections. In particular, I suggest that they share the same core meaning: A proposition modified by *muka* simply sig-

10. There also exists a longer form *mukamas*, but I focus on the default form *muka*. I leave a detailed comparison of the distribution and potential meaning differences between *muka* and *mukamas* for future work. Similarly, I postpone a discussion of the verbal compound construction 'to be verb+*vinA(An)*' (e.g. *olla olevinaan* 'pretend to be', *olla lukevinaan* 'pretend to read'; called *kvasirakenne* 'quasi-structure' in Finnish) until future work.

11. https://www.google.com/books/edition/Viikonloppuna_on_vapaata/6BUEEAAAQBAJ?hl=en&gbpv=0, from Sirkka Laine. 2020. *Viikonloppuna on vapaata*.

nals that the speaker doubts the truth of p , i.e., does not believe p .¹² I argue that this aspect of the meaning of *muka* is constant regardless of whether it expresses doubt or pretense. Furthermore, as I show in Section 4, on my analysis the differences between the doubt and pretense uses stem from the kind of Principal that is relevant for their meaning.

3.1 Use 1: Doubting the proposition

Muka can be used when the current speaker (Animator) doubts the proposition in its scope. Kangasniemi (1992) describes *muka* as “an expressive adverb which enables the speaker or writer to indicate that he or she has got the information from someone else and personally doubts whether it is true or does not agree with it” (Kangasniemi 1992:207; see also Sauerland & Schenner 2007 on Bulgarian dubitatives). According to Nordlund & Pekkarinen (2014:53), in present-day Finnish, *muka* “always indicates a speaker’s dubitative stance.”¹³ An example is in (15a), repeated from Section 3. Here, *muka* indicates that the speaker does not believe the proposition ‘Liisa lives in Lahti.’

- (15) a. *Liisa asuu muka Lahdessa.*
 ‘Liisa *muka* lives in Lahti.’
 / ‘It has been claimed that Liisa lives in Lahti but I doubt this.’

Naturally-occurring examples of the doubt use are in (15b–c). In (15b), the speaker uses *muka* to modify the proposition ‘I can’t rap’ – which has been expressed by others – to indicate that he disagrees with it: he believes he *can* rap. In (15c) the speaker doubts the other person’s claim that they are tired. (Here, *muka* is used

12. Depending on its syntactic position, *muka* can also be used to express doubt about a specific subpart of a sentence, as illustrated in (i) from Hakulinen et al. (2004:1426). Here, the speaker doubts the claim that the telescope was the result of this person’s 17-year research project, not the fact that the person sold the telescope. A detailed discussion of the syntactic behavior of *muka* and its consequences on *muka*’s scope are beyond the scope of the present work.

- (i) *Hän myy muualla keksityn kaukoputken muka seitsentoistavuotisen tutkimuksensa tuloksena.*
 ‘He sells the telescope, invented elsewhere, as *muka* the result of his 17 years of research.’

13. Nordlund & Pekkarinen (2014) note that, at least in some contexts, *muka* can sometimes convey a sarcastic attitude on the part of the speaker, and that it can also be associated with mirativity. In addition, they show that based on studies of older Finnish dialects (based on a corpus of speakers born mostly before 1900), the frequency and contexts in which *muka* was used differed between speakers in eastern and western Finland. Nordlund and Pekkarinen suggest that *muka* may have originated in the Eastern dialects.

in a (rhetorical) question. In the present paper I focus on declaratives and postpone a discussion of *muka* in questions for future work. See also Nordlund & Pekkarinen 2014 for related discussion.)

- (15) b. *Kun jengi kritisoi, etten muka osaa räpätä, niin olen pyytänyt lavalle yleisöstä jengiä kokeilemaan.*¹⁴
 ‘When people complain that I can’t *muka* rap, I have asked people from the audience to join me on stage to test me/to try out my skills.’
- c. *Ai olet muka väsynyt? Et kuule tiedäkään mitä väsymys tarkoittaa.*¹⁵
 ‘Oh you’re *muka* tired? You don’t even know what it means to be tired.’

3.1.1 *Doubt: Existence of prior linguistic communicative event is possible but not required*

In this and the following sections, I consider how the doubt use of *muka* compares to the reportative evidential *kuulemma*. In this section, I discuss (i) whether a prior linguistic communicative event is required and whether there exists someone who believes *p* (i.e., whether we need a discourse-committed Principal, as we saw with *kuulemma*); and (ii) in Section 3.1.2, I assess whether *p* is at issue (put on the Table) and whether it is added to Common Ground.

In many contexts where *muka* is used to signal the speaker’s doubt, including the examples in (15), the speaker received the relevant information from another source – i.e., there exists a prior linguistic communicative event, and the Animator of that event is committed to the *p* that the current Animator doubts. Thus, in these contexts, there exists a discourse-committed Principal: someone who said (or wrote) *p* – in other words, someone publicly expressed a commitment to *p* (see also Section 2.2). This is similar to what we saw with *kuulemma*. In these contexts, the speaker’s discourse move with *muka* has two components: (i) the speaker acknowledges the existence of a discourse-committed Principal, someone other than the Animator who is publicly committed to *p* (i.e., in the default context, someone believes *p*) but (ii) it further indicates that the Animator herself does not believe that *p* is true (in contrast to the Principal).

Crucially, unlike the reportative *kuulemma*, *muka* can also be used to express doubt about propositions that have *not been directly expressed linguistically* by another person in a prior speech (or writing) event. In particular, *muka* can be used in contexts where no specific individual is identified as having said *p*, but where the speaker can *infer* that others believe *p* (e.g., where the speaker has observed others’ behavior signaling that they think *p* is true, or where this can be

14. <https://www.iltalehti.fi/viihde/a/201703152200086064>

15. <https://www.voice.fi/ilmiot/a-59989>

inferred from social norms or expectations). Thus, in some contexts the existence of the Principal is rooted in inference, rather than explicit commitment. This is what I call an *inferable Principal*. In some cases, the Principal may even be construed generically.

For example, in (16a), the speaker has previously observed that others act like the normal laws of how things work do not apply on Mount Everest, but the speaker disagrees with this attitude.¹⁶ The fact that this proposition is based on the speaker's inferences based on others' behavior and not on a prior communicative event is shown by the presence of inferential evidential *näköjään* 'apparently, seemingly'. Thus, here the speaker infers that there exist Principals who are committed to *p*, but there may not exist a prior speech act where the Principal(s) publicly commit to *p*. (The dubitative *muka* occurs sentence-finally here; I leave a detailed discussion of its syntactic distribution for future work.)

- (16) a. *Nyt tuolla vuorella ei päde näköjään mitkään normaalit lait muka.*¹⁷
 'Now no normal laws seem to apply/apparently apply on that mountain muka.'

Another example of *muka* being used to mark doubt of a proposition that has not been expressed in a prior communicative event is in (16b). Here, the speaker is talking about not knowing where their partner is and being afraid to sleep because they don't know in what state their partner will come home. Use of *muka* expresses the speaker's doubt of the proposition 'I should dare to sleep', even though this proposition has not been explicitly expressed in a prior communicative event – rather, *p* seems to be inferable based on others' expectations or general social expectations. In other words, the speaker expresses doubt in a proposition that the speaker infers other people to believe to be true. Here, the existence of a Principal committed to *p* seems to be based on social norms or inferences drawn based on others' behavior.

- (16) b. *Nyt se on jossain en tiedä missä ja pitäis uskaltaa muka nukkua (...)*¹⁸
 'Now he is I-don't-know-where and I should muka dare to sleep.'

A further case of *muka* being used when the existence of a Principal's commitment to *p* can be inferred from broader contextual information is in (16c). Here, the author explicitly states that there is a default (pre-existing) assumption about

16. It is also interesting to note that *muka* can be used with propositions related to an event visually observed by the Animator (e.g., a situation where the Animator was present during the event), unlike *kuulemma*.

17. <https://www.vauva.fi/comment/50377025>

18. <https://paihdelinkki.fi/keskustelu/viewtopic.php?f=2&p=512459#p512459>

fathers lacking childcare skills, even though no one in the context is explicitly discourse-committed to this. However, *muka* is nevertheless felicitous: Although no one has said *p*, the people's behavior indicates a belief in *p* (which the speaker also comments on), and by using *muka* the speaker indicates they disagree with *p*.

- (16) c. (Context: the whole family – both parents and the baby – are at a parental clinic.)

*Siellä minulle annettiin lapsen tiedot lapulle täytettäväksi, koska isä ei muka osaa. Oletus on edelleen se, että isät eivät kykene täyttämään lappuja, pitämään huolta talvivaatteista tai tekemään ruokaa.*¹⁹

‘I was given a form to fill in with the child’s information, because Dad *muka* doesn’t know how to do this. The assumption is still that fathers can’t fill in forms, take care of (children’s) winter clothes or cook.’

As a whole, these kinds of examples show that, when it comes to the status of *p*, the doubt use of *muka* differs strikingly from the reportative evidential *kuulemma*. As we saw above, *kuulemma* requires a discourse-committed Principal: It is subject to a requirement for *p* to have been expressed in a prior linguistic communicative event, which entails the existence of someone who is publicly committed to *p*. But *muka* is not subject to this requirement:

On the one hand, like *kuulemma*, *muka* can be used to modify propositions expressed in a prior communicative event (i.e., it can be used when both an Animator and a Principal exist, and the Animator is not the Principal). Thus, it can (and often does) occur with a discourse-committed Principal. On the other hand, *muka* can also be used with an inferable Principal, i.e. when the Principal’s commitment to *p* is only non-linguistically expressed in prior context.

However, it is important to note that the doubt use of *muka* requires there to be at least *the potential* of someone being committed to *p*. In other words, some kind of Principal needs to exist. This is shown by the fact that it is odd for a speaker to express doubt in a proposition that has not been mentioned and for which there is no reason to think that anyone would believe it. For example, it would be odd for someone to utter (17a) unless someone has made this claim or unless it can be inferred from something else in the contexts that others believe this. Similarly, as shown in (17b), stating that the earth is *muka* square is infelicitous, whereas stating that the earth is *muka* flat is felicitous, given the existence of people who believe this (flat-earthers).

- (17) a. #*Parvekkeella on muka yksisarvinen.*
#‘On the balcony there is *muka* a unicorn.’

19. <https://www.iltalehti.fi/tosielamaa/a/2168ed54-dfd1-40ae-95f8-c25310e070db>

- b. *Maapallo on muka litteä / #neliskanttinen.*
 ‘Planet Earth is muka flat / #square.’

Thus, on its doubt use, *muka* indicates that the Animator doubts a proposition *p* that (i) someone else (Principal) is committed to (by virtue of having asserted it previously) or (ii) someone else can be inferred to be committed to (e.g., based on behavior or social norms). In other words, the Animator can use *muka* to indicate their doubt about a proposition *p* that someone else is linguistically, inferably or at least potentially committed to. The Principal can be discourse-committed or merely inferable. In sum, the contextual status of the proposition *p* in the scope of *muka* and *kuulemma* is subject to different requirements.

3.1.2 *Doubt: Proposition being doubted is at-issue but cannot be added to Common Ground*

In this section, I show that in terms of its discourse update potential, the doubt use of *muka* resembles what we saw for reportative *kuulemma*, in that the proposition *p* in the scope of *muka* contributes at-issue meaning – i.e., it is put on the Table – while *muka* contributes not-at-issue meaning. However, I also show that *muka* and *kuulemma* differ in that with *muka*, *p* cannot enter Common Ground, in contrast to *kuulemma*.

The at-issue status of *p* can be shown by the same tests we considered above. First, as shown by the felicity of the question-answer pair in (18a), the proposition *p* in the scope of *muka* can answer the QUD, indicating that it provides at-issue information. The direct deniability / challengeability test provides additional evidence in the same direction: the felicity of (18b) shows that *p* can be denied. Thus, echoing what we saw for *kuulemma*, the proposition in the scope of *muka* conveys at-issue information.

- (18) a. QUD test

Speaker A:

Mitä Matti tekee juuri nyt?
 what.PART Matti.NOM does right now?
 ‘What is Matti doing right now?’

Speaker B:

Se lukee muka tentteihin.
 it.NOM reads muka exam.PL.ILL
 ‘He is studying muka for exams.’

b. Direct deniability test

Speaker A:

Matti lukee muka tentteihin.

Matti.NOM reads muka exam.PL.ILL

‘Matti is studying muka for exams.’

Speaker B:

Ei lue. Se nukkuu sohvalle.

neg read it.NOM sleeps sofa.ADE

‘No, he isn’t. He’s sleeping on the sofa.’

Let us now turn to the status of the information conveyed by the dubitative particle *muka*, rather than *p*. As with *kuulemma*, the QUD test cannot be straightforwardly applied to *muka*, but the direct deniability test (19) suggests that the information conveyed by *muka* cannot be directly challenged/denied. If we take direct deniability/challengeability as a diagnostic of at-issuedness, this indicates that the doubt meaning of *muka* is not-at-issue.²⁰

It is worth pointing out that although one might disagree about the wording to use for Speaker B’s response in order to test the direct deniability/challengeability of the doubt meaning of *muka*, intuitively it seems clear that the kind of meaning a speaker expresses with *muka* is not directly challengeable by the addressee. (See also Papafragou 2006 for related discussion of the observation that it is not possible to doubt a speaker’s subjective evaluation of epistemic possibility and Korotkova 2016 for the idea that evidentials involve self-attribution which makes their content non-challengeable/non-deniable for epistemological reasons).

(19) Direct deniability test

Speaker A:

Matti lukee muka tentteihin.

Matti.NOM reads muka exam.PL.ILL

‘Matti is studying muka for exams.’

Speaker B:

#Ei, et sinä epäile tätä.

no, neg you.NOM doubt this.PART

#‘No, you don’t doubt this.’

20. In addition to Faller (2019) and Murray (2014), research on other expressions (whose meanings differ from *muka*) also uses the infelicity of various kinds of addressee-referring denials as evidence of not-at-issue meaning (e.g., “You are not being frank” (Almazán 2019); “you are not committed to saying that” (Beltrama 2016); “You don’t believe this (...) You never believe any stories about your arch-nemesis...” (Taniguchi 2017)).

Recall that with the reportative evidential *kuulemma*, the reported proposition *p* can be added to Common Ground if the speaker intends to do this and the addressee accepts this (see also Faller 2019). This differs from *muka*: it seems that the proposition *p* in the scope of *muka* cannot be added to Common Ground, although it has been put on the Table.

To see this, let us first consider (20a). Here, Speaker A does not use *muka* or *kuulemma* when stating that her sister baked pastries for them, and Speaker B can felicitously follow up with a question that presupposes the pastries to have been baked by A's sister. However, once Speaker A modifies the utterance about her sister baking pastries with *muka* as in (20b), Speaker B's question is no longer felicitous. In other words, *muka* allows a speaker to put *p* on the Table and to indicate that there exists some kind of Principal committed to it, although the speaker is not committed to *p* – and thus does not want to add it to Common Ground. In this regard, dubitative *muka* differs from the hearsay evidential *kuulemma*, as shown by the contrast between (20b) with *muka* and (20c) with *kuulemma*.

- (20) a. No *muka* or *kuulemma*

Speaker A:

Kävin eilen kahvilla mun siskon luona. Se oli leiponut ihan itse pullia mua varten.

'I had coffee at my sister's yesterday. She had baked pulla (Finnish pastries) for me all by herself.'

Speaker B:

Oliko hänen leipomansa pulla hyvää?

'Was the pulla she had baked good?'

- b. With *muka*

Speaker A:

Kävin eilen kahvilla mun siskon luona. Se oli muka leiponut ihan itse pullia mua varten.

'I had coffee at my sister's yesterday. She had muka baked pulla for me all by herself.'

Speaker B:

#Oliko hänen leipomansa pulla hyvää?

='#Was the pulla she had baked good?'

- c. With *kuulemma*

Speaker A:

Kävin eilen kahvilla mun siskon luona. Se oli kuulemma leiponut ihan itse pullia mua varten.

'I had coffee at my sister's yesterday. She had kuulemma baked pulla for me all by herself.'

Speaker B:

Oliko hänen leipomansa pulla hyvää?

‘Was the pulla she had baked good?’

Further evidence for the observation that the proposition in the scope of *muka* is not added to Common Ground comes from (20d), minimally modified from (13b) by replacing *kuulemma* with *muka*. While Speaker B’s response was felicitous in (13b) with *kuulemma*, it is infelicitous in (20d) with *muka*. If Speaker A doubts the claim that Mikko speaks Italian, it is infelicitous for Speaker A to ask Speaker B to get Mikko to translate/interpret the speech.

(20) d. **Speaker A:**

Firman toimitusjohtajan puhe alkaa tunnin päästä. Sain juuri tietää, että se pitää tulkata italiaksi. Mikko puhuu muka italiaa. #Voitko pyytää hänet tulkiksi?

‘The CEO’s presentation starts in an hour. I just found out that it needs to be translated / interpreted into Italian. Mikko speaks muka Italian. #Can you ask him to serve as interpreter?’

Speaker B:

#Joo, otan häneen heti yhteyttä.

#‘Yeah, I will contact him right away.’

In sum, on the doubt use of *muka*, although *p* can be at-issue, it cannot be added to Common Ground. In this regard, a proposition in the scope of *muka* patterns unlike asserted propositions and also unlike propositions modified by *kuulemma*, which can be added to Common Ground if the speaker intends to do so and the addressee accepts this (Section 2).

3.2 Use 2: Pretending the proposition is true

Before turning to the proposed analysis, we need to consider a second use of *muka*, namely the *expression of pretense*. Descriptively, this function of *muka* is typically treated as largely distinct from the doubt use (e.g., Kangasniemi 1992; Nordlund & Pekkarinen 2004). As noted by Kangasniemi (1992), *muka* can be used to express intentional pretense in contexts where (i) the aim of the pretense is to genuinely delude/trick someone else into believing *p* (what I call *intentional delusion*), or (ii) the pretense is acknowledged as fictive (what I call *acknowledged fiction*).

A corpus example of the *intentional delusion* subtype – i.e., a context where the use of *muka* indicates that someone hopes to mislead another person into believing the pretense – is in (21a) (repeated from above). This example describes a situation where two people are visiting an apartment they would like to rent and

are trying to impress the owner who is showing them around. One of the people acts as if she is admiring the view, even though she does not really find it impressive – she wants the owner to believe she is impressed with the view. Here, (i) the speaker does not believe the proposition *p* ‘she is enjoying the view’ (knows it is a pretense), (ii) there is no prior communicative event or contextual inference indicating that anyone already believes *p*, but (iii) there is an intent/aim to make another person believe *p*.

- (21) a. (Context: visiting an apartment they want to rent and want to impress the owner)

*se sively tapetteja ja ihaili muka maisemaa, jossa ei muuta näkynyt kuin vastapäisen talon kauhtunut seinä ja seinässä oleva purukumimainos...*²¹

‘she stroked the wallpaper and admired *muka* the view, where all that was visible was the worn wall of the opposing house and the gum advertisement poster on the wall’

Two further examples of intentional delusion are in (21b, c). In (21b), *muka* indicates that the speaker doubts the proposition *p* ‘Niklas is looking at the fabrics with interest.’ In this context, Niklas is actually interested in the person working with the fabrics: He is only pretending to be interested in the fabrics. Similar to (21a), (i) the speaker does not believe *p*, (ii) there is no prior communicative event or contextual inference indicating that anyone believes *p*, but crucially (iii) there is an intent to make another person believe *p*. In other words, there is a goal of deluding someone else into the epistemic state of thinking that *p* is true. I refer to this someone as a *potential future Principal* – ‘potential’ and ‘future’ because although there is an intent to get this person to believe *p*, this outcome is not guaranteed. This differs from discourse-committed and inferable Principals, whose beliefs have already been made clear (or can be inferred) in the preceding context. If we further assume that believing *p* means being willing to be discourse-committed to *p*, we can describe the target of the intentional delusion as a potential future Principal.

The same properties recur in the next intentional delusion example (21c). Here, *muka* indicates that the speaker does not believe the proposition ‘I stared at the bruise with interest.’ This is a context where a parent pretends to look at a bruise on a child’s leg, even though the parent cannot even see the bruise – but the parent wants the child to believe that s/he is indeed looking at the bruise.

21. https://www.google.com/books/edition/Viikonloppuna_on_vapaata/6BUEEAAAQBAJ?hl=en&gbpv=0, from Sirkka Laine. 2020. *Viikonloppuna on vapaata*.

- (21) b. (Context: Niklas pretends to be interested in the fabrics when he really wants to talk to the person working with them)
*Niklas katselee muka kiinnostuneena mallinuken päällä olevia kankaita.*²²
 ‘Niklas looks muka interested at the fabrics on the mannequin.’
- c. (Context: a child is telling a parent about a bruise on the child’s leg, but the parent can’t see anything)
*Tuijotin muka kiinnostuneena olematonta mustelmaa.*²³
 ‘I stared muka interested at the non-existent bruise.’

Example (21d) is another case of intentional delusion. This example is from a novel, and also shows that the epistemic center can be shifted from the speaker to a character in the story. Here, *muka* indicates that a character named Hagman doubts the proposition ‘the man walked past him without noticing him,’ even though the man is apparently trying to trick Hagman into believing this. (A discussion of perspective shifting effects with *muka* and *kuulemma* is beyond the scope of this work, but constitutes an interesting avenue for future work.)

- (21) d. *...mies käveli hänen ohitseensa muka huomaamatta häntä lainkaan, mutta ikkunoihin paahtavan auringon heijastus valaisi miehen kasvot aurinkolasien takaa ja paljasti katseen todellisen suunnan.*²⁴
 ‘...the man walked past him muka without noticing him at all, but the reflection of the sun beating down on the windows lit the man’s face behind the sunglasses and revealed the true direction of his gaze’

In these intentional delusion examples, the speaker doubts *p* and although there is no prior communicative event or contextual inference to suggest that there already exists someone who believes *p*, use of *muka* signals that there exists a goal of getting someone to believe *p* – i.e., there is an intent/aim of creating a *potential future Principal* (see also Kangasniemi 1992: 208).

In addition to the intentional delusion use, *muka* can be used in contexts where the pretense is acknowledged to be pretense, e.g., in contexts of children playing and other imaginary contexts/make-believe play. (Intriguingly, the Australian language Arrernte also has a dubitative particle that can be used both in contexts of intentional delusion as well as make-believe play, in addition to other uses; see Caudal et al. 2011 for discussion). I refer to this as *acknowledged fiction*. An example is shown in (22). Here, (i) the speaker does not sincerely believe

22. https://yle.fi/progressive/fynd/dataviz/2019/up_kasikirjoitukset/UP_143_425-427_kasikirjoitus.pdf

23. <https://www.hs.fi/koti/art-2000004269445.html>

24. <https://issuu.com/kirja/docs/9789520404154-tulikone> (from the novel *Tulikone* by Ari Rätty, published 2019 by Tammi, Helsinki)

the proposition ‘the child is an airplane’ (knows it is a pretense), (ii) there is no prior communicative event or contextual inference indicating that someone else believes p either, and – unlike the intended delusion use – (iii) there is no intent/aim to make another person sincerely believe p .

- (22) (Context: a child pretends to be an airplane, is swooping around with their arms out, etc.)

Nyt hän on muka lentokone.

now he/she.NOM is muka airplane.NOM

‘Now he/she is muka an airplane’

(Kangasniemi 1992: 209)

Thus, in contrast to the intended delusion use which aims to create a potential future Principal, in the acknowledged fiction cases there is no intent to get anyone to sincerely believe p – but, importantly, people ‘act as if’ p were true. Although all involved parties know that p is fictive, they enter a mutual pact to act as if they believed the fictional word. For example, in uttering (22) the adult ‘buys into’ the child’s make-believe play, instead of simply ignoring or denying the child’s imaginary world (e.g., “She is not an airplane, she is a child”). Thus, the adult pretends to believe p – and could, for example, comment on how big the airplane’s wings are (actually referring to the child’s arms). I call this a *Make-Believe Principal*. Thus, although the speaker (Animator) is not a sincere Principal, the speaker assumes the role of a Make-Believe Principal.

In sum, the speaker is not sincerely committed to p on either the intentional delusion use or the acknowledged fiction use – in fact, the speaker doubts p on both uses. There is no pre-existing discourse-committed or inferable Principal in either case, in contrast to the doubt uses. However, we have (i) a discourse goal of creating a *potential future Principal* (on the intentional delusion use) or (ii) context where people diverge from their sincere commitments and act as if p were true (even though the relevant parties know it is not true), such that the speaker is a *Make-Believe Principal*.

3.2.1 *Pretense: Existence of prior linguistic communicative event is possible but not required*

Next, I will consider how the key discourse update properties that we discussed with *kuulemma* and the doubt use of *muka* apply to the pretense uses of *muka*. In this section, I discuss (i) whether a prior linguistic communicative event is required and whether there exists someone who believes p ; and (ii) in Section 3.2.2, I assess whether p is at issue (put on the Table) and whether it is added to Common Ground.

As we saw in Section 3.1, the doubt use of *muka* can involve, but does not require, a prior linguistic event (and a discourse-committed Principal) – as I

argued above, doubt uses can occur in contexts with discourse-committed Principals as well as inferable Principals. As regards the pretense uses of *muka* (intended delusion and acknowledged fiction), we have already seen in the preceding section examples where there is no pre-existing sincere Principal (i.e., no discourse-committed or inferable Principal), but rather there is the aim to create a potential future Principal (i.e., to delude someone into sincerely believing *p*) or we are dealing with a Make-Believe Principal. In the remainder of this section, I show that both kinds of pretense uses *can* also occur with discourse-committed Principals.

Consider (23a). This example involves a case of a pharmacist falsifying prescriptions: She claimed (intending to mislead others, hoping for a potential future Principal) that various veterinarians had submitted phone requests for prescriptions, but use of *muka* indicates that the Animator (current speaker) does not believe her statement about the phone requests. This is an example of the intentional delusion use of *muka* in a context with a prior linguistic communicative event (but the Animator of this communicative event, the pharmacist claiming that vets had submitted phone requests, is lying).

(23) a. Intended delusion

*Lisäksi nainen väärensi pirtureseptejä. Hän tekaisi eri eläinlääkäreiden nimiä resepteihin, joita oli muka tullut puhelimitse.*²⁵

‘The woman also forged prescriptions for purified alcohol. She faked the names of different veterinarians on the prescriptions, which had muka been submitted over the phone.’

An acknowledged fiction example of *muka* in a context with a prior linguistic communicative event is in (23b). This is a context where a child is pretending to be a baby who cannot yet do anything on his own. Here, there is a communicative event of the child saying ‘I can’t, I’m a baby’ (reported by the mother).

(23) b. Acknowledged fiction

(Context: A four-year old pretends to be a little baby who can’t yet dress himself, etc.)

*nyt alkaa jo ottaa välillä aivoon, kun mitään ei osaa muka itse tehdä, poika itse sanoo: en osaa, olen vauva.*²⁶

‘now it’s starting to annoy me, when he muka can’t do anything on his own, the boy himself says: I can’t, I’m a baby.’

25. <https://www.hs.fi/kotimaa/art-2000003511316.html>

26. <https://keskustelu.kaksplus.fi/threads/teillae-lapsi-leikkii-vauvaa.2096970/>

In sum, Examples (23a, b) show that pretense uses of *muka* are not *incompatible* with the existence of a prior communicative event, though these prior communicative events are not sincere.

Broadly speaking, the pattern that emerges is that (i) the reportative *kuulemma* requires a prior communicative event (and a discourse-committed Principal), while (ii) the dubitative *muka* is compatible with prior communicative events but does not require them.

3.2.2 Pretense: Proposition is at-issue but does not get added to the Common Ground

In this section, I show that the pretense uses of *muka* pattern like the doubt use as regards at-issueness: the proposition *p* in the scope of *muka* contributes at-issue meaning, and the information conveyed by *muka* itself is not-at-issue. The picture regarding Common Ground is more complex: While on the intended delusion use, *p* does not enter Common Ground (like what we saw with the doubt use), on the acknowledged fiction use, it appears that *p* can enter a “make-believe” version of Common Ground that consists of the beliefs that discourse participants pretend to agree to.

The at-issue status of *p*, on both subtypes of pretense uses of *muka* (intentional delusion and acknowledged fiction), is revealed by the same tests we considered above. The felicity of the question-answer pairs in (24a, b) show that the proposition *p* in the scope of *muka* can answer the QUD – indicating it is at-issue. The direct deniability/challengeability test corroborates this: the felicity of (24c, d) shows that *p* can be denied. In sum, these tests indicate that the proposition in the scope of *muka* is at-issue information on both subtypes of pretense uses.

(24) a. QUD test (intentional delusion use)

Speaker A:

Mitä Matti tekee?

what.PART Matti.NOM does

‘What is Matti doing?’

Speaker B:

Se katselee muka näyteikkunoita.

it.NOM looks muka shop-window.PL.PART

‘He is looking muka at shop windows.’

(example adapted from Kangasniemi 1992: 208)

- b. QUD test (acknowledged fiction use)

Speaker A:

Mitä Matti tekee?

what.PART Matti.NOM does

‘What is Matti doing?’

Speaker B:

Se on muka lentokone.

it.NOM is muka airplane.NOM

‘He is muka an airplane.’

- c. Direct deniability/challengeability test (intentional delusion use)

Speaker A:

Matti katselee muka näyteikkunoita.

Matti.NOM looks muka shop-window.PL.PART

‘Matti is muka looking at shop windows.’

Speaker B:

Ei, hän on katselevinaan autojen rekkareita.

no he.NOM is look-pretend²⁷ car.PL.GEN license-plate.PL.PART

‘No, he is pretending to look at cars’ license plates’

- d. Direct deniability/challengeability test (acknowledged fiction use)

Speaker A:

Matti on muka lentokone.

Matti.NOM is muka airplane.NOM

‘Matti is muka an airplane.’

Speaker B:

Ei, hän leikkii olevansa kuorma-auto.

no he.NOM plays being truck.NOM

‘No, he is pretending to be a truck.’

What about the information conveyed by *muka* itself on the two kinds of pretense use? Again, the QUD test is hard to use for independent reasons, but the direct deniability/challengeability test indicates that the content of *muka* cannot be directly denied (25).²⁸ This suggests that it is not-at-issue. (Echoing what I said

27. See footnote 10 for more discussion of verbal compound construction ‘to be verb + *vinA(An)*’.

28. Contexts where Speaker A’s utterance has strong prosodic focus on *muka* may make Speaker B’s replies more felicitous. If so, this suggests that the meaning contribution of *muka* can be made (more) at-issue by adding special marking (such as prosodic focus). In light of the growing literature on the relation between prosodic focus marking and implicatures, presuppositions and projection, this is probably not unexpected, and an intriguing direction for future work. It does not directly impact the main claims being made in this paper.

above regarding the doubt use of *muka*, we might again disagree about how to use Speaker B's responses to target only the pretense meaning of *muka*. Intuitively, I think it is nevertheless clear that the kind of meaning that the speaker expresses with *muka* on its pretense uses (like its doubt uses) is not available for direct denial/is not directly challengeable by the addressee (see also Papafragou 2006; Korotkova 2016 for discussion regarding the idea that certain things may simply not be challengeable by others due to epistemological reasons).)

- (25) a. Direct deniability/challengeability test (intentional delusion use)

Speaker A:

Matti katsellee muka näyteikkunoita.

Matti.NOM looks muka shop-window.PL.PART

'Matti is muka looking at shop windows.'

Speaker B:

**Ei, et sinä usko, että hän teeskentelee.*

no neg.2nd you.NOM believe that s/he.NOM pretends

*'No, you don't think that he is pretending.'

- b. Direct deniability/challengeability test (acknowledged fiction use: imagine a context where a child pretends to have hurt his foot so that a make-believe 'doctor' can look at it)

Speaker A:

Matti on muka satuttanut jalkansa.

Matti.NOM is muka hurt foot.Px3

'Matti has muka hurt his foot.'

Speaker B:

**Ei, et sinä usko, että hän leikkii satuttaneensa jalkansa.*

no neg-2nd you.NOM believe that s/he plays hurt-PP foot.Px3

*'No, you don't think that he is pretending to have hurt his foot.'

Can the proposition in the scope of *muka* be added to Common Ground on the pretense uses? Given that *p* is not sincerely believed by anyone, we might expect that it cannot be added to Common Ground. Consider (26). Here, Speaker A says, using *muka*, that they *pretended* to admire the furniture all night long (i.e., the relevant proposition is 'I admired the living room furniture all night'). However, Speaker B cannot felicitously ask a question targeting this proposition, which indicates that *p* has not been added to Common Ground. This is illustrated by the infelicity of (26b). Importantly, without *muka* in Speaker A's statement, Speaker B's response would be felicitous.

(26) Intended delusion

Speaker A:

Me käytiin eilen Mäkelöillä syömässä, ne sai olohuoneremontin valmiiksi pari viikkoa sitten. Ihailin muka koko illan olohuoneen huonekaluja.

‘We ate at the Mäkeläs’ yesterday, they finished their living room renovations a couple of weeks ago. I spent muka the whole evening admiring their living room furniture.’

Speaker B:

#Mikä niissä on mielestäsi hienoa?

‘What did you find impressive about it?’

However, the situation is more complex on the acknowledged fiction use. Consider (27). Here, Speaker A is talking about a child pretending to be a balloon. Speaker B can choose to go along with the pretense (for example, consider a context where the child is listening to the conversation), in which case B’s response in (27) sounds natural (and playful). This indicates that in this kind of ‘going along with the pretense’ context, the relevant proposition (‘she is a balloon’) becomes part of a Make-Believe version of Common Ground. This is presumably due to the acknowledged fiction use being potentially associated with the discourse participants entering into a pact to *act as if p* were true. However, it is clear that neither Speaker A nor Speaker B sincerely believes that the child is a balloon, and thus *p* does not become part of the ‘real’ Common Ground – in this sense, the acknowledged fiction use of *muka* patterns like the other uses of *muka*.

(27) Acknowledged fiction

Speaker A:

Hän on muka ilmapallo.

‘S/he is muka a balloon.’

Speaker B:

Minkävärinen ilmapallo hän on?

‘What color balloon is s/he?’

3.3 Summary of *muka*: Doubt and pretense

Table 2 summarizes the key properties of the dubitative particle *muka* in Finnish, compared to the reportative evidential *kuulemma*.

Table 2. Summary of the properties of reportative *kuulemma* and dubitative *muka*

	<i>Kuulemma</i>	<i>Muka use 1:</i> Doubt	<i>Muka use 2:</i> Intentional delusion	<i>Muka use 2:</i> Acknowledged fiction
Speaker's (Animator's) commitment to truth of <i>p</i> ?	Neutral	Does not believe	Does not believe	Does not sincerely believe (but pretends)
Prior communicative event conveying <i>p</i> ?	Must exist	Can but does not need to exist	Can but does not need to exist	Can but does not need to exist
Existence of another individual (Principal) who sincerely believes <i>p</i> ?	Yes – discourse-committed Principal	Yes – discourse-committed or inferable Principal	Not yet, aiming to create a potential future Principal	No, but Animator = Make-Believe Principal
Is <i>p</i> at-issue? (put on the Table)	yes	yes	yes	yes
Can <i>p</i> be added to Common Ground?	yes	no	no	no (only to 'Make-Believe' Common Ground)

4. Discussion and proposal

The key properties of the Finnish reportative *kuulemma*, as summarized in Table 2, can be successfully captured both by Pancheva & Rudin's (2019) assertion-based analysis and by Faller's (2019) proposal, as noted in Section 2.5. Recall that these two analyses differ in whether they posit the existence of special discourse update operators (Faller) or strive for a more uniform approach where all declaratives function as assertions (Pancheva & Rudin).

However, the discourse profile of the dubitative *muka* differs from the reportative *kuulemma* and calls for additional analysis. Before proceeding, I would like to emphasize that neither Faller (2019) nor Pancheva & Rudin (2019) make any claims about dubitatives; thus, the behavior of *muka* does not argue for or against their analyses of reportative evidentials.

As summarized in Table 2, the use of *muka* indicates that the speaker (Animator) doubts *p*, in contrast to *kuulemma* that involves a neutral stance on the part of the speaker. In the analysis I sketch out in this section, I treat this meaning component of *muka* as its core discourse contribution: It essentially functions as a signal that the speaker doubts *p*.

Moreover, whereas the use of *kuulemma* entails the existence of a prior communicative act – and thus entails the existence of a discourse-committed Principal, a Principal publicly committed to p – this is not the case with *muka*. In some sense, this is unsurprising: *kuulemma* is a reportative evidential, i.e., a speaker uses it to report someone else’s statement, whereas *muka* is a dubitative marker and thus is not expected to have any aspects of reporting someone else’s statement hard-wired into its meaning. This distinction has important implications for our analysis of *muka*. First, it indicates that an assertion-based analysis along the lines of what Pancheva and Rudin propose for reportative evidentials (although it works for *kuulemma*) will not work with the dubitative *muka* (at least not if our aim is to provide a unified analysis of its different uses), because an assertion-based analysis entails that there always exists a discourse-committed Principal.

If utterances modified by *muka* are not assertions (although they can be used to answer the QUD), can we build on Faller’s (2019) *present* speech act, which has a weaker illocutionary force than assertion? Faller’s definition of *present* is repeated in (28a):

- (28) a. $\text{PRESENT}(p, a, K_i) = K_{i+1}$ such that
- i. $T_{i+1} = \text{push}(p, T_i)$
 - ii. $(\text{TC}_{p;i+1} = \text{TC}_{p;i} \cup \{ p \})$
 - iii. $(\text{AeC}_{a;i+1} = \text{AeC}_{a;i} \cup \{ p \})$
 - iv. $(a_{i+1} = \text{pr}_{i+1})$

The *present* operator puts p on the Table (i), renders p part of the Principal’s truth commitments (ii), and part of the Animator’s evidential commitments (iii), and requires that the Animator and the Principal are the same person (iv). Crucially, on Faller’s view, uttering p does not publicly commit the Animator to p and simply puts p on the Table.

Before turning to my analysis of *muka*, I briefly revisit Faller’s analysis of reportatives. She analyses the Cuzco Quechua reportative evidential as an illocutionary modifier, a function from speech acts to speech acts, repeated in (28b):

- (28) b. $\text{REP}(\text{PRESENT})(p, a, K_i) = \text{PRESENT}(p, a, K_i)$ such that
- i. $\text{RepC}_{a;i+1} = \text{RepC}_{a;i} \cup \{ p \}$ add p to the reportative commitments of a
 - ii. $a_{i+1} \neq \text{pr}_{i+1}$ require a and pr to be distinct

This states that the Animator and Principal must be distinct (i.e., the Animator is reporting someone else’s commitments) and adds p to the reportative commitments of the Animator (crucially, not the Animator’s discourse commitments/truth commitments).

Importantly, Faller also assumes that “each sentence can only introduce one type of evidential commitment” (2019: 32). Thus, the presence of a reportative

evidential adds p to the Animator's reportative commitments (the set of propositions for which the Animator is committed to having reportative evidence, Faller 2019: 22), and thus pre-empts part (iii) of (28a) – in other words, when a speaker utters a proposition modified by a reportative, p is only added to the set of propositions for which the speaker has reportative evidence, and not to the set of propositions for which the speaker is committed to having adequate evidence. This is the desired consequence, since the speaker is not committed to p in uttering a sentence with a reportative. The assumption that each sentence can only introduce one kind of evidential commitment turns out to be important for my proposal concerning *muka*.

4.1 The basic proposal for dubitative *muka*

I propose that the dubitative *muka* can be defined as shown in (30a). Here, DUB is an illocutionary modifier that applies to the speech act *present*. According to (30a), the dubitative indicates, first, that p is not part of the set of propositions that constitutes the truth commitments (TC) of the Animator (part (i)). In other words, by uttering a proposition modified by *muka*, the speaker marks p as not being one of the propositions that they (sincerely) believe. The second part, (ii) states that the Animator is not the Principal.

The third part, (iii), explicitly broadens what counts as a Principal, and states that with *muka* (but not with *kuulemma*, which can be analyzed as shown in (28b)), this set includes not only individuals who are publicly committed to p due to having asserted it in prior discourse (discourse-committed), but also individuals whose commitment to p can be inferred from their behaviors or actions (inferable), as well as individuals who are targeted as becoming committed to p in the future (on the intended delusion use). Thus (iii) is based on the evidence I present above that in addition to the discourse-committed Principal assumed by Pancheva & Rudin (2019) and Faller (2019), we also need to consider inferable Principals and potential future Principals. Below, I provide more detailed definitions and discuss Make-Believe Principals.

- (29) $DUB(\text{PRESENT})(p, a, K_i) = \text{PRESENT}(p, a, K_i)$ such that
- i. $TC_{a;i+1} = p \not\subset TC_{a;i}$
 - ii. $a_{i+1} \neq p_{i+1}$
 - iii. $pr \subset \{\text{discourse-committed, inferable, future}\}$

Now, let us consider how this DUB function combines with the speech act *present*. Following Faller (2019), I assume that illocutionary modifiers like *muka* can override the defaults associated with speech act operators. This means that part (i) of (29) overrides part (iii) of (28a) – when a proposition is modified by *muka*, it is

not added to the speaker's adequate evidential commitments (part (iii) of (28a)) and is instead marked as *not* being the set of the speaker's truth commitments (part (i) of (29)). This is depicted in (30), where I use strike-through for defaults being overridden. This successfully captures the observation that the use of *muka* signals that the speaker doubts the relevant proposition. Furthermore, part (ii) of (29) overrides part (iv) of (28a/30): *muka* specifies that the Animator and the Principal are distinct.

- (30) $\text{PRESENT}(p, a, K_i) = K_{i+1}$ such that
- i. $T_{i+1} = \text{push}(p, T_i)$
 - ii. $(\text{TC}_{\text{pr};i+1} = \text{TC}_{\text{pr};i} \cup \{p\})$
 - iii. $(\text{AeC}_{\text{a};i+1} = \text{AeC}_{\text{a};i} \cup \{p\})$
 - iv. $(\text{a}_{i+1} = \text{pr}_{i+1})$

I further assume that p being marked as not being in the speaker's truth commitments is also why, although p is put on the Table, it cannot be added to Common Ground. Thus, *muka* allows the speaker to put p on the table and to signal that there exists some kind of Principal who believes p , while also flagging p as something that they as the speaker do not believe.

In the next section I say more about how part (iii) of (29) – about there being different types of Principals – follows from the observations I make above regarding the existence of at least three different kinds of Principals.

4.2 Broadening our view of 'Principal'

This section takes a closer look at the idea of broadening – and fine-tuning – the notion of 'Principal.' In Section 2, we saw that the reportative *kuulemma* makes reference to a discourse-committed Principal – for the use of *kuulemma* to be felicitous, someone must be discourse-committed to p by virtue of having said it in prior discourse. However, in Section 3, I presented evidence that while this is clearly also possible with *muka*, it is not necessary. On the doubt use, *muka* can be used when there exists a Principal who is committed to p , but this is not necessarily through a prior speech act. As the examples in Section 3 showed, the existence of a Principal committed to p may be inferable from people's behavior and social attitudes, etc. This is what I call an inferable Principal. Thus, the *doubt* use of *muka* occurs in contexts with discourse-committed Principals as well as the broader class of inferable Principals.

If we were to stick to a strict definition where only discourse-committed Principals 'count as' Principals, it would be inaccurate to claim that part of *muka*'s meaning is that the Animator and Principal are distinct. Thus, I suggest that we

should broaden our view of who counts as a Principal, and that doing so offers a unified way of capturing the discourse contribution of *muka*.

According to Goffman, a Principal is “someone whose position is established by *the words that are spoken*, someone whose beliefs have been told, someone who has committed himself to what the words say” (Goffman 1979: 17, emphasis added). Thus, Goffman makes explicit reference to ‘the words that are spoken.’ And indeed, reportative evidentials, including *kuulemma*, require this kind of Discourse-committed Principal. Thus, it is clearly a necessary concept. However, I propose that, based on what we have seen with the doubt uses *muka*, we should consider the possibility that certain linguistic expressions make reference to a different kind of Principal: an Inferable Principal as defined in (31a).

- (31) a. i. *Discourse-committed Principal* = A person who is committed to *p* and whose commitment is indicated by a prior communicative event (publicly asserting *p*)
- ii. *Inferable Principal* = A person who is committed to *p* and whose commitment is indicated by prior behavior, actions, etc. (not by a linguistic assertion)

In addition, the intentional delusion uses of *muka* involve what I call a Potential Future Principal – a person who is not yet committed to *p* but who is being targeted as becoming committed to *p* in the future (31b). For example, when the would-be renter in (14b) acts as if she is admiring the view, she is aiming to get the owner of the apartment to believe that she is indeed impressed with the view. In other words, on the intentional delusion use, there exists a goal of making someone believe *p*: someone puts on a performance for one or more other people and hopes that the audience thinks the performance is real. Thus, there is a goal to create a Principal in the immediate future – someone whose truth commitments include *p*. The term *Potential Future Principal* aims to capture the fact that although there is an intent to get someone to believe *p* (which would presumably entail them being willing to be discourse-committed to *p*), this outcome is not guaranteed, unlike the situation with discourse-committed and inferable Principals, whose commitments are already established in prior context.

- (31) b. iii. *Potential Future Principal* = A person who is not yet committed to *p* but there exists an aim to get them to believe *p* in the future

If we allow for these sub-types of Principal, then the function *muka* applied to the speech act *present* yields a situation with the characteristics in (32). In other words, *p* is put on the Table (i.e., becomes at issue, (a)), it is part of the truth commitments of the Principal (b) (which now includes discourse-committed, inferable and future principals, (e)), is marked as not being part of the truth com-

mitments of the Animator (c), and the Animator and Principal are distinct (d). This is also represented in the simplified discourse structure shown in (33).

- (32) a. $T_{i+1} = \text{push}(p, T_i)$
 b. $TC_{pr;i+1} = TC_{pr;i} \cup \{p\}$
 c. $TC_{a;i+1} = p \notin TC_{a;i}$
 d. $a_{i+1} \neq pr_{i+1}$
 e. $pr \in \{ \text{discourse-committed, inferable, future} \}$

Person A	Table	Person B
$TC_{Pr, Pr \neq A} \cup \{p\}$ $p \notin TC_{A, A \neq Pr}$ AeC_A $RepC_A$	p	TC_B AeC_B $RepC_B$
CG		

(33) Person A has said a sentence where p is modified by the dubitative *muka*

4.3 Dealing with make-believe contexts

The characteristics in (32) successfully cover the discourse profile of the *doubt* uses of *muka* as well as one of the pretend uses; the *intended delusion* use. But what about the *acknowledged fiction* use? When an adult says, describing a child engaged in pretend play, that ‘she is *muka* an airplane’, the adult is the Animator. At the same time, she is going along with and pretending to believe, on some level, the child’s make-believe play. (Otherwise, she would presumably not even acknowledge the child trying to be an airplane.) Nevertheless, there exists no sincere Principal. In this section I explore two possible ways of representing this situation.

One option is to analyze these contexts as simply having no Principal at all, of any kind. On this view, parts (b) and (e) of (32) are rendered irrelevant by the fact that no Principal exists. If no Principal exists, the Animator is vacuously distinct from the non-existent Principal, thus vacuously satisfying (d). However, this approach fails to capture the intuition that the Animator is ‘pretending to believe p .’

Another option that takes steps to capture this intuition explicitly distinguishes between people who hold sincere commitments (sincere Principals) and people who pretend to be committed to p (Make-Believe Principals). This idea has a precedent in the psychological work on pretend play in children. For example, Leslie (1987) highlights the importance of ‘decoupling’ real representations (e.g., X

is a toddler) from the representations involved in pretend play (X is an airplane). Thus, while the current speaker on acknowledged fiction uses is the Animator, they are not a sincere Principal – but they are a “Make-Believe” Principal.²⁹ Just like the child takes on the role of the airplane during the segment of imaginary play, the Animator takes on the role of someone who plays along, someone who plays the role of a believer (see also Leslie 1987; Clark 2020; and others for discussion of pretend play).

Let us denote this kind of Make-Believe Principal as “pr”, using quotation marks. Thus, in this context there is no sincere Principal (no pr), but there is someone playing the role of a Principal (“ pr ”). (The child engaged in pretend play can also be regarded as a Make-Believe Principal; the existence of two Make-Believe Principals is unproblematic for this proposal.)

Under this second approach, the requirement of DUB (see (30a)) that the Animator is not the Principal ($a_{i+1} \neq pr_{i+1}$) is still satisfied. This is because although the Animator is the “Make-Believe” Principal ($a_{i+1} = \text{“pr”}_{i+1}$), the Animator is *not* a sincere Principal ($a_{i+1} \neq pr_{i+1}$). Thus, separating Principal and Make-Believe Principal and treating them as distinct roles (‘decoupling’, to use Leslie’s 1987 term) allows us to capture the acknowledged fiction uses of *muka* without changing the discourse update semantics that I propose for *muka* in (30a). Future work is needed to assess if this approach is on the right track.

But what about the speech act *present*, as defined in (28a)? On its original formulation it states that p is added to the truth commitments of the Principal. However, in acknowledged fiction contexts, there is no sincere Principal. If, in these contexts, we allow the speech act of *presenting* to be felicitous even though there is no Principal to whose truth commitments p is added,³⁰ we can subsume these uses of *muka* under the approach described in (30a).

29. In this regard, acknowledged fiction cases diverge from intended delusion cases: the latter have a potential Future Principal who is sincere, whereas former do not involve a sincere Principal at all.

30. Alternatively, one could say that in contexts that are recognized as make-believe, p is added to the truth commitments of the Make-Believe Principal(s) instead of the Principal, as in (i). In other words, whatever contextual cue shifts the context into the realm of make-believe could also shift pr (Principal) to “ pr ” (Make-Believe Principal) for this update step. However, this kind of approach raises other questions about how to conceptualize truth commitments in make-believe contexts, a challenge that I leave for future work.

(i) *in contexts recognized as being make-believe/pretend play*: $TC_{\text{pr};i+1} = TC_{\text{“pr”};i} \cup \{p\}$.

5. Discussion and conclusions

This paper provides a systematic investigation of the discourse contributions of the Finnish reportative (hearsay) evidential *kuulemma*, which indicates that the speaker is reporting information provided by someone else and is not committed to the truth of the proposition, and the dubitative marker *muka* (often translated along the lines of ‘supposedly, allegedly, as if’) which is typically described as signaling that the speaker doubts the truth of the proposition. The preceding sections constitute the first formal analysis of the Finnish reportative evidential and dubitative particles within Farkas & Bruce’s (2010) Table framework, building on recent work on reportative evidentials by Faller (2019) and Pancheva & Rudin (2019).

As regards the reportative evidential *kuulemma*, I argue that its behavior can be captured both by (i) Faller’s (2019) analysis which treats reportatives as special discourse update functions, as well as by (ii) Pancheva & Rudin’s (2019) approach which treats reportatives as contributing a presupposition that the Animator (the speaker, the one who ‘animates’ the sentence) and the Principal (the person whose commitments are being expressed) are distinct.

These prior analyses, however, focus on reportative evidentials and make no claims regarding dubitatives. Indeed, the discourse properties of linguistic devices whose main function is to signal that the speaker doubts the truth of a proposition have received less attention in prior work than reportative evidentials. I suggest that the dubitative marker *muka* provides an empirically and theoretically informative contrast to the reportative *kuulemma*. I argue that although the existence of a Principal is relevant for both *muka* and *kuulemma*, to describe the discourse profile of Finnish *muka* we need to broaden our conceptualization of the notion of Principal.

Using corpus data and native speaker judgments, I show that the contextual status of the proposition *p* in the scope of *muka* and *kuulemma* is subject to different requirements. Unlike reportative *kuulemma* which requires a discourse-committed Principal (i.e., the reported proposition *p* must have been expressed in a prior communicative event), I provide evidence that *muka* can be used with both discourse-committed and inferable Principals: *Muka* can be used to express doubt both about (i) propositions expressed by another person in a prior speech (or writing) event (like *kuulemma*), and about (ii) propositions where no specific individual is identified as having said *p*, but where the author can infer (e.g. based on others’ behavior) that others believe *p*.

Furthermore, I posit that *muka* can also occur even without a pre-existing Principal if there exists a goal to get someone to believe *p*. More specifically, I suggest that the effect of *muka* signaling what I call ‘intended delusion’ arises when

there is an aim of creating a potential future Principal. Finally, if there is no pre-existing sincere Principal (either discourse-committed or inferable) and also no goal of creating a potential future Principal, *muka* yields what I call the acknowledged fiction interpretation (where all relevant parties know that the proposition *p* is not true). Thus, my approach derives the different uses of the dubitative *muka* by positing one update operation (see (30a)) that allows for different kinds of Principals (see (31a, b)) – in other words, allows for variation regarding the commitments of people other than the current speaker towards *p*.

5.1 Bringing together the reportative evidential *kuulemma* and the dubitative *muka*

Having considered the interpretation of the reportative evidential and dubitative particle, in this section I provide two further pieces of evidence in favor of the account I have sketched out. First, let us consider how epistemic adverbs can provide additional evidence for my claim that whereas felicitous use of *kuulemma* requires a prior linguistic communicative event (i.e., requires a discourse-committed Principal), uses of *muka* can occur with or without *p* having been asserted in a prior communicative event. Evidence for this claim comes from examples like (34). In (34a-c), with *kuulemma*, the epistemic adverbs reflect the discourse commitments of Principal, i.e., the Animator of the prior communicative event, not the speaker (Animator) of the current speech event (as discussed by Kuiri 1984: 35, using different terms).

- (34) a. *Poika on kuulemma varmasti rakastunut.* (Kuiri 1984: 35)
 ‘The boy is kuulemma certainly in love.’
 / ‘It is said that the boy is definitely/certainly in love.’
- b. *Poika on kuulemma tuskin rakastunut.* (Kuiri 1984: 35)
 ‘The boy is kuulemma unlikely-to-be in love.’
 / ‘It is said that the boy is probably not in love.’
- c. *Siellä osassa kylää pääsee kuulemma varmasti eroon lompakostaan ja puhelimestaan.*³¹
 ‘In that part of town you kuulemma certainly end up getting rid of your wallet and phone.’
 / ‘It is said that in that part of town you are certain to lose your wallet and phone.’

31. <https://www.rantapallo.fi/rantalomat/piristava-boa-vista/>

For example, in (34c), ‘certainly’ can be naturally interpreted as reflecting the perception of the Principal (the Animator of the prior communicative event), not the current speaker. This provides evidence for the existence of a prior speech event.

If epistemic adverbs (in sentences where the Animator and Principal are distinct) are constrained to refer to the original Animator, this predicts that with dubitative *muka*, they are predicted to be felicitous in a context with a prior communicative event (i.e., with an available ‘original’ Animator). Indeed, (35a) is a corpus example where ‘certainly’ is interpreted as referring to the epistemic state of those making the comments about the products, not the epistemic state of the current speaker. However, these kinds of epistemic adverbs sound odd in contexts with no pre-existing Animator, such as the intentional delusion use of *muka* in (35b). These patterns fit with my claim that *muka* can occur both with and without a prior speech event. I leave a more systematic investigation of these issues for future work.

- (35) a. (Context: criticizing an online scheme that promises high income with minimal/no work)
*Sen sijaan se mistä se raha tulee sivuutetaan epämääräisillä puheilla tuot-
 teista jotka muka varmasti käyvät kaupaksi.*³²
 ‘Instead, questions about where the money comes from are pushed aside
 with vague comments about products that muka certainly sell well.’
- b. #*Hän katselee muka varmasti näyteikkunoita.*
 #‘He is muka certainly looking at shop windows’

Now, let us turn to a point that we already saw in (1c) at the start of this paper: *kuulemma* and *muka* often co-occur. Further examples of doubt and pretense uses of *muka* co-occurring with the reportative evidential are in (36a–c).³³

32. <https://keskustelu.suomi24.fi/t/17160951/automaatisten-tienaanamisen-webinar-nyt>

33. Interestingly, *muka* and *kuulemma* also co-occur in descriptions of dreams, both when people are describing their experiences in their dreams (i) as well as others’ reports of how they behaved while sleeping (ii).

(i) *sitte olin muka kuulemma kosinu jotaki ja sitte oli jo hääpäivä, mut onneksi ennen kirk-
 koo menoo heräsin.* (https://ask.fm/jerebOy/best)

‘Then I had muka kuulemma proposed to someone and then it was our wedding day
 but fortunately I woke up before the church [talking about a dream].’

(ii) (Context: someone asks people what unusual things they have done in their sleep)
 ... *mutta unissani kuulemma hyvin usein muka syön. Siis maiskuttelen ja auon suuta ja
 olen samalla hyvin tyytyväisen näköinen...*

(https://www.vauva.fi/keskustelu/4344105/mita-outoa-tai-erikoista-olet-tehnyt-
 unissasi?changed=1634386814)

- (36) a. *tallelokero oli kuulemma muka remontissa, mutta seuraavana aamuna toimittivat uuden*³⁴
 ‘the (hotel room) safe was kuulemma muka under renovation, but the next morning they brought a new one’
- b. *En kuulemma muka tarjoile riittävästi maistiaisia.*³⁵
 ‘I don’t kuulemma muka offer enough taste samples.’ [talking about cooking]
- c. *Hän on kuulemma muka lentokone.*
 ‘S/he is kuulemma muka an airplane.’

The fact that *kuulemma* and *muka* can co-occur without any sense of redundancy provides strong evidence that they make different discourse contributions, despite often being descriptively grouped together as a means to indicate that the speaker received the information from someone else. This conclusion fits with my proposal that (i) *kuulemma* has the core function of indicating the dissociation between Animator and Principal (following Pancheva & Rudin 2019 and Faller 2019), while (ii) *muka* has the main function of indicating the Animator’s doubt about *p*.

5.2 Theoretical ramifications

In addition to taking steps towards a new analysis of the Finnish reportative evidential and dubitative particles within the Table framework, the ideas presented in this paper also have broader implications for our understanding of the linguistic encoding of discourse participants’ commitments and epistemic states that go beyond Finnish. I discuss these below:

One implication concerns the general question of whether it is possible to maintain a straightforward mapping between clause types and context update types. Some researchers argue in favor of striving to maintain an explanatory link between clause type and context update type (see Farkas & Roelofsen 2017 for discussion). For example, Pancheva and Rudin’s (2019) approach shows how we can maintain a view where declarative sentences with reportative evidentials update the context via the mechanism of assertion, even if the speaker is not committed to the truth of *p*. On this account, declarative updates receive a uniform analysis that is independent of reportative evidentials – in other words, we can maintain

‘...but in my dreams kuulemma very often I muka eat. So I smack my lips and open my mouth and at the same time look very pleased...’

34. <https://www.booking.com/reviews/al/hotel/vila-one-beach.fi.html>

35. <http://kokkeillaan.blogspot.com/2012/08/>

a principled (and constrained) relation between a sentence's illocutionary effect (here: assertion) and clause type (here: declarative). This approach differs from accounts such as Faller's (2019), where linguistic expressions can, in effect, rewrite update operations. For example, Faller analyses reportative evidentials as illocutionary modifiers that operate directly on speech acts. As discussed above, both of these accounts can, in principle, capture the behavior of the Finnish reportative evidential *kuulemma*, but as Pancheva & Rudin note, their account has the advantage of allowing us to maintain a uniform view of the discourse updates associated with declaratives.

However, the discourse profile of the dubitative *muka*, in particular the finding that a speaker can use it in a declarative to express doubt about a proposition that lacks a discourse-committed Principal, does not seem to follow straightforwardly from approaches that assume a uniformly assertion-based view of the discourse update potential of declaratives. This is because on some uses of *muka*, it does not seem tenable to claim that, in asserting a declarative sentence, a speaker consistently commits to there being a Principal who is committed to *p*. As a whole, the multiple functions of the dubitative *muka* seem to point towards a need to allow declaratives to be associated with a wider range of discourse moves beyond assertion. A more in-depth investigation of these issues is an important question for future work.

Another implication of the present work concerns how we think about the central discourse role of 'Principal,' i.e., the person whose commitments/beliefs are being reported. The original conceptualization of Principal, starting with Goffman (1979) and developed further by Faller (2019) and others, focuses on an agent becoming publicly committed to *p* by asserting it as part of a linguistic communicative act. Indeed, it is clear that this kind of discourse-committed Principal plays a key role in reportative evidentials, for example.

However, in the present paper I use the term 'Principal' more broadly, including in reference to individuals whose commitments can be inferred based on behaviors or other information rather than prior linguistic communicative acts. This is a significantly wider use of the term than the one employed by Goffman (1979), Faller (2019), Pancheva & Rudin (2019), and others. More concretely, based on the data for *muka*, I propose that there are linguistic expressions that make reference to individuals (or groups) whose commitment to *p* is signaled by actions/behavior or by other kinds of non-linguistic information. I call these inferable Principals. I do not in any way intend to argue against the importance of discourse-committed Principals, but instead provide evidence that, in addition, there are linguistic expressions that make reference to other kinds of Principals. Furthermore, if my idea about the intended delusion use of *muka* is on the right track, it suggests that we also need to consider potential future discourse roles –

in other words, a linguistic expression can make reference to an agent's goal of attempting to establish a future discourse role of a certain kind.³⁶ For example, I suggest that the intentional delusion use of *muka* signals that there exists a desire to create a future Principal, of getting someone to become committed to *p*. However, further research is needed to assess this idea that speech act modifiers can make reference to future discourse roles.

Of course, it goes without saying that many other questions still remain open as well. Specifically from the perspective of Finnish, the present work can hopefully serve as an initial foundation for investigations into other topics related to reportative evidentials, including: the behavior of *muka* and *kuulemma* in questions and embedded contexts under verbs of saying/attitude verbs; relations between these particles and information-structural phenomena such as focus; questions concerning their scopal behavior; as well as the discourse dynamics of how interlocutors can indicate agreement or disagreement with the meaning contribution of expressions such as *kuulemma* and *muka*. Another important area for further investigation is the behavior of other grammatical devices in Finnish that can sometimes have a reportative function (e.g., pluperfect tense, see e.g. Kuiri 1984; Seppänen 1997; Hakulinen et al. 2004: 1427).

From a broader crosslinguistic perspective, it is worth noting that although reportative evidentials have received considerable attention cross-linguistically from both typological and theoretical perspectives, the kinds of linguistic devices that speakers can use to signal the epistemic state of doubt have not been as systematically or extensively investigated, to the best of my knowledge. As we have seen, in Finnish, on the doubt use, *muka* typically signals that a speaker does not believe *p* – it does not simply indicate that a speaker is uncertain about whether *p* is true. The Bulgarian dubitative (see, e.g., Sauerland & Schenner 2007) seems to resemble Finnish *muka* in that it also expresses that the speaker has doubts about the truth of *p*. However, cross-linguistically, the term 'dubitative' is also used to

36. While the notion of potential future Principals differs from already-existing Principals in that the former are still hypothetical, there is reason to believe that individuals' thoughts about possible future worlds can play a role in semantic analyses. For example, see Declerck (2009) for discussion that linguistic analyses of tense and modality need to acknowledge the concept of worlds that are "not yet factual at *t*" as distinct from (purely) counterfactual and (purely) hypothetical worlds. According to Declerck, not-yet-factual worlds are 'conceived in the speaker's mind' and/or predicted by the speaker to become factual at a future time. He treats complements of 'want' and 'hope' as not-yet-factual, for example. I do *not* claim that Declerck's work on tense and modality applies directly to the present paper; I simply note that my decision to analyze someone's desire/aim of creating a future Principal (i.e., a *not-yet-Principal*) as relevant for the use of *muka* receives some support from prior observations in other domains of language.

refer to devices that, more generally, simply indicate epistemic possibility (i.e., are associated with a largely neutral stance on the part of the speaker), see, e.g., Cable (2017) on Tlinglit. (For another slightly different use of the term, see, e.g., Blain & Déchaine (2007) on Plains Cree.) A systematic crosslinguistic investigation that acknowledges these terminological differences – which are often rooted in different naming conventions that evolved in research on different language families – could further our understanding of the how languages express different levels of doubt/disbelief.

It is also worth noting that it is not yet clear how closely the English reportative adverbs suggested as translations of *muka* – in particular, ‘supposedly’ and ‘allegedly’ (see Kangasniemi 1992; Nordlund & Pekkarinen 2014) – match the properties observed with the doubt uses of *muka*. Indeed, the discourse profiles of different reportative adverbials in English and other languages are still under active investigation from a variety of perspectives (see e.g., Celle 2009; Wiemer & Socka 2017a; b; Rozumko 2019) and constitute an important area for further crosslinguistic work. (The pretense uses of *muka*, in any case, would not correspond to adverbs such as ‘allegedly’ or ‘supposedly’ in English and at least some could be paraphrased using the expression ‘as if’, as noted by Nordlund & Pekkarinen 2014.)

Generally speaking, linguistic devices signaling that a speaker thinks/suspects *p* may not be true are likely to be complex and multidimensional in their discourse contributions, at least if the Finnish *muka* is anything to go by, as they can also tap into issues related to pretense which have received little attention in the formal literature concerning evidentiality. This suggests that studying the discourse profiles of these kinds of dubitatives from a systematic, crosslinguistic point of view – including the clause types they occur in, e.g., assertions, questions, exclamatives – would be very helpful in allowing us to better understand the core characteristics of these expressions.

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