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Evidentiality in Lithuanian*

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Introduction

This paper explores the syntax of Lithuanian evidential constructions like the examples in (1) and (2, from Gronemeyer & Usonienė to appear).[1]

(1) Čia žmoni-ų gyven-ta. (Ambrazas 1994:7)
here people-GEN.PL live-PASS.PST.NOM.NT
'People have evidently been living here.'

(2) Vyr-ai medžio-dav-ę mišk-uose.
men-PL.M.NOM hunt-ITER-ACT.PST.PL.M.NOM forest-LOC.PL
'It is said that men used to hunt in the woods.'

These examples are particularly interesting in that there is no lexical or morphological element in the Lithuanian sentences corresponding to the evidential meaning indicated in the translation, *evidently* and *it is said* respectively. The expression of evidentiality is syntactic in Lithuanian, and the main question I address here is what gives these constructions their evidential meaning.

Evidential constructions indicate information source, i.e. what evidence exists for a proposition. I will adopt Anderson's (1986:274-5) definition of evidential markers, shown in (3).

(3) a. Evidentials show the kind of justification for a factual claim which is available to the person making that claim.
b. Evidentials are not the main predication of the clause but rather qualify a factual claim.
c. Evidentials have as their main meaning the indication of the source of evidence, not only as pragmatic inference.

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[1]Unless otherwise indicated, all my examples are taken from work done with Sigutė Radzevičienė.

d. Evidentials are inflections, clitics or free syntactic elements and not compounds or derivational elements.

There is general agreement in the literature that evidentiality is a subsystem of epistemic modality due to the close relationship between evidentiality and epistemic possibility; see for instance Bybee 1985, Chung & Timberlake 1985, Palmer 1986, Willet 1988, and, indirectly, Lyons 1977. Evidentiality differs in that it characterizes the source and reliability of the proposition, rather than the speaker's judgment of the necessity/possibility of the truth of the proposition. Despite the semantic similarity between epistemic modality and evidentiality, it is not straightforward to assimilate an analysis of the former to the latter. Most analyses of epistemic modality do not distinguish evidentiality, for instance Barbiers 1995 and Lyons 1977.

I shall use Lyons' 1977 description of epistemic modality to characterize the speaker's qualification of his commitment to the truth of the proposition. The endorsement of a proposition can differ in two respects; either of the 'I-say-so' or the 'it-is-so' components can be qualified as epistemically possible. The latter of these may be qualified to express degree of probability. The 'I-say-so' component can be taken as a performative operator, and it is this one that concerns us here. Evidentiality can be understood in these terms as qualifying the 'I-say-so' element of a proposition and thereby showing the speaker's reservation about endorsing the factuality of the predication (Lyons 1977:799). Evidentials thus qualify the strength of an assertion and express that the speaker does not make the claim on her own authority. In specifying the information source as distinct from herself, the speaker does not personally endorse the claim.

Evidential constructions are thus used to specify the source of the evidence upon which a claim is based. The source may vary in character leading to different types of evidentiality. One distinction commonly made in the literature is between evidentials marking direct and indirect evidence, i.e. whether the speaker has personally witnessed the event or not (see for instance Givón 1982, Bybee, Perkins & Pagliuca 1994). Willet 1988 goes further in distinguishing two types of indirect evidence in addition to directly attested evidence; the types of indirect evidence are reported evidence which has a verbal source and inferring evidence where the speaker bases his/her claim on an inference drawn from the observed result of a event or from reasoning about it. As Bybee et al. note (1994:180),

indirect evidentials imply an epistemic value because the speaker is not committed to the truth of the proposition.

The Lithuanian evidentials both indicate indirect evidence, the neuter passive participle in (1) expresses inference on the basis of observable results, and the active participle in (2) expresses verbally reported evidence. There is no marked way in Lithuanian to express directly attested, personal knowledge. According to Willett's cross-linguistic survey of evidential systems (1988:58), this is a common asymmetry and is to be expected because "unless otherwise stated, an assertion is interpreted as based on direct evidence rather than indirect". There is thus no need in Lithuanian to specify the source of evidence if the speaker has personal knowledge. In sentences which are unmarked for evidentiality, the source of information is by default taken to be the speaker's personal knowledge. This is shown by the fact that certain evidential adverbs such as *conceivably* and *apparently* refer to the speaker's basis for a claim. The source of information is thus a relevant parameter in all propositions.

In English, evidentiality can be illustrated by evidential adverbs as in *apparently it rained last night* or by constructions like *it looks like it rained last night*. These examples indicate that the speaker has not witnessed the raining event, but rather draws an inference on the basis of observable results, such as large puddles of water on the ground. The expression of evidentiality in English is lexical. Other languages have morphological marking of evidentiality, as in Takelma (from Chung & Timberlake 1985:245, citing Sapir).

(4) Menà yap'a dõm-k'wa-k'.
bear man kill(IRR)-3HUMAN.OBJ-INFERENTIAL
'It seems that the bear killed the man. / The bear must have, evidently has, killed the bear.'

(4) includes an irrealis verb stem with an evidential morpheme coding that the claim is inferred from observed evidence.

Lithuanian has no specifically evidential morpheme (the participial morphology is used in other places) but the participial constructions in (1) and (2) have been grammaticized into paradigms indicating evidence source. The coding of evidentiality in Lithuanian is thus a matter of the syntax (i.e., some combination of syntactic elements or operations leads to the evidential meaning), which distinguishes the Lithuanian evidentials from most others. Willett's 1988 survey found that the use of auxiliaries or separate verb paradigms is rare among languages which grammatically mark

evidentiality. The most common type of evidential markers are affixes or particles, and the syntactic expression of evidentiality in Lithuanian makes it especially interesting.

Evidential constructions are found in many different languages, including Turkish, Georgian, and many native American languages. Although many languages lack a morphological means of expressing evidentiality (it is expressed lexically in most European languages for instance) there is reason to assume that it nonetheless is a universally available category which is grammaticized to varying extents in different languages. One reason that evidential constructions have not been noticed in formal grammar may be that formal, written language tends to use evidential adverbs while colloquial, spoken language makes use of main verbs which are not exclusively evidential (Chafe 1986). Most of the work on evidentiality has been done in functional and descriptive frameworks (see for instance the articles in Chafe & Nichols 1986, Willet 1988), and the generative framework in particular has paid almost no attention to the category of evidentiality (see however Cinque to appear, which will be discussed later).

This study takes a synchronic approach to evidential constructions in Lithuanian, but see Ambrazas 1990 for a description of the evolution of these constructions in the Baltic languages. In this paper, I examine the combinations of minimal syntactic elements in Lithuanian, which lead to evidential interpretations, such as morphosyntactic features and movements, and try to understand why these elements yield evidential interpretations. More generally, this paper explores how meaning is constructed from syntactic units. If a plausible account can be found for the evidential constructions in Lithuanian, this would provide strong support for a theory of grammar in which syntax and semantics are described in terms of the same formal model and the same primitives. The present paper represents work in progress; it is meant primarily as a description of some interesting new data, but some proposals for a theoretical analysis are also discussed.

The syntax and semantics of evidential constructions in Lithuanian

While both of the evidential constructions in Lithuanian mark indirect evidence, they differ with respect to the source of this evidence. The reportative construction is based on verbally reported evidence and the inferential on directly observable physical results. The former is expressed

by the active participle and the latter by the non-agreeing passive participle. Let us first examine each separately and then explore what they have in common.

The reportative construction with the active participle

The reportative construction in Lithuanian is traditionally considered an independent mood, called the relative (or indirect) mood.[2] The relative mood indicates that the claim made is based on verbal information, and it is also used in the historical present (folkloristic) and in narration (Mathiassen 1996). The speaker does not vouch for the validity of the claim but only relates what someone else has claimed. Consider the examples below.

(5) Kadaise čia buv-ę didel-i mišk-ai.
long.ago here be-ACT.PST.NOM.PL large-NOM.PL forest-NOM.PL
'It is said that long ago there were large forests here.'

(6) Jis buv-ęs labai pa-varg-ęs.
he be-ACT.PST.NOM.SG very PFV-tire-ACT.PST.NOM.SG
'He, they say, was very tired.'

(7) Jis gyven-ąs kaim-e. (Schmalstieg 1988)
he.NOM live-ACT.PRS.SG.M.NOM village-LOC
'They say he lives in the village.'

Examples (5)-(7) include a nominative subject and an active participle which agrees with the subject for number, case and gender. The finite copula is strictly excluded under the reportative interpretation, and this fact supports its being considered an independent mood. Mathiassen 1996 questions the status of the relative as an independent mood, but the only motivation she provides is that it has almost as many tense distinctions as the indicative (see (11)) and some morphological overlap (in using the participle). The most peculiar thing about this construction is that it seems to be a finite construction (since nominative case is licensed) without a finite verb. One could claim that these participles are finite if they are inflected for mood (verbs are finite if inflected for the morphosyntactic features of mood or tense). However, they bear no special modal morphology and their distribution is not that of finite verbs elsewhere. Furthermore, only when the finite verb is excluded does the active participle acquire an evidential reading. As a finite verb is excluded under the relevant interpretation,

[2]The relative mood is also found in Latvian and Estonian, and it thus seems to be an areal phenomenon; see Ambrazas 1990, Harris & Campbell 1995, Mathiassen 1996.

something else, for instance the participial agreement or a mood feature, must be taken as the licenser of the subject's nominative case.

Let us examine these properties in greater detail. Schmalstieg 1988 states that the participle in this construction is found in the position of the finite verb in a normal sentence. Although Schmalstieg does not motivate this claim, I believe it nevertheless to be true. Most tests on constituent order are unenlightening since word order in Lithuanian is free, i.e. governed by discourse considerations of information structure. The best motivation for Schmalstieg's claim is that the reportative reading is in complementary distribution with the presence of a finite verb. Consider the examples in (8)-(10).

(8) Tėv-as pa-varg-ęs.
father-NOM.M.SG PFV-tire-ACT.PST.NOM.SG.M
'Father is tired. / Father, it is said, is tired.' (ambiguous)

(9) Tėv-as yra pa-varg-ęs.
father-NOM.M.SG be.PRS.3 PFV-tire-ACT.PST.NOM.SG.M
'Father is tired.' (speaker endorses the claim)

(10) Tėvas es-ąs pa-varg-ęs.
father-NOM.M.SG be-ACT.PRS.NOM.M.SG PFV-tire-ACT.PST.NOM.SG.M
'Father, they say, is possibly tired.' (reportative and hypothetical)

The example in (8) is actually ambiguous between the indicative and the reportative readings. This ambiguity is due to the fact that either a finite or a non-finite copula may have been dropped. This gives the impression that the evidentiality is contextual, but this is mistaken as the sentences are unambiguous when the copula is not omitted. As (9) shows, the reportative reading is lost as soon as the overt copula is finite. If the omitted copula in (8) is non-finite, then the reportative interpretation arises. Paradoxically however, when the overt copula is non-finite as in (10), this construction receives a slightly different interpretation; it expresses the speaker's doubt about the reliability of the information in addition to the fact that it is based on reported speech. Mathiassen 1996 describes the same situation for the presence/absence of the non-finite copula in Latvian. There are two crucial properties which distinguish this construction in Lithuanian – whether or not the copula is present, and whether or not the null or overt copula is finite. This is summarized in the following way. A null or overt finite copula produces a normal participial construction for the compound tense. Omission of a non-finite copula yields the reportative reading, and an overt non-finite copula gives the combined dubitative and reportative reading.

Let us briefly consider how reportative evidentiality interacts with other verbal categories. The relative mood is available in all tenses as shown in (11); it is formed from the active participle of the main verb and optionally the active participial forms of the copula (past, present, future respectively) *buvęs, esąs, būsiąs* (for the rarely used compound future).

(11) Tėv-as atein-ąs / atėj-ęs / atei-dav-ęs / atei-si-ąs.
father-NOM come-PRS / come-PST / come-ITER-PST / come-FUT-NOM
'It is said that father is coming/has come/used to come/will come.'

Although the main predication in the reportative mood is generally expressed by an active participle, the main verb can also be a passive participle as in (12), and here the non-finite auxiliary is obligatory, since it is the only evidential marker. Without the auxiliary, (12) would be interpreted as a normal passive sentence.

(12) Nam-as buv-ęs nupirk-tas
house-NOM.M be-PST.ACT.NOM.M bought-PST.PASS.NOM.M
beveik už ačiū.
almost for nothing
'They say the house was bought for next to nothing.'

Evidentiality often interacts with the category of person; for instance, evidentials are not generally used if the speaker or listener was a knowing participant in an event (Anderson 1986:277). According to Givón 1984, this is because the first person subject (=the speaker) has first hand knowledge and does not need to motivate it, and the second person isn't used because the listener knows his/her situation better than the speaker does. In Lithuanian evidentials, I have found no special restrictions on the person of the subject (see 13 and 14), although the third person is favored, as with epistemic modality (cf. Heine 1996). However, a first person subject in both the reportative and inferential constructions receives a slightly different reading, namely a surprisal. The use of a first person subject in the reportative is unexpected (since the subject = speaker who has direct knowledge), and when it does occur indicates surprise, emphasis or the non-deliberateness of the action (Anderson 1986:304); (13) indicates surprise on the part of the speaker.

(13) Aš pa-raš-ęs nauj-ą knyg-ą!?
I.NOM PFV-write-ACT.PST.NOM.SG.M new-ACC book-ACC
'It seems as if I have written a new book!?'

(14) Tu serg-ąs!?
you.NOM.SG sick-ACT.PRS.NOM.SG.M
'It is said that you are sick!?'

Let us turn now to some proposals for an analysis of this construction. The most salient property of the reportative construction is the use of a non-finite verb form, the active participle. However, this participle is fully referential and expresses the main predication of an independent main clause. Furthermore, nominative case is licensed. I must conclude that the construction as a whole is finite despite the lack of a finite verb. The participle itself cannot be finite since it doesn't behave finitely in any other configuration; that is, it cannot be used as the main predicate of an indicative main clause without the reportative reading. Two related questions arise: i) why use a non-finite (dependent) verb to signal evidentiality, and ii) how does the construction as a whole become finite if the verb is not?

The first question is explained by the assumption that non-finite verbs cannot be referential in the real world by themselves. That is, they cannot refer to an actual event or state without being connected to a finite verb. Thus when used as dependent verbs (for instance in embedded clauses or compound tenses) they receive a referential interpretation because they are connected to or governed by a finite matrix verb. This is not available in the reportative. Since this construction is referential, some other predicate must be present in the structure which can anchor the event in the discourse, for instance in time and person, and make the construction finite. What are the properties of the predicate that makes the construction finite and the participle referential? According to Guéron & Hoekstra 1995, all referential expressions are actually operator phrases as operators make expressions (objects or events) referential. The deictic content of the operator further licenses person features in an Agr projection, which in its own right licenses the nominative case. It is only through reference to the discourse context that distinctions between the first and second persons can be made.

Building on Guéron & Hoekstra 1995 and Lyons 1977, I propose that the predicate which makes the reportative finite is a deictic operator in a Specifier position. This operator refers back to the discourse and connects the predication to the surrounding context. One such operator is standardly assumed to refer to the time of utterance, thus anchoring the tense of the verb to the actual time of utterance in the real world and making the

predication referential (cf. Enç 1987, Guéron & Hoekstra 1995). It seems reasonable to extend this idea and assume the existence of an operator which anchors the predication in the real world in relation to the speaker. The discourse operator I propose qualifies the 'I-say-so' component (i.e. it is performative); it always refers to the speaker, the first person, an obvious participant in the discourse, and indicates the status or source of the information conveyed by the speaker. In principle, this operator is present in all clauses, which explains why speaker-oriented adverbs may indicate the speaker as the source of information. This operator furthermore makes the whole construction referential, and thereby finite, and also licenses nominative case via its person features, which are covert.

This proposal can be strengthened by combining it with Cinque's (to appear) theory of clausal architecture. His idea is that the relative order of adverbs uniquely corresponds to semantically compatible functional heads, and by matching these, Cinque proposes a rich ontology of functional projections in a strict hierarchy, ultimately derivable from scopal relations. Cinque's inventory of functional projections provides an obvious place for evidentiality. Evidentiality is included in the hierarchy as a type of mood, in the following order; all projections not related to mood or modality are omitted in (15).[3]

(15) $\text{Mood}_{\text{speech act}}$ > $\text{Mood}_{\text{evaluative}}$ >
$\text{Mood}_{\text{evidential}}$ > $\text{Modality}_{\text{epistemic}}$ ... >
$\text{Mood}_{\text{irrealis}}$ > $\text{Modality}_{\text{root}}$

Each of these semantically relevant functional heads comes with a marked and a default value; for evidentiality, Cinque takes direct evidence to be the default and indirect evidence as marked.[4] The default value of the evidential head is an unqualified 'I-say-so', while the marked value is the negation of this, '~I-say-so'. In the specifier of the evidential phrase is the above discussed deictic operator binding a variable in the verb. For the Lithuanian reportative, when the evidential head contains the marked value, the operator binds an evidential variable in the active participle and indicates indirect evidence.

[3]Note that even the $\text{Mood}_{\text{evidential}}$ phrase can be split into various sub-types corresponding to the different types of evidentiality, and future research may discover an evidential hierarchy.

[4]This is a reasonable assumption given that most languages do not overtly mark evidence for which the speaker has personal knowledge. In languages which do distinguish direct evidence, it can be seen as an obligatory verbal category reflecting the default value of the $\text{Mood}_{\text{evidential}}$ head.

The marked value of the operator in SpecMood$_{evidential}$P can either be combined with movement of the participle to the evidential head or not, and only empirical investigation will show whether or not the participle moves. Consider the movement analysis first. Taking seriously Schmalstieg's claim that the reportative participle occupies the position of the finite verb, Cinque's theory offers a way to test it which will provide a more detailed analysis. Future research will examine the order of adverbs relative to the reportative participle. The movement analysis would involve the participle moving to the head of Mood$_{evidential}$ phrase and thereby acquiring the evidential interpretation. This position presumably corresponds to what Schmalstieg calls the position of the finite verb, or is in complementary distribution with it, that is it precludes a lower finite verb. Empirical testing may provide evidence for the actual movement of the participle to the head of Mood$_{evidential}$ phrase. If the participle does not move so high in the structure, then the Evidential head still contains a marked value for indirect evidence, and the operator in the specifier binds the participle which can remain lower in the structure.

For the time being, I leave this as a possible analysis which warrants further investigation and empirical testing. An anlysis along these lines suggests that syntactic primitives such as functional categories and movements are crucial to certain semantic categories.

The inferential construction with the neuter passive participle

Timberlake 1982 states that all kinds of epistemological uncertainty can be signaled by the impersonal passive construction – inferentiality, dubativity, evidentiality, supposition, etc., and it can therefore be translated with an evidential adverb like *evidently* or *apparently*. I will take the inferential meaning to be the basic feature of the construction and the others to be derivative, contextually determined nuances. The inferential construction in Lithuanian presupposes that some direct, physically observable evidence is available to the speaker who is making the claim. The speaker infers the event leading to the observed results. In (1) it is seeing the traces or remains of people having lived there, in (17), it may be observing the child's behavior, and in (18) finding a broken cup.

(16) Kažkien-o čia bū-ta, visk-as
someone-GEN here be-PASS.PST.NOM.NT everything-NT.NOM
su-valgy-ta.
PVF-eat-PASS.PST.NT.NOM
'Someone has evidently been here, everything is eaten up.'

(17) Vaik-o serga-ma. (Timberlake 1982)
child-GEN sick-PASS.PRS.NOM.NT
'Evidently the child is sick.'

(18) Vaik-o su-daužy-ta puodel-is.
child-GEN PFV-break-PASS.PST.NOM.NT cup-NOM.M
'Apparently/presumably the child broke the cup.'

Syntactically, the inferential is an impersonal passive construction meaning that there is the usual object-to-subject raising (i.e. to nominative), but there is no agreement between the participial predicate and the grammatical subject. The inferential is characterized by the following properties: (i) the agent occurs in the genitive and the theme in nominative as in a passive; (ii) the neuter participle agrees with something in nominative, but it crucially lacks subject agreement for number and gender; and (iii) the finite copula is generally but not obligatorily lacking. I will address each of these in turn.

The first property of the inferential construction is its similarity to the passive. Compare the inferential construction in (19) with the standard, agreeing passive in (20); both examples may include a copula.

(19) Jo rašo-ma laišk-as. (Ambrazas 1994:7)
he.GEN.SG write-PASS.PRS.NOM.NT letter-NOM.SG
'He is evidently writing a letter.'

(20) Jo rašo-mas laišk-as.
he.GEN.SG write-PASS.PRS.NOM.SG.M letter-NOM.SG.M
'A/the letter is written by him.'

In (20), the participle agrees with the subject in nominative case, number, and gender (but not person, as opposed to the finite verb which only agrees for number and person). The status of the genitive marked agent as a subject (at some level) is indicated by its ability to bind a reflexive as in (21-22, from Timberlake 1982:514).

(21) Jos$_i$ pyk-ta ant *jos$_i$ pačios / pačios savęs$_i$.
her.GEN anger-PASS.PST.NOM.NT at her emph / emph self
'Apparently she has gotten angry at herself.'

(22) Mamos$_i$ jau esa-ma *jos$_i$/savo$_i$ kaime.
mom.GEN already be-PASS.PRS.NOM.NT her/own village
'Mother is presumably already in her village.'

The inferential (19) resembles a passive (20) in terms of case-marking; the promoted theme bears nominative case, and the demoted agent bears

genitive. However, (19) is not best translated by 'the letter is (being) written by him' since the theme is not the most prominent argument in the inferential construction. Unexpectedly, the agent is most prominent, as in the active variant. The structure of these variants is compared in (23)-(25).

(23) ACTIVE
agent-NOM.NUM.GEND.PERS verb-NUM.PERS theme-ACC
'agent verb-ed theme'

(24) PASSIVE
(agent-GEN) (copula) verb-PASS.NUM.GEND.NOM theme-NOM.NUM.GEND
'theme was verb-ed (by agent)'

(25) INFERENTIAL
(agent-GEN) ((copula)) verb-PASS.NOM.NT theme-NOM.NUM.GEND
'agent evidently verb-ed theme'

Passive participles in Lithuanian come in two basic variants – the *-t-* and the *-m-* endings, corresponding to the past participle in (18) and the present participle in (17). The future passive is a compound tense including the present participle and the future copula *bus*. The future form of the copula can acquire modal, but not evidential, nuances, and the future will therefore be disregarded. The passive participles (both past and present) can be further prefixed for aspect to signal the completion or totality of the event.[5] In this way, the grammatical categories of passive and perfective are clearly distinguished in Lithuanian.

The passive voice contributes crucially to the inferential interpretation with a stative, resultative component. The past passive participle is used in the anterior tense which signals current relevance as in *mother has come*. Cross-linguistically, inferentials often come from resultative and/or anterior constructions (see Bybee et al. 1994:95-7; Anderson 1986:275). It is reasonable to connect these in Lithuanian as well, where the non-agreeing passive participle is also used as a resultative (Ambrazas 1990), as in (26).

(26) Motin-os (buvo) su-rink-ta visi laišk-ai.
mother-GEN (was) PVF-collect-PASS.PST.NOM.NT all letter-NOM.PL
'Mother has evidently collected all the letters.'

[5]The perfective present passive participles can easily receive modal interpretations, as shown in (i).

(i) Laiškas yra pa-rašo-mas. (Mathiassen 1996:32)
letter-NOM is PVF-write-PASS.NOM.SG.M
'The letter can be written (completed).'

According to Bybee et al., resultatives signal that "a state exists as a result of a past action" (i.e. they are stative) and are similar to passives in turning the patient into the grammatical subject, but can also apply to intransitive verbs as in *he is gone*. The resultative meaning is very close to the meaning of evidentials where the past action is inferred from the current state. Bybee et al. take semantic proximity as the basis for structural equivalence.

The stative interpretation of the passive participle is crucial to the inferential. Stative/resultative constructions may also acquire evidential nuances in Swedish and English. Compare the resultative *Mary is gone* with the anterior *Mary has gone*, or Swedish *han är utgången* 'he is out-gone' with *han har gått ut* 'he has gone out'. The stative constructions do not imply that the speaker necessarily witnessed the going event but only that the speaker has witnessed the results. The anterior tense may be used if the speaker has witnessed the going event.

The second property of the inferential is that it is an impersonal construction, and this property interacts in a significant way with the resultative, stative nature of the passive participle. The crucial difference between the inferential (25) and the passive (24) is the failure of the participle to agree with the grammatical subject for gender and number in the inferential. The major question to be answered is thus how the obligatory absence of participial subject agreement leads to the given inferential interpretation. The agreement relations are shown more clearly by the first person plural subject in (27).

(27) (Tai) mes esame pa-mirš-ta.
DEM we.NOM are.1.PL PVF-forget-PASS.PST.NOM.N
'It is we that are forgotten.'

Example (27) shows that the promoted object, *mes* 'we', rather than the demonstrative pronoun *tai* 'it, there', controls agreement on the finite copula. This agreement does not extend to the participle, i.e. there is no Spec-Head agreement between the grammatical subject and the participial predicate. It is thus unclear what the neuter participle is agreeing with. One possibility is that it agrees with the neuter demonstrative since they share the same agreement specification. It is however unclear whether *tai* is an expletive.[6] *Tai* indicates focus on the following constituent, corresponding

[6]*Tai* is also used in presentative constructions as in *tai (yra) naujas mokytojas* 'this is the new teacher'.

to a cleft construction except without the relative clause in Lithuanian. One could also say that the participle agrees with a null expletive subject corresponding to the overt *tai*, which acquires a focus interpretation when overt. Of course, more evidence for the null expletive would be necessary to be conclusive. Future research will focus on the presumed expletive, how case licensing and transmission take place, and which dependency chains are involved.

Impersonal passives are syntactically similar to existential constructions, in that they both obey the definiteness effect. The definiteness effect implies that a postverbal subject must be indefinite, compare *there arrived *the/a man last night*. Belletti 1988 accounts for this effect by proposing that unaccusative and passive verbs assign partitive case to their complement. Partitive case means 'some' and is incompatible with definite NPs. It is also incompatible with Milsark's 1977 class of strong determiners, those which are prohibited in post-verbal position in existentials and impersonal passives. The example in (26) provides evidence that the non-agreeing participle in Lithuanian is not an impersonal construction, since the postverbal subject includes *all* which is a universal quantifier belonging to the class of strong determiners.

As for the third property listed above, use of the finite copula in this construction is grammatical, as shown in (28).

(28) Nemažai tada buvo jaudin-ta-si. (Timberlake 1982)
not.small then was upset-PASS.PST.NOM.NT-RFL
'At that time one presumably got more than little upset.'

The fact that a finite copula is grammatical makes (28) formally an indicative and suggests that the inferential is not an independent mood. However, there is a strong preference to exclude the copula as unnecessary, and its presence is interpreted as emphatic. Lithuanian is a null copula language, meaning that the copula may be used to mark tense if necessary. In constructions with participles, it is not necessary because the participle is marked for tense (except for the future passive participle). Use of the overt copula seems to resemble the use of personal pronouns in pro-drop languages; it may signal contrastive focus and deny a contextual presupposition.

Let's briefly consider how the inferential construction interacts with other verbal categories. All tenses are available for this construction, but it is much easier to get the inferential reading in the past tense than the present since the claim is based on a situation resulting from a past event.

All persons are grammatical; the first person in (29) indicates surprise as discussed for the reportative in (13).

(29) Mano serga-ma!?
I.GEN sick-PASS.PRS.NOM.NT
'Evidently I am sick!?'

At this point it is natural to wonder whether the proposals made for the reportative construction might apply to the inferential as well. It is important to keep in mind that the two constructions have rather different syntactic properties. It seems likely that the analysis sketched above with an operator in the specifier of $\text{Mood}_{\text{evidential}}$P and possibly movement of the participle to $\text{Mood}_{\text{evidential}}$ applies to the inferential as well, although further research is required. The head of the evidential phrase will also contain the marked value since the construction indicates indirect evidence. The marked value in its turn will have two different specifications in Lithuanian for the way in which the speaker acquired the knowledge: the reportative and the inferential coded by the active and passive participles respectively.

Despite the fact that the inferential construction may not be fully grammaticized, it is still worthwhile to ask how the evidential meaning arises. While this meaning may appear to be simply pragmatic inference, I hold that it is a grammaticized construction and that the meaning derives from the structural components, specifically the combination of the passive with the lack of subject predicate agreement.

How distinct are these constructions?

Although the preceding sections have identified a number of structural and semantic differences between the two evidential constructions, one can question how strictly they are to be distinguished from each other. The existence of ambiguous examples suggests that the boundaries between them are not entirely fixed and that the correspondence between form and meaning is not absolute for every case. My consultant gives the two sentences in (30) as almost equivalent, with the slight nuance that the active participle (30a) expresses a process while the passive (30b) expresses a state.

(30) a. Šiandien sning-ą.
today snow-ACT.PRS.NOM.NT
b. Šiandien sninga-ma.
today snow-PASS.PRS.NOM.NT
'It seems to be snowing today.'

Another ambiguous example is (31) which can be stated based on either visual evidence, like discovering many manuscripts, or on reported information.

(31) Jis pa-raš-ęs kelet-ą knyg-ų.
he.NOM PFV-write-ACT.PST.NOM.M.SG many-PL.GEN book-PL.GEN
'It seems he wrote many books.'

This example is probably just ambiguous without a context and not a true counter-example to the proposed analysis. I will disregard these ambiguities since they do not affect the basic generalizations.

According to Ambrazas 1990, there is a fair amount of overlap in the meaning and usage of the two constructions I am examining, but it seems to be dialectically conditioned. In southern and western dialects, the two constructions are in complementary distribution. It is only in the northern and northeastern dialects that the two are used in parallel, and in these areas there is a tendency towards semantic differentiation: the neuter passive construction indicates inference from results or surprise while the active participle expresses reported speech or doubt (Ambrazas 1990:228).

The distinction between the two Lithuanian evidentials is reminiscent of but not identical to the distinction between *can-* and *must*-modality. *Can*-modality is represented in predicate logic by the existential operator and is interpreted as 'there exists some possible world in which predication X is the case'. *Must*-modality is represented by the universal operator saying that 'the predication X must be the case for every possible world'. *Can*-modality is thus understood as the negation of *must*-modality since it means 'predication X is not the case for every possible world, but there is at least one possible world where X holds'. Between these two endpoints there is a scale of probability represented linguistically by various modal verbs and adverbs.

The inferential passive neuter participle seems to correspond to *must*-modality and the reportative active participle to *can*-modality, based on the fact that the inferential is more probable than the reportative. This is so because a speaker can be more certain of his/her own inference based on directly perceivable evidence, than on verbally reported evidence which is not even available to the speaker's senses. Since verbal information is one step removed from observable facts, it is less trustworthy from the speaker's point of view than directly observable physical evidence. The reportative could be the negation of the inferential in the following way. If the inferential means that 'claim X is made on the basis of observed results',

then the reportative means 'it is not the case that claim X is made on the basis of observed results' (while still based on indirect evidence). Lithuanian seems to have grammaticized this construction only to include verbal information. Within the system of just these two evidential values, the reportative means that the speaker has received the information as a package from some other source (i.e. verbal), and there is no inference on the part of the speaker. These ideas will be made more explicit in future work.

Other relevant factors and conclusions

Before summarizing the present description, some other factors should be mentioned which will be the topic of future research, in addition to the points mentioned above. One area for investigation is the interaction between evidentiality and modality. These evidential constructions can be combined with other modal markers, such as modal verbs. Given the often noted fact that deontic modality follows epistemic modality, I expect the modal verbs to be interpreted deontically in these combinations, ability in (32) and subject-oriented obligation in (33).

(32) Šef-as gal-įs mums atsaky-ti.
boss can-ACT.PRS.NOM.M.SG us.DAT answer-INF
'It is said that the boss can give us an answer.'

(33) Aš prival-ąs pa-rašy-ti knyg-ą.
I be.obliged-ACT.PRS.NOM.M.SG PFV-write-INF book-ACC
'They say I must write a book.'

However, it is not yet clear to me whether an epistemic reading is excluded. If this is the case, it would provide strong evidence for identifying evidentiality with subjective epistemic modality.

The evidential constructions can also be combined with evidential or modal adverbs, but their use seems to overpower the evidentiality inherent to these constructions. In (34) and (35), the evidential meaning is present but substantially weakened due to the adverbs.

(34) Tikriausiai čia žmon-ių gyven-ta.
probably here people-GEN live-PASS.PST.NOM.NT
'Evidently people probably have lived here.'

(35) Tikėtinai kadaise čia buv-ę dideli miškai.
allegedly long.ago here were-ACT.PST.NOM.PL large forests
'Allegedly there were, it is said, large forests here long ago.'

Evaluative adverbs like 'fortunately' in (36), which presuppose the truth of the predication, are incompatible with the comparison of alternative worlds which is basic to the evidentials.

(36) *Jis laimei es-ąs žin-ąs kel-ią.
he.NOM fortunately be-ACT.PRS.NOM know-ACT.PRS.NOM road-ACC
'Fortunately he, it is said, knows the way.'

This paper has examined the syntax and semantics of two evidential constructions in Lithuanian. Both types code indirect evidence; reported evidence is expressed by the active nominative participle without a finite copula, and inference from results is expressed by the non-agreeing passive participle. For both constructions, I assumed the existence of an evidential operator binding a variable in the non-finite verb, which may perhaps move to the $\text{Mood}_{\text{evidential}}$ head. The reportative reading of the active participle was further linked to the lack of a finite verb. As for the inferential, I concluded that the lack of agreement and the semantic proximity to resultatives and anterior tense crucially combine to give the inferential reading. The evidential constructions in Lithuanian are not only important because they give us insight into the largely ignored category of evidentiality. They are particularly interesting because the evidential meaning is built into their syntax. Therefore they provide a testing-ground for recent theories of the relationship between syntax and semantics, which claim that the syntax provides the building blocks for some part of semantics.

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The verbal transmission of visual information: An experimental study

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1. Introduction

The aim of this exploratory study is to show how visual information is verbally transmitted in an experimental task. The overall theoretical framework adopted is a modification of Chafe 1994.

An experiment was designed in which a drawer was assigned the task of reproducing a stimulus picture relying only on verbal information provided by a describer. No visual contact was allowed between the subjects, but they were encouraged to freely interact verbally. Two pairs of subjects were selected.

The study shows that remarkably similar drawings can result, in spite of dyad differences with respect to (1) the describers' focus-directing preferences, as reflected by their verbal output, (2) drawer strategies for solving the task, and (3) interactional styles.

2. Theoretical background

The framework proposed by Chafe 1980, 1994 raises the issue of how focus of attention and language are related. In this system, attentional foci are said to correspond to new ideas, which are expressed in 'spurts of language'. These spurts, or idea units, are said to be characterised by certain prosodic features, and are referred to as 'intonation units'. Attentional activity is seen as a continuum, with foci being active, semiactive, or inactive. An intonation unit corresponds to an active focus. Related foci are grouped into 'centres of interest' which, in turn, can be clustered together in topics. Both of these higher level categories are assumed to be semiactive. Centres of interest are considered to correspond to sentences at the linguistic level, whereas topics are said to be equal to linguistic topics. Spoken narratives and written fiction serve as the empirical base for these studies.

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