Irrealis in Baltic and Baltic Fennic

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This article is a study in the use of irrealis in complementation in the two Baltic languages, Lithuanian and Latvian, and in two Fennic languages, Estonian and Finnish. Four domains of complementation are singled out: propositional, desiderative, apprehensional and evaluative. All investigated languages show limited use of irrealis in the propositional domain (in identical conditions, viz. under main clause negation), as well as in the apprehensional and evaluative domains. The most important differences are observed in the state-of-affairs domain, in particular with desiderative predicates, where Lithuanian shows consistent irrealis marking whereas Finnish has mostly realis. Estonian and Latvian are intermediate. Estonian has a rather strong predominance of irrealis, but it might be recent; in Latvian realis and irrealis are about equally distributed, but this situation seems to differ from that in Old Latvian. In these two languages changes seem therefore to have been going on, and areal convergence might to some extent have been involved in this.

Keywords: mood, irrealis, complementation, state-of-affairs complements, propositional complements, desiderative verbs, apprehensional verbs, evaluative predicates, Baltic, Fennic, Lithuanian, Latvian, Estonian, Finnish

1. Introduction[1]

The term 'irrealis' figuring in the title of this article will here be used not to refer to a conceptual category of irrealis but as a cover term for

such marked moods as 'subjunctive', 'conditional' or 'optative'—terms that have no precise content and mostly reflect just differences in grammatical tradition. The Baltic mood has, in the literature in Western European languages, variously been referred to as subjunctive, optative and conditional. According to the native traditions, the Latvian instantiation of irrealis is an optative (*vēlējuma izteiksme*) whereas its Lithuanian counterpart *tariamoji nuosaka*, created by Jablonskis, is the 'mood of the imaginary'. In the Finnish and Estonian tradition, the corresponding mood is called conditional.

The introduction of the notion of 'irrealis', originally used in the literature on the indigenous languages of Austronesia, North America etc., into the typological literature (reflected in Givón 1994, Palmer 1999, 2001, Elliott 2000 *et al.*) has given occasion to seminal discussions with wider implications for grammatical semantics. The question is whether behind the variously named category of form there is a conceptual prototype of 'irreality'. This prototype could be defined as formulated by Mithun (1999), cited by Palmer (2001, 1): "The realis portrays situations as actualised, as having occurred or actually occurring, knowable through direct perception. The irrealis portrays situations as purely within the realm of thought, knowable only through imagination". This idea is not universally accepted. The notion of a unifying irrealis meaning is explicitly rejected by Joan Bybee (1998), who argues that the distribution of irrealis forms is but the sum of a number of grammaticalisation processes, different in every individual language and therefore not predictable on the basis of a putative general meaning. We can certainly identify a crosslinguistically recurrent set of irrealis usage types of which the irrealis uses in individual languages can be said to be subsets. However, the possibility of formulating such a set of usage types does not necessarily entail that there is a common concept of irreality behind it: it might be the diachronic mechanisms and grammaticalisation paths that show cross-linguistic similarity. The notional category of irrealis (based, as Bybee argues, on the Jakobsonian notion of *Gesamtbedeutung*) is thus, perhaps, epiphenomenal. Apart from these discussions, however, 'irrealis' is a convenient cover term for the variously designated moods of the different grammatical traditions (van der Auwera & Schalley 2004).

The present article is a study in irrealis use in the Circum-Baltic area. Baltic and Fennic are known to have intensively interacted in the past

and to share a number of non-trivial morphosyntactic features. Within this contact area Latvian and Estonian constitute a particularly intensive convergence zone (cf. Stolz 1991). We will look at both differences and common tendencies, in what we intend as a study in variation in the irrealis domain as well as in areal interactions in this domain. We look at the contexts where the use of irrealis mood could be a part of complementation strategy (complementising mood, see Holvoet 2020) and is thus to some degree grammaticalised, and try to differentiate this use from other reasons why the irrealis mood is used in complement clauses. Another question we want to answer is what kinds of irrealis functions are represented in the languages under investigation.

The structure of the article is as follows. Section 2 gives an overview of the typical functions of irrealis in complementation, which will serve as a basis for the arrangement of the material in the article. Section 3, somewhat heterogeneous in content, presents background notions that will be referred to in the detailed accounts of mood in Baltic and Fennic: it characterises the Baltic and Fennic moods, draws attention to specific irrealis-like uses of realis present-tense forms, and defines the notion of complementising mood, i. e. mood forms specifically used as a strategy for encoding type of complement. Sections 4 and 5 deal in detail with the data of Baltic and Fennic, while section 6 contains some concluding remarks.

2. Irrealis functions

In Holvoet (2020) the idea is advanced that the spread of irrealis forms beyond their grammaticalisation sources and the concomitant semantic bleaching involves two major lower-level generalisations, according to the type of irrealis context. Though the distinction is not restricted to complementation, it is practical to use the classification that has been proposed for clausal complements. Terminology varies, but the notions that look likely to impose themselves are those of propositions and states-of-affairs. As Kehayov and Boye formulate it, "propositions evoke concepts construed as having a (situational) referent, whereas S[tates]o[f] A[ffairs] evoke concepts not construed as having a referent" (Kehayov & Boye 2016, 812). These two types could be illustrated with the following examples: (1) contains a verb of epistemic stance, whose complement is truth-valued; (2) contains a desiderative verb, whose object is a potential

event of which one does not know whether it has occurred or will occur, so that the complement is not truth-valued.

(1) *John thinks the house is too big for him.*

(2) *Mary wishes that we should go to Paris.*

The use of the irrealis cannot have quite the same function in these two different complement types. In the case of a propositional complement, irrealis occurs in a number of languages to reflect differences in the assessment of the reality status of an event. E.g., in Italian it may encode lack of certainty, as shown by the difference between the realis with 'be convinced' and the irrealis with 'think, believe':

(3) Italian

Sono	*convinto*	*che*	***hanno***	*mangiato*	*loro*
be.PRS.1SG	convinced	that	have.PRS.3PL	eat.PP	they
la	*torta*	*che*	*era*	*in*	*frigo!*
DEF.F.SG	cake	that	be.IPF.3SG	in	fridge

'I am convinced it's they who ate the cake that was in the fridge!'[2]

(4)

Credo	*che*	***abbiano***	*fatto*	*zero*
believe.PRS.1SG	that	have.IRR.3PL	make.PP	zero
tiri	*in*	*porta*	*ne-l*	*primo*	*tempo.*
shot.PL	in	gate	in-DEF.M.SG	first	time

'I believe they scored zero goals in the first halftime.'[3]

Uncertainty is intermediate between the affirmation and negation of p, that is, the characterisation of p as real or unreal, so that we may characterise irrealis uses as in (4) as reflecting a gradable evaluation of the reality status of propositions, even though the reality-irreality distinction might be thought of as binary. Such an evaluation hardly seems to apply to complements as illustrated in (2). They could, in principle, be thought of as unreal by definition, as the object of an act of volition is not guaranteed to be realised. But such an account would be difficult to substantiate. In Latvian, for instance, with a verb like 'want' both realis and irrealis may be used:

[2] https://learnamo.com/quando-non-usare-congiuntivo-quando-usare-indicativo/ accessed 2021-06-14

[3] https://www.fcinter1908.it/ultimora/lukaku-fatto-dovevo/ accessed 2021-06-14

(5) Latvian (constructed)

Es	*gribu,*	*lai*	*tu*	*to*	***zini.***
I	want.PRS.1SG	that	you	this.ACC	know.PRS.2SG

(6)

Es	*gribu,*	*lai*	*tu*	*to*	***zinātu.***
I	want.PRS.1SG	that	you	this.ACC	know.IRR

'I want you to know this.'

It is conceivable that the irrealis in (6) expresses weaker expectations as to the realisation of the wish. Such expectations are hard to measure, but in order to see whether differences in reality status are involved we will have to look at whether there are differences related to the complement-taking lexeme, the presence or absence of negation etc.

In Holvoet (2020) it is argued that the function of irrealis in the state-of-affairs domain is to reflect lack of temporal and situational anchoring. Again, this does not follow from a comparison of pairs of sentences like (5) and (6): it is not the case that the realis in (5) reflects location in time whereas (6) reflects its absence. What is argued in Holvoet (2020) is that the validity of the 'unanchoring irrealis' hypothesis is supported by extensions from the state-of-affairs domain to the propositional domain. These extensions involve constructions with evaluative (commentative) predicates like 'it is a pity that', 'it is fitting that', 'it is strange that' etc. In Romance languages, such predicates regularly combine with irrealis:

(7) Italian

E'	*strano*	*che*	*lei*	*lo*	***chieda*** ...
is	strange	that	you	it	ask.IRR.2SG

'It is strange you should be asking me this.'

This irrealis use is echoed by the use of the English modal verb *should* in corresponding English constructions, as illustrated in the translation of (7). This use of *should*, whose meaning is originally deontic, suggests that the modal marking with evaluative predicates is carried over from state-of-affairs complements. While the deontic meaning of *should* is lost, what is retained is the suspension of temporal and situational anchoring characteristic of the state-of-affairs type of complementation to which deontic (desiderative) complementation belongs. What the evaluative predicate does is extract an event from its situational setting in order to evaluate it on its intrinsic properties, as an event type. If an event has occurred, it is impossible to characterise it as unlikely (in epistemic terms),

but it is still possible to characterise it as *intrinsically unlikely* (cf. *Harry Truman's unlikely victory in the 1948 election*, referring to a victory that actually took place). It is also possible to characterise an event that has actually occurred as *intrinsically undesirable*. A distinguishing property of evaluative predicates is that they express an evaluation of an event independent of whether it actually took place or not. This independence of actual occurrence or non-occurrence may be marked by the use of an irrealis form because one of the functions of irrealis is to lift an event out of its temporal and situational setting and, so to speak, hold it up for inspection. While this unanchoring function of irrealis is well represented in the Romance languages[4] (and, in another form, by unanchoring *should* in English), in other languages it is rather marginal (cf. Holvoet, forthcoming, for Slavonic). In this article we will treat the evaluative domain as a distinct type of irrealis use.

While the evaluative predicates just discussed basically belong to the propositional domain but show an irrealis function carried over from the state-of-affairs domain, there is also a domain of intersection between the propositional and the state-of-affairs domain, viz. 'apprehensional modality' (Lichtenberk 1995), comprising the expression of fear. Fear consists in the belief that something may happen (propositional) and the wish for it not to happen (state-of-affairs). Verbs of fear often have complements of both types, as illustrated from Lithuanian in (8) and (9):

(8) Lithuanian
Bijau,   *kad*   *gali*   *atsitikti*   *kas nors*
fear.PRS.1SG   that   may.PRS.3   happen.INF   something.NOM
baisaus.
terrible.GEN.SG

(9) *Bijau,*   *kad*   *ne-atsitiktų*   *kas nors*
fear.PRS.1SG   that   NEG-happen.IRR.3   something.NOM
baisaus.
terrible.GEN.SG
'I'm afraid something terrible might happen.'

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[4] Lunn (1989) connects this use with the predominantly factive readings imposed by evaluative higher predicates. According to her, the irrealis encodes what is not-assertable; non-assertability may result from irreality but also from being presupposed (in the case of factive predicates). In the account proposed in Holvoet (2020), irrealis is used in its unanchoring function in spite of, rather than because of, the factive reading of the complement clause.

Here the difference between the two types of apprehensional complements is reflected in mood, but it is really one of complement type—propositional as against state-of-affairs.

The above discussion of irrealis functions will provide a basis for the classification of irrealis uses to be investigated in the present article. It will be a quadripartition into

  (i)   the propositional domain,

 (ii)   the desiderative domain,

(iii)   the apprehensional domain, and

(iv)   the evaluative domain.

3. Background, important notions and data sources

3.1. The instantiations of irrealis in Baltic and Fennic

The Baltic instantiation of the irrealis is a category that has been variously referred to, in the literature written in languages other than Lithuanian and Latvian, as subjunctive (Ambrazas, ed., 2006, 258–261, *passim,* Nau 1998, 34–35) optative (Schleicher 1856, 228–229, Stang 1958 etc.) and conditional (Otrębski 1956, 230–233, Bielenstein 1864, 158–160, Endzelin 1923, 691–697 etc.).

The Baltic conditional is based, historically, on the supine in -*tum*, but this derivational base is expanded with endings historically continuing inflectional forms of the auxiliary 'be' (Brugmann 1916, 872). As Stang (1958/1970) has shown, there is evidence that this auxiliary originally combined with an active past participle rather than the supine. We also have reason to believe that the form of the auxiliary contained in the conditional was a preterite (see Smoczyński 1999), so that we can hypothesise that the original function of the combination of 'be' and the active past participle was that of a pluperfect. As pluperfects are often used in counterfactive function, we may surmise that the historically attested Baltic irrealis has two grammaticalisation sources: one was a pluperfect used in counterfactive function, the other was the supine, originally expressing purpose of motion, and subsequently purpose in general, and hence providing a means of encoding the complement of desiderative and deontic predicates. As the personal forms of the auxiliary fused with the supine affix into a series of affixal personal endings, a new compound

anteriority form of the conditional was created, consisting of the conditional of 'be' and a past active participle. The conditional is now used in both protasis and apodosis of counterfactive conditional sentences; in adverbial clauses of purpose and unreal comparison; and in main clauses expressing unreal wishes.

The Fennic instantiation of the irrealis is the conditional mood. In both languages, the main function of the conditional is to express *irrealis* in a wide range of constructions (Metslang 1999, EKG 1993, 34–35, VISK: §1592–1596). In Finnish and other northern Fennic varieties it has a suffix *-isi-* (*luk-isi-n* 'I would read'); in Estonian and Livonian, it takes the form *-ksi* (Estonian: *loe-ksi-n* 'I would read'). The origin of the conditional has been a matter of discussion: it has been related to a frequentative suffix *-ise-* past tense forms (in Finnish), which in addition to frequentative and durative meaning started to express intended action in the future; a parallel development could have taken place in Estonian (Lehtinen 1983). However, there are also alternative accounts of the historical development of the conditional marker, e.g. a diminutive marker + past tense marker *-i-* (Lehtinen 1983, Laakso 2001). Conditional past tenses in both languages include the auxiliary 'be', which is marked for conditional (Finnish *ol-isi-n luke-nut*, Estonian *ole-ksi-n luke-nud* 'I would have read'). In South Estonian Võro and Seto varieties a conditional present tense marker based on a past participle is also used (*maq län-nüq* 'I would go').

The Fennic conditional can be used both in main clauses and subordinated clauses. Its meaning in both languages has been described as comprising the so-called 'frame interpretation' (the 'if–then' relation) and the 'intentional' interpretation (Kauppinen 1998, Metslang 1999). Typical usage contexts in Estonian include several subordinated clause types (condition, concession, purpose, comparison, complement clauses of verbs of perception, 'without'-clauses), and some main clauses (optative clauses, deliberative questions, and reported commands) (Metslang, Sepper 2010). Estonian also uses the conditional as a way of expressing politeness, mostly as a mitigator of requests and questions; it is similar in this to Finnish, Lithuanian, Russian and some other languages (Pajusalu *et al.* 2017).

3.2. Realis in the state-of-affairs domain

When we compare the use of mood form with desiderative predicates in Lithuanian and Latvian, we see a difference: in Lithuanian the irrealis is obligatorily used while in Latvian the realis is possible:

(10) Lithuanian
      Noriu,   *kad* *žinotum.*
      want.PRS.1SG that know.IRR.2SG

(11) Latvian
      Gribu   *lai* *tu* *zini* / *zinātu.*
      want.PRS.1SG that you know.PRS.2SG IRR
      'I want you to know.'

But a realis in the state-of-affairs domain is not exactly the same as in the propositional domain. In the propositional domain, realis distinguishes tense: *I think she lives / lived / will live in Paris.* In the state-of-affairs domain a verb form does not have independent time reference: a typical temporal value is one of posteriority or simultaneity with the main predication (as in *she wanted me to come*). There is thus normally no tense variation in state-of-affairs complements. In case of realis marking for a state-of-affairs complement it is therefore common to have a default tense form, which will normally be the present tense.

Such rigid presents (i.e. presents not subject to tense variation) in state-of-affairs predications may develop into subjunctives, e.g., it has been established in Indo-European scholarship that the Greek and Indo-Iranian subjunctive is in origin a thematic present ousted from its primary function (Kuryłowicz 1964, 137–140), and a similar development has taken place in the transition from Classical to Modern Armenian (Sayeed & Vaux 2017, 1155). Even without such a new subjunctive of presential origin becoming formally emancipated from its grammaticalisation source, such presents may be characterised in the literature as quasi-subjunctives, e.g. the present tense with the complementiser *da* in Bulgarian-Macedonian is often referred to as the '*da*-subjunctive', cf., e.g., Topolinjska 2012). But of course, a subjunctive-like present tense is still realis, not irrealis, as long as a dedicated irrealis stands alongside it.

3.3. Complementising mood

In certain cases the use of irrealis forms is so regular within a certain domain of complementation that it can be considered part of a complementation strategy; we will refer to this as complementising mood. This was already illustrated for Lithuanian in example (10) above. Here the use of realis would be impossible:

(12) Lithuanian
Noriu,   *kad*   *žinai.*
want.PRS.1SG   that   know.PRS.2SG

In other cases the use of irrealis is not obligatory but still in a way characteristic of the given domain of complementation. So, for example, in the propositional domain higher negation can induce irrealis use:

(13) Lithuanian
Nemanau,   *kad*   *tu*   *žinai*   /   *žinotum.*
NEG.think.PRS.1SG   that   you   know.PRS.2SG   know.IRR.2SG
'I don't think you know.'

As this is observed in a particular subtype of propositional complementation, it can also be considered complementising mood.

However, there are also instances where the use of irrealis in a complement clause has nothing to do with complementation as such. Consider:

(14) Lithuanian
[*Ką darytum negyvenamoje saloje?*]
Manau,   *kad*   *išgyvenčiau.*
think.PRS.1SG   that   survive.IRR.1SG
'[What would you do on a desert island?] I think I would survive.'

Here the irrealis is not connected with the complementation type, but with an implicit conditional context: '[If I found myself on a desert island] I would survive'. This kind of irrealis will basically not interest us in this article, but it is clear that there will be instances where it is difficult to decide whether we are dealing with complementising irrealis or complement-internal irrealis.

3.4. Data

In the next sections, we will take a closer look at the domains where complementising mood seems to occur in Baltic and Finnic languages, and by using both quantitative and qualitative analysis, we give an overview of the use of irrealis marking in each language.

Our data was obtained from TenTen-series Web-corpora that are collected from the Internet and thus include, in addition to media texts, more informal texts from blogs, internet fora etc. For Latvian the corpus lvTenTen14 was used, for Finnish, Finnish Web 2014 (fiTenTen). For Estonian we used the more recent Estonian National Corpus 2019, which is fully comparable to the TenTen series. Since the TenTen-series Lithuanian corpus is not morphologically annotated, another Lithuanian Web corpus, known as LithuanianWaC, was used.

Each of the four domains in the classification of irrealis uses is represented by a pair of verbs in each of the four languages (Table 1).

Table 1. Predicates included in the analysis in Latvian, Lithuanian, Estonian and Finnish.

	Baltic		Fennic	
	Latvian	Lithuanian	Estonian	Finnish
propositional				
'believe'	*ticēt*	*tikėti*	*uskuma*	*uskoa*
'guess, be of the opinion'	*uzskatīt*	*manyti*	*arvama*	*arvata*
desiderative				
'want'	*gribēt*	*norėti*	*tahtma*	*haluta*
'wish'	*vēlēties*	*pageidauti*	*soovima*	*toivoa*
apprehensional				
'fear'	*baidīties*	*bijoti*	*kartma*	*pelätä*
'worry'	*satraukties*	*nerimauti*	*muretsema*	*huolehtia*
evaluative				
'(it is) strange'	*dīvaini*	*keista*	*imelik (olema)*	*(olla) outoa*
'(it is) sad/a pity'	*žēl*	*gaila*	*kurb (olema)*	*(olla) surullista*

We look at the clausal complements of each verb and try to find out to what extent irrealis marking is used in each domain, what motivates the use of irrealis marking in these domains, and how well the complementation mood is grammaticalised in the languages under discussion. Since Baltic and Fennic languages have more than one complementiser, we also have to take into account the complementisers and their semantics.

In the following sections, we first take a closer look at the use of irrealis and realis in the Baltic languages (Section 4), and then in Fennic (Section 5). We look at each domain separately in order to explain the extent and motivation for realis or irrealis marking in this particular domain. A final comparison of the languages under scrutiny can be found in Section 6.

4. The Baltic languages

4.1. Complementisers

While it is possible to have different complementisers combining with propositional (in the broader sense) and state-of-affairs predicates, the modern Baltic languages use this possibility to a limited extent. In Latvian, the complementiser *ka* 'that', dominating three of the four domains, appears only marginally in the desiderative domain whereas *lai* is widely used, see (5) and (6) above. The Latvian complementisers *ka* and *lai* correspond to a single basic complementiser *kad* in Lithuanian (Holvoet 2016, 227–230). In some varieties of Old Lithuanian, *kad* was associated with the desiderative domain and contrasted with another complementiser, *jog*, used in the propositional domain. The modern language, however, retains *jog* as a stylistic variant of *kad* irrespective of its function (Holvoet 2010, 76–79).

None of the complementisers mentioned above specifically requires the use of the conditional in the complement clause. Nevertheless, the use of the conditional is obligatory with similative complementisers like *it kā* 'as if', as well as the Latvian complementiser *kaut*, found with desiderative predicates. We did not include these cases in the analysis of the data.

4.2. Corpus data

The corpus search included a complement-taking predicate together with a typical complementiser so as to avoid other complement types. Since negation is a prefix in the Baltic languages, a separate search was carried out for affirmative and negative versions of the same verbs, with the

notable exception of 'strange' and 'pity' which normally receive negation on an accompanying verb ('be' or 'seem'). For each predicate, a random sample of 300 was manually analysed so as to exclude non-finite verbs and ill-formed sentences. The final datasets are presented in Table 2 (Latvian) and Table 3 (Lithuanian).

Table 2. Predicates and complementisers in the Latvian data

Type	Predicate	Translation	No of occ. in the sample	Complementisers
Propositional	*ticēt*	believe	258	*ka* 'that'
	neticēt	NEG-believe	293	
	uzskatīt	think, believe	264	
	neuzskatīt	NEG-think, NEG-believe	291	
Desiderative	*gribēt*	want	273	*ka* 'that' (7) *lai* 'that' (266)
	negribēt	NEG-want	288	*ka* 'that' (59) *lai* 'that' (229)
	vēlēties	wish	280	*ka* 'that' (5) *lai* 'that' (275)
	nēvēlēties	NEG-wish	286	*ka* 'that' (26) *lai* 'that' (260)
Apprehensional	*baidīties*	fear	259	*ka* 'that' (258) *lai* 'that' (1)
	nebaidīties	NEG-fear	251	*ka* 'that' (251) *lai* 'that' (0)
	satraukties	worry	223	*ka* 'that' (221) *lai* 'that' (2)
	nesatraukties	NEG-worry	88	*ka* 'that' (88) *lai* 'that' (0)
Evaluative	*dīvaini*	(it's) strange	281	*ka* 'that' (226) *ja* 'if' (55)
	žēl	(it's) a pity	279	*ka* 'that' (271) *ja* 'if' (8)
Total			3614	

Table 3. Predicates and complementisers in the Lithuanian data

Type	Predicate	Translation	No of occ. in the sample	Complementisers
Propositional	*tikėti*	believe	153	*kad* 'that' (135) *jog* 'that' (18)
	netikėti	NEG-believe	275	*kad* 'that' (259) *jog* 'that' (16)
	manyti	guess	220	*kad* 'that' (196) *jog* 'that' (24)
	nemanyti	NEG-guess	288	*kad* 'that' (267) *jog* 'that' (21)
Desiderative	*norėti*	want	256	*kad* 'that' (245) *jog* 'that' (11)
	nenorėti	NEG-want	282	*kad* 'that' (272) *jog* 'that' (10)
	pageidauti	wish	161	*kad* 'that' (154) *jog* 'that' (7)
	nepageidauti	NEG-wish	10	*kad* 'that' (10) *jog* 'that' (0)
Apprehensional	*bijoti*	fear	228	*kad* 'that' (218) *jog* 'that' (10)
	nebijoti	NEG-fear	78	*kad* 'that' (68) *jog* 'that' (10)
	nerimauti	worry	90	*kad* 'that' (85) *jog* 'that' (5)
	nenerimauti[5]	NEG-worry	0	
Evaluative	*keista*	(it's) strange	288	*kad* 'that' (241) *jog* 'that' (18) *jei* 'if' (21) *jeigu* 'if' (8)
	gaila	(it's) a pity	293	*kad* 'that' (273) *jog* 'that' (14) *jei* 'if' (4) *jeigu* 'if' (2)
Total			2622	

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[5] No instances of nenerimauti were found in the corpus, which might be explained by the fact that the verb etymologically already contains the negation ne-.

The percentage of irrealis in each of the four domains, as depicted in Table 4, does not specifically refer to the use of irrealis in complementation but rather reflects all irrealis occurrences irrespective of their function. A more detailed analysis will be provided in the following sections where each of the four domains is discussed separately. Nevertheless, one cannot fail to notice the higher share of the irrealis marking in the desiderative domain in both Latvian and Lithuanian (about 50% and 100% respectively), even considering the substantial difference between the exact percentages in the two languages. In comparison, the share of the irrealis marking in the other three domains never exceeds 15%.

Table 4. *The use of irrealis marking depending on the domain in Baltic*

language	propositional	desiderative	apprehensional	evaluative
Latvian	15.2% (168/1106)	51.7% (583/1127)	15.5% (127/821)	8.2% (46/560)
Lithuanian	12.1% (113/936)	100% (707/707)	14.9% (59/396)	4.6% (27/581)

4.3. The propositional domain

In both Baltic languages, the use of irrealis in propositional complement clauses is infrequent, the indicative being the most common choice.

(15) Latvian
Viņš   *uzskata,*   *ka*   *ieguvēji*   *šeit*
3.SG.NOM.M   think.PRS.3   that   winner.NOM.PL   here
ir   *visi.*
be.PRS.3   all.NOM.PL.M
'He thinks that everybody here are winners.'

(16) Latvian
Cilvēki   *netic,*   *ka*   *viņu*
human.NOM.PL   NEG.believe.PRS.3   that   3.GEN.PL
rēķini   ***būs***   *mazāki,*   *māju*
bill.NOM.PL   **be.FUT.3**   smaller.NOM.PL.M   house.ACC.SG
nosiltinot.
insulate.CVB
'The people don't think that their bills are going to be smaller if they insulate their house.'

Irrealis marking, when found, is usually unrelated to complementation. The dependent clause then refers to a hypothetical situation, often introduced by various modal expressions.

(17) Latvian

Atsevišķu   *partiju*   *pārstāvji*
separate.GEN.PL   party.GEN.PL   representative.NOM.PL
uzskata,   *ka*   *vislabāk*   **būtu**   *premjera*
think.PRS.3   that   best   be.IRR   prime.minister.GEN.SG
amatu   *uzticēt*   *bezpartejiskam,*
position.ACC.SG   entrust.INF   non_partisan.DAT.SG.M
sabiedrības   *uzticību*   *baudošam*
society.GEN.SG   trust.ACC.SG   enjoy.PRS.PA.DAT.SG.M
cilvēkam.
person.DAT.SG

'Representatives of certain parties think that it would be best to entrust the prime-minister's position to an independent person who has society's trust.'

(18) Latvian

Komisija,   *ņemot vērā*   *šī*   *likumprojekta*
commission.NOM.SG   considering   DEM.GEN.SG   bill.GEN.SG
nelielo   *apjomu,*   *uzskatīja,*   *ka*
NEG.big.ACC.SG.DEF   volume.ACC.SG   think.PST.3   that
to   **varētu**   *izskatīt*   *arī*   *divos*
DEM.ACC.SG   can.IRR   consider.INF   also   two.LOC
lasījumos.
reading.LOC.PL

'The commission concluded that, in view of the modest length of the bill, it could be considered in just two readings.'

Most clear instances of complementising mood are associated with clauses that refer to an actual situation in the present or past but receive irrealis marking due to the proposition being negated. In case of past time reference, a compound form of irrealis is used.

(19) Latvian

[*Baznīca Sv. Rakstus uzskata par nemaldīgiem,*]
taču   *tā*   *neuzskata,*   *ka*   *kaut vai*
but   DEM.NOM.SG.F   NEG.consider.PRS.3   that   even
viens   *no*   *pastāvošajiem*

one.NOM.SG.M   from   exist.PRS.PA.DAT.PL.M.DEF
rokrakstiem   **būtu**   *pilnīgi*   *brīvs*
manuscript.DAT.PL   be.IRR   completely   free.NOM.SG.M
no   kļūdām.
from   error.DAT.PL

'[The Church considers the Scripture to be infallible] but she does not think that even a single one of the existing manuscripts is completely devoid of errors.'

(20) Latvian
Viņš   *neuzskata,*   *ka*   **būtu**
3.NOM.SG.M   NEG.consider.PRS.3   that   be.IRR
paveicis   *kādu*   *varoņdarbu,*
perform.PST.PA.NOM.SG   some.ACC.SG   heroic_deed.ACC.SG
[*jo tie visi taču ir viņa bērni.*]
'He does not think that he did anything heroic [because all of them are his children.]'

In all such cases the appearance of irrealis is made possible by the negation in the main clause, although negation does not preclude the use of indicative. In fact, indicative examples are much more frequent, cf.

(21) Latvian
Es   *neuzskatu,*   *ka*   *šie*
1.SG.NOM   NEG.consider.PRS.1SG   that   DEM.NOM.PL.M
standarti   **ir**   *pārāk*   *augsti.*
standard.NOM.PL   be.PRS.3   too   high.NOM.PL.M
'I do not think that these standards are too high.'

(22) Latvian
Vispirms   *gribētu*   *norādīt,*   *ka*
first_of_all   want.IRR   point_out.INF   that
komisija   *neuzskata,*   *ka*   *viņa*
commission.NOM.SG   NEG.consider.PRS.3   that   3.NOM.SG.F
visā pilnībā   **ir**   **izpildījusi**   *to*
fully   be.PRS.3   carry.out.PST.PA.NOM.SG.F   DEM.ACC.SG
uzdevumu,
task.ACC.SG
[*ko Saeima tai uzdeva*] <...>
'First of all, we would like to point out that the commission does not think that it has fully completed the task [assigned to it by Saeima (Latvian parliament)].'

The complementising function of irrealis is, nevertheless, common enough to provide a noticeable difference in the frequencies of irrealis marking in dependent clauses after affirmative and negative uses of the main verb, see Table 5 and 6. In both Latvian and Lithuanian, the affirmative uses only combine with non-complementising instances of irrealis, while the negative uses show a higher frequency of irrealis in dependent clauses due to the complementising function. By Pearson's chi-squared test, the distribution of realis and irrealis forms is significantly different in affirmative and negative clauses both in Latvian and Lithuanian. The gap is wider in Latvian, therefore we could assume the complementising function of irrealis is more developed in Latvian.

Table 5. Use of conditional in the propositional domain in Latvian, depending on polarity of the main predicate ($\chi2(N=1106, df=1) = 79.98, p < 0.001$)

main clause polarity	irrealis	realis	total
affirmative	26 (5%)	496 (95%)	522
negative	142 (24%)	442 (76%)	584
total	168 (15%)	938 (85%)	1106

Table 6. Use of conditional in propositional domain in Lithuanian, depending on polarity of the main predicate ($\chi2(N=936, df=1) = 12.179, p < 0.001$)

main clause polarity	irrealis	realis	total
affirmative	28 (8%)	345 (92%)	373
negative	85 (15%)	478 (85%)	563
total	113 (12%)	823 (88%)	936

The precise number of examples with the complementising mood is, however, difficult to establish because of a high share of ambiguous cases. These are mostly represented by modal expressions in which, rather than negating a situation itself, its possibility or necessity is being denied. If this is done with respect to a hypothetical situation, the use of irrealis can be independent of complementation. One can only speak about com-

plementing mood when it is clear from the context that the dependent clause conveys an actual situation rather than a hypothetical one. For example, the situation in (23) that the speaker describes as 'being proud of one's supposed condition' is assigned to the addressee:

(23) Latvian
Es	*nudien*	*neuzskatu,*	*ka*	*tev*
1SG.NOM	PTC	NEG.think.PRS.1SG	that	2SG.DAT
ar	*savu*	*slimību*	***būtu***	***jālepojas*** <...>
with	RPO.ACC.SG	illness.ACC.SG	be.IRR	DEB.be_proud

'Honestly, I don't think that you should be proud of your condition.'

Placing all modal expressions in a separate group, the distribution of complementising vs. non-complementising uses of irrealis can be captured with the following numbers. The share of non-complementising uses in relation to the total number of examples is not affected by the polarity of the main clause. The increase in the irrealis forms under negative polarity in the main clause thus correlates with an increase in complementising uses of irrealis. Also, it correlates with the increase in the number of modal expressions in the irrealis form, which might indirectly point to the complementising function of irrealis also in examples with modal expressions.

Table 7. *Use of irrealis as a complementising mood in the propositional domain in Latvian*

main clause polarity	irrealis			realis	total
	modal	non-modal			
		compl	ncompl		
affirmative	19 (4%)	0 (0%)	7 (1%)	496	522
negative	80 (14%)	52 (9%)	8 (1%)	442	584

Table 8. Use of irrealis as a complementising mood in the propositional domain in Lithuanian

main clause polarity	irrealis			realis	total
	modal	non-modal			
		compl	ncompl		
affirmative	15 (4%)	0 (0%)	13 (3%)	350	373
negative	46 (8%)	20 (4%)	19 (3%)	478	563

4.4. The desiderative domain

The corpus data confirms the grammaticalisation of irrealis with desiderative predicates in Lithuanian where it is used in 100% of examples with desiderative predicates (see Table 9).

(24) Lithuanian
[*Jis ieško kontakto su artimaisiais,*]

nori,	*kad*	*jį*	***kalbintų***	*ir*
want.PRS.3	that	3.ACC.SG.M	address.IRR.3	and

imtų	*ant*	*rankų.*
take.IRR.3	on	arm.GEN.PL

'[He searches for contact with relatives;] he wants them to talk to him and to take him into their arms.'

Table 9. Use of irrealis in desiderative domain in Lithuanian, depending on polarity of the main verb

main clause polarity	irrealis	realis	total
affirmative	417	0	417
negative	290	0	290
total	707	0	707

In Lithuanian irrealis is clearly a complementation marker, i.e., it marks the complement as desiderative while the complementiser *kad* 'that' is shared with other types of complements, compare *sakė,* ***kad*** *atvažiuos* '(s)he said (s)he would come' but *sakė,* ***kad*** *palaukčiau* '(s)he told me to wait'.

In Latvian, on the contrary, realis appears at least as frequently as irrealis, although the numbers in Table 10 are, to a certain extent, a product

of pooling together two verbs that show opposite tendencies. On the one hand, *gribēt* 'want' is only found with irrealis in 40% of all examples, and *vēlēties* 'wish' in 60%.

(25) Latvian

Es	*vienkārši*	*gribēju,*	*lai*
1SG.NOM	simply	want.PST.1SG	that

tas	*viss*	***beidzas***.
DEM.NOM.SG.M	all.NOM.SG.M	end.PRS.3.RFL

'I simply wanted that all this would end.'

(26) Latvian

Vēlējos,	*lai*	*skolas*	*telpas*	***būtu***
wish.PST.1SG	that	school.GEN.SG	room.NOM.PL	be.IRR

mājīgas	*ar*	*mazu*	*skaitu*
cosy.NOM.PL.F	with	small.ACC.SG	number.ACC.SG

skolnieku.
schoolchild.GEN.PL

'I wished the school premises to be comfortable, with a small number of schoolchildren.'

Table 10. *Use of irrealis in the desiderative domain in Latvian, depending on polarity of the main predicate ($\chi2$(N=1129, df=1) = 0.6171, p = 0.4321)*

main clause polarity	irrealis	realis (PRS)	total
affirmative	280 (50%)	275 (50%)	555
negative	303 (53%)	271 (47%)	574
total	583 (52%)	546 (48%)	1129

It is seen from Table 10 that the irrealis marking has roughly equal chances to appear with affirmative and negative versions of the predicate (the differences in the distribution are insignificant also statistically, as can be seen from Table 10). Another parameter that might correlate with the choice between the irrealis and realis marking is the mood of the main predicate itself, but the data does not confirm this either.

As mentioned above, negation does not seem to have any influence on the use of irrealis in the dependent clause. But negation correlates with the choice between the two competitive complementisers, *lai*, which is specifically associated with the desiderative domain, and *ka*, also found with propositional clauses. The complementiser *lai* dominates the data

irrespectively of the main clause polarity; it is also found in the examples above. The use of *ka* is only marginal, but it increases from 2% to 15% when the main predicate is negated. The differences in the distribution of *ka* and *lai* in affirmative and negative clauses are significant also statistically (see Table 11, χ2(N = 1129, df=1) = 55.318, *p* < 0.001).

(27) Latvian

Bet	*viņš*	*gribēja,*	***ka***	*viņam*
but	3.NOM.SG.M	want.PST.3	that	3.DAT.SG.M

eju	*līdz.*
go.PRS.1SG	along

'But he wanted that I go with him.'

(28) Latvian

Es	*negribēju,*	***ka***	*viņi*
1SG.NOM	NEG.want.PST.1SG	that	3.NOM.PL.M

zina,	*ka*	*esam*	*tuvu.*
know.PRS.3	that	be.PRS.1PL	near

'I didn't want them to know that we were near.'

Table 11. *Use of complementisers in desiderative domain in Latvian, depending on polarity of the main verb*

main clause polarity	*ka*	*lai*	total
affirmative	13 (2%)	542 (98%)	555
negative	85 (15%)	489 (85%)	574
total	98 (9%)	1031 (91%)	1129

The use of the Latvian *ka* is also sensitive to mood as it is concentrated in dependent clauses containing realis, that is, present tense forms, although the negation on the main clause increases the chances for *ka* to be also found with irrealis as in (29). Still, even the higher number of *ka*, found with realis under the negated main predicate (60 instances), only makes up 22% of all examples in the group (271), with *lai* taking the rest.

(29) Latvian

Mēs	*negribam,*	***ka***	*jums*	***patiktu***
1PL.NOM	NEG.want.PRS.1PL	that	2PL.DAT	please.IRR

mūsu	*māksla*	*un*	*mēs*	*paši.*
our	art.NOM.SG	and	1PL.NOM	self.NOM.PL.M

'We do not want you to like either our art or ourselves. (Literally: we do not want that our art or ourselves would please you.)'

Here it is probably useful to dig into history. A look at 17th-century texts shows the situation was different, more like that in Lithuanian. In Old Latvian texts like Mancelius' *Langgewünschte Postill* (1654) and Glück's Bible translation (1685, 1689), this complementiser use of *lai* has not yet established itself; here we find exclusively *ka*, usually with the irrealis form of the verb, in a construction closely resembling that of Lithuanian, but sometimes also with realis:

(30) Old Latvian (Glück's OT, Gen. 42.25)

Un	*Jahſeps*	*pawehleja/*	***ka***	*wiņņu*	*Maiſi*
and	PN.NOM.SG	order.PST.3	that	3.GEN.PL	sack.NOM.PL
ar	*Labbibu*	*pilditi*		*un*	
with	grain.ACC.SG	fill.PST.PP.NOM.PL.M		and	
wiņņo	*Nauda*	*ikkatram*	*ſawâ*		
3.GEN.PL	money.NOM	each.DAT.SG	RPO.LOC.SG		
Maiſâ	*atdohta*	***taptu***			
sack.LOC.PL	return.PST.PP.NOM.SG.F	become.IRR			

'Then Joseph commanded to fill their sacks with corn, and to restore every man's money into his sack [...].'

(31) Old Latvian (Glück's NT, Mt 27.64)

Tapehz	*pawehli/*	***ka***	*tas*
therefore	order.IMP.2SG	that	DEF.NOM.SG.M
Kaps	*ſtipri*	***tohp***	*apſargahts/*
grave.NOM.SG	tightly	become.PRS.3	guard.PP.NOM.SG.M
lihdſ	*treſchai*	*Deenai...*	
until	third.DAT.SG.F	day.DAT.SG	

'Command therefore that the sepulchre be made sure [lit. be tightly guarded] until the third day ...'

Latvian *lai* originated as a hortative marker, a function it still performs in the hortative construction *lai atnāk* 'let her/him/them come', often described in Latvian grammars as the third-person imperative. This *lai* goes back to an older form *laid*, the imperative of *laist* 'let', and is thus a counterpart to a Russian construction like *pust' pridet* 'let her/him come', or to English constructions with *let*. Subsequently this hortative marker assumed other functions as well, most importantly that of a complementiser with desiderative verbs.

4.5. The apprehensional domain in Baltic

The apprehensional domain has been described as intermediate between the propositional and the state-of-affairs domains (cf. Lichtenberk 1995, though the terms used there are different). Fear consists in an epistemic judgement that something may occur (propositional) and the wish that this event should not occur (desiderative). In Baltic, the propositional strategy occurs with an expletive negation. In Baltic, apprehensional predicates are overwhelmingly treated as propositional, especially in Latvian.[6] Negation makes the appearance of the desiderative strategy even less likely (Table 12). However, the difference is statistically insignificant (p = 0.06792, Fisher test). The 16% of desiderative examples in Lithuanian become 0% when the negation is added to the main verb (statistically significant difference, p < 0.001, Fisher test, see Table 13).

Table 12. Use of the propositional vs desiderative strategy in the apprehensional domain in Latvian, depending on polarity of the main predicate

main clause polarity	desiderative	propositional	total
affirmative	20 (4%)	462 (96%)	482
negative	6 (2%)	333 (98%)	339
total	26 (3%)	795 (97%)	821

[6] The sample does not contain sentences where the complement clause, introduced by either *ka* or *lai*, conveys result or purpose, as in the following examples:

Viena no māsām tik ļoti satraucās, ka visu laiku runāja , runāja un runāja.

'One of sisters was worried so much that she kept speaking all the time.'

Trešdiena Banijai bija brīva, tādēļ nepārtraukti satraucos, lai tikai, klīstot pa Rīgas ielām, sadzirdētu, kad zvanīs no veikala par preci, bet … nezvanīja.

'Banny had a day off on Wednesday, that's why I was constantly worried so that, while walking around Riga, we could hear when they would call from the store about the order, but they never called.'

Table 13. *Use of the propositional vs desiderative strategy in the apprehensional domain in Lithuanian, depending on polarity of the main predicate*

main clause polarity	desiderative	propositional	total
affirmative	52 (16%)	266 (84%)	318
negative	0 (0%)	78 (100%)	78
total	52 (13%)	344 (87%)	396

The propositional strategy

We will turn to the propositional strategy first. As in the propositional domain proper, the complement clause contains a realis (future or present) form in most examples in both Latvian and Lithuanian.

(32) Latvian
Baidos,   *ka*   *darba*   *vietā*   *mani*
fear.PRS.1SG   that   work.GEN.SG   place.LOC.SG   1SG.ACC
nesapratīs,   ***nosodīs,***   *varbūt*   *pat*
NEG.understand.FUT.3   condemn.FUT.3   maybe   even
būs   *kādas*   *represijas.*
be.FUT.3   some.NOM.PL.F   repression.NOM.PL
'I'm afraid that they won't understand me at my workplace, that they will disapprove and maybe even some repressive measures will be taken against me.'

The irrealis marking is rare in Latvian but its share increases from 12% to 20% when the main predicate is negated, see Table 16, which is another feature in common with the propositional domain proper. The difference in distribution of realis and irrealis marking in affirmative and negative main clauses is also statistically significant $\chi 2$(N=795, df=1) = 0.125, p = 0.001463). Lithuanian does not show this tendency, as the percentage of irrealis marking is very small or, in case of negative main clause polarity, non-existent (Table 17).

(33) Latvian
Nebaidies,   *ka*   *mūsu*   *Dievam*   ***trūktu***
NEG.fear.PRS.2.RFL   that   our   god.DAT.SG   lack.IRR
padoma,
advice.GEN.SG

[*kādas miesas mums dot pie augšāmcelšanās!*]
'Don't be afraid that our God should be at a loss [about what kind of bodies to give us after resurrection!]'

Table 14. *Use of irrealis in the apprehensional domain in Latvian (propositional strategy)*

main clause polarity	irrealis	realis	total
affirmative	56 (12%)	406 (88%)	462
negative	68 (20%)	265 (80%)	333
total	124 (16%)	671 (84%)	795

Table 15. *Use of irrealis in the apprehensional domain in Lithuanian (propositional strategy)*

main clause polarity	irrealis	realis	total
affirmative	7 (3%)	259 (97%)	266
negative	0 (0%)	78 (100%)	78
total	7 (2%)	337 (98%)	344

It is, however, interesting that, independently of the main clause polarity, more than 90% of all instances of irrealis in Latvian are found with modal expressions. For comparison, the share of modal expressions with realis marking is between 20 and 30%. Consequently, as mentioned in Section 4.3 above, such examples containing modal expressions cannot be unambiguously identified as complementising or non-complementising uses of irrealis. No such connection between modality and irrealis marking is found in Lithuanian, though.

With the share of modal verbs being not so radically different in both languages (see Table 18, 19), a similar meaning in Lithuanian is more likely to be conveyed by a modal expression with a realis marking.

(34) Latvian
Tieslietu   ministrija   ir   satraukusies,
justice.GEN.PL   ministry.NOM   be.PRS.3 worry.PST.PA.NOM.SG.F.RFL
ka   banku   un   administratoru
that   bank.GEN.PL   and   administrator.GEN.PL

spēcīgais   *lobijs*   *šādas*
strong.NOM.SG.M.DEF   lobby.NOM.SG   such.ACC.PL.F
izmaiņas   **varētu**   *arī*   *panākt.*
change.ACC.PL   be_able.IRR   also   achieve.INF
'The Ministry of Justice is worried that the strong banking and administration lobby could be able to achieve such changes.'

(35)   Lithuanian
Vyriausybė   *labiausiai*   *nerimauja,*   *kad*
government.NOM.SG   most_of_all   worry.PRS.3   that
savaitgalį   **gali**   *įsisiautėti*   *protestuojantys*
weekend.ACC.SG   can.PRS.3   go_wild.INF   protesting.NOM.PL.M
studentai.
student.NOM.PL
'Most of all, the government is worried that the protesting students could go wild in the weekend.'

Table 16. *Use of modal verbs with irrealis marking in the apprehensional domain in Latvian (propositional strategy)*

main clause polarity	modal	non-modal	total
affirmative	51 (91%)	5 (9%)	56
negative	66 (97%)	2 (3%)	68
total	117 (94%)	7 (6%)	124

Table 17. *Use of modal verbs with irrealis marking in the apprehensional domain in Lithuanian (propositional strategy)*

main clause polarity	modal	non-modal	total
affirmative	1	6	7
negative	0	0	0

Table 18. *Use of modal expressions in combination with (ir)realis in the apprehensional domain in Latvian (propositional strategy)*

main clause polarity	modal	non-modal	total
affirmative	136 (29%)	326 (71%)	462
negative	115 (35%)	218 (65%)	333

Table 19. *Use of modal expressions in combination with (ir)realis in the apprehensional domain in Lithuanian (propositional strategy)*

main clause polarity	modal	non-modal	total
affirmative	70 (26%)	196 (74%)	266
negative	14 (18%)	64 (82%)	78

Apart from the examples that combine irrealis with modality, there are but few instances of irrealis left in Latvian, and a similar number of non-modal irrealis examples is also found in Lithuanian. In both languages, these are mostly non-complementising uses as irrealis marking refers to a hypothetical situation, as in (36) below.

(36)   Lithuanian
[*Jei reiktų teisti pagal dabar galiojančius kodeksus,*]
*bijau,   kad   **neužtektume**   kalėjimų…*
fear.PRS.1SG   that   NEG.have.enough.IRR.1PL   prison.GEN.PL
'[If one had to decide cases according to the codes that are now valid,] I fear that we would run out of prisons…'

The state-of-affairs strategy
As one might expect, the desiderative pattern universally yields irrealis marking in Lithuanian, but in Latvian the data is split up between irrealis and realis (present), the irrealis being quite rare, and realis the norm. The realis is represented by present tense forms when the main clause polarity is affirmative. However, under negative main clause polarity, the future tense also occurs.

(37)   Lithuanian, irrealis
*Mes   bijome,   kad   tai   **nepasikartotų**.*
1PL.NOM   fear.PRS.1PL   that   this.NA   NEG.repeat.IRR
'We are afraid that this might happen again.'

(38)   Latvian, irrealis
Daži   satraucās,   lai   tik
some.NOM.PL   worry.PST.3.RFL   that   only
neizgāztos <…>
NEG.fail.IRR.RFL
'Some people were worried that they might fail.'

(39) Latvian, realis (present)
[*Puisis ir ļoti emocionāls,*]

tāpēc	*baidos,*	*ka*	*viņš*	*aiz*
therefore	fear.PRS.1SG	that	3.NOM.SG.M	out_of

bēdām	*kaut ko*	**neizdara.**
grief[PL].DAT	something.ACC	NEG.do.PRS.3

'[The lad is very emotional,] that's why I fear that he might do something stupid out of despair.'

(40) Latvian, realis (future)

<...>	*es*	*šim*	*pajautāju,*	*vai*
	1SG.NOM	DEM.DAT.SG.M	ask.PST.1SG	if

viņš	*nebaidās,*	*ka*	*tā*
3.NOM.SG.M	NEG.fear.PRS.3	that	DEM.NOM.SG.F

meitene	*vēlāk*	**nesāks**	*attiecības*
girl.NOM.SG	later	NEG.start.FUT.3	relationship.ACC.PL

ar	*kādu*	*no*	*viņa*
with	some.ACC.SG	from	3.GEN.SG.M

dēliem?
son.DAT.PL

'I asked him if he was not afraid that this girl would eventually start a relationship with one of his sons.'

Table 20. Use of irrealis in the apprehensional domain in Latvian (desiderative strategy)

main clause polarity	irrealis	realis	total
affirmative	2 (10%)	18	20
negative	1 (17%)	5	6

Table 21. Use of irrealis in the apprehensional domain in Lithuanian (desiderative strategy)

main clause polarity	irrealis	realis	total
affirmative	52 (100%)	0	52
negative	0 (0%)	0	0

In theory, Latvian has two desiderative complementisers, *ka* and *lai*, with the latter dominating in the desiderative domain proper. With apprehensional predicates, however, *ka* is common while *lai* only appears in single examples with both realis, as in (41) and irrealis, as in (38) above.

(41)   *Tad*   *arī*   *ļoti*   *satraucos,*
       then   also   very   worry.PST.1SG.RFL
       lai   *tik*   *nepiedzimst*   *stipri*   *par*
       that   only   NEG.be.born.PRS.3   strong.ADV   too
       ātru,
       quick.ACC.SG
       [*jo bērniņš taču vēl mazs.*]
       'At the time I also worried a lot that it might be born way too quickly [because the baby is still small.]'

While negation is a constant property of the desiderative strategy in the apprehensional domain, an additional optional feature is the particle *tik(ai)* 'only', usually found in Latvian but sometimes also in Lithuanian, as below.

(42)   *Bijau,*   *kad*   *už*   *savo*   *mintis*   ***tik***
       fear.PRS.1SG   that   for   RPO   idea.ACC.PL   only
       nebūčiau   *ekskomunikuotas.*
       NEG.be.IRR.1SG   excommunicate.PST.PP.NOM.SG.M
       'I fear that I might be excommunicated for my ideas.'

4.6. The evaluative domain

The unanchoring use of the irrealis in evaluating contexts is weakly developed in Baltic. The regular irrealis use observed with evaluative predicates like 'a pity', 'fitting', 'strange' etc. in Romance has no counterpart. For many evaluative predicates the default interpretation of the embedded predication is factive, and this factive value imposes realis use:

(43)   Lithuanian
       Keista,   *kad*   *jis*   *paviešino*
       strange.NA   that   3.NOM.SG.M   make_public.PST.3
       nebaigtą   *dainos*   *versiją —*
       unfinished.ACC.SG   song.GEN.SG   version.ACC.SG
       juodraštį.
       raw_draft.ACC.SG
       'It's strange that he should have made public an unfinished version of the song—a raw draft.'[7]

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[7] https://www.lrytas.lt/zmones/muzika/2017/12/15/news/dar-vienas-sel-skandalas-prodiuseris-atskleide-keista-istorija-3902241/

Occasionally, however, we find the irrealis even though the factive interpretation of the embedded predication is not excluded. The contexts where we find it are, however, vague between a factive and non-factive reading:

(44) Lithuanian
      [*Na galbūt ir perspektyvus šis jaunuolis,*]

tik	*keista*	*kad*	*jis*	*būtų*
only	strange.NA	that	3.NOM.SG.M	be.IRR

pirmasis	*švedas*	*žaidžiantis*
first.NOM.SG.M.DEF	Swede.NOM.SG	play.PRS.PA.NOM.SG.M

NBA	*lygoje,*
NBA	league.LOC.SG

      [*maniau, kad nors vienas koks pasiklydęs ten rungtyniauja...*][8]
      '[Well, he seems to be a promising young man,] but it's strange he should be the first Swede playing in the NBA league, [I thought there should be at least some stray one playing there...]'

Independently of whether x is actually the first Swede to play in the NBA league, in view of the a priori likelihood of there having been at least one Swede playing in the NBA league, this fact would have been strange in itself in any circumstances. It is not clear whether the actual fact of x being the first Swede in the NBA league is being evaluated, or rather such an event considered as a possibility.

The corpus data confirms that evaluating contexts normally contain realis forms in both Baltic languages, main clause polarity showing no influence on the results.[9]

When found, irrealis has a non-factive interpretation in the overwhelming majority of examples. They are mainly associated with the complementiser 'if', but 'that' is also found in couple of instances, cf. the following two examples.

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[8] https://www.krepsinis.net/naujiena/i-nba-duris-beldziasi-svedu-krepsinio-talentas-j-jerebko/75649 (accessed 2021-06-20, diacritics added)

[9] As mentioned above, no separate search was conducted for negative versions of the predicates because they are usually negated by means of separate words. For instance, Lithuanian *keista* '(it is) strange' can be combined with a negated version of the auxiliary (*nebūtų keista* 'it would not be strange') or, more often, with a pronoun *nieko*, as in *nieko keista* 'there is nothing strange'. Thus, the difference in the number of affirmative and negative examples reflect their frequencies in the corpus. While in Lithuanian (but not Latvian) negation can also be attached to the predicate itself (*nekeista*), an additional search revealed very few such instances in the corpus, all of them containing realis in the dependent clause.

(45) *Laikam   jau   būtu   dīvaini,   **ja**   es*
probably   PTC   be.IRR   strange.ADV   if   1SG.NOM
***nebūtu**   ar   savu   sniegumu*
NEG.be.IRR   with   RPO.ACC.SG   achievement.ACC.SG
apmierināts.
satisfied.NOM.SG
'It would probably be strange if I were not satisfied with my achievement.'

(46) *Būtu   dīvaini,   **ka**   auto   vadītājs*
be.IRR   strange.ADV   that   car   driver.NOM.SG
***apgalvotu**,   jā,   nepaskatījos   otrreiz,*
claim.IRR   yes   NEG.look.PST.1SG   second.time
nepamanīju.
NEG.notice.PST.1SG
'It would be strange that the car driver would claim that, yes, I didn't look the second time, I didn't notice (it).'

Table 22. *Use of complementisers with irrealis in the evaluative domain in Latvian*

mail clause polarity	*ja* 'if'	*ka* 'that'	total
affirmative	41 (90%)	3	44
negative	2 (100%)	0	2

Table 23. *Use of complementisers with irrealis in the evaluative domain in Lithuanian*

main clause polarity	*jei(gu)* 'if'	*kad / jog* 'that'	total
affirmative	21 (90%)	2	23
negative	4 (100%)	0	4

A factive interpretation of the irrealis is only found with a couple of instances of 'it is strange' in Latvian and Lithuanian, always introduced by the complementiser 'that'. It is interesting that the Latvian irrealis form belongs to a modal verb.

(47) *Dīvaini,   **ka**   lietām   **vajadzētu**   būt*
strange.ADV   that   thing.DAT.PL   need.IRR   be.INF
vienam   ģints   nosaukumam.
one.DAT.SG.M   species.GEN.SG   name.DAT.SG
'It is strange that things should have one species name.'

(48) *Na,*   *tiesą*   *pasakius,*   *daugiau*   *negu*
      well   truth.ACC.SG   say.PST.CVB   more   than
      keista,   ***kad***   *tokio*   *lygio*
      strange.NA   that   this.GEN.SG.M   level.GEN.SG
      žmogus   *taip*   ***klaidintų***   *skaitytojus.*
      human.NOM.SG   thus   mislead.IRR.3   reader.ACC.PL
      'Well, to tell the truth, it is more than strange that a person of this
      level should mislead readers in such a way.'

Table 24. *Use of irrealis as a complementising mood in the evaluative domain in Latvian*

main clause polarity	compl	ncompl	total
affirmative	1 (2%)	43	44
negative	0 (0%)	2	2

Table 25. *Use of irrealis as a complementising mood in the evaluative domain in Lithuanian*

main clause polarity	compl	ncompl	total
affirmative	2 (9%)	21	23
negative	0 (0%)	4	4

4.7. Conclusions on the Baltic data

Not all instances of irrealis marking, shown in Table 4, have a complementising function. The 100% complementising use of irrealis is found in the desiderative domain, as well as in desiderative-type examples in the apprehensional domain. While it would be convenient to give percentages of complementising use for each of the four domains, the exact numbers are impossible to obtain due to ambiguity of examples containing modal expressions. Non-ambiguous instances of complementising use, however, boil down to less than 10% of all irrealis examples of the propositional predicates, and seem to be less than 1% in the propositional variety of the apprehension predicates, and with the evaluative predicates. Overall, Latvian and Lithuanian look very similar, although a closer look reveals certain differences. The most important one, namely, the use of realis alongside irrealis in desiderative contexts in Latvian, but

not in Lithuanian, was already known from previous research (Holvoet 2010). Another difference brought to light by our analysis is that irrealis marking in Latvian is often found on modal expressions. The contrast with Lithuanian is most clearly seen in the propositional-type predicates within the apprehensional domain where Lithuanian mostly has modal expressions with realis marking, but few instances of irrealis show no propensity for modals.

5. The Fennic languages

In this section we take a closer look at Estonian and Finnish data. In these languages the irrealis is represented by the mood traditionally known as conditional. In spite of its name it is not restricted to conditional clauses. When it comes to complementation, the use of the conditional is better known with desiderative verbs (Metslang 1999), whereas not much is known about other potential domains of irrealis in complementation. However, Kehayov (2017, 314–322) has claimed that in Finnic languages the use of irrealis is related to states-of-affairs more widely, not only in complementation.

5.1. Complementisers

The Fennic languages Estonian and Finnish have several complementiser types that show differences in use. The most general complementisers, Estonian *et* and Finnish *että* 'that', are semantically neutral; the truth value of the complement propositions depends on the semantics of the matrix verb (Kehayov 2016, 453). Question markers can also function as complementisers, as in (49); both polar question markers (*kas* in Estonian, *-ko/-kö* in Finnish) and wh-question markers are in use (Kehayov 2016, 454). The third type includes temporal and conditional conjunctions (*kui* 'when, if' in Estonian, *kun* 'when' in Finnish) that can be used as complementisers especially with evaluative predicates (Kehayov 2016, 455), see ex. (50). In Finnish, in some restricted contexts the conditional adverbialiser *jos* 'if' can be used as a complementiser; however, it is rare (Kehayov 2016, 455). There are also similative complementisers in both languages that obligatorily trigger the use of irrealis, such as *justkui, kui, justnagu, nagu*, and *otsekui* 'as if; like; allegedly' in Estonian and *aivan kuin, ihan kuin, ikään kuin*, and *kuin* in Finnish (Kehayov 2016, 456–457), see (51) and (52):

(49) Estonian (Kehayov 2016, 454)
Jaan   *küsis,*   [*kas*   *Mari*   *tuleb*].
Jaan   ask.PST.3SG   Q   Mari   come.PRS.3SG
'Jaan asked if Mari was coming'

(50) Estonian (Kehayov 2016, 455)
On   *kurb,*   [*kui*   *inimene*   *oma*   *juured*
be.PRS.3SG   sad   if/when   person   self   root.PL
kaotab].
lose.PRS.3SG
'It is sad when/if a person loses their roots.'

(51) Estonian (Kehayov 2016, 456)
On   *kuulda*   *justkui*   *uluks*   *hunt.*
be.PRS.3SG   hear.INF   as.if   howl.IRR.3SG   wolf
'It sounds as if a wolf is howling.'

(52) Finnish (Kehayov 2016, 457)
Välillä   *hän*   *puhuu*   *ikään kuin*   *tämä*
sometimes   s/he   speak.PRS.3SG   as.if   this
koti   *olisi*   *hänen*   *vanhempiensa*
home   be.IRR.3SG   s/he.GEN   parents.PL.GEN.3POSS
koti.
home
'Sometimes s/he talks as if this home were her/his parents' home.'

Thus only together with similative complementisers is the use of irrealis marking in the complement clause obligatory; with other complementisers the use of the conditional is optional and a matter of variation.

5.2. Data

The Estonian data were taken from the Estonian National Corpus 2019 (a web corpus, comparable to other TenTen corpora), which is available on SketchEngine. The search was conducted by the complement-taking predicate and following complementiser, which means that other complement types (e.g., infinitival clauses, see Kehayov 2016) were not included. Random samples of 300 occurrences of each verb + complement clause were analysed manually. Only finite complement-taking verbs are included in the study (however, for 'be sad', 'be strange' omission of the copula 'be' is also included). The final dataset is represented in Table 25.

Table 26. Predicates and complementisers in the Estonian data.

Type	Predicate	Translation	No of occ. in the sample	Complementisers
Propositional	*uskuma*	believe	253	*et* 'that'
	arvama	guess	236	*et* 'that'
Desiderative	*tahtma*	want	245	*et* 'that'
	soovima	wish	257	*et* 'that'
Apprehensional	*kartma*	fear	191	*et* 'that'
	muretsema	worry	161	*et* (107), *kui* 'when, if' (14), *kas* 'whether' (30), *et + kas ~ et ega* 'that + question particle' (10)
Evaluative	*imelik (olema)*	(it's) strange	180	*et* 'that' (156) *kui* 'when, if' (24)
	kurb (olema)	(it's) sad	173	*et* 'that' (123), *kui* 'when, if' (50)
Total			1696	

For Finnish data the search was conducted in a similar way from the Finnish Web 2014 (fiTenTen). The only difference was that when searching for Finnish complement clauses the comma between the main verb and complement clause was not taken into account (this is a feature of the standard language). Therefore the Finnish data may be more informal than those of Estonian. However, there is no reason to expect that conditional in the complement clause is somehow related to more or less formal use of language.

Table 27. Predicates and complementisers in the Finnish data

Type	Predicate	Translation	No of occ. in the sample	Complementisers
Propositional	*uskoa*	believe	231	*että* 'that'
	arvata	guess	173	*että* 'that'
Desiderative	*haluta*	want	260	*että* 'that'
	toivoa	wish	227	*että* 'that'
Apprehensional	*pelätä*	fear	213	*että* 'that'
	huolehtia	worry	204	*että* 'that'
Evaluative	*(olla) outoa*	(it's) strange	237	*että* 'that' (145) *kun* 'when, if' (92)
	(olla) surullista	(it's) sad	228	*että* 'that' (165), *kun* 'when, if' (63)
Total			1773	

A general overview of the use of irrealis in different domains in Estonian and Finnish is presented in Table 27. We can see that Estonian uses notably more irrealis marking in complements belonging to desiderative verbs than Finnish. Differences in other domains are less important. However, it is interesting to see that in the propositional domain Finnish uses more irrealis marking than Estonian. In general, we can speak about irrealis as a complementising mood only in relation to desideratives, especially in Estonian; in other domains it is not grammaticalised to the same extent.

Table 28. The use of irrealis (conditional) in Finnish and Estonian data

language	propositional	desiderative	apprehensional	evaluative
Estonian	13.7% 67/489	90.6% 455/502	7.7% 27/352	6.8% 24/353
Finnish	20.5% 83/404	30.4% 148/487	7.9% 33/417	2.4% 11/465

5.3. The propositional domain

In the propositional domain typically realis marking of the complement clause occurs, referring to a situational referent and thus having high reality status. In this domain, the irrealis marking may reflect differences in the assessment of the reality status of an event.

5.3.1. Estonian

With the verbs *uskuma* 'believe' and *arvama* 'guess' irrealis marking is relatively infrequent in Estonian data: only 13.7% of uses in our sample had the verb of a complement clause in the conditional. Only the general complementiser can be used with these verbs in both languages: *et* 'that' in Estonian and *että* 'that' in Finnish.

Typically with propositional clausal complements realis marking of the complement clause is used, as in (53). 30 occurrences (6%) in our sample had simple past tense forms in the complement clause. Past tense in the complement clause anchors the situation to the past and its reality status is high, as in (53). However, realis is used also in cases when the propositional complement has a present or future reference and thus the realisation of the event can be doubtful (54–55). Especially in (55) the main verb *uskuma* 'believe' is negated and the complement clause expresses an event whose reality status is low, but still realis mood is used. However, in both clauses irrealis would also be possible, indicating that the realisation of the potential event is uncertain.

(53) *Ma   arvan,   et   duubleid   **oli***
     I   guess.PRS.1SG that   double.PL.PRT   be.PST.3
     kokku   kümme.
     total   ten
     'I think there were ten doubles in total.'

(54) *Usun,   et   kõik   töötud*
     believe.PRS.1SG that   all   unemployed.PL.NOM
     rõõmustavad   selle   üle.
     rejoice.PRS.3PL   this.GEN   over
     'I believe that all the unemployed will be happy about it.'

(55) *Öösalu ei   usu,   et   teenus*
     Öösalu NEG   believe.CONNEG   that   service.NOM
     rahva   hulgas   väga   suurt
     people.GEN   among   very   big.PRT

populaarsust	***kogub.***
popularity.PRT	gain.PRS.3SG

'Öösalu does not believe that the service will gain a lot of popularity among people.'

When looking at the cases when irrealis marking occurs, it appears that irrealis expresses increased hypotheticality of the realisation of the event of the propositional complement, as in (56). Here the use of irrealis could be related to implicit conditionality: half of us all could do normal doggerel verses if we only tried (becomes clear from the following sentence). This is therefore not an instance of complementising mood.

(56) *Usun,*   *et*   *vähemalt*   *pooled*   *meist*
      believe.PRS.1SG   that   at_least   half.PL   1PL.ELA
      suudaksid   *teha*   *normaalseid*   *vemmalvärsse.*
      can.IRR.3PL   do.INF   normal.PL.PRT   doggerel_verse.PL.PRT
      [*Ainult tuleb korraks maha istuda.*]
      'I believe that at least half of us would be able to do normal doggerel verses.
      [You just have to sit down for a while.]'

Another important factor that seems to explain the irrealis marking of the propositional complement is related to an (implicit) wish that the event expressed in the complement clause might come true. This meaning is evident in (57), where the first clause that is coordinated with the complement-taking verb *usun* 'I believe' occurs in the conditional and expresses a desired situation (it is evident from the first use of the irrealis *tahaks* (want-IRR) 'I wish, I would like to'). Such examples are thus semantically related to the use of complement marking in the state-of-affairs domain (desiderative verbs). The irrealis marking in the complement clause also reflects the speaker's uncertainty about the potential realisation of the event described in this clause; this interpretation is supported by the use of a modal verb in the conditional (*peaks* = *pidama* 'must' + conditional, *tuleks* = *tulema* 'must' + conditional). Such uses can also be found in sentences with future reference, as in (58).

(57) "*Tahaks*   *seal*   *finaali*   *jõuda*   *ja*   *usun,*
      want.IRR   there   final.ILL   reach.INF   and   believe.PRS.1SG
      et   *21,0*   ***peaks***   *sinna*   *koha*
      that   21.0   must.IRR   there   place.GEN

tagama,"   *rääkis*   *saarlane.*
guarantee.SUP   tell.PST.3SG   islander
'"I would like to reach the final there and I believe that 21.0 should secure a place there," said the islander.'

(58) *Ühed*   *arvavad,*   *et*   *poliitilistel*   *põhjustel*
      one.PL   think.PRS.3PL   that   political.PL.ADE   reason.PL.ADE
      tuleks   *baltlastele*   *siiski*   *shanss*   *anda.*
      come.IRR   Balt.PL.ALL   however   chance   give.INF
      'Some believe that for political reasons, the Baltics should be given a chance.'

Most clear instances of complementising mood are associated with clauses that refer to an actual situation in the present or past but receive an irrealis marking due to the proposition being negated (59). In the scope of negation, the complement clause contained irrealis marking in 34% of occurrences, while with affirmative epistemic verbs only 10%. Thus, there is a slight tendency towards irrealis marking of the complement clause depending on polarity; this difference is also statistically significant (see Table 28): χ2(N=489, df=1) = 31.117, p < 0.001.

(59) */.../*   *kuid*   *ma*   *ei*   *usu,*   *et*   *aktsiisitõus*
      but   I   NEG   believe.CONNEG   that   excise.increase
      seda   *eriti*   **mõjutaks**
      this.PRT   particularly   affect.IRR
      'But I do not believe that excise increase would particularly affect it'

Table 29. *Use of irrealis in propositional domain in Estonian, depending on polarity of the main verb*

main clause polarity	irrealis	realis	total
affirmative	41 (10%)	371 (90%)	412
negative	26 (33.8%)	51 (66.2%)	77
total	67 (13.7%)	422 (86.3%)	489

Hence, in the propositional domain the use of conditional mood seems to be related to the assessment of the reality status of an event. Implicit conditionality makes the irrealis marking obligatory. Also the desirability of the realisation of an event may have an effect on the use of conditional

marking. The most obvious instances of complementising mood are related to negative main clauses ('I don't believe'). In the big picture, however, irrealis marking of the complement is rare.

5.3.2. Finnish

We can observe similar tendencies also in Finnish. Interestingly, Finnish has, in addition to the conditional, a series of forms referred to as potential mood, expressing epistemic likelihood of the realisation of the event expressed by the complement clause. Its meaning is defined as potentiality in the future (VISK §1507). This mood can thus be compared to a modal verb like English *may*. Since potential is used rarely in Finnish, it is not a surprise that it occurred only once in our sample (60).

(60) *Sen=hän*   *voimme*   *myöskin*   *arvata*   *että*   *he*
      this=PTC   can.PRS.1PL   also   guess.INF   that   they
      tietänevät   *kanssa*   *jo*   *mitkä*   *muutokset*
      know.POT.3PL   too   already   what.PL   change.PL
      tarvitaan   *jotta*   *Ruotsin*   *lippu*   *saadaan*
      need.PAS   that   Swedish.GEN   flag   get.PAS
      liehumaan   *ahteriin.*
      fly.INF2.ILL   stern.ILL
      'We can also guess that they already know what changes are needed to make the Swedish flag fly in the stern.'

Compared to Estonian, Finnish uses irrealis marking in the propositional domain more frequently (20.5%; in Estonian 13.7%). Nevertheless, realis marking is still the dominant pattern.

Irrealis is used most commonly in contexts where the proposition expressed by the complement clause has future reading and therefore its realisation is not certain for the speaker. This is clearly an instance of non-complementising mood.

(61) *Ja*   *uskon*   *että*   *ihmiset*   ***kävisivät***   *paljon*
      and   believe.PRS.1SG   that   man.PL   go.IRR.3PL   much
      mieluummin   *lähikaupoissa*   *lyhyen*   *matkan*
      rather   close_shop.PL.INE   short.GEN   distance.GEN
      päässä.
      head.INE
      'And I think people would much rather go to convenience stores a short distance away.'

However, the irrealis marking is used also in past contexts. In Estonian in such contexts typically realis was used since the actual result was already known to the speaker. The corresponding examples of Finnish (62–63), however, have negation in the main clause and irrealis in the complement clause—i.e. in a context where the use of irrealis was most probable also in other languages in our sample. As can be seen in Table 29, in Finnish the negation in the main clause increases the use of conditional in the complement clause, and this difference is also statistically significant: $\chi 2$(N=404, df=1) = 11.862, p < 0.001.

(62)   *En*   *uskonut*   *että*   *hän*   ***lähtisi***,
       NEG.1SG   believe.PST.PA   that   he/she   go.IRR.3SG
       olisin=han   *voinut*   *olla*   *hänen*
       be.IRR.1SG=PTC   be_able.PST.PA   be.INF   s/he.GEN
       isänsä   *oman*   *ikäni*   *puolesta.*
       father.POSS.3   own.GEN   age.POSS.1SG   by
       'I didn't think he would leave, after all, I could have been his father by my own age.'

(63)   *Se*   *oli*   *vähän*   *vahinko,*   *en*   *arvannut*
       it   be.PST.3SG   a_bit   pity   NEG.1SG   think.PST.PA
       että   *ulkona*   ***olisi***   *yhtäkkiä*   *niin*
       that   outside   be.IRR.3SG   suddenly   so
       paljon   *pakkasta.*
       much   frost.PRT
       'It was a bit of a pity, I didn't guess there was suddenly so much frost outside.'

Table 30. *Use of irrealis in the propositional domain in Finnish, depending on polarity of the main verb.*

main clause polarity	irrealis	realis	total
affirmative	38 (15.1%)	213 (84.9%)	251
negative	45 (29.4%)	108 (70.6%)	153
total	83 (20.5%)	321 (79.5%)	404

Thus we can conclude that both in Estonian and in Finnish, realis marking predominates in the propositional domain. Irrealis marking can be related to (implicit) hypotheticality, that is, it is non-complementising

irrealis. Irrealis as a complementising mood appears especially in negative contexts (with negative main clauses), similarly to Baltic languages.

5.4. The desiderative domain

Desiderative verbs represent the state-of-affairs domain, where complement clauses provide information about potential events of which one does not know whether they will occur, so that the complement is not truth-valued. Irrealis reflects the unanchoring function (suspension of situational and temporal location).

5.4.1. Estonian

In Estonian, irrealis marking of the complement of desiderative verbs dominates (91%, example 64). In addition to the verbs analysed here (*tahtma* 'want', *soovima* 'wish'), irrealis is used with verbs like *käskima* 'order', *paluma* 'ask', *nõudma* 'request, demand' (65), *ette panema* 'propose, suggest', *soovitama* 'recommend', *lootma* 'hope', *ootama* 'wait', etc. (Metslang 1999, 118). According to Metslang, the Finnish counterparts of these verbs also tend to use irrealis marking of complements (ibid.).

(64) *Ma*   ***tahan****,*   *et*   *sa*   ***teaksid****.*
      I   want.PRS.1SG   that   you   know.IRR.2SG
      'I want you to know.'

(65) *Aadu*   ***nõuab****,*   *et*   *Ats*   ***valaks***
      Aadu   demand.PRS.3SG   that   Ats   poor.IRR.3SG
      talle   *kiirelt*   *100*   *grammi.*
      he/she.ALL   quickly   100   gram.PRT
      'Aadu demands that Ats pour 100 grams [of vodka] for him quickly.'

When we look at our data, interestingly, we find that realis is used especially if the verb of the complement clause is in the impersonal voice (66). The distribution of irrealis and realis mood is significantly different in active and impersonal (passive) clauses, see Table 30 ($\chi2$(N=502, df=1) = 52.88, p < 0.001).

(66) ***Tahan****,*   *et*   *seda*   *seadust*   ***hakatakse***
      want.PRS.1SG   that   this.PRT   law.PRT   start.IMPS.PRS
      täitma.
      enforce.SUP
      'I want this law to be enforced.'

Table 31. *Distribution of irrealis and realis marking in active and impersonal (passive) clauses.*

voice in the complement clause	irrealis	realis	total
active	427 (93.6%)	29 (6.5%)	456
impersonal (passive)	28 (60.9%)	18 (39.1%)	46
total	455 (90.6%)	47 (9.4%)	502

A possible explanation for this unexpected difference between active and impersonal (passive) voice can be sought in the phonological similarity between impersonal mood forms: in the present indicative tense the impersonal form has the ending *-takse* (*haka-takse* 'start-IMPS.PRS'), while in the present conditional it has the ending *-taks* (*haka-ta-ks* 'start-IMPS-IRR'). It is possible that because of the phonological similarity the two forms are mixed up in this context. From this, however, we can infer that the grammaticalisation of the conditional in complement clauses is a relatively late development in Estonian. This can be true, since there are also other exceptions to the use of irrealis in complement clauses, see example (67).

In (67), the use of realis seems to be related to the assessment of the event as a fact (an unwanted, but actual situation), which makes the complement akin to those of the propositional type. Thus, in the desiderative domain as well, the use of irrealis is not fully grammaticalised (as it seems to be in Lithuanian) and we can find functionally motivated instances of realis marking.

(67) *Norralaste*   *põhimure*   *oli*   *allergia,*
      Norwegian.PL.GEN   main_concern   be.PST.3SG   allergy
      nad   *ei*   *tahtnud,*   *et*   *hotellitoas*
      they   NEG   want.PST.PA   that   hotel_room.INE
      on   *vaibad.*
      be.PRS.3   carpet.PL
      'The main concern of the Norwegians was allergies, they did not want carpets in   the hotel room.'

Note that in (67) the main verb is negated. Negation in the main clause is a context where realis is used more often than expected (see Table 31); the difference in the distribution of conditional and indicative in complements belonging to affirmative and negative desiderative verbs is also

statistically significant: χ2(N=502, df=1) = 13.818, *p* < 0.001. This tendency is opposite to the propositional domain, where negation increased the use of irrealis marking.

Table 32. *Distribution of irrealis and realis marking in complements of desiderative verbs depending on polarity*

main clause polarity	irrealis	realis	total
affirmative	381 (92.9%)	29 (7.1%)	410
negative	74 (80.4%)	18 (19.6%)	92
total	455 (90.6%)	47 (9.4%)	502

In example (67), the complement clause expresses a realis event and thus is rather a propositional complement. However, the indicative occurs also in cases which belong to the state-of-affairs domain and irrealis marking would be expected, as in (68). It is possible that here realis is used deliberately for presenting the situation as a fact rather than just a desired situation. Such examples show that there is still some variation in the state-of-affairs domain and the irrealis marking is not fully grammaticalised.

(68) *Me   soovime,   et   Eesti   riik   **tõõtab***
     we   wish.PRS.1PL   that   Estonian   state   work.PRS.3SG
     tõhusalt,   ettevõtteid   on   lihtne   pidada
     efficiently   enterprise.PL.PRT   be.PRS.3SG   easy   maintain.INF
     ja   arendada   ning   meie   maksud   ei
     and   develop.INF   and   1PL.GEN   tax.PL   not
     suurene.
     increase.CONNEG
     'We want the Estonian state to work efficiently, companies to be easy to maintain and develop, and our taxes not to increase.'

The variation in irrealis use with desideratives and the fact that its use is much more limited in the close cognate language Finnish (see Section 5.4.2) indicate that the conditional has grammaticalised as a complementising mood in this context relatively recently in Estonian. This development in the desiderative domain could be related to the expression of desirability more widely, since this is a typical context for irrealis marking in Estonian, as seen in (69) (Metslang 1999, 109).

(69) **Läheks**   *ta*   *koju!*
go.IRR.3SG   he/she   home.ILL
'Would that he went home!'

Semantically and formally, complements of desiderative verbs are also
close to adverbial clauses marking purpose, as shown in (70), which over-
whelmingly use conditional (in finite clauses) and a general complemen-
tiser *et* (Metslang 1999, 111, EKG 1993, 310). Also in the purpose clauses the
subordinated clause includes implicit wish and future reference, compare
(70) and (71) (Erelt 2017b, 724). Kauppinen (1998) and later Metslang (1999)
have described desiderativity, purpose and a few other related meanings
as central meanings in the use of the Finnish and Estonian conditional,
representing an intentional interpretation, or states-of-affairs more widely
(Kehayov 2017, 314-322).

(70) (purpose clause, Erelt 2017b, 724)
Juku   *õpib*   *selleks,*   *et*   *ta*   **saaks**
Juku   learn.PRS.3SG   this.TR   that   he   become.IRR.3SG
targemaks.
smart.COMP.TR
'Juku is learning in order to become smarter.'

(71) (complement clause, Erelt 2017b, 724)
Juku   *tahab,*   *et*   *ta*   **saaks**
Juku   want.PRS.3SG   that   he   become.IRR.3SG
targemaks.
smart.COMP.TR
'Juku wants to become smarter.'

The use of conditional dominates also in some special communicative
clause types with optative meaning which have been described as con-
ventionalised unsubordinated complement clauses (Erelt 2017a, 163):

(72) *Et*   *ta*   *ometi*   *vait*   **jääks!**
that   s/he   at_last   quiet   stay.IRR.3SG
<   *Ma*   *soovin,*   *et*   *ta*   *ometi*
I   wish.PRS.1SG   that   s/he   at_last
vait   **jääks.**
quiet   stay.IRR.3SG
'I wish s/he would finally shut up.'

To sum up, irrealis is well established in state-of-affairs complement clauses,
occurring in 91% of instances in our sample. In this context, it typically

expresses a desired state or event, and that relates it to other clause types which also use irrealis in order to express wish or purpose. Some variation in irrealis marking, however, indicates that the generalisation of irrealis in the complements of desiderative verbs was a late development rather than an inherited feature of the Fennic languages.

5.4.2. Finnish

In Finnish, the use of irrealis in the desiderative domain is less grammaticalised than in the other languages under scrutiny. In our sample the conditional marking was used only in 30.4% of complement clauses with the verbs *haluta* 'want', illustrated in (73), and *toivoa* 'wish':

(73) /.../ *ja* *nyt* *lääkäri* *haluaa*
           and now doctor want.PRS.3SG
      että **pääsisin** *vähentämään* *kortisoonin*
      that be_able.IRR.1SG reduce.3INF.ILL cortisone.GEN
      syöntiä /.../
      eating.PRT
      '/.../ and now the doctor wants me to be able to reduce my cortisone intake /.../'

Quantitatively we can observe that irrealis occurs in the complement clause if the main clause is already marked with irrealis (Table 32); this difference in distribution is also statistically significant: $\chi 2$(N=487, df=1) = 69.717, p < 0.001.

Table 33. Distribution of realis and irrealis in the complements of desiderative verbs depending on the mood of the matrix verb

main clause mood	irrealis	realis	total
irrealis	58 (68.2%)	27 (31.8%)	85
realis	90 (22.4%)	312 (77.6%)	402
total	148 (30.4%)	339 (69.6%)	487

A typical example of such usage is given in (74). Interestingly, in such clauses irrealis mood in the main clause seems to be motivated by the so-called intentional interpretation (Kauppinen 1998, Metslang 1999), which consists in desirability, purpose etc. being already marked grammatically in the main clause:

(74) | *Mä* | *haluaisin* | *että* | **olis** | *jo* | *perjantai!*
| I | want.IRR.1SG | that | be.IRR.3SG | already | Friday

'I wish it was already Friday!'

In (73) and (74), the desired event or state is directed towards the present or future, but it can also be directed toward the past, as in (75). Here as well, both main and complement clause have irrealis; the conditional in the complement clause has a counterfactual reading.

(75) | *Toivoisin* | *että* | *itselläni* | **olisi** | *ollut*
| wish.IRR.1SG | that | self.ADE.1POSS | be.IRR.3SG | be.PST.PA
| *mahdollisuus* | *tällaiseen* | *matematiikan* | *oppimiseen*
| opportunity | such.ILL | maths.GEN | learning.ILL
| *kouluvuosinani.*
| school_year.PL.ESS.1POSS

'I wish I'd had the opportunity to learn maths in this way in my school years.'

The most common pattern in this domain, however, is the use of realis in the complement clause, even if the clause refers to a desired future situation and its realisation is unclear, as in (76). In this situation, Estonian almost always uses irrealis.

(76) | *Haluan* | *että* | *he* | **saavat** | *jotain*
| want.PRS.1SG | that | they | get.PRS.3PL | something.PRT
| *ravintoa,* | /.../
| nourishment.PRT

'I want them to get some nourishment /.../'

Thus we can conclude that in Finnish irrealis is considerably less grammaticalised in the desiderative domain than in Estonian. It is used most typically if the main clause also has irrealis marking, thus strengthening the desiderative meaning.

5.5. The apprehensional domain

As noted above, the apprehensional domain can be viewed as intermediate between the propositional and the state-of-affairs domains, since verbs of fear express an epistemic judgement that something may occur (propositional) and the wish that this event should not occur (desiderative).

5.5.1 Estonian

In Estonian, in the apprehensional domain the use of irrealis marking is low, occurring in 8% of occurrences with the verbs *muretsema* 'worry' and *kartma* 'be afraid of'. These verbs may take different complementisers: *kartma* takes the general complementiser *et* 'that', *muretsema* uses also other complementisers in addition to *et*, such as *kui* 'when, if', the question particle *kas* 'whether', and their combinations *et kas ~ et ega*.

With verbs of fear, question markers as complementisers are specialised in the state-of-affairs domain, indicating that the realisation of the event expressed by the complement clause is desired but its actual realisation is in doubt (77). As can be seen from (77), in this case the verb of the complement clause is in the realis form.

(77) *Muretsen,*   *kas*   *ta*   *praeguse*   *seadusega*
worry.PRS.1SG   whether   he/she/it   current.GEN   law.COM
sobitub?
fit.PRS.3SG
'I'm worried whether it fits with the current law.'

The complementiser *kui* 'if, when' lends the complement clause an additional conditional interpretation since the same marker has both temporal and conditional meaning; it is not always clear whether the embedded clause should be interpreted as a complement clause or rather as a conditional clause (in the latter case the main clause does not have any complements). *kui* is easily replaceable with the general complementiser *et* without crucial differences in meaning. Also, in complement clauses introduced by *kui*, realis marking almost always occurs; the use of conditional is rare and occurs independently from complementation. In our sample, *kui* was used only with the verb *muretsema* 'worry', as in (78).

(78) *Ärge*   *muretsege,*   *kui*   *värv*   *või*   *pilt*
NEG.IMP.2PL   worry.IMP.2PL   when   color   or   picture
teile   *täpselt*   ***ei***   ***sobi***
2SG.ALL   exactly   NEG   suit.CONNEG
[—*saate seda järgmises toimingus muuta.*]
'Don't worry if the color or image doesn't suit you exactly—
[you can change it in the next step.]'

The complementiser *et* 'that' is used with complement clauses having both propositional (79) and SoA values (80).

(79) *Kardan,   et   **anti**   psühhotroopseid*
fear.PRS.1SG   that   give.IMPS.PST   psychotropic.PL.PRT
aineid.
substance.PL.PRT
'I'm afraid psychotropic substances were given.'

(80) *Te   ei   pea   muretsema,*
you   NEG   must   worry.SUP
*et   Teie   mobiilseade   **kannataks**   ülelaadimise*
that   your   mobile_device   suffer.IRR   overloading.GEN
all.
under
'You don't have to worry that your mobile device will suffer from overloading.'

With the verb *kartma* 'fear' often the negation co-occurs with the conditional in the complement clause, expressing unwanted hypothetical events; such uses belong rather to the state-of-affairs domain.

(81) *Kardan,   et   sel   põhjusel   see   lahendus*
fear.PRS.1SG   that   this.ADE   reason.ADE   this   solution
***ei   täidaks**   oma   eesmärki.*
NEG   fulfil.IRR   own   purpose.PRT
'I'm afraid that for this reason this solution would not fulfil its purpose'

In a past-time context as well, the conditional is used for marking undesirable states of affairs, as in (82). In this example, nothing is said about the actual realisation of the potential event expressed by the complement clause. Such examples, however, were rare in our data.

(82) *Kümme   aastat   tagasi   spetsialistid   muretsesid,*
ten   year.PRT   ago   specialist.PL   worry.PST.3PL
*et   meeste   uisutamine   **ei   muutuks***
that   man.PL.GEN   skating   NEG   change.IRR
ainult   hüppamiseks.
just   jumping.TR
'Ten years ago, experts worried that men's skating would become just jumping.'

Note that there is a difference between (81) and (82): in (81), the conditional can easily be replaced with the indicative (*ei täida* 'does not fulfil'), without any changes in the meaning of the proposition. In (82), the indicative in the complement clause would completely change its meaning, as can be

seen from (82'): in (82), the specialists didn't want men's figure skating to become just jumping; in (82'), on the contrary, they wanted it (but were worried that it might not happen).

(82') | *Kümme* | *aastat* | *tagasi* | *spetsialistid* | *muretsesid,* |
|---|---|---|---|---|
| ten | year.PRT | ago | specialist.PL | worry.PST.3PL |

et	*meeste*	*uisutamine*	***ei***	***muutu***
that	man.PL.GEN	skating	NEG	change.CONNEG

ainult	*hüppamiseks.*
just	jumping.TR

        'Ten years ago, experts worried that men's skating would not become just jumping.'

5.5.2. Finnish

In the Finnish data as well, the use of irrealis in the apprehensional domain is infrequent: only 8% of occurrences in our sample have conditional marking in the complement clause. The verbs *huolehtia* 'worry' and *pelätä* 'fear' have a slightly different distribution: irrealis is used more often with the verb *pelätä*, as in (83) and (84). In (83), the complement clause has future reference; in (84), the main clause has past time reference. In both examples the complement clause expresses an event that may occur and the wish that this event should not occur. In (83) the use of irrealis can be explained with the hypotheticality of the event ('if I'd try it, it would be lifeless'), so it would be an instance of non-complementising mood. The conditional marking in (84) suggests an interpretation on which the event expressed in the complement clause did not materialise. The same applies to (85). Thus, irrealis marking can be related to increased hypotheticality of the event or imply that the unwanted situation was not realised.

(83) | *Se* | *on* | *vielä* | *kokematta,* | *mutta* |
|---|---|---|---|---|
| this | be.PRS.3SG | yet | experience.INF2.ABE | but |

vähän	*pelkään*	*että*	*tulos*	***olisi***
a_little	fear.PRS.1SG	that	result	be.IRR.3SG

hengetön.
soulless

        'It is yet to be checked, but I am a little afraid that the result would be lifeless.'

(84) | *Lucius* | *tunsi* | *voivansa* | *pahoin* | *ja* |
|---|---|---|---|---|
| Lucius | feel.PST.3SG | feel.PRS.PA.3POSS | badly | and |

pelkäsi   ***että***   ***oksentaisi.***
fear.PST.3SG   that   vomit.IRR.3SG
'Lucius felt sick and was afraid he would vomit.'

(85)   [*Lääkäreillä ei ollut selitystä silmieni valonherkkyydelle, ei edes omalla isälläni*]

joka   *pelkäsi*   *että*   *näköni*   ***ei***   ***kehittyisi***
who   fear.PST.3SG   that   vision.1SG   NEG   develop.IRR.3SG
normaalisti.
normally
'[The doctors had no explanation for the light sensitivity of my eyes, not even my own father,] who was afraid that my vision would not develop normally.'

To conclude, in the apprehensional domain both Estonian and Finnish have a similar low rate of irrealis marking (about 8%). In both languages its use can to some extent be related to undesired, hypothetical or un-realised events, but the use of conditional is not obligatory either in the state-of-affairs domain or in the propositional domain. In both languages there was a slight difference in the use of conditional according to the verbal lexeme used, but in opposite directions: in Estonian 'worry' took slightly more irrealis complements, whereas in Finnish they were more frequent with 'fear'.

5.6. The evaluative domain

5.6.1. Estonian

In our sample, there are two evaluative predicates, both of them including a copula *olema* 'be': *kurb (olema)* '(be) sad' and *imelik (olema)* 'be strange'. The irrealis marking of the complement clause is rare with evaluative verbs: the conditional was found in 6.8% of occurrences. Similarly to the Baltic languages, with evaluative predicates the default interpretation of the embedded predication is factive and it assumes realis marking (as in 86).

(86)   *See*   *on*   *väga*   *imelik,*   *et*   *ta*   *nii*
      it   be.PRS.3   very   strange   that   (s)he   so
      reageeris
      react.PST.3SG
      'It is very strange that (s)he reacted that way.'

Most typically the complements of evaluative verbs refer to past or ongoing events. Even if they have future reference, the complement clause has realis marking and presents the described event as a fact, i.e. as belonging to the propositional domain (87).

(87) *Kas   ei   ole   imelik,   et   lihtsalt*
       Q   not   be.CONNEG   strange   that   simply
      hääletame?
      vote.PRS.1PL
      'Isn't it weird that we will just vote?'

The conditional marking of the complement is used mostly in cases where the main clause is also marked with irrealis, thus creating a kind of 'irrealis frame'. All such cases have the complementiser *kui* if, when', as seen in (88). Thus the high degree of hypotheticality is marked already in the main clause, making the whole sentence irreal or non-factive, which is supported by the use of the complementiser.

(88) *Aga   eks   oleks   ka   imelik,*
      but   PTC   be.IRR.3SG   PTC   strange
      kui   keegi   iseendast   kolmandas   isikus
      that/if   somebody   RFL.ELA   third.INE   person.INE
      kõneleks.
      speaks.IRR.3SG
      'But it would also be weird if someone spoke about themselves in the third person.'

However, sometimes even in such cases realis marking in the complement clause occurs, as in (89). In this example, the complement clause expresses an actual situation and the main clause gives an assessment of the persistence of the situation over time.

(89) *Oleks   kurb,   kui   minu   tulemus   pikaks*
      be.IRR.3SG   sad   that/if   my   result   long.TR
      ajaks   püsima   jääb.
      time.TR   last.SUP   remain.PRS.3SG
      'It would be sad if my result would last for a long time.'

Examples as in (88) or (89) can also be interpreted as conditional clauses that use the adverbialiser *kui* in the sense of 'if' and provides the condition for the main clause. The border between the two is vague: on the

one hand the embedded clause behaves as a complement (answering to the question 'What is strange?'); on the other *kui* cannot be replaced with the general complementiser *et* without other changes in the sentence.

Thus the distribution of realis and irrealis marking in the complement clause depends on the mood in the main clause, and on the complementiser. We can see that irrealis in the main clause increases the likelihood of use of irrealis in the clausal complement (Table 33; the differences in the distribution in Table 33 is statistically significant), and the same holds for the complementiser *kui* (Table 34). 22 occurrences of irrealis in the complement clauses combined both factors: irrealis in the main clause and the complementiser *kui*.

Table 34. *Distribution of conditional and indicative marking depending on the main clause mood (p < 0.001, Fisher test)*

mood in main clause	irrealis	realis	total
irrealis	22 (81.5%)	5 (18.5%)	27
realis	0 (0%)	90 (100%)	90
ellipsis of 'be'	2 (0.9%)	234 (99.1%)	236
total	24 (6.8%)	329 (93.2%)	353

Table 35. *Distribution of the conditional and indicative depending on the complementiser (p < 0.001, Fisher test)*

complementiser	irrealis	realis	total
et 'that'	0 (0%)	279 (100%)	279
kui 'if, when'	24 (32.4%)	50 (67.6%)	74
total	24 (6.8%)	329 (93.2%)	353

Thus we can conclude that in the evaluative domain the irrealis is used for expressing highly hypothetical situations, especially if the main verb has irrealis marking and the complementiser *kui* 'when, if' is used. Such cases, however, can sometimes be interpreted as conditional clauses. Normally the complement of the evaluative verb is presented as factive, i. e. reflecting a real event, and it is marked with realis.

5.6.2. Finnish

In Finnish the use of irrealis marking in the evaluative domain is even lower than in Estonian: only 2.4% of evaluative verbs in our sample took a complement clause marked with irrealis. There is a difference between the two predicates in our sample: only *(olla) outoa* '(be) strange' takes an irrealis complement in (90); there are no such uses in our sample with the predicate *(olla) surullista* '(be) sad'. In (90), similar to the Estonian example (88), the main clause is already marked with irrealis, marking the proposition as highly hypothetical.

(90) *Ja   olisi   outoa   että   Itä-Pasilan*
     and   be.IRR.3SG   strange.PRT   that   Itä-Pasila.GEN
     *laidalla   **seisoisi**   yksinään   kovin   korkea*
     edge.ADE   stand.IRR.3SG   alone   very   high
     torni.
     tower
     'And it would be strange that a very tall tower would stand alone on the edge of Itä-Pasila.'

In Finnish as well, another complementiser, *kun* 'when', is used; however, in Finnish it seems to have temporal connotations. Temporal interpretation of the complementiser supports the interpretation of the event described by the complement clause as a fact, as in (91).

(91) *Outoa   kun   jää   **ei**   edes   **sula**,*
     strange.PRT   when/if   ice   NEG   even   melt.CONNEG
     vaikka   on   lämmintä=kin   ulkona.
     although   be.PRS.3SG   warm.PRT=PTC   outside
     'Strange that the ice doesn't even melt, even if it's warm outside.'

Note that we did not include to the study the examples with the adverbialiser *jos* 'if', which is typically used as a conditional clause marker and only exceptionally may serve as a complementiser (Kehayov 2016, 455). The use of *jos* with evaluative verbs is relatively common, however, such usages are closer to conditional clauses than to complement clauses, consider (92). Such uses are hence similar to Estonian examples that are interpretable as conditional clauses, compare example (88) above. Thus the reason why the irrealis marking in the evaluative domain is less frequent in Finnish data than in Estonian data can be related to our decisions in

this study: in Finnish we excluded conditional marker *jos* 'if', but did not do the same with Estonian data because Estonian *kui* has both temporal and conditional readings. The vague area between complement clauses and conditional clauses in the evaluative domain is, however, present in both languages.

(92) *Olisi*   *surullista,*   *jos*   *toiminta*   **loppuisi**
      be.IRR.3SG   strange.PRT   if   activity   cease.IRR
      kokonaan.
      altogether
      'It would be sad if the activity ceased altogether.'

5.7. Conclusion on the Fennic data

We can conclude that the irrealis in Estonian is most grammaticalised in the desiderative domain, as is the case in the Baltic languages. In this domain, it is related to modality of volition, which is the most common context for irrealis marking in Estonian. However, there is a crucial difference between Estonian and Finnish: irrealis is almost obligatory in Estonian (it occurs in 91% of instances), whereas in Finnish it is used only in 30% of instances. Moreover, in Estonian exceptions to the use of irrealis in the desiderative domain are mostly related to phonological similarity of indicative and conditional forms of the impersonal voice, and may thus represent a petrification of older uses, while in Finnish the indicative is the most common marking of the complement clause. This gives us reason to infer that the use of irrealis in the complement clause is rather a late development than an inherited feature of Fennic languages, and can probably be related to language contact.

Complementising mood is surprisingly relatively well established also in the propositional domain, especially in Finnish (irrealis marking in 20.5% of occurrences in this domain, compared to Estonian 13.7%). In this domain the use of conditional mood seems to be related to the assessment of the reality status of an event. Irrealis as a complementising mood appears especially in negative contexts (with negative main clauses), similar to Baltic languages. In this domain Finnish also uses another, although infrequent mood—the potential mood.

In other domains conditional is used relatively rarely and it is related to high hypotheticality, which can be (co)marked with the choice of com-

plementiser and with modal particles and verbs (which were not analysed here). In the apprehensional domain both Estonian and Finnish have a similar low rate of irrealis marking (about 8%), and in both languages its use can be related to undesired, hypothetical or unrealised events.

In the evaluative domain the irrealis is used for expressing highly hypothetical situations, especially if the main verb already has irrealis marking and the complementiser Estonian *kui* or Finnish *jos* 'when, if' is used. Such cases are often interpretable as conditional clauses. Normally the complement of the evaluative verb is presented as a factive, real event and is marked with realis.

6. A comparison of the languages under investigation

A comparison of the results for all four languages is given in Figure 1.

Figure 1. Irrealis use in four domains of complementation in the languages under scrutiny
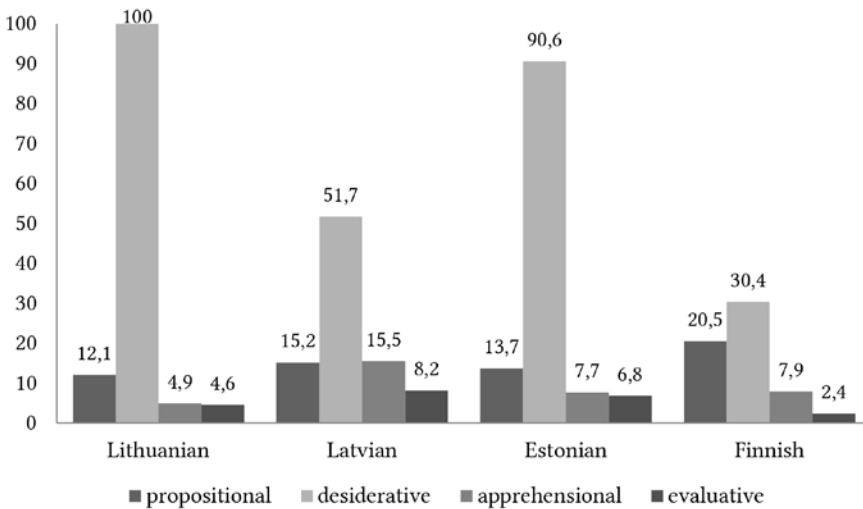
When we compare the results, one thing clearly stands out: complementising mood is most strongly developed in the desiderative domain, a subdomain of the state-of-affairs domain. Even here, however, the differences between the individual languages are striking: Lithuanian and Estonian show a high rate of irrealis use in this domain (100% and 90.6%), while in

Latvian and Finnish, the use of irrealis is much lower (51.7% and 30.4%, respectively). It is possible, however, that the preponderance of the irrealis in Estonian is a relatively young development, and the same might be the case for the spread of realis (presumably along with the rise of the new complementiser *lai*) in Latvian. Lithuanian on the one hand and Finnish on the other could thus perhaps be used as points of reference in evaluating the situation in Latvian and Estonian, which could be viewed as a zone of more intensive areal convergence. Its characteristic feature is that irrealis is optionally used as a complementation strategy but evaluation of reality status (expectations of realisation) is also a factor.

In the propositional domain, all languages show a tendency towards increased irrealis marking in negative clauses. This complementation strategy, also well known from Slavic and Romance, seems to consist in the content of the complement clause being represented as unreal. Being driven by main-clause negation, this is an instance of complementising mood.

In the apprehensional domain Baltic and Fennic differ in that Baltic has two complementation strategies, a propositional and a state-of-affairs strategy, the latter containing an expletive negation, so that the two are clearly opposed. They are not so clearly opposed in Fennic, where the expletive negation does not occur (or is represented only with some sporadic examples). Even in Baltic, however, it is mainly Lithuanian that keeps the two strategies apart, with the state-of-affairs strategy involving expletive negation and obligatory irrealis use (this strategy, it should be noted, is not frequent). In Latvian the situation is more differentiated, with the expletive negation preserved but with a lot of variation with regard the selection of complementisers, and the use of tense and mood forms. Both in Latvian and in Fennic irrealis use in the apprehensional domain seems to have become associated with the evaluation of reality status, and it competes with the use of modal verbs.

In the evaluative domain, the use of irrealis is largely restricted to constructions involving a conditional strategy (of the type *it would be strange if...*), or, more rarely, just an irrealis frame (with an irrealis form in the main clause but without the conditional *if*). In all cases what is involved is the marking of nonfactivity. The languages involved thus do not yield clear evidence for the unanchoring functioning of irrealis in evaluative contexts.

We can identify several tasks for future research. Irrealis use in the desiderative domain shows a certain instability in Latvian and Estonian, and historical changes seem to have occurred that may point to areal convergence. These historical developments should be investigated. We should also try to get a better understanding of the factors determining the choice of mood in the two languages. More diachronic research in the domain of apprehensional complementation would also be useful. It is clear from a comparison with Lithuanian that the Latvian system of apprehensional complementation has undergone changes partly consonant with those in the desiderative domain, and the possible areal links should not be neglected.

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Abbreviations

ABE — abessive, ACC — accusative, ADE — adessive, ADV — adverb, ALL — allative, COM — comitative, COMP — comparative, CONNEG — connegative, CVB — converb, DAT — dative, DEB — debitive, DEF — definite, DEM — demonstrative, ELA — elative, ESS — essive, F — feminine, FUT — future, GEN — genitive, ILL — illative, IMP — imperative, IMPS — impersonal, INE — inessive, INF — infinitive, IPF — imperfect, IRR — irrealis, LOC — locative, M — masculine, NA — non-agreeing, NEG — negation, NOM — nominative, PA — active participle, PAS — passive, PL — plural, POSS — possessive, POT — potential, PP — passive participle, PRS — present, PRT — partitive, PST — past, PTC — particle, Q — question marker, RFL — reflexive, RPO — reflexive possessive, SG — singular, SUP — supine, TR — translative

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